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# UNITED STATES
# SECURITIES AND EXCHANGE COMMISSION

**Washington, D.C. 20549**

# FORM 10-K

**(Mark One)**

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the fiscal year ended**
**December 31, 2024**
**Or**

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the transition period from to**

**Commission file number: 000-22339**

# RAMBUS INC.

(Exact name of registrant as specified in its charter)

| **Delaware** | **94-3112828** |
|---|---|
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification No.) |
| **4453 North First Street**<br>**Suite 100**<br>**San Jose , California** | **95134** |
| (Address of principal executive offices) | (Zip Code) |

Registrant's telephone number, including area code:
**(408) 462-8000**

Securities registered pursuant to Section 12(b) of the Act:

| Title of Each Class | Trading Symbol(s) | Name of Each Exchange on Which Registered |
|---|---|---|
| Common Stock, $.001 Par Value | RMBS | The NASDAQ Stock Market LLC (The NASDAQ Global Select Market) |

Securities registered pursuant to Section 12(g) of the Act:
**None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| | | | |
|---|---|---|---|
| Large accelerated filer | ☑ | Accelerated filer | ☐ |
| Non-accelerated filer | ☐ | Smaller reporting company | ☐ |
| | | Emerging growth company | ☐ |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☑

The aggregate market value of the Registrant's Common Stock held by non-affiliates of the Registrant as of June 30, 2024 was approximately $4.7 billion based upon the closing price reported for such date on The NASDAQ Global Select Market. For purposes of this disclosure, shares of Common Stock held by officers and directors of the Registrant and persons that may be deemed to be affiliates under the Act have been excluded. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of outstanding shares of the Registrant's Common Stock, $0.001 par value, was 106,856,353 as of January 31, 2025.

**DOCUMENTS INCORPORATED BY REFERENCE**

Certain information is incorporated into Part III of this report by reference to the Proxy Statement for the Registrant's annual meeting of stockholders to be held on or about April 25, 2025 to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Form 10-K.

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## NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K ("Annual Report on Form 10-K") contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements include, without limitation, predictions regarding the following aspects of our future:

- Success in the markets of our products and services or our customers' products;
- Sources of competition;
- Research and development costs and improvements in technology;
- Sources, amounts and concentration of revenue, including royalties;
- Success in signing and renewing customer agreements, including license agreements;
- The timing of completing engineering deliverables and the changes to work required;
- Success in obtaining new technology development contracts booked in the future;
- Success in adding and maintaining new customers;
- Success in obtaining orders from our customers, and our ability to accurately anticipate and meet our customers' demands;
- Success in entering and growth in new markets;
- Levels of variation in our customers' shipment volumes, sales prices and product mix;
- Variation in contract and other revenue, based on varying revenue recognized from contract and other revenue;
- Implications of short-term or long-term increases in our research and development expenses;
- Short-term increases in cost of product revenue;
- Variation in our sales, general and administrative expenses;
- Terms of our licenses and amounts owed under license agreements;
- Technology product development;
- Perceived or actual changes in the quality of our products;
- Dispositions, acquisitions, mergers or strategic transactions and our related integration efforts;
- Impairment of goodwill and long-lived assets;
- Pricing policies of our customers;
- Changes in our strategy and business model, including the expansion of our portfolio of inventions, products, software, services and solutions to address additional markets in memory, chip and security;
- Deterioration of financial health of commercial counterparties and their ability to meet their obligations to us;
- Effects of security breaches or failures in our or our customers' products and services on our business;
- Engineering, sales, legal, advertising, marketing, general and administration, and other expenses;
- Contract revenue;
- Operating results;
- Continued product revenue growth, specifically in connection with the growth in sales of our memory interface chips;
- International licenses, operations and expansion;
- Effects of changes in the economy and credit market on our industry and business;
- Effects of natural disasters, climate change and extreme weather events on our supply chain;
- Ability to identify, attract, motivate and retain qualified personnel;
- Effects of government regulations on our industry and business;
- Manufacturing, shipping and supply partners, supply chain availability and/or sale and distribution channels;
- Growth in our business;
- Methods, estimates and judgments in accounting policies;
- Adoption of new accounting pronouncements;
- Effective tax rates, including as a result of recent U.S. tax legislation;
- Restructurings and plans of termination;
- Realization of deferred tax assets/release of deferred tax valuation allowance;
- Trading price of our common stock;
- Internal control environment;

- Protection of intellectual property (“IP”);
- Any changes in laws, agency actions and judicial rulings that may impact the ability to enforce our IP rights;
- Indemnification and technical support obligations;
- Equity repurchase programs;
- Issuances of debt or equity securities, which could involve restrictive covenants or be dilutive to our existing stockholders;
- Effects of fluctuations in interest rates and currency exchange rates;
- Effects of a varying rate of inflation;
- Effects of U.S. government restrictions on exports, including with China;
- Effects of current and future uncertainty in the worldwide economy, including major central bank policies and worldwide changes in credit markets;
- Effects of changes in macroeconomic conditions, increased risk of recession and geopolitical issues;
- Management of supply chain risks; and
- Outcome and effect of potential future IP litigation and other significant litigation.

You can identify these and other forward-looking statements by the use of words such as “may,” “future,” “shall,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “intends,” “potential,” “continue,” “projecting” or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements.

Actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under Item 1A, “Risk Factors.” All forward-looking statements included in this document are based on our assessment of information available to us at this time. We assume no obligation to update any forward-looking statements.

## PART I

Rambus is a trademark of Rambus Inc. Other trademarks or copyrights that may be mentioned in this Annual Report on Form 10-K are the property of their respective owners.

### Item 1. *Business*

#### Overview

Rambus is a global semiconductor company dedicated to enabling the future of the data center and artificial intelligence ("AI") by delivering innovative memory and security solutions that address the evolving needs of the technology industry.

As a pioneer with nearly 35 years of advanced semiconductor design experience, Rambus is at the forefront of enabling the next era of AI-driven computing, addressing the critical challenges of signal and power integrity at increasingly extreme data rates in the data center, edge, and client markets. We are a leader in high-performance memory subsystems, offering a balanced and diverse portfolio of products encompassing chips and silicon IP. Focusing primarily on the data center, our innovative solutions maximize performance and security in computationally intensive systems.

The explosion of data-intensive workloads, driven by the proliferation of generative AI, large language models ("LLMs"), and high-performance computing ("HPC"), is placing unprecedented demands on computing infrastructure. This surge in data processing is exacerbating the performance gap between processors and memory, creating a critical bottleneck—the "memory wall"—that limits overall system efficiency. As processors and accelerators rapidly increase in speed and core count, memory bandwidth and latency must keep pace to unlock their full potential.

Rambus is uniquely positioned to address this challenge. Our deep expertise in memory technologies and innovative architectures enables us to deliver solutions that break through the memory wall. We provide industry-leading memory interface chips that enable the highest bandwidth and capacity server memory modules, maximizing memory performance for the most demanding data-intensive workloads. These solutions are essential for supporting the training and inference of increasingly complex AI models, including those used in generative AI applications.

Furthermore, the pervasive adoption of AI across diverse applications is creating significant opportunities for our silicon IP portfolio. Our high-performance digital controller cores are becoming increasingly vital components in accelerated computing chips, including custom silicon chips, which are the workhorses of AI processing. The expanding attack surface in today's accelerated computing environments necessitates robust security solutions. Our industry-leading security IP plays a crucial role in safeguarding data and protecting against evolving cyber threats.

Rambus is committed to the sustained investment in our technology development and product roadmap to stay at the forefront of the innovation cycle and advance our product leadership. In 2024, we expanded our product portfolio with a new line of server power management ICs ("PMIC") that will be increasingly important as the power-performance demands of computing continue to rise. In addition, we introduced the industry's first complete chipset for next-generation DDR5 Multiplexed Ranked Dual Inline Memory Modules ("MRDIMMs"), delivering breakthrough levels of memory performance for data center and AI. Beyond the data center, cutting-edge technologies first leveraged in servers are cascading into the client market where we introduced our Client Clock Driver chip to enable state-of-the-art notebooks and desktops. Finally, further fueling our continuous technology investment, we successfully secured and extended key patent licensing agreements, providing a strong foundation for sustained cash generation and consistent return of value to our stockholders.

#### Memory Interface Chips

Made for high performance, reliability and power efficiency, Rambus DDR memory interface chips for server memory modules (e.g., RDIMMs and MRDIMMs) enable increased bandwidth and expanded capacity in enterprise and cloud servers. The Rambus portfolio includes DDR5 and DDR4 memory interface chipsets. Our leading-edge DDR5 chipset solutions include the Registering Clock Driver ("RCD"), Multiplexed Registering Clock Driver ("MRCD"), Multiplexed Data Buffer ("MDB"), Power Management Integrated Circuits ("PMIC"), Serial Presence Detect Hubs ("SPD Hub"), Temperature Sensors ("TS"), and Client Clock Driver ("CKD").

We sell memory interface chips directly and indirectly to memory module manufacturers, OEMs and hyperscalers worldwide through multiple channels, including our direct sales force and distributors, and we employ sales personnel to support such operations in the United States, South Korea, Taiwan and China.

We operate a fabless business model and use third-party foundries and manufacturing contractors to fabricate, assemble and test our memory interface chips. We also inspect and test parts in our U.S.-based facilities. This outsourced manufacturing approach allows us to focus our investment and resources on the research, development, design, sale and marketing of our

products. Outsourcing also allows us the flexibility needed to respond to new market opportunities, simplifies our operations and significantly reduces our capital requirements.

**Silicon IP**

Rambus Silicon IP includes interface and security IP solutions that move and protect data in advanced data center, government and automotive applications. Our interface IP solutions feature both high-speed memory and chip-to-chip digital controller IP. Our security IP offerings comprise one of the industry's most comprehensive portfolios of solutions, including crypto cores, hardware roots of trust, high-speed protocol engines and chip provisioning technologies.

We sell Silicon IP solutions to leading chip makers worldwide for integration into their custom silicon, Application Specific Standard Products ("ASSP") and Field Programmable Gate Array ("FPGA") designs. Rambus Silicon IP is sold primarily through our direct sales force operating out of offices in the United States, India, Netherlands, France, Japan, South Korea, Taiwan and China.

**Patent Licenses**

Our patented inventions are foundational to the semiconductor industry and are licensed to leading semiconductor and system companies around the world. Rambus continues to innovate and invent, thereby advancing semiconductor technology. With a broad worldwide portfolio of patents covering memory architecture, high-speed serial links and security, we enhance our value and relevance in our target markets and create a platform for investment in product development.

Our patent licenses enable our customers to use specified portions of our portfolio of patented inventions in the customer's own digital electronics products, systems or services. These licenses may also define the specific field of use where our customers may use or employ our inventions in their products. License agreements are structured with fixed or variable, or a hybrid of fixed and variable royalty payments over certain periods typically ranging up to ten years. Leading semiconductor and electronic system companies, such as AMD, Amlogic, Broadcom, CXMT, IBM, Infineon, Kioxia, Marvell, MediaTek, Micron, Nanya, Nuvoton, NVIDIA, Phison, Qualcomm, Samsung, Silicon Motion, SK hynix, Socionext, STMicroelectronics, Toshiba, Western Digital and Winbond have licensed our patents for use in their own products. Additionally, from time to time, we enter into agreements to sell certain patent assets under agreements which may also include subsequent profit-sharing. The sale of these patents, as well as the subsequent profit-sharing, are included as part of our royalty revenue.

**Competition**

The semiconductor industry is intensely competitive and is characterized by rapid technological change, short product life cycles, cyclical market patterns, price erosion, increasing foreign and domestic competition, market consolidation and geopolitical developments that increasingly impact business. Rambus competes with product offerings from various companies depending upon the particular Rambus product line. In the memory interface chip market, we compete with international semiconductor companies, including Monolithic Power System, Montage Technology, Renesas and Texas Instruments. In the Silicon IP market, Rambus competes with the in-house design teams at our potential customers, as well as with third-party IP suppliers, such as Cadence and Synopsys. Many of our competitors are larger and have better access to financial, technical, sales and marketing resources than we possess.

To the extent that alternative technologies, which might provide comparable system performance at lower or similar cost to our patented technologies, are perceived to require the payment of no or lower fees or royalties, or to the extent other factors influence the industry, our customers and prospective customers may adopt and promote such alternative technologies. Even to the extent we determine that such alternative technologies infringe our patents, there can be no assurance that we would be able to negotiate agreements that would result in royalties being paid to us without litigation, which could be costly and the results of which would be uncertain. As in the past, litigation may be required to enforce and protect our IP rights, on top of the substantial investments undertaken to research and develop our innovations and technologies.

**Research and Development**

Building upon our foundation of core semiconductor technologies, our research priorities focus on innovation and patent development that differentiate our product offerings in the market and enhance the value of our patent portfolio. Key to our efforts is continuing to hire and retain world-class inventors, scientists and engineers to lead the development and deployment of inventions and technology solutions for our intended markets.

To foster our research and development efforts, we have assembled a team of highly skilled inventors, engineers and scientists whose activities are focused on continually developing new innovations within our chosen technology fields, and have thereby secured the IP rights and legal protections for these ground-breaking inventions. Using this foundation of innovation, our technical teams develop new semiconductor solutions that enable increased performance, greater power

efficiency and increased levels of security, as well as other improvements and benefits. Our solution design and development process is a multi-disciplinary effort requiring expertise in multiple fields across all of our operational units.

A significant number of our scientists and engineers spend all or a portion of their time on research and development. For the years ended December 31, 2024, 2023 and 2022, research and development expenses were $162.9 million, $156.8 million and $158.8 million, respectively. We expect to continue to invest substantial funds in research and development activities. In addition, because our customer agreements often call for us to provide engineering support, a portion of our total engineering costs are allocated to the cost of contract and other revenue.

**Human Capital Resources**

As of December 31, 2024, we had 712 employees, of which approximately 48% were in the United States and 52% in other global regions. Additionally, approximately 70% of our employees were engineers with the remaining employees in sales, general and administrative positions. None of our employees are covered by collective bargaining agreements.

We believe that our future success largely depends upon our continued ability to identify, attract, motivate and retain qualified personnel. We provide our employees with competitive compensation, as well as opportunities for equity ownership and developmental programs that enable continued learning and growth. We also offer employees benefits such as life and health insurance, paid time off, paid parental leave and retirement savings plans. We utilize successful recruiting practices that yield qualified and dedicated employees who are driven to achieve our vision.

The employment market in the United States can be competitive, especially for technology companies in the San Francisco Bay Area and elsewhere. Our human capital resources objectives, as described above, help us retain and motivate our existing employees, advisors and consultants, which is a key component of increasing stockholder value and the success of Rambus.

We are an equal opportunity employer and are committed to maintaining a diverse and inclusive work environment. Our commitment to diversity and inclusion helps us attract and retain the best talent, enables employees to realize their full potential and drives high performance through innovation and collaboration. Because we know that diversity is truly a competitive advantage that helps drive innovation, we strive to maintain a best-in-class work environment that fosters respect for individuals, their ideas and contributions. We benefit from the innovation that results when people with differing experiences, perspectives and cultures work together to achieve a common goal.

**Intellectual Property**

We maintain and support an active program to protect our IP, primarily through the filing of patent applications and the defense of issued patents against potential infringement. As of December 31, 2024, our semiconductor, security and other technologies are covered by 2,224 U.S. and foreign patents, with expiration dates ranging from 2025 to 2043. Additionally, we have 547 patent applications pending in various countries. Some of the patents and pending patent applications are derived from a common parent patent application or are foreign counterpart patent applications. We believe our patented innovations provide our customers with the ability to achieve improved performance, lower risk, greater cost-effectiveness and other benefits in their products and services. We intend to continue our innovation efforts and allocate significant investment in our IP development programs.

We file applications for and obtain patents in the United States and in selected foreign countries where we believe filing for such protection is appropriate and would further our overall business strategy and objectives. In some instances, obtaining appropriate levels of protection may involve prosecuting continuation and counterpart patent applications based on a common parent application. In addition, we attempt to protect our trade secrets and other proprietary information through agreements with current and prospective customers, and confidentiality agreements with employees and consultants and other security measures. We also rely on copyright, trademarks and trade secret laws to protect our IP and other proprietary assets.

**Backlog**

Our sales of memory interface chips are generally made pursuant to short-term purchase orders. These purchase orders are made without deposits and may be, and often are, rescheduled, canceled or modified on relatively short notice, without substantial penalty. Therefore, we believe that purchase orders or backlog are not necessarily a reliable indicator of our future product sales.

**Corporate and Available Information**

Rambus Inc. was founded in 1990 and reincorporated in Delaware in March 1997. Our principal executive offices are located at 4453 North First Street, Suite 100, San Jose, California, 95134. Our website is *www.rambus.com*. We have used, and intend to continue to use, our investor relations website as a means of disclosing material non-public information and for complying with our disclosure obligations under Regulation FD. The inclusion of our website address in this report does not

include or incorporate by reference into this report any information on our website. You can obtain copies of our Forms 10-K, 10-Q, 8-K and other filings with the SEC, and all amendments to these filings, free of charge, from our website as soon as reasonably practicable following our filing of any of these reports with the SEC. In addition, you may read and copy any material we file with the SEC at the SEC's Public Reference Room at 100 F Street NE, Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC at *www.sec.gov*. Further, the Company's references to the URLs for these websites are intended to be inactive textual references only.

Information concerning our revenue, results of operations and revenue by geographic area is set forth in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in Note 7, "Segments and Major Customers," of Notes to Consolidated Financial Statements of this Form 10-K, all of which are incorporated herein by reference. Information concerning identifiable assets and segment reporting is also set forth in Note 7, "Segments and Major Customers," of Notes to Consolidated Financial Statements of this Form 10-K. Information on customers that comprise 10% or more of our consolidated revenue and risks attendant to our foreign operations is set forth below in Item 1A, "Risk Factors."

**Our Executive Officers**

Information regarding our current executive officers and their ages and positions is contained in the table below. Our executive officers are appointed by, and serve at the discretion of, our Board of Directors. There is no family relationship between any of our executive officers.

| Name | Age | Position and Business Experience |
|---|---|---|
| Luc Seraphin | 61 | President & Chief Executive Officer. Mr. Seraphin has served as President & Chief Executive Officer since October 2018 and was interim Chief Executive Officer from June 2018 to October 2018. With over 30 years of experience managing global businesses, Mr. Seraphin brings the overall vision and leadership necessary to drive future growth for the company. Prior to this role, Mr. Seraphin was the Senior Vice President and General Manager of the Memory and Interface Division, leading the development of the company's innovative memory architectures and high-speed serial link solutions. Mr. Seraphin also served as the Senior Vice President of Worldwide Sales and Operations where he oversaw sales, business development, customer support and operations across the various business units within Rambus.<br><br>Mr. Seraphin started his career as a field application engineer at NEC and later joined AT&T Bell Labs, which became Lucent Technologies and Agere Systems (now Broadcom Inc.). During his 18 years at Agere, Mr. Seraphin held several senior positions in sales, marketing and general management, culminating in his last position as Executive Vice President and General Manager of the Wireless Business Unit. Following this, Mr. Seraphin held the position of General Manager of a GPS startup company in Switzerland and was Vice President of Worldwide Sales and Support at Sequans Communications. During his career, Mr. Seraphin has advised and supported companies in both the product and IP markets.<br><br>Mr. Seraphin holds a bachelor's degree in Mathematics and Physics and a master's degree in Electrical Engineering from Ecole Superieure de Chimie, Physique, Electronique, based in Lyon, France where he majored in Computer Architecture. Mr. Seraphin also holds an MBA from the University of Hartford and has completed the senior executive program of Columbia University and the Stanford Directors' Consortium. |
| Desmond Lynch | 45 | Chief Financial Officer. Mr. Lynch has served as Chief Financial Officer since August 2022, where he is responsible for the global finance organization, with responsibility for financial management, planning, tax, treasury, controls and reporting. Previously, he served as the Vice President of Finance for Rambus.<br><br>Prior to joining Rambus, Mr. Lynch served as Vice President of Finance at Renesas Electronics, a leading global semiconductor company, where he was the head of U.S. finance. Mr. Lynch has extensive semiconductor experience, including financial leadership roles at Integrated Device Technology, Atmel, Knowles Corporation and National Semiconductor.<br><br>Mr. Lynch is a Chartered Accountant with the Institute of Chartered Accountants of Scotland and holds a bachelor's degree in Accountancy and Finance from the University of Glasgow in Scotland. |
| Sean Fan | 59 | Executive Vice President, Chief Operating Officer. Mr. Fan has served as the Executive Vice President, Chief Operating Officer since November 2024 and as the Senior Vice President, Chief Operating Officer since August 2019.<br>Prior to Rambus, from March 2019 to June 2019, he served as Corporate Vice President and General Manager at Renesas Electronics Corporation, responsible for the datacenter business unit with full profit and loss responsibilities, a premier supplier of advanced semiconductor solutions. Prior to his role at Renesas, Mr. Fan was Senior Vice President and Corporate General Manager of the Computing and Communications Group at Integrated Device Technology, Inc. ("IDT"), a leading supplier of analog mixed-signal products including sensors, connectivity and wireless power, from May 2017 until March 2019 when IDT was acquired by Renesas Electronics Corporation. Mr. Fan joined IDT in 1999 and held various management roles at IDT, including Vice President and General Manager of the Computing and Communications Division, Vice President and General Manager of the Interface Connectivity Division, Vice President of China Operations, Vice President and General Manager of the Memory Interface Division, General Manager of Standard Product Operations and Senior Director of Silicon Timing Solutions. Prior to joining IDT, Mr. Fan served in various engineering and management roles with Lucent Microelectronics, Mitel Semiconductor and the National Lab of Telecom Research in China.<br>Mr. Fan holds a master's degree in Computer Engineering from the University of Cincinnati where he also conducted a PhD program study in Computer and Electrical Engineering. He also holds a bachelor's degree in Computer Engineering and Telecommunications from the Beijing University of Posts & Telecom. He continued his executive management education at Stanford University and the Wharton School of Business. |
| John Shinn | 56 | Senior Vice President, General Counsel, Corporate Secretary and Chief Compliance Officer. Mr. Shinn has served as the Senior Vice President, General Counsel, Corporate Secretary and Chief Compliance Officer since February 2021 and as our Vice President, Deputy General Counsel since October 2016.<br><br>Prior to Rambus, Mr. Shinn was Vice President and General Counsel at Toptal, LLC, a global remote company that provides a freelancing platform, connecting businesses with software engineers, designers, finance experts, product managers and project managers, from February 2016 until October 2016, where he was responsible for all aspects of the corporate legal function, including corporate governance, regulatory compliance, commercial transactions, intellectual |

property matters and employment law. From February 2015 to January 2016, Mr. Shinn served as the Vice President of Legal at Tanium, Inc., an enterprise software company at the forefront of security and systems management, where he was responsible for all aspects of the company legal function, including commercial licensing, partnership and vendor contracts, new hire and employment matters, sales compensation plan design and corporate legal matters. Prior to February 2015, Mr. Shinn held the position of Sr. Director of Legal, Commercial Transactions at Brocade Communication Systems, Inc. Mr. Shinn has also worked in private practice with the law firm of Wilson Sonsini Goodrich & Rosati, advising high tech and emerging growth companies on technology transactions and mergers and acquisitions. Mr. Shinn began his legal career as a litigation attorney with a boutique intellectual property and securities litigation law firm in San Jose.

Mr. Shinn is a member of the State Bar of California and received his J.D. from Santa Clara University and his bachelor’s degree in American and European History from Stanford University.

## Item 1A. *Risk Factors*

Because of the following factors, as well as other variables affecting our operating results, past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. See also "Note Regarding Forward-Looking Statements" at the beginning of this report.

### Summary Risk Factors

Our business is subject to numerous risks and uncertainties that you should consider before investing in our company, as fully described below. The principal factors and uncertainties that make investing in our company risky include, among others:

- We have traditionally operated in, and may enter other, industries that are highly cyclical and competitive.
- Much of our revenue is concentrated in a few customers, and if we lose any of these customers through contract terminations, acquisitions or other means, our revenue may decrease substantially.
- Products that fail to meet their specifications or are defective could impose significant costs on us or result in loss of business.
- We may not be successful with new product introductions and/or expanding into new markets.
- If we do not keep pace with technological innovations or customers' increasing technological requirements, we may not be able to enhance our existing products and our products may not be competitive, and our revenue and operating results may suffer.
- If our customers do not incorporate our technologies into their products, or if our customers' products are not commercially successful, our business would suffer.
- We purchase inventory in advance based on expected demand for our products, and if demand is not as expected, we may have insufficient or excess inventory, which could adversely impact our financial condition.
- Our business is dependent on distributors to service our end customers.
- A meaningful portion of our future revenue depends on sustaining or growing our licensing revenue and the failure to achieve such revenue would lead to a material decline in our results of operations.
- Our licensing cycle is lengthy and costly, and our marketing and licensing efforts may be unsuccessful.
- Some of our license agreements may convert from royalty generating to fully paid-up licenses at the expiration of their terms, or upon certain milestones, and we may not receive royalties after that time.
- Future revenue is difficult to predict for several reasons, and our failure to predict revenue or revenue trends accurately may result in our stock price declining.
- We may fail to meet our publicly announced guidance or other expectations about our business, which would likely cause our stock price to decline.
- A substantial portion of our revenue is derived from sources outside of the United States and this revenue and our business generally are subject to risks related to international operations that are often beyond our control.
- Weak global economic conditions may adversely affect demand for the products and services of our customers and could otherwise harm our business.
- Our operations are subject to the effects of inflation.
- We rely on third parties for a variety of services, including manufacturing, and these third parties' failure to perform these services adequately or change our allocation of their services/capacity due to industry or other pressures could materially and adversely affect our business.
- Our business and operations could suffer in the event of physical and cybersecurity breaches and incidents.
- We have in the past made and may in the future make acquisitions or enter into mergers, strategic investments, sales of assets, divestitures or other arrangements that may not produce expected operational benefits or operating and financial results.
- If we are unable to attract and retain qualified personnel globally, our business and operations could suffer.
- Our operations are subject to risks of natural disasters, acts of war, terrorism, widespread illness or security breaches or incidents at our domestic and international locations, any one of which could result in a business stoppage and negatively affect our operating results.
- In the future, we may fail to maintain an effective system of internal control over financial reporting or adequate disclosure controls and procedures, which may result in material misstatements of our consolidated financial statements or cause us to fail to meet our periodic reporting obligations.

- Unanticipated changes in our tax rates or in the tax laws, treaties and regulations could expose us to additional income tax liabilities, which could affect our operating results and financial condition.
- We are subject to various government restrictions and regulations, including on the sale of products and services that use encryption and other technology, those related to privacy, other consumer protection matters, other import/export controls and national security matters.
- Litigation and government proceedings could affect our business in materially negative ways.
- If we are unable to protect our inventions successfully through the issuance and enforcement of patents, our operating results could be adversely affected.
- Third parties may claim that our products or services infringe on their intellectual property ("IP") rights, exposing us to litigation that, regardless of merit, may be costly to defend.
- Warranty, service level agreement and product liability claims brought against us could cause us to incur significant costs and adversely affect our operating results, as well as our reputation and relationships with customers.
- Compliance with changing regulation of corporate governance and public disclosure may result in additional expenses.

**Risks Associated with Our Business, Industry and Market Conditions**

***We have traditionally operated in, and may enter other, industries that are highly cyclical and competitive.***

Our target customers are companies that develop and market high volume business and consumer products in semiconductors, computing, data centers, networks, artificial intelligence ("AI"), tablets, handheld devices, mobile applications, gaming and graphics, high-definition televisions, cryptography and data security. The electronics industry is intensely competitive and has been impacted by rapid technological change, short product life cycles, cyclical market patterns, price erosion and increasing foreign and domestic competition. We are subject to many risks beyond our control that influence whether or not we are successful in winning target customers or retaining existing customers, including, primarily, competition in a particular industry, market acceptance of such customers' products and the financial resources of such customers. In particular, DRAM manufacturers, which make up a significant part of our revenue, are prone to significant business cycles and have suffered material losses and other adverse effects to their businesses, leading to industry consolidation from time-to-time that may result in loss of revenue under our existing license agreements or loss of target customers. As a result of ongoing competition in the industries in which we operate and volatility in various economies around the world, we may achieve reduced market share, a reduced number of licenses or may experience tightening of customers' operating budgets, difficulty or inability of our customers to pay our licensing fees, reduction in downstream demand, lengthening of the approval process for new products and licenses and consolidation among our customers. All of these factors may adversely affect the demand for our products and technologies and may cause us to experience substantial fluctuations in our operating results and financial condition.

We face competition from semiconductor and digital electronics products and systems companies, and other semiconductor IP companies that provide security and interface IP that are available to the market. We believe some of the competition for our technologies may come from our prospective customers, some of which are internally evaluating and developing products based on technologies that they contend or may contend will not require a license from us. Many of these companies are larger and may have better access to financial, technical and other resources than we possess and may be able to develop and advance competitive products more effectively.

To the extent that alternative technologies might provide comparable system performance at lower or similar cost to our technologies, or are perceived to require the payment of no or lower fees and/or royalties, or to the extent other factors influence the industry, our customers and prospective customers may adopt and promote such alternative technologies. Even to the extent we determine that such alternative technologies infringe our patents, there can be no assurance that we would be able to negotiate agreements that would result in royalties being paid to us without litigation, which could be costly and the results of which would be uncertain.

In addition, our efforts to introduce new products and/or expand into new markets subject us to additional risks. We may have limited or no experience in new products and markets, and our customers may not adopt our new offerings and/or new customers may not adopt our offerings. These and other new offerings may present new and difficult challenges, which could negatively affect our operating results.

***Much of our revenue is concentrated in a few customers, and if we lose any of these customers through contract terminations, acquisitions or other means, our revenue may decrease substantially.***

We have a high degree of revenue concentration. Our top five customers for each reporting period represented approximately 62% of our consolidated revenue for both the years ended December 31, 2024 and 2023 and 58% of our consolidated revenue for the year ended December 31, 2022. We expect to continue to experience significant revenue concentration for the foreseeable future. Our customers' demand for our products may fluctuate due to factors beyond our control. We could experience fluctuations in our customer base or the mix of revenue by customer as markets and strategies evolve. A disruption in our relationship with any of our customers could adversely affect our business. In addition, any consolidation of our customers could reduce the number of customers to whom our products may be sold or the demand for our products. Our inability to meet our customers' requirements or to qualify our products with them could adversely impact our revenue. The loss of, or restrictions on our ability to sell to, one or more of our major customers or any significant reduction in orders from, or a shift in product mix by customers, could have a material adverse effect on our operating results and financial condition.

In addition, our license agreements are complex and some contain terms that require us to provide certain customers with the lowest royalty rate that we provide to other customers for similar technologies, volumes and schedules. These clauses may limit our ability to effectively price differently among our customers, to respond quickly to market forces, or otherwise to compete on the basis of price. These clauses may also require us to reduce royalties payable by existing customers when we enter into or amend agreements with other customers. Any adjustment that reduces royalties from current customers or licensees may have a material adverse effect on our operating results and financial condition.

We continue to negotiate with customers and prospective customers to enter into license agreements. Any future agreement may trigger our obligation to offer comparable terms or modifications to agreements with our existing customers, which may be less favorable to us than the existing license terms. We expect licensing fees will continue to vary based on our success in renewing existing license agreements and adding new customers, as well as the level of variation in our customers' reported shipment volumes, sales price and mix, offset in part by the proportion of customer payments that are fixed. In addition, our license agreements may contain rights by the customer to terminate for convenience, or upon certain other events, such as change of control, material breach, insolvency or bankruptcy proceedings. If we are unsuccessful in entering into license agreements with new customers or renewing license agreements with existing customers, on favorable terms or at all, or if these agreements are terminated, our results of operations may decline significantly.

***Some of our revenue is subject to the pricing policies of our customers over which we have no control.***

We have no control over our customers' pricing of their products and there can be no assurance that licensed products will be competitively priced or will sell in significant volumes. Any premium charged by our customers in the price of memory and controller chips or other products over alternatives must be reasonable. If the benefits of our technology do not match the price premium charged by our customers, the resulting decline in sales of products incorporating our technology could harm our operating results.

***Our customers often require our products to undergo a lengthy and expensive qualification process which does not assure product sales. If we are unsuccessful or delayed in qualifying any of our products with a customer, our business and operating results would suffer.***

Prior to purchasing our products, our customers often require that our products undergo extensive qualification processes, which involve testing of our products in the customers' systems, as well as testing for reliability. This qualification process may continue for several months. However, qualification of a product by a customer does not assure any sales of the product to that customer. Even after successful qualification and sales of a product to a customer, a subsequent revision in third-party manufacturing processes or in customer requirements may require a new qualification process with our customers or changes to our yield or margin profiles, which may result in delays, our holding of excess or obsolete inventory, or other business challenges. After our products are qualified, it can take several months or more before the customer commences volume production of components or systems that incorporate our products. Despite these uncertainties, we devote substantial resources, including design, engineering, sales, marketing and management efforts, to qualify our products with customers in anticipation of sales. If we are unsuccessful or delayed in qualifying any of our products with a customer, sales of those products to the customer may be precluded or delayed, which may impede our growth and cause our business to suffer.

***Products that fail to meet their specifications or are defective could impose significant costs on us or result in loss of business.***

Products that do not meet their specifications or that contain, or are perceived by our customers to contain, defects could impose significant costs on us or otherwise materially adversely affect our operating results and financial condition. From time to time, we experience problems with nonconforming, defective, or incompatible products after we have shipped such products. In recent periods, we have further expanded our product offerings, which could potentially increase the chance that one or more of our products could fail to meet specifications in a particular application. Our products and technologies may be deemed fully or partially responsible for functionality in our customers' products and may result in sharing or shifting of product or financial liability from our customers to us for costs incurred by the end user as a result of our customers' products failing to perform as specified. In addition, if our products and technologies perform critical functions in our customers' products or are used in high-risk consumer end products, such as automotive products, our potential liability may increase. We could be adversely affected in several ways, including the following:

- we may be required or agree to compensate customers for costs incurred or damages caused by defective or incompatible products and to replace products;
- we could incur a decrease in revenue or adjustment to pricing commensurate with the reimbursement of such costs or alleged damages;
- we may encounter adverse publicity, which could cause a decrease in sales of our products or harm our reputation or relationships with existing or potential customers; and
- our customers may reduce or cancel their orders with us or exclude us from further consideration as a supplier.

Any of the foregoing items could have a material adverse effect on our operating results and financial condition.

***We may not be successful with new product introduction and/or expanding into new markets.***

Various target markets for our products, such as AI, may develop slower than anticipated or could utilize competing technologies. The markets for some of these products depend in part upon the continued development and deployment of various other technologies, which may or may not address the needs of the users of these products. We cannot predict the size or growth rate of these markets or the market share we will achieve or maintain in these markets in the future.

Our ability to generate significant revenue from new markets will depend on various factors, including the development and growth of these markets; the ability of our technologies and products to address the needs of these markets; the price and performance requirements of our customers, and the preferences of end users; and our ability to provide our customers with products that provide advantages compared with alternative products.

Our ongoing success in these markets will require us to offer better performance alternatives to other products at competitive costs. The failure of any of these target markets to develop as we expect, or our failure to serve these markets to a significant extent, will impede the sales growth of products incorporating our technology, which could harm our operating results.

***If we do not keep pace with technological innovations or customers' increasing technological requirements, we may not be able to enhance our existing products and our products may not be competitive, and our revenue and operating results may suffer.***

We operate in rapidly changing, highly competitive markets. Technological advances, the introduction of new products and services, including AI, and new design techniques could adversely affect our business unless we are able to adapt to changing conditions. Technological advances could render our products and technologies less competitive or obsolete, and we may not be able to respond effectively to the technological requirements of evolving markets. We may therefore be required to commit significant resources to enhancing and developing new technology, which may include purchasing or licensing advanced design tools and test equipment, hiring additional highly qualified engineering and other technical personnel, and continuing and expanding research and development activities on existing and potential technologies.

Our existing product offerings may present new and difficult challenges, and we may be subject to claims if customers of our offerings experience delays, failures, non-performance or other quality issues. In particular, we may experience difficulties with product design, qualification, manufacturing, including supply chain disruptions or shortages that might lead to an inability to meet customer demand, marketing or certification that could delay or prevent our development, introduction or marketing and sales of products. Although we intend to design our products to be fully compliant with applicable industry standards, proprietary enhancements may not in the future result in full conformance with existing industry standards under all circumstances. Further, our products must be enhanced periodically to keep up with evolving system requirements. Our introduction of new products could reduce the demand and revenue of our older products or affect their pricing.

Our research and development efforts with respect to new technologies may not result in customer or market acceptance. Some or all of those technologies may not successfully make the transition from the research and development stage to cost-effective production as a result of technology problems, competitive cost issues, yield problems, and other factors. Even if we successfully complete a research and development effort with respect to a particular technology, our customers may decide not to introduce or may terminate products utilizing the technology for a variety of reasons, including difficulties with other suppliers of components for the products, superior technologies developed by our competitors and unfavorable comparisons of our products with these technologies, price considerations and lack of anticipated or actual market demand for the products.

Our business model continues to transform towards greater reliance on product revenue. We could experience a slowdown in our customers' demand for our products in the near term; however, we anticipate our memory interface chips will contribute to continued long-term growth. If sales of our memory interface chips do not grow as anticipated, then our business could suffer as a result. Our business could be harmed if we are unable to develop and utilize new technologies that address the needs of our customers, or our competitors or customers develop and utilize new technologies more effectively or more quickly than we can. A transition by our customers to different business models could also result in reduced revenue. We cannot guarantee that we will be successful in keeping pace with all, or any, of the customer trends. Any investments made to enhance or develop new technologies that are not successful could have an adverse effect on our operating results and financial condition.

***If our customers do not incorporate our technologies into their products, or if our customers' products are not commercially successful, our business would suffer.***

We sell our memory interface chips directly and indirectly to memory module manufacturers and OEMs worldwide for integration into server memory modules. We cannot be assured that our customers' products will be commercially successful over time or at all as a result of factors beyond our control. If products incorporating our technologies are not commercially successful or experience rapid decline, our revenue and business will suffer. Further, we are continuing to expand into new segments and if our memory interface chips fail to achieve acceptance by customers in such segments, then our business could

suffer as a result. Changes in our customers' order patterns could result in us holding excess quantities of inventory which could result in us recording reserves for excess and obsolete inventory. Any such reserves would have an adverse effect on our operating results and financial condition.

***We purchase inventory in advance based on expected demand for our products, and if demand is not as expected, we may have insufficient or excess inventory, which could adversely impact our financial condition.***

As a fabless semiconductor company, we purchase our inventory from third-party manufacturers in advance of selling our products. We place orders with our manufacturers based on existing and expected orders from our customers and distributors for particular products. We are also subject to increased inventory risks and costs because we build our products based on forecasts provided by our customers and distributors before receiving purchase orders for the product. While most of our contracts with our customers and distributors include lead time requirements and cancellation penalties that are designed to protect us from misalignment between orders and inventory levels, we must nonetheless make some predictions when we place orders with our manufacturers and we are not always able to make adjustments to align with our inventory needs. Our customers and distributors may also fail to place orders or cancel orders for many reasons, including but not limited to trends in the global economy, business challenges, supply chain constraints, longer than expected inventory digestion or other changes in their business requirements. In the event that our predictions are inaccurate due to unexpected increases in orders or our manufacturers are unable to provide the inventory that we require, we may have insufficient inventory to meet our customers' and distributors' demands. In addition, a perceived negative trend in market conditions could lead us to decrease the manufacturing volume of our products to avoid excess inventory. If we inaccurately assess market conditions for our products, we could have insufficient inventory to meet the demands of our customers and distributors, resulting in loss of revenue. In the event that we order products that we are unable to sell due to a decrease in orders, unexpected order cancellations, import/export restrictions or product returns, we may have excess inventory which, if not sold, may need to be written down or would result in a decrease in our revenue in future periods. If any of these situations were to arise, it could have a material impact on our business, financial condition and results of operations.

***The markets for semiconductor products are cyclical, and increased levels of inventory may lead to overcapacity and lower prices, and conversely, if we do not hold sufficient inventory, we may not be able to satisfy unexpected demand for our products.***

The cyclical nature of the semiconductor industry has resulted in periods when demand for our products has increased or decreased rapidly. If we overbuild inventory in a period of decreased demand, or we expand our operations too rapidly or procure excessive resources in anticipation of increased demand for our products, and that demand does not materialize at the pace at which we expect, or declines, our operating results may be adversely affected as a result of charges related to obsolete inventory, inventory write-downs, increased operating expenses or reduced margins.

We may in the future experience periods of inventory adjustments by our customers and distributors that may adversely affect our operating results. In addition, we may not be able to expand our operations in a sufficiently timely manner, procure adequate resources and raw materials, locate suitable third-party suppliers or respond effectively to changes in demand for our existing products or to demand for new products requested by our customers and/or distributors, and our current or future business could be materially and adversely affected.

We periodically transition to newer generations of our semiconductor products as the market shifts to demand for such products. While we have managed prior product transitions and have previously sold multiple generations of products at the same time, these transitions are difficult to forecast and may result in under-supply or over-supply of inventory by product generation, which may negatively impact revenue and inventory reserves.

***Our business is dependent on distributors to service our end customers.***

We utilize distributors to sell our memory interface chips to certain customers. We do not have long-term purchase commitments from our distributors. If a key distributor were to experience financial difficulties, including bankruptcy, this could materially impact our financial results due to potential losses from uncollectible receivables. Additionally, any oversupply of inventory at our distributors, whether due to an industry or economic downturn or other causes, could result in reduced sales in a given period, increased order push-outs, increased inventory returns and cause us to carry higher levels of inventory. This could result in us incurring charges for obsolete or excess inventory, or we may not fully recover our costs, which would reduce

our gross margin. Violations of the Foreign Corrupt Practices Act, export controls and sanction laws, or similar laws, by our distributors could also have a material adverse impact on our business.

***A meaningful portion of our future revenue depends on sustaining or growing our licensing revenue and the failure to achieve such revenue would lead to a material decline in our results of operations.***

While our business model continues to transform towards greater reliance on product revenue, a large portion of our revenue still consists of fees paid for access to our patented technologies, existing technology and other development and support services we provide to our customers. Our ability to secure and renew the licenses from which that revenue is derived depends on our customers adopting our technology and using it in the products they sell. If customers do not upgrade or enhance their product offerings to include such technologies, our revenue and operating results may be adversely affected. Once secured, license revenue may be negatively affected by factors within and outside our control, including reductions in our customers' sales prices, sales volumes, our failure to timely complete engineering deliverables and the actual terms of such licenses themselves. In addition, our licensing cycle for new licensees, as well as for renewals for existing licensees is lengthy, costly and unpredictable. We cannot provide any assurance that we will be successful in signing new license agreements or renewing existing license agreements on equal or favorable terms or at all. If we do not achieve our revenue goals, our results of operations could decline.

***Our licensing cycle is lengthy and costly, and our marketing and licensing efforts may be unsuccessful.***

The process of persuading customers to adopt and license our chip interface, data security IP and other technologies can be lengthy. Even if successful, there can be no assurance that our technologies will be used in a product that is ultimately brought to market, achieves commercial acceptance or results in significant royalties to us. We generally incur significant marketing and sales expenses prior to entering into our license agreements, generating a license fee and establishing a royalty stream from each customer. The length of time it takes to establish a new licensing relationship can take many months or even years. We may incur costs in any particular period before any associated revenue stream begins, if at all. If our marketing and sales efforts are very lengthy or unsuccessful, then we may face a material adverse effect on our business and results of operations as a result of failure to obtain, or an undue delay in obtaining, royalties.

***Some of our license agreements may convert from royalty generating to fully paid-up licenses at the expiration of their terms, or upon certain milestones, and we may not receive royalties after that time.***

From time to time, we enter into license agreements that automatically convert from royalty generating arrangements to fully paid-up licenses under which the customer is no longer required to make payments for all or certain components of the licensed technology or IP upon expiration or upon reaching certain milestones. We may not receive further royalties from customers for any licensed technology under those agreements if they convert to fully paid-up licenses because such customers will be entitled to continue using some, if not all, of the relevant IP or technology under the terms of the license agreements without further payment, even if relevant patents or technologies are still in effect. If we cannot find another source of royalties to replace the royalties from those license agreements that convert to fully paid-up licenses, our results of operations following such conversion could be adversely affected.

***Future revenue is difficult to predict for several reasons, and our failure to predict revenue or revenue trends accurately may result in our stock price declining.***

As we commercially launch each of our products, the sales volume of and resulting revenue from such products in any given period will be difficult to predict. Our lengthy license negotiation cycles could make a considerable portion of our future revenue difficult to predict because we may not be successful in entering into or renewing licenses with our customers on our anticipated timelines.

In addition, while some of our license agreements provide for fixed, quarterly royalty payments, many of our license agreements provide for volume-based royalties and may also be subject to caps on royalties or other adjustments in a given period. The sales volume and prices of our customers' products in any given period can be difficult to predict.

Because we provide memory interface chips, among others, that are used in end products and systems, demand for our products is influenced by the demand for end products sold by our customers or via distributors. As a result, we may have difficulty in accurately forecasting our product revenue. Our product revenue depends on the timing, scale, and speed of introductions of new end products and systems, as well as the ongoing demand for existing end products and systems, that incorporate our products, all of which are intrinsically difficult to forecast. In addition, demand for our products is influenced by the ability of our customers and distributors to manage their inventory. If our customers and distributors do not manage their inventory correctly or misjudge their customers' demand, our shipments to and orders from our customers and distributors may vary significantly, and we may have difficulty forecasting our inventory levels, which could reduce our product revenue, result

in inventory write offs, and adversely affect our financial condition and results of operations. For these reasons, our actual results may differ substantially from analyst estimates or our forecasts in any given quarter.

***We may fail to meet our publicly announced guidance or other expectations about our business, which would likely cause our stock price to decline.***

We provide guidance regarding our expected financial and business performance, including our anticipated future revenue, operating expenses and other financial and operation metrics. Correctly identifying the key factors affecting business conditions and predicting future events is an inherently uncertain process. Any guidance that we provide may not always be accurate, or may vary from actual results, due to our inability to correctly identify and quantify risks and uncertainties to our business and to quantify their impact on our financial performance. We offer no assurance that such guidance will ultimately be accurate, and investors should treat any such guidance with appropriate caution. If we fail to meet our guidance or if we find it necessary to revise such guidance, even if such failure or revision is seemingly insignificant, investors and analysts may lose confidence in us and the market value of our common stock could be materially adversely affected.

***A substantial portion of our revenue is derived from sources outside of the United States and this revenue and our business generally are subject to risks related to international operations that are often beyond our control.***

For the years ended December 31, 2024, 2023 and 2022, revenue from our international customers constituted approximately 64%, 62% and 39%, respectively, of our total consolidated revenue. We expect that future revenue derived from international sources will continue to represent a significant portion of our total revenue.

To the extent that customer sales are not denominated in U.S. dollars, any royalties that are based on a percentage of the customers' sales and which we receive as a result of such sales could be subject to fluctuations in currency exchange rates. In addition, if the effective price of licensed products sold by our foreign customers were to increase as a result of fluctuations in the exchange rate of the relevant currencies, demand for licensed products could fall, which in turn would reduce our royalties. From time to time, we use limited financial instruments to hedge foreign exchange rate risk, however such instruments may not be sufficient to cover such risk.

Trade-related government actions, whether implemented by the United States, China, the European Union or other countries, that impose barriers or restrictions impacting our ability to sell or ship products to certain customers may have a negative impact on our financial condition and results of operations. We cannot predict the actions government entities may take in this context and may be unable to quickly offset or effectively react to government actions that restrict our ability to sell to certain customers or in certain jurisdictions. Government actions that affect our customers' ability to sell products or access critical elements of their supply chains may result in a decreased demand for their products, which may consequently reduce their demand for our products.

In addition, the U.S. government has implemented controls affecting the ability to send certain products and technology related to semiconductors, semiconductor manufacturing and supercomputing to China without an export license and added additional entities to restricted party lists in addition to other import/export and national security laws and regulations. We may be impacted by any of these current or new restrictions in the future if such controls are expanded to cover our key products/markets.

We currently have international business, business development, and design operations in Bulgaria, Canada, China, Finland, France, India, the Netherlands, South Korea, and Taiwan. Our international operations and revenue are subject to a variety of risks that are beyond our control, including:

- hiring, maintaining and managing a workforce and facilities remotely and under various legal systems, including compliance with local labor and employment laws;
- non-compliance with our code of conduct or other corporate policies;
- compliance with and international laws involving international operations, including the Foreign Corrupt Practices Act of 1977, as amended, sanctions and anti-corruption laws, export and import laws and similar rules and regulations;
- natural disasters, acts of war, terrorism, widespread global pandemics or illness, such as COVID-19 and its variants, or security breaches or incidents;
- export controls, tariffs, import and licensing restrictions, climate-change regulations and other trade barriers;
- profits, if any, earned abroad being subject to local tax laws and not being repatriated to the United States or, if repatriation is possible, limited in amount;
- adverse tax treatment of revenue from international sources and changes to tax laws and regulations, including being subject to foreign tax laws and being liable for paying withholding, income or other taxes in foreign jurisdictions;

- longer payment cycles and greater difficulty in collecting accounts receivable;
- unanticipated changes in foreign government laws and regulations, including imposition of bans on sales of goods or services to one or more of our significant foreign customers;
- increased financial accounting and reporting burdens and complexities;
- lack of protection of our IP and other contract rights by jurisdictions in which we may do business to the same extent as the laws of the United States;
- potential vulnerability to computer system, internet or other systemic attacks, such as denial of service, viruses or other malware which may be caused by criminals, terrorists or other groups or sophisticated organizations;
- social, political and economic instability;
- geopolitical instability, including changes in diplomatic and trade relationships, in particular with China and Taiwan, and potentially in Israel and the Middle East;
- disruptions in global logistics, including air, waterway and other delivery methods; and
- cultural differences in the conduct of business both with customers and in conducting business in our international facilities and international sales offices.

We and our customers are subject to many of the risks described above with respect to companies which are located in different countries. There can be no assurance that one or more of the risks associated with our international operations will not result in a material adverse effect on our business, financial condition or results of operations.

***Weak global economic conditions may adversely affect demand for the products and services of our customers and could otherwise harm our business.***

Our operations and performance depend significantly on worldwide economic conditions. Current and future uncertainty in the worldwide economy due to inflation, geopolitics, major central bank policies, including interest rate changes, public health crises or other global factors, could adversely affect our business. Additionally, there is ongoing uncertainty regarding the new U.S. presidential administration's economic and other policies and priorities, such as potential changes in trade restrictions or relationships, tariffs and exchange controls, and potential retaliatory tariffs by other countries, which could impact the cost and/or sale of our products in any countries that are impacted. Adverse economic conditions could also affect demand for our products and our customers' products. If our customers experience reduced demand or excess inventory as a result of global or regional economic conditions or otherwise, this could result in reduced royalty revenue and/or product sales and our business and results of operations could be harmed. Inflationary pressures and shortages have in the past increased, and may increase in the future, costs for materials, supplies and labor, which could cause our expenses to increase at a rate faster than our product pricing to recover such increases, which may further result in a material adverse effect on our business, financial condition or results of operations.

Additionally, deterioration of conditions in worldwide credit markets could limit our ability to obtain external financing, if needed, to fund our operations and capital expenditures. In addition, we may experience losses on our holdings of cash and investments due to failures of financial institutions and other parties. Difficult economic conditions may also result in a higher rate of losses on our accounts receivable due to credit defaults. As a result, downturns in, or other events or uncertainty that impact, the worldwide economy could have a material adverse effect on our business, results of operations and financial condition.

***Any failure in our delivery of high-quality technical support services may adversely affect our relationships with our customers and our financial results.***

Our customers depend on our support organization to resolve technical issues and provide ongoing maintenance relating to our products and services. We may be unable to respond quickly enough to accommodate short-term increases in customer demand for support services. Increased customer demand for these services, without corresponding revenue, could increase costs and adversely affect our operating results. In addition, our sales process is highly dependent on our offerings and business reputation and on positive recommendations from our existing customers. Any failure to maintain high-quality technical support, or a market perception that we do not maintain high-quality support, could adversely affect our reputation, our ability to sell our solutions to existing and prospective customers and our business, operating results and financial position.

***Our operations are subject to the effects of inflation.***

The United States has recently experienced historically high levels of inflation. While inflation rates have moderated in recent quarters, if the inflation rate increases again as a result of increases in the costs of labor and supplies, it will affect our expenses, such as employee compensation and research and development charges. Research and development expenses account for a significant portion of our operating expenses. Additionally, the United States has recently experienced an acute workforce

shortage of qualified applicable talent, which in turn has created a competitive wage environment that may increase our operating costs. To the extent inflation results in rising interest rates and has other adverse effects on the market, it may adversely affect our consolidated financial condition and results of operations.

**Risks Associated with Our Supply and Third Party Manufacturing**

***We rely on third parties for a variety of services, including manufacturing, and these third parties' failure to perform these services adequately or change our allocation of their services/capacity due to industry or other pressures could materially and adversely affect our business.***

We rely on third parties for a variety of services, including our manufacturing supply chain partners and third parties within our sales and distribution channels. Some of these third parties are, and may be, our sole manufacturer or sole source of certain production materials and may be located in regions subject to geopolitical uncertainty (*e.g.*, tensions between China and Taiwan and evolving export/import and national security restrictions). If we fail to manage our relationships with these manufacturers and suppliers effectively, or if they experience delays, disruptions, geopolitical changes, capacity constraints/allocation pressures or quality control problems in their operations, our ability to ship products to our customers could be impaired and our competitive position and reputation could be harmed. In addition, any adverse change in any of our manufacturers and suppliers' financial or business condition could disrupt our ability to supply quality products to our customers. If we are required to change our manufacturers, we may lose revenue, incur increased costs and damage our end-customer relationships. In addition, porting to and qualifying a new manufacturer and commencing production can be an expensive and lengthy process. If our third-party manufacturers or suppliers are unable to provide us with adequate supplies of high-quality products for any other reason, we could experience a delay in our order fulfillment, and our business, operating results and financial condition would be adversely affected. In the event these and other third parties we rely on fail to provide their services adequately, including as a result of errors in their systems, industry pressures or events beyond their control, or refuse to provide these services on terms acceptable to us, and we are not able to find suitable alternatives, our business may be materially and adversely affected. In addition, our orders may represent a relatively small percentage of the overall orders received by our manufacturers from their customers. As a result, fulfilling our orders may not be considered a priority in the event our manufacturers are constrained in their ability to fulfill all of their customer obligations in a timely manner. If our manufacturers are unable to provide us with adequate supplies of high-quality products, or if we or our manufacturers are unable to obtain adequate quantities of components, it could cause a delay in our order fulfillment, in which case our business, operating results and financial condition could be adversely affected.

Semiconductor supply chain disruptions have been well publicized in the recent past. We believe that we could experience various supply constraints related to our memory interface chip business in the future. For example, to the extent we do not have sufficient wafer and packaging substrate firm commitments from our third-party suppliers or they are otherwise unable to provide such services and materials, we may not obtain the materials needed on our desired timelines or at reasonable prices. Large swings in demand could exceed our contracted supply and/or our suppliers' capacity to meet those demand changes resulting in a shortage of parts, materials or capacity needed to manufacture our products. While we continually work with our suppliers to mitigate the impact of the supply constraints to our customer deliveries, in the event of a shortage or supply interruption from suppliers of our components, we may not be able to develop alternate sources quickly, cost-effectively or at all. An extended period of global supply chain and economic disruption could have a material negative impact on our business, results of operations, access to sources of liquidity and financial condition, though the full extent and duration is uncertain.

Additionally, various sources of supply-chain risk, including strikes or shutdowns at delivery ports or loss of or damage to our products while they are in transit or storage, IP theft, losses due to tampering, third-party vendor issues with quality or sourcing control, failure by our suppliers to comply with applicable laws and regulations, potential tariffs or other trade restrictions, geopolitical uncertainty and related military actions or other similar problems could limit or delay the supply of our products. Any interruption or delay in manufacturing or component supply, any increases in manufacturing or component costs, or the inability to obtain these services or components from alternate sources at acceptable prices and within a reasonable amount of time would harm our ability to provide our products to customers on a timely basis. This could harm our relationships with our customers, prevent us from acquiring new customers and materially and adversely affect our business.

***If the manufacturing and/or packaging process for our products is disrupted by operational issues, natural disasters or other events, our business, results of operations or financial condition could be materially adversely affected.***

We rely on subcontractors to manufacture and package our products using highly complex processes that require technologically advanced equipment and continuous modification. Our subcontractors maintain operations and continuously implement new product and process technology at facilities which are dispersed in multiple locations in Asia. As a result of the necessary interdependence within our network of manufacturing and packaging facilities, an operational disruption at one of our or a subcontractor's facilities may have a disproportionate impact on our ability to produce many of our products.

From time to time, there have been disruptions in our subcontractors' operations as a result of power outages, improperly functioning equipment, disruptions in supply of raw materials or components or equipment failures. Our subcontractors have manufacturing and other operations in locations subject to natural disasters and possible climate changes, such as severe and variable weather and geological events resulting in increased costs, or disruptions to our manufacturing operations or those of our suppliers or customers. In addition, climate change may pose physical risks to our manufacturing facilities or our suppliers' facilities, including increased extreme weather events that could result in supply delays or disruptions. Other events, including political or public health crises, such as an outbreak of contagious diseases like COVID-19, may also affect our subcontractors' production capabilities.

If production is disrupted for any reason, manufacturing yields may be adversely affected, or we may be unable to meet our customers' requirements and they may purchase products from other suppliers. This could result in a significant increase in manufacturing costs, loss of revenue or damage to customer relationships, any of which could have a material adverse effect on our business.

***We rely on a number of third-party providers for data center hosting facilities, equipment, maintenance and other services, and the loss of, or problems with, one or more of these providers may impede our growth or cause us to lose customers.***

We rely on third-party providers to supply data center hosting facilities, equipment, maintenance and other services in order to enable us to provide some of our services and have entered into various agreements for such services. The continuous availability of our services depends on the operations of those facilities, on a variety of network service providers and on third-party vendors. In addition, we depend on our third-party facility providers' ability to protect these facilities against damage or interruption from natural disasters, power or telecommunications failures, criminal acts, cyber-attacks and similar events. If there are any lapses of service or damage to a facility, we could experience lengthy interruptions in our service, as well as delays and additional expenses in arranging new facilities and services. Even with current and planned disaster recovery arrangements, our business could be harmed. Any interruptions or delays in our service, whether as a result of third-party error, our own error, natural disasters, criminal acts, security breaches or other causes, whether accidental or willful, could harm our relationships with customers, harm our reputation and cause our revenue to decrease and/or our expenses to increase. Also, in the event of damage or interruption, our insurance policies may not adequately compensate us for any losses that we may incur. These factors in turn could further reduce our revenue, subject us to liability and cause us to issue credits or cause us to lose customers, any of which could materially adversely affect our business.

***Certain software and/or IP blocks that we use in or with some of our products are licensed from third parties and, for that reason, may not be available to us in the future; this has the potential to delay product development and production or cause us to incur additional expense, which could materially adversely affect our business, financial condition, operating results and cash flow.***

Some of our products and services contain or function with software and/or IP blocks licensed from third parties. Some of these licenses may not be available to us in the future on terms that are acceptable to us or allow our products to remain competitive. The loss of these licenses or the inability to maintain any of them on commercially acceptable terms could delay development of future offerings or the enhancement of existing products and services. We may also choose to pay a premium price for such a license in certain circumstances where continuity of the licensed product would outweigh the premium cost of the license. The unavailability of these licenses or the necessity of agreeing to commercially unreasonable terms for such licenses could materially adversely affect our business, financial condition, operating results and cash flow.

**Risks Associated with Our Business Operations**

***Our business and operations could suffer in the event of physical and cybersecurity breaches and incidents.***

Attempts by others to gain unauthorized access to and disrupt our information technology systems are becoming more sophisticated. These attempts, which might be related to industrial or other espionage, may include covertly introducing malware to our computers and networks (or those of our customers) and impersonating authorized users, phishing attempts and other forms of social engineering, employee or contractor malfeasance, denial of service attacks and ransomware attacks, among others. We seek to detect and investigate all security incidents impacting our systems and to prevent their recurrence, but in some cases, we might be unaware of an incident or its magnitude and effects. We also utilize third-party service providers to host, transmit or otherwise process electronic data in connection with our business activities, including our supply chain processes, operations and communications. Our customers also often have access to and host our confidential IP and business information on their own internal and directed third-party systems. We, our customers, and/or our third-party service providers have faced and may continue to face security threats and attacks from a variety of sources. Our data, corporate systems, third-party systems and security measures and those of our customers or the third parties that support us or our services may be subject to breaches or intrusions due to the actions of outside parties, employee error, malfeasance, a combination of these or otherwise, including social engineering and employee and contractor error or malfeasance, especially as certain of our

employees engage in work from home arrangements, and, as a result, an unauthorized party may obtain access to our systems, networks or data, including IP and confidential business information of ourselves and our customers. There have been and may continue to be significant supply chain attacks, and we cannot guarantee that our or our third-party service providers' systems and networks have not been breached or that they do not contain exploitable defects or bugs that could result in a breach of or disruption to our systems and networks or the systems and networks of our customers or of third parties that support us and our services. Geopolitical tensions, instability and conflicts may increase the cybersecurity risks that we, our customers, and the third parties that support us face. We and our service providers may face difficulties or delays in identifying or responding to any actual or perceived security breach or incident. The theft or other unauthorized acquisition of, unauthorized use, publication or other processing of or access to our IP and/or confidential business information could harm our competitive position and reputation, reduce the value of our investment in research and development and other strategic initiatives or otherwise adversely affect our business. In the event of any security breach or incident, including any breach or incident that results in inappropriate access to, or loss, corruption, unavailability or unauthorized acquisition, disclosure or other processing of our or our customers' confidential information or any personal information we or our third-party service providers maintain, including that of our employees, we could suffer a loss of IP or loss of data, may be subject to claims, liability and proceedings and may incur liability and otherwise suffer financial harm.

Any actual, alleged or perceived breach of security in our systems or networks, or any other actual, alleged or perceived data security incident we or our third-party service providers or customers suffer, could result in damage to our reputation, negative publicity, loss of customers and sales, harm to our market position, increased costs to remedy any problems and otherwise respond to any incident, regulatory investigations and enforcement actions, claims, litigation, proceedings and other liability. In addition, we may incur significant costs and operational consequences of investigating, remediating, eliminating and putting in place additional tools and devices designed to prevent actual or perceived security breaches and other security incidents, as well as the costs to comply with any notification or other legal obligations resulting from any security incidents. Any of these negative outcomes could result in substantial costs and diversion of resources, distract management and technical personnel, adversely impact our sales and reputation and seriously harm our business or operating results.

Although we maintain insurance coverage that may cover certain liabilities in connection with some security breaches and other security incidents, we cannot be certain our insurance coverage will be adequate for liabilities actually incurred, that insurance will continue to be available to us on commercially reasonable terms (if at all) or that any insurer will not deny coverage as to any future claim. The successful assertion of one or more large claims against us that exceed available insurance coverage, the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, or denials of coverage, could have a material adverse effect on our business, including our financial condition, results of operations and reputation.

***Failures in our products and services or in the products of our customers, including those resulting from security vulnerabilities, defects, bugs or errors, could harm our business.***

Our products and services are highly technical and complex, and among our various businesses our products and services are crucial to providing security and other critical functions for our customers' operations. Our products and services have from time to time contained and may in the future contain undetected errors, bugs, defects or other security vulnerabilities. Some errors in our products and services may only be discovered after a product or service has been deployed and used by customers and may in some cases only be detected under certain circumstances or after extended use. In addition, because the techniques used by hackers to access or sabotage our products and services and other technologies change and evolve frequently and generally are not recognized until launched against a target, we may be unable to anticipate, detect or prevent these techniques and may not address them in our data security technologies. Any errors, bugs, defects or security vulnerabilities discovered in our solutions after commercial release could adversely affect our revenue, our customer relationships and the market's perception of our products and services. We may not be able to correct any errors, bugs, defects, security flaws or vulnerabilities promptly or at all. Any breaches, defects, errors or vulnerabilities in our products and services could result in:

- expenditure of significant financial and research and development resources in efforts to analyze, correct, eliminate or work around breaches, errors, bugs or defects or to address and eliminate vulnerabilities;
- financial liability to customers for breach of certain contract provisions, including indemnification obligations;
- loss of existing or potential customers;
- product shipment restrictions or prohibitions to certain customers;
- delayed or lost revenue;
- delay or failure to attain market acceptance;
- negative publicity, which would harm our reputation; and
- litigation, regulatory inquiries or investigations that would be costly and harm our reputation.

***Changes in accounting principles and guidance could result in unfavorable accounting charges or effects.***

We prepare our financial statements in accordance with accounting principles generally accepted in the United States and these principles are subject to interpretation by the SEC, the Financial Accounting Standards Board ("FASB") and various bodies formed to interpret and create appropriate accounting principles and guidance. A change in these principles or application guidance, or in their interpretations, may have a material effect on our reported results, as well as our processes and related controls, and may retroactively affect previously reported results.

***We have in the past made and may in the future make acquisitions or enter into mergers, strategic investments, sales of assets, divestitures or other arrangements that may not produce expected operational benefits or operating and financial results.***

From time to time, we engage in acquisitions, strategic transactions, strategic investments, divestitures and potential discussions with respect thereto. For example, we acquired Hardent, Inc. in May 2022. We also divested our PHY IP group in September 2023. Many of our acquisitions or strategic investments entail a high degree of risk, including those involving new areas of technology and such investments may not become accretive for several years after the date of the investment, if at all. Our acquisitions or strategic investments may not provide the advantages that we anticipated or generate the financial returns we expect, including if we are unable to close any pending acquisitions. For example, for any pending or completed acquisitions, we may discover unidentified issues not discovered in due diligence, and we may be subject to regulatory approvals or liabilities that are not covered by indemnification protection or become subject to litigation.

Achieving the anticipated benefits of business acquisitions depends in part upon our ability to integrate the acquired businesses in an efficient and effective manner and achieve anticipated synergies, and we may not be successful in these efforts. The integration of companies that have previously operated independently is complex and time consuming and may result in significant challenges, including, among others: retaining key employees; successfully integrating new employees, facilities, products, processes, operations, business models and systems, technology and sales and distribution channels; retaining customers and suppliers of the acquired business; minimizing the diversion of management's and other employees' attention from ongoing business matters; coordinating geographically separate organizations; consolidating research and development operations; consolidating corporate and administrative infrastructures; implementing controls, processes and policies appropriate for a public company at acquired companies that may have previously lacked such controls, processes and policies; and managing the increased scale, complexity and globalization of our business, operations and employee base.

Additional risks related to our acquisitions or strategic investments include, but are not limited to:

- difficulty in combining the technology, products or operations of the acquired business with our business;
- difficulty in integrating and retaining the acquired workforce, including key employees;
- diversion of capital and other resources, including management's attention;
- assumption of liabilities and incurring amortization expenses, impairment charges to goodwill or write-downs of acquired assets;
- integrating financial forecasting and controls, procedures and reporting cycles;
- coordinating and integrating operations in countries in which we have not previously operated;
- acquiring business challenges and risks, including, but not limited to, disputes with management and integrating international operations and joint ventures;
- difficulty in realizing a satisfactory return, if any return at all;
- difficulty in obtaining or inability to obtain governmental and regulatory consents and approvals, other approvals or financing;
- the potential impact of complying with governmental or other regulatory restrictions placed on an acquisition;
- the potential impact on our stock price and financial results if we are unable to obtain regulatory approval for an acquisition, are required to pay reverse breakup fees or are otherwise unable to close an acquisition;
- failure and costs associated with the failure to consummate a proposed acquisition or other strategic investment;
- legal proceedings initiated as a result of an acquisition or investment;
- the potential for our acquisitions to result in dilutive issuances of our equity securities;
- the potential variability of the amount and form of any performance-based consideration;
- uncertainties and time needed to realize the benefits of an acquisition or strategic investment, if at all;
- negative changes in general economic conditions in the regions or the industries in which we or our acquired business operate;

- the need to determine an alternative strategy if an acquisition or strategic investment does not meet our expectations;
- potential failure of our due diligence processes to identify significant issues with the acquired assets or company; and
- impairment of relationships with, or loss of our acquired business' employees, vendors and customers, as a result of our acquisition or investment.

Our strategic investments in new areas of technology may involve significant risks and uncertainties, including distraction of management from current operations, greater than expected liabilities and expenses, inadequate return of capital and unidentified issues not discovered in due diligence. These investments are inherently risky and may not be successful.

In addition, we may record impairment charges related to our acquisitions or strategic investments. Any losses or impairment charges that we incur related to acquisitions, strategic investments or sales of assets will have a negative impact on our financial results and the market value of our common stock, and we may continue to incur new or additional losses related to acquisitions or strategic investments.

We may have to incur debt or issue equity securities to pay for any future acquisitions, which debt could involve restrictive covenants or which equity security issuance could be dilutive to our existing stockholders. We may also use cash to pay for any future acquisitions which will reduce our cash balance.

From time to time, we may also divest certain assets. These divestitures or proposed divestitures may involve the loss of revenue and/or potential customers, and the market for the associated assets may dictate that we sell such assets for less than what we paid. In addition, in connection with any asset sales or divestitures, we may be required to provide certain representations, warranties, licenses and/or covenants to buyers. While we would seek to ensure the accuracy of such representations and warranties and fulfillment of any ongoing obligations, we may not be completely successful and consequently may be subject to claims by a purchaser of such assets or related erosion of revenue or loss of customers.

***If our counterparties are unable to fulfill their financial and other obligations to us, our business and results of operations may be affected adversely.***

Any downturn in economic conditions or other business factors could threaten the financial health of our counterparties, including companies with which we have entered into licensing, asset/product sale and/or settlement agreements, and their ability to fulfill their financial and other obligations to us. Such financial pressures on our counterparties may eventually lead to bankruptcy proceedings or other attempts to avoid financial obligations that are due to us. Because bankruptcy courts have the power to modify or cancel contracts of the petitioner which remain subject to future performance and alter or discharge payment obligations related to pre-petition debts, we may receive less than all of the payments that we would otherwise be entitled to receive from any such counterparty as a result of bankruptcy proceedings.

***If we are unable to attract and retain qualified personnel globally, our business and operations could suffer.***

Our success is dependent upon our ability to identify, attract, compensate, motivate and retain qualified personnel, especially engineers, senior management and other key personnel. The loss of the services of any key employees could be disruptive to our development efforts, business relationships and strategy and could cause our business and operations to suffer.

All of our officers and other U.S. employees are at-will employees, which means they may terminate their employment relationship with us at any time, and their knowledge of our business and industry would be extremely difficult to replace. Any changes in our senior management team in particular, even in the ordinary course of business, may be disruptive to our business. While we seek to manage these transitions carefully, including by establishing strong processes and procedures and succession planning, such changes may result in a loss of institutional knowledge and cause disruptions to our business. If our senior management team fails to work together effectively or execute our plans and strategies on a timely basis as a result of management turnover or otherwise, our business could be harmed.

Our future success depends in large part upon the continued service and enhancement of our management team and our employees. If there are unexpected changes in management, such changes could be disruptive and could negatively affect our sales, operations, culture, future recruiting efforts and strategic direction. Competition for qualified executives is intense, and if we are unable to compensate our key talent appropriately and continue expanding our management team, or successfully integrate new additions to our management team in a manner that enables us to scale our business and operations effectively, our ability to operate effectively and efficiently could be limited or negatively impacted. In addition, changes in key management positions may temporarily affect our financial performance and results of operations as new management becomes familiar with our business, processes and strategy. The loss of any of our key personnel, or our inability to attract, integrate and retain qualified employees who join us organically and through acquisitions, could require us to dedicate significant financial and other resources to such personnel matters, disrupt our operations and seriously harm our operations and business.

***Our operations are subject to risks of natural disasters, acts of war, terrorism, widespread illness or security breaches or incidents at our domestic and international locations, any one of which could result in a business stoppage and negatively affect our operating results.***

Our business operations depend on our ability to maintain and protect our facilities, computer systems and personnel, which are primarily located in the San Francisco Bay Area in the United States, Bulgaria, Canada, France, India, the Netherlands, South Korea, and Taiwan. The San Francisco Bay Area is in close proximity to known earthquake fault zones and sites of recent historic wildfires. Our facilities and transportation for our employees are susceptible to damage from earthquakes and other natural disasters such as fires, floods, droughts, extreme temperatures and similar events. Should a catastrophe disable our facilities, we do not have readily available alternative facilities from which we could conduct our business, so any resultant work stoppage could have a negative effect on our operating results. We also rely on our network infrastructure and technology systems for operational support and business activities which are subject to physical and cyber damage, and also susceptible to other related vulnerabilities common to networks and computer systems.

New epidemics, pandemics or outbreaks of novel diseases may arise at any time, and may adversely affect the economies and financial markets of many countries, resulting in an economic downturn that may impact overall technology spending, demand for our products and our operating results. Furthermore, such disruption in the global financial markets may reduce our ability to access capital or our customers' ability to pay us for past or future purchases, which could negatively affect our liquidity.

We and our suppliers could be affected by laws and regulations enacted in response to concerns regarding climate change, conflict minerals, responsible sourcing practices, public health crises, contagious disease outbreaks or other matters, which could limit the supply of our materials and/or increase the cost. Environmental regulations could limit our ability to procure or use certain chemicals or materials in our operations or products. In addition, disruptions in transportation lines could delay our receipt of materials.

Acts of terrorism, climate-change related risk, widespread illness or global pandemics, international conflict, war and any event that causes failures or interruption in our network infrastructure and technology systems could have a negative effect at our international and domestic facilities and could harm our business, financial condition and operating results.

***We rely upon the accuracy of our customers' recordkeeping, and any inaccuracies or payment disputes for amounts owed to us under our licensing agreements may harm our results of operations.***

Many of our license agreements require our customers to document the manufacture and sale of products that incorporate our technology and report this data to us on a quarterly basis. While licenses with such terms give us the right to audit books and records of our customers to verify this information, audits rarely are undertaken because they can be expensive, time consuming and potentially detrimental to our ongoing business relationship with our customers. Therefore, we typically rely on the accuracy of the reports from customers without independently verifying the information in them. Our failure to audit our customers' books and records may result in our receiving more or less royalty revenue than we are entitled to under the terms of our license agreements. If we conduct royalty audits in the future, such audits may trigger disagreements over contract terms with our customers and such disagreements could hamper customer relations, divert the efforts and attention of our management from normal operations and impact our business operations and financial condition.

***Our business and operating results could be harmed if we undertake any restructuring activities.***

From time to time, we may undertake restructurings of our business, including discontinuing certain products, services and technologies and planned reductions in force. There are several factors that could cause restructurings to have adverse effects on our business, financial condition and results of operations. These include potential disruption of our operations, the development of our technology, the deliveries to our customers and other aspects of our business. Loss of sales, service and engineering talent, in particular, could damage our business. Any restructuring would require substantial management time and attention and may divert management from other important work. Employee reductions or other restructuring activities also would cause us to incur restructuring and related expenses such as severance expenses. Moreover, we could encounter delays in executing any restructuring plans, which could cause further disruption and additional unanticipated expense.

***Problems with our information systems could interfere with our business and could adversely impact our operations.***

We rely on our information systems and those of third parties for fulfilling licensing and contractual obligations, processing customer orders, delivering products, providing services and support to our customers, billing and tracking our customer orders, performing accounting operations and otherwise running our business. If our systems fail, our disaster and data recovery planning and capacity may prove insufficient to enable timely recovery of important functions and business records. Any disruption in our information systems and those of the third parties upon whom we rely could have a significant impact on our business. Additionally, our information systems may not support new business models and initiatives and significant

investments could be required in order to upgrade them. Delays in adapting our information systems to address new business models and accounting standards could limit the success or result in the failure of such initiatives and impair the effectiveness of our internal controls. Even if we do not encounter these adverse effects, the implementation of these enhancements may be much more costly than we anticipated. If we are unable to successfully implement the information systems enhancements as planned, our operating results could be negatively impacted.

***Certain software we use is from open source code sources, which, under certain circumstances, may lead to unintended consequences and therefore could materially adversely affect our business, financial condition, operating results and cash flow.***

We use open source software in our services and we intend to continue to use open source software in the future. From time to time, there have been claims challenging the ownership of open source software against companies that incorporate open source software into their products or alleging that these companies have violated the terms of an open source license. As a result, we could be subject to lawsuits by parties claiming ownership of what we believe to be open source software or alleging that we have violated the terms of an open source license. Litigation could be costly for us to defend, have a negative effect on our operating results and financial condition or require us to devote additional research and development resources to change our solutions. In addition, if we were to combine our proprietary software solutions with open source software in certain manners, we could, under certain open source licenses, be required to publicly release the source code of our proprietary software solutions. If we inappropriately use open source software, we may be required to re-engineer our solutions, discontinue the sale of our solutions, release the source code of our proprietary software to the public at no cost or take other remedial actions. There is a risk that open source licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our solutions, which could adversely affect our business, operating results and financial condition.

***In the future, we may fail to maintain an effective system of internal control over financial reporting or adequate disclosure controls and procedures, which may result in material misstatements of our consolidated financial statements or cause us to fail to meet our periodic reporting obligations.***

If we are not able to comply with the requirements of the Sarbanes-Oxley Act or if we are unable to maintain effective internal control over financial reporting and disclosure controls and procedures, we may not be able to produce timely and accurate financial statements or guarantee that information required to be disclosed by us in the reports that we file with the SEC is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms. Any failure of our internal control over financial reporting or disclosure controls and procedures could result in material misstatements of our consolidated financial statements, which could cause our investors to lose confidence in our publicly reported information, cause the market price of our stock to decline, expose us to sanctions or investigations by the SEC or other regulatory authorities, or impact our results of operations.

***Unanticipated changes in our tax rates or in the tax laws, treaties and regulations could expose us to additional income tax liabilities, which could affect our operating results and financial condition.***

We are subject to income taxes in both the United States and various foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes and, in the ordinary course of business, there are many transactions and calculations where the ultimate tax determination is uncertain. Our effective tax rate could be adversely affected by several factors, many of which are outside of our control, including changes in the mix of earnings and losses in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, changes in tax laws, rates, treaties and regulations or the interpretation of the same, changes to the financial accounting rules for income taxes, the outcome of current and future tax audits, examinations or administrative appeals and certain non-deductible expenses. Our tax determinations are regularly subject to audit by tax authorities and developments in those audits could adversely affect our income tax provision, and we are currently undergoing such audits of certain of our tax returns. Although we believe that our tax estimates are reasonable, the final determination of tax audits or tax disputes may be different from what is reflected in our historical income tax provisions, which could affect our operating results.

The Organization for Economic Cooperation and Development has proposed imposing a 15% global minimum tax, and this proposal has been adopted or is being considered by a number of countries. The Inflation Reduction Act, among other changes, imposes a 1% excise tax on certain stock repurchases and a 15% alternative minimum tax on adjusted financial statement income. If we are subject to additional tax liabilities, our financial performance may be adversely affected. In addition, many jurisdictions are actively considering changes to existing tax laws or have proposed or enacted new laws that could increase our tax obligations in countries where we do business or cause us to change the way we operate our business. Any of these developments or changes in U.S. federal, state or international tax laws or tax rulings could adversely affect our effective tax rate and our operating results.

**Risks Associated with Litigation, Regulation and Our Intellectual Property**

***We are subject to various government restrictions and regulations, including on the sale of products and services that use encryption and other technology, those related to privacy, other consumer protection matters, other import/export controls and national security matters.***

Various countries have adopted controls, license requirements and restrictions on the export, import and use of products or services that contain encryption technology. In addition, governmental agencies have proposed additional requirements for encryption technology, such as requiring the escrow and governmental recovery of private encryption keys. Restrictions on the sale or distribution of products or services containing encryption technology may impact our ability to license data security technologies to the manufacturers and providers of such products and services in certain markets or may require us or our customers to make changes to the licensed data security technology that is embedded in such products to comply with such restrictions. Government restrictions, or changes to the products or services of our customers to comply with such restrictions, could delay or prevent the acceptance and use of such customers' products and services. In addition, the United States and other countries have imposed export controls that prohibit the export of encryption and other technology to certain countries, entities and individuals. Our failure to comply with export and use regulations concerning encryption technology could subject us to sanctions and penalties, including fines, and suspension or revocation of export or import privileges. Additionally, climate change concerns and the potential resulting environmental impact may result in new environmental, health and safety laws and regulations that may affect us, our suppliers and our customers. Such laws or regulations could cause us to incur additional direct costs for compliance, as well as increased indirect costs resulting from our customers, suppliers or both incurring additional compliance costs that are passed on to us. These costs may adversely impact our results of operations and financial condition.

We are subject to a variety of laws and regulations in the United States, the European Union and other countries that involve, for example, user privacy, data protection and security, content and consumer protection. Privacy and data protection regimes implemented in the European Union, the United Kingdom, California and other jurisdictions have been enacted that include penalties for noncompliance that potentially could run into the tens of millions of dollars. Other jurisdictions, including numerous states, countries and the U.S. federal government, are also contemplating such legislation. Existing and potential future laws and regulations relating to these matters may require us to modify our practices with respect to the collection, use, disclosure and other processing of data. Existing and proposed laws and regulations relating to these matters can be costly and challenging to comply with and can delay or impede the development of new products, result in negative publicity, increase our operating costs and subject us to claims or other remedies.

We are subject to disclosure and reporting requirements for companies that use "conflict" minerals mined from the Democratic Republic of Congo and adjoining countries in their products, whether or not these products are manufactured by third parties. These requirements could affect the sourcing and availability of minerals that are used in the manufacture of our products. We have to date incurred costs and expect to incur significant additional costs associated with complying with the disclosure requirements, including for example, due diligence in regard to the sources of any conflict minerals used in our products, in addition to the cost of remediation and other changes to products, processes or sources of supply as a consequence of such verification activities. Additionally, we may face reputational challenges with our customers and other stakeholders if we are unable to sufficiently verify the origins of all minerals used in our products through the due diligence procedures that we implement. We may also face challenges with government regulators and our customers and suppliers if we are unable to sufficiently verify that the metals used in our products are conflict free.

***Litigation and government proceedings could affect our business in materially negative ways.***

We have been and may be subject to legal claims or regulatory matters involving consumer, stockholder class action and derivative, employment, competition, IP and other issues on a global basis. Litigation, such as we experienced in our history, can be lengthy, expensive and disruptive to our operations, and results cannot be predicted with certainty. An adverse decision could include monetary damages or, in cases for which injunctive relief is sought, an injunction prohibiting us from manufacturing or selling one or more of our products or technologies. If we were to receive an unfavorable ruling on a matter, our business, operating results or financial condition could be materially harmed.

***We have in the past, and may in the future, become engaged in litigation stemming from our efforts to protect and enforce our patents and IP and make other claims, which could adversely affect our IP rights, distract our management and cause substantial expenses and declines in our revenue and stock price.***

We seek to diligently protect our IP rights and will continue to do so. While we are not currently involved in IP litigation, any future litigation, whether or not determined in our favor or settled by us, would be expected to be costly, may cause delays applicable to our business (including delays in negotiating licenses with other actual or potential customers), would be expected to discourage future design partners, would tend to impair adoption of our existing technologies and would divert the efforts

and attention of our management and technical personnel from other business operations. In addition, we may be unsuccessful in any litigation if we have difficulty obtaining the cooperation of former employees and agents who were involved in our business during the relevant periods related to our litigation and are now needed to assist in cases or testify on our behalf. Furthermore, any adverse determination or other resolution in litigation could result in our losing certain rights beyond the rights at issue in a particular case, including, among other things: our being effectively barred from suing others for violating certain or all of our IP rights; our patents being held invalid or unenforceable or not infringed; our being subjected to significant liabilities; our being required to seek licenses from third parties; our being prevented from licensing our patented technology; or our being required to renegotiate with current customers on a temporary or permanent basis.

***From time to time, we are subject to proceedings by government agencies that may result in adverse determinations against us and could cause our revenue to decline substantially.***

An adverse resolution by or with a governmental agency could result in severe limitations on our ability to protect and license our IP and could cause our revenue to decline substantially. Third parties have and may attempt to use adverse findings by a government agency to limit our ability to enforce or license our patents in private litigation, to challenge or otherwise act against us with respect to such government agency proceedings.

Further, third parties have sought and may seek review and reconsideration of the patentability of inventions claimed in certain of our patents by the U.S. Patent and Trademark Office ("USPTO") and/or the European Patent Office (the "EPO"). Any re-examination or inter partes review proceedings may be initiated by the USPTO's Patent Trial and Appeal Board ("PTAB"). The PTAB and the related former Board of Patent Appeals and Interferences have previously issued decisions in a few cases, finding some challenged claims of our patents to be valid and others to be invalid. Decisions of the PTAB are subject to further USPTO proceedings and/or appeal to the Court of Appeals for the Federal Circuit. A final adverse decision, not subject to further review and/or appeal, could invalidate some or all of the challenged patent claims and could also result in additional adverse consequences affecting other related U.S. or European patents, including in any IP litigation. If a significant number of such patents are impaired, our ability to enforce or license our IP would be significantly weakened and could cause our revenue to decline substantially.

The pendency of any governmental agency acting as described above may impair our ability to enforce or license our patents or collect royalties from existing or potential customers, as any litigation opponents may attempt to use such proceedings to delay or otherwise impair any pending cases and our existing or potential customers may await the final outcome of any proceedings before agreeing to new licenses or to paying royalties.

***Litigation or other third-party claims of IP infringement could require us to expend substantial resources and could prevent us from developing or licensing our technology on a cost-effective basis.***

Our research and development and product programs are in highly competitive fields in which numerous third parties have issued patents and patent applications with claims closely related to the subject matter of our programs. We and/or our customers may be named as a defendant in lawsuits claiming that our technology infringes upon the IP rights of third parties. As we develop additional products and technology, we may face claims of infringement of various patents and other IP rights by third parties. In the event of a third-party claim or a successful infringement action against us, we may be required to pay substantial damages, to stop developing and licensing our infringing technology, to develop non-infringing technology and to obtain licenses, which could result in our paying substantial royalties or our granting of cross licenses to our technologies. We may not be able to obtain licenses from other parties at a reasonable cost, or at all, which could cause us to expend substantial resources, or result in delays in, or the cancellation of, new products. Moreover, customers and/or suppliers of our products may seek indemnification for alleged infringement of IP rights. We could be liable for direct and consequential damages and expenses including attorneys' fees. A future obligation to indemnify our customers and/or suppliers may harm our business, financial condition and operating results.

***If we are unable to protect our inventions successfully through the issuance and enforcement of patents, our operating results could be adversely affected.***

We have an active program to protect our proprietary inventions through the filing of patents. There can be no assurance, however, that:

- any current or future U.S. or foreign patent applications will be approved and not be challenged by third parties;
- our issued patents will protect our IP and not be challenged by third parties;
- the validity of our patents will be upheld;
- our patents will not be declared unenforceable;
- the patents of others will not have an adverse effect on our ability to do business;

- Congress or the U.S. courts or foreign countries will not change the nature or scope of rights afforded patents or patent owners or alter in an adverse way the process for seeking or enforcing patents;
- changes in law will not be implemented, or changes in interpretation of such laws will occur, that will affect our ability to license, protect and/or enforce our patents and other IP;
- new legal theories and strategies utilized by our competitors will not be successful;
- others will not independently develop similar or competing chip interfaces or design around any patents that may be issued to us; or
- factors such as difficulty in obtaining cooperation from inventors, pre-existing challenges or litigation or license or other contract issues will not present additional challenges in securing protection with respect to patents and other IP that we acquire.

If any of the above were to occur, our operating results could be adversely affected.

Furthermore, patent reform legislation, such as the Leahy-Smith America Invents Act, could increase the uncertainties and costs surrounding the prosecution of any patent applications and the enforcement or defense of our licensed patents. The federal courts, the USPTO, the Federal Trade Commission, and the U.S. International Trade Commission have also recently taken certain actions and issued rulings that have been viewed as unfavorable to patentees. While we cannot predict what form any new patent reform laws or regulations may ultimately take, or what impact recent or future reforms may have on our business, any laws or regulations that restrict or negatively impact our ability to enforce our patent rights against third parties could have a material adverse effect on our business.

In addition, our patents will continue to expire according to their terms, with expected expiration dates ranging from 2025 to 2043. Our failure to continuously develop or acquire successful innovations and obtain patents on those innovations could significantly harm our business, financial condition, results of operations, or cash flows.

***Our inability to protect the IP we create and own would cause our business to suffer.***

We rely primarily on a combination of license, development and nondisclosure agreements, trademark, trade secret and copyright law and contractual provisions to protect our non-patentable IP rights. If we fail to protect these IP rights, our customers and others may seek to use our technology without the payment of license fees and royalties, which could weaken our competitive position, reduce our operating results and increase the likelihood of costly litigation. The growth of our business depends in part on the use of our IP in the products of third-party manufacturers, and our ability to enforce IP rights against them to obtain appropriate compensation. In addition, effective trade secret protection may be unavailable or limited in certain foreign countries. Although we intend to protect our rights vigorously, if we fail or are otherwise unable to do so, our business will suffer.

Effective protection of trademarks, copyrights, domain names, patent rights and other IP rights is expensive and difficult to maintain, both in terms of application and maintenance costs, as well as the costs of defending and enforcing those rights. The efforts we have taken to protect our IP rights may not be sufficient or effective. Our IP rights may be infringed, misappropriated or challenged, which could result in them being narrowed in scope or declared invalid or unenforceable. In addition, the laws or practices of certain countries do not protect our proprietary rights to the same extent as do the laws of the United States. Significant impairments of our IP rights, and limitations on our ability to assert our IP rights against others, could have a material and adverse effect on our business.

***Third parties may claim that our products or services infringe on their IP rights, exposing us to litigation that, regardless of merit, may be costly to defend.***

Our success and ability to compete are also dependent upon our ability to operate without infringing upon the patent, trademark and other IP rights of others. Third parties may claim that our current or future products or services infringe upon their IP rights. Defense of any such claim, with or without merit, could be time consuming, divert management's attention from our business operations and result in significant expenses. We cannot assure you that we would be successful in defending against any such claims. In addition, parties making these claims may be able to obtain injunctive or other equitable relief affecting our ability to commercialize the products that incorporate the challenged IP. As a result of such claims, we may be required to obtain licenses from third parties, develop alternative technology or redesign our products. We cannot be sure that such licenses would be available on terms acceptable to us, if at all. We also may not have sufficient indemnification from our applicable vendors, if any. If a successful claim is made against us and we are unable to develop or license alternative technology, our business, financial condition, operating results and cash flows could be materially adversely affected.

***Any dispute regarding our products or services may require us to indemnify certain customers, the cost of which could severely hamper our business operations and financial condition.***

In any potential dispute involving our products, our customers could also become the target of litigation. Some of our agreements provide for indemnification, and some require us to provide technical support and information to a customer that is involved in litigation involving use of our technology. In addition, we may be exposed to indemnification obligations, risks and liabilities that were unknown at the time that we acquired assets or businesses for our operations. Any of these indemnification and support obligations could result in substantial and material expenses. In addition to the time and expense required for us to indemnify or supply such support to our customers, a customer's development, marketing and sales of licensed semiconductors, mobile communications and data security technologies could be severely disrupted or shut down as a result of litigation, which in turn could severely hamper our business operations and financial condition as a result of lower or no royalty payments.

***Warranty, service level agreement and product liability claims brought against us could cause us to incur significant costs and adversely affect our operating results, as well as our reputation and relationships with customers.***

We may from time to time be subject to warranty, service level agreement and product liability claims with regard to product performance and our services. We could incur material losses as a result of warranty, support, repair or replacement costs in response to customer complaints or in connection with the resolution of contemplated or actual legal proceedings relating to such claims. In addition to potential losses arising from claims and related legal proceedings, warranty and product liability claims could affect our reputation and our relationship with customers. We also may not have sufficient indemnification from our applicable vendors, if any. We generally attempt to limit the maximum amount of indemnification or liability that we could be exposed to under our contracts, however, this is not always possible.

***Participation in standards setting organizations may subject us to IP licensing requirements or limitations that could adversely affect our business and prospects.***

In the course of our participation in the development of emerging standards for some of our present and future products, we may be obligated to grant to all other participants a license to our patents that are essential to the practice of those standards on reasonable and non-discriminatory, or RAND, terms, or on a royalty-free basis. As a result of such obligations, we may be required to license our patents or other IP to others in the future, which could limit the value of the patents and effectiveness of our patents against competitors.

**Risks Associated with Capitalization Matters**

***The price of our common stock may continue to fluctuate.***

Our common stock is listed on The Nasdaq Global Select Market under the symbol "RMBS." The trading price of our common stock has at times experienced price volatility and may continue to fluctuate significantly in response to various factors, some of which are beyond our control. Some of these factors include:

- any progress, or lack of progress, real or perceived, in the development of products that incorporate our innovations and technology companies' acceptance of our products, including the results of our efforts to expand into new target markets;
- our signing or not signing new licenses or renewing existing licenses, and the loss of strategic relationships with any customer;
- announcements of technological innovations or new products by us, our customers or our competitors;
- changes in our strategies, including changes in our licensing focus and/or acquisitions or dispositions of companies or businesses with business models or target markets different from our core;
- changes in macroeconomic conditions, increased risk of recession and geopolitical issues, including the effects of tensions between China and Taiwan, and potentially in Israel and the Middle East;
- positive or negative reports by securities analysts as to our expected financial results and business developments;
- developments with respect to patents or proprietary rights and other events or factors;
- new litigation and the unpredictability of litigation results or settlements;
- repurchases of our common stock on the open market;
- issuance of additional securities by us, including in acquisitions, or large cash payments, including in acquisitions; and
- changes in accounting pronouncements.

In addition, the stock market in general, and prices for companies in our industry in particular, have experienced extreme volatility that often has been unrelated to the operating performance of such companies. The trading price of our common stock may fluctuate widely due to various factors, including, but not limited to, actual or anticipated fluctuations in our financial condition and operating results, changes in financial forecasts or estimates by us or financial or other market estimates and ratings by securities and other analysts, changes in our capital structure, including issuance of additional debt or equity to the public, interest rate changes, regulatory changes, news regarding our products or products of our competitors and broad market and industry fluctuations.

Investors in our common stock may not realize any return on their investment in us and may lose some or all of their investment. Volatility in the trading price of our common stock could also result in the filing of securities class action litigation matters, which could result in substantial costs and the diversion of management time and resources.

***Compliance with changing regulation of corporate governance and public disclosure may result in additional expenses.***

Changing laws, regulations and standards relating to corporate governance and public disclosure have historically created uncertainty for companies such as ours. Any new or changed laws, regulations and standards are subject to varying interpretations due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

***Our amended and restated certificate of incorporation and amended and restated bylaws, Delaware law, and certain other agreements contain provisions that could discourage transactions resulting in a change in control, which may negatively affect the market price of our common stock.***

Our amended and restated certificate of incorporation, our amended and restated bylaws and Delaware law contain provisions that might enable our management to discourage, delay or prevent a change in control. In addition, these provisions could limit the price that investors would be willing to pay in the future for shares of our common stock. Pursuant to such provisions:

- our board of directors is authorized, without prior stockholder approval, to create and issue preferred stock, commonly referred to as "blank check" preferred stock, with rights senior to those of common stock, which means that a stockholder rights plan could be implemented by our board;
- our board of directors is staggered into two classes, only one of which is elected at each annual meeting;
- stockholder action by written consent is prohibited;

- nominations for election to our board of directors and the submission of matters to be acted upon by stockholders at a meeting are subject to advance notice requirements, including compliance with the "universal proxy rules" under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings;
- certain provisions in our amended and restated certificate of incorporation and amended and restated bylaws, such as notice to stockholders, the ability to call a stockholder meeting, advance notice requirements and action of stockholders by written consent may only be amended with the approval of stockholders holding 66 2/3% of our outstanding voting stock;
- our stockholders have no authority to call special meetings of stockholders; and
- our board of directors is expressly authorized to make, alter or repeal our bylaws.

We are also subject to Section 203 of the Delaware General Corporation Law, which provides, subject to enumerated exceptions, that if a person acquires 15% or more of our outstanding voting stock, the person is an "interested stockholder" and may not engage in any "business combination" with us for a period of three years from the time the person acquired 15% or more of our outstanding voting stock.

***Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware and the federal district courts of the United States will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.***

Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another state court in Delaware or the federal district court for the District of Delaware) is the exclusive forum for the following (except for any claim as to which such court determines that there is an indispensable party not subject to the jurisdiction of such court (and the indispensable party does not consent to the personal jurisdiction of such court within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than such court or for which such court does not have subject matter jurisdiction):

- any derivative action or proceeding brought on behalf of us;
- any action asserting a claim of breach of a fiduciary duty;
- any action asserting a claim against us arising under the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws (as either may be amended from time to time); and
- any action asserting a claim against us that is governed by the internal affairs doctrine.

This provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act or any other claim for which the U.S. federal courts have exclusive jurisdiction.

Our amended and restated bylaws further provide that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act of 1933, as amended.

These exclusive-forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. Any person or entity purchasing or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to these provisions. There is uncertainty as to whether a court would enforce such provisions, and the enforceability of similar choice of forum provisions in other companies' charter documents has been challenged in legal proceedings. It is possible that a court could find these types of provisions to be inapplicable or unenforceable, and if a court were to find either exclusive-forum provision in our amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could seriously harm our business.

**Item 1B.** ***Unresolved Staff Comments***

None.

## Item 1C. *Cybersecurity*

### Risk Management and Strategy

We have established policies and processes for assessing, identifying, and managing material risk from cybersecurity threats, and have integrated these processes into our overall risk management systems and processes. We routinely assess potential material risks from cybersecurity threats, including any potential unauthorized occurrence on or conducted through our information systems that may result in adverse effects on the confidentiality, integrity, or availability of our information systems or any information residing therein.

We conduct periodic risk assessments to identify cybersecurity threats, as well as assessments in the event of a material change in our business practices that may affect information systems that are vulnerable to such cybersecurity threats. These risk assessments include identification of reasonably foreseeable internal and external risks, the likelihood and potential damage that could result from such risks, and the sufficiency of existing policies, procedures, systems, and safeguards in place to manage such risks.

Following these risk assessments, if material risks and/or gaps are identified, we will re-design, implement, and maintain reasonable safeguards to minimize identified risks; reasonably address any identified gaps in existing safeguards; and regularly monitor the effectiveness of our safeguards. We devote significant resources and designate high-level personnel, including our Chief Information Security Officer who reports to our Chief Information Officer, to manage the risk assessment and mitigation process.

As part of our overall risk management system, we monitor and test our safeguards and train our employees on these safeguards, in collaboration with IT. Personnel at all levels and departments are made aware of cybersecurity issues through trainings.

We engage third party assessors/consultants in connection with our risk assessment processes. These service providers assist us to design and implement our cybersecurity policies and procedures, as well as to monitor and test our safeguards. We conduct vendor risk assessments before onboarding identified third-party service providers to review each such service provider's cybersecurity practices and to assess factors such as access controls, incident response capabilities, overall cyber maturity and applicable certifications.

For additional information regarding whether any risks from cybersecurity threats, including as a result of any previous cybersecurity incidents, have materially affected or are reasonably likely to materially affect our company, including our business strategy, results of operations, or financial condition, please refer to Item 1A, "Risk Factors," in this Form 10-K.

### Governance

One of the key functions of our board of directors is informed oversight of our risk management process, including risks from cybersecurity threats. Our board of directors is responsible for monitoring and assessing strategic risk exposure, and our executive officers are responsible for the day-to-day management of the material risks we face. Our board of directors administers its cybersecurity risk oversight function directly as a whole, as well as through the Cyber Risk Committee.

Our Chief Information Officer, Chief Information Security Officer and our Security Team, which includes Security Engineers, our Senior Manager of Cybersecurity and our Chief Information Security Officer, are primarily responsible to assess and manage our material risks from cybersecurity threats. Our Security Team has deep expertise in cybersecurity practices, including security threat evaluation, security operations, incident response, investigations, forensics, threat containment, data security vulnerability management, security policies and procedures, vulnerability scans, penetration testing, infrastructure security, network security, cloud security, identity and access management, role-based access, server and endpoint security, e-mail security, security awareness, logging, security governance and risk mitigations. Our Chief Information Security Officer has over twenty years of experience in security leadership over all aspects of cybersecurity, including security operations, security incident management and cybersecurity governance, policies and procedures, as well as deep expertise in defense in depth, zero trust security architectures and security controls for perimeter, network, endpoint, application and data security layers.

Our Chief Information Security Officer and our Security Team oversee our cybersecurity policies and processes, including those described in "Risk Management and Strategy" above. The processes by which our Chief Information Security Officer and our Security Team are informed about and monitor the prevention, detection, mitigation and remediation of cybersecurity incidents include the following: regular penetration testing, independent third-party risk and security posture assessments, phishing tests (with trainings for the failed users), general cybersecurity and phishing training for all Rambus personnel and tabletop exercises to simulate threats and identify gaps.

In the event of a cybersecurity incident, our Chief Information Security Officer and our Security Team are equipped with a well-defined incident response plan to guide response actions. This incident response plan includes immediate actions to mitigate the impact of the incident, long-term strategies for remediation and prevention of future incidents, and provides for internal notification of the incident to functional areas, as well as senior leadership and the Cyber Risk and/or Audit Committees of our board of directors, as appropriate.

Our Chief Information Security Officer also provides quarterly briefings to the Cyber Risk Committee regarding our company's cybersecurity risks and activities, including any recent cybersecurity incidents of interest and related responses, cybersecurity systems testing, applicable activities of third parties, and the like. Our Cyber Risk Committee provides regular updates to the board of directors on such reports.

**Item 2.** ***Properties***

We lease our corporate headquarters in San Jose, California, occupying approximately 89,000 square feet, which includes executive, administrative, research and development, sales and marketing and service personnel. We also lease approximately 89,000 square feet of office space in India, which includes administrative, research and development and service personnel. Furthermore, we lease offices in other locations, including Canada, China, Finland, France, South Korea, the Netherlands, and the United States, which include research and development and sales and marketing personnel.

We believe our current office space meets our operational needs. We anticipate that suitable replacement or additional space will be accessible on commercially reasonable terms when required.

**Item 3.** ***Legal Proceedings***

We are not currently a party to any material pending legal proceeding; however, from time to time, we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the final outcome of these ordinary course matters will not have a material adverse effect on our business, operating results, financial position or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management attention and resources and other factors.

**Item 4.** ***Mine Safety Disclosures***

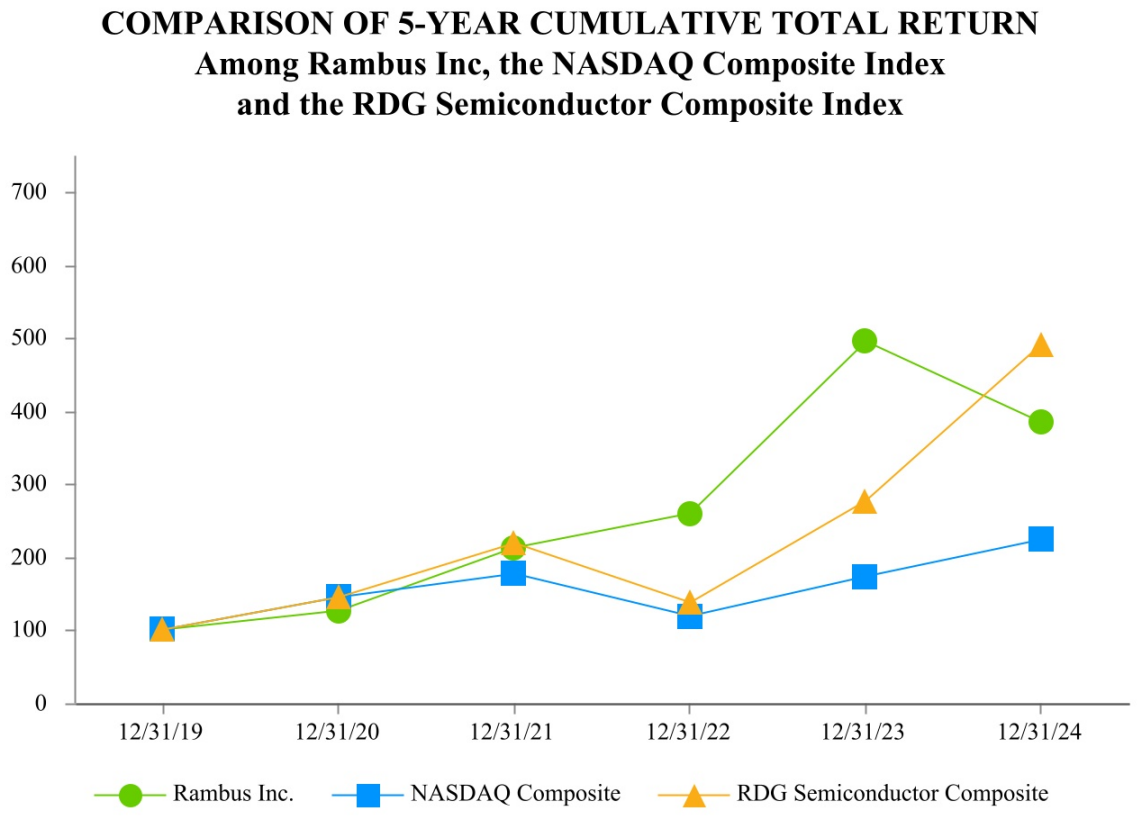
Not applicable.

## PART II

**Item 5.** ***Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities***

Our common stock is listed on The NASDAQ Global Select Market under the symbol "RMBS."

The graph below compares the cumulative five-year total return of holders of Rambus Inc.'s common stock with the cumulative total returns of the NASDAQ Composite index and the RDG Semiconductor Composite index. The graph tracks the performance of a $100 investment in our common stock and in each index (with the reinvestment of all dividends) from December 31, 2019 to December 31, 2024.




Fiscal years ending:

| | Base Period 12/31/19 | 12/31/20 | 12/31/21 | 12/31/22 | 12/31/23 | 12/31/24 |
|---|---|---|---|---|---|---|
| Rambus Inc. | $ 100.00 | $ 126.75 | $ 213.36 | $ 260.04 | $ 495.46 | $ 383.74 |
| NASDAQ Composite | $ 100.00 | $ 144.92 | $ 177.06 | $ 119.45 | $ 172.77 | $ 223.87 |
| RDG Semiconductor Composite | $ 100.00 | $ 145.23 | $ 219.49 | $ 137.05 | $ 277.14 | $ 491.01 |

*The stock price performance included in this graph is not necessarily indicative of future stock price performance.*

Information regarding our securities authorized for issuance under equity compensation plans will be included in Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters," of this report on Form 10-K.

As of January 31, 2025, there were 443 holders of record of our common stock. Since many of the shares of our common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of beneficial stockholders represented by these record holders.

We have never paid or declared any cash dividends on our common stock or other securities.

**Share Repurchase Programs**

On October 29, 2020, our board of directors (the "Board") approved the 2020 Repurchase Program authorizing the repurchase of up to an aggregate of 20.0 million shares (the "2020 Repurchase Program"). Share repurchases under the 2020 Repurchase Program may be made through the open market, established plans or privately negotiated transactions in accordance with all applicable securities laws, rules, and regulations. There is no expiration date applicable to the 2020 Repurchase Program.

There were no share repurchases of our common stock during the fourth quarter of 2024.

**Unregistered Sales of Equity Securities and Use of Proceeds**

None.

**Recent Sales of Unregistered Equity Securities**

None.

## Item 6. *Reserved*

## Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

*This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 as described in more detail under "Note Regarding Forward-Looking Statements." Our forward-looking statements are based on current expectations, forecasts and assumptions and are subject to risks, uncertainties and changes in condition, significance, value and effect. As a result of the factors described herein, and in the documents incorporated herein by reference, including, in particular, those factors described under "Risk Factors," we undertake no obligation to publicly disclose any revisions to these forward-looking statements to reflect events or circumstances occurring subsequent to filing this report with the Securities and Exchange Commission.*

*The following discussion and analysis should be read in conjunction with the consolidated financial statements and related notes that are included elsewhere in this report.*

**Business Overview**

Rambus is a global semiconductor company dedicated to enabling the future of the data center and artificial intelligence ("AI") by delivering innovative memory and security solutions that address the evolving needs of the technology industry.

As a pioneer with nearly 35 years of advanced semiconductor design experience, Rambus is at the forefront of enabling the next era of AI-driven computing, addressing the critical challenges of accelerating and securing data movement in the data center, edge, and client markets. We are a leader in high-performance memory subsystems, offering a balanced and diverse portfolio of products encompassing chips and silicon IP. Focusing primarily on the data center, our innovative solutions maximize performance and security in computationally intensive systems.

The explosion of data-intensive workloads, driven by the proliferation of generative AI, large language models ("LLMs"), and high-performance computing ("HPC"), is placing unprecedented demands on computing infrastructure. This surge in data processing is exacerbating the performance gap between processors and memory, creating a critical bottleneck—the "memory wall"—that limits overall system efficiency. As processors and accelerators rapidly increase in speed and core count, memory bandwidth and latency must keep pace to unlock their full potential.

Rambus is uniquely positioned to address this challenge. Our deep expertise in memory technologies and innovative architectures enables us to deliver solutions that break through the memory wall. We provide industry-leading memory interface chips that enable the highest bandwidth and capacity server memory modules, maximizing memory performance for the most demanding data-intensive workloads. These solutions are essential for supporting the training and inference of increasingly complex AI models, including those used in generative AI applications.

Our strategic objectives include focusing our product portfolio and research around our core strength in semiconductors, optimizing operational efficiency and leveraging strong cash generation to reinvest for growth. We continue to maximize synergies across our businesses and customer base, leveraging the significant overlap in our ecosystem of customers, partners and influencers. Our product and technology roadmap, as well as our go-to-market strategy, are driven by the application-specific requirements of our focus markets.

**Executive Summary**

Our continued execution delivered strong results during fiscal year 2024, driven by continued demand for our memory interface chips and our Silicon IP solutions, and stability from our royalties revenue.

Highlights from our annual results for the year ended December 31, 2024 were as follows:

- Revenue of $556.6 million;
- Operating expenses of $263.5 million;
- Diluted net income per share of $1.65; and
- Net cash provided by operating activities of $230.6 million.

We generated record product revenue of $246.8 million in 2024 which increased by approximately 10% as compared to 2023. We also generated record cash provided by operating activities of $230.6 million in 2024. We continued our product portfolio expansion with the introduction of our DDR5 server PMICs, Client Clock Driver, as well as HBM4, GDDR7 and PCIe 7 IP solutions. In addition, we unveiled industry-first complete chipsets for next-generation, industry-standard DDR5 MRDIMMs and RDIMMs for the data center and AI. Furthermore, we extended our comprehensive patent license agreement with Micron by five years through 2029.

**Operational Highlights**

***Revenue Sources***

The Company's consolidated revenue is comprised of product revenue, contract and other revenue and royalties.

Product revenue consists primarily of memory interface chips and is increasing in strategic significance. Our memory interface chips are sold to major DRAM manufacturers, Micron, Samsung and SK hynix, as well as directly to system manufacturers and cloud providers, for integration into server memory modules. Product revenue accounted for 44%, 49% and 50% of our consolidated revenue for the years ended December 31, 2024, 2023 and 2022, respectively.

Royalty revenue is primarily derived from our patent licenses, through which we provide our customers certain rights to our broad worldwide portfolio of patented inventions. Our patent licenses enable our customers to use a portion of our patent portfolio in their own digital electronics products. The licenses typically range in duration up to ten years and may define the specific field of use where our customers may utilize our inventions in their products. Royalties may be structured as fixed, variable or a hybrid of fixed and variable royalty payments. Leading semiconductor and electronic system companies such as AMD, Amlogic, Broadcom, CXMT, IBM, Infineon, Kioxia, Marvell, MediaTek, Micron, Nanya, Nuvoton, NVIDIA, Phison, Qualcomm, Samsung, Silicon Motion, SK hynix, Socionext, STMicroelectronics, Toshiba, Western Digital, and Winbond have licensed our patents. The vast majority of our patents originate from our internal research and development efforts. Additionally, from time to time, we enter into agreements to sell certain patent assets under agreements which may also include subsequent profit-sharing. The sale of these patents, as well as the subsequent profit-sharing, are included as part of our royalty revenue. Revenue from royalties accounted for 41%, 32% and 31% of our consolidated revenue for the years ended December 31, 2024, 2023 and 2022, respectively.

Contract and other revenue consists primarily of Silicon IP, which is comprised of our high-speed interface and security IP. Revenue sources under contract and other include our IP core licenses, software licenses and related implementation, support and maintenance fees and engineering services fees. The timing and amounts invoiced to customers can vary significantly depending on specific contract terms and can therefore have a significant impact on deferred revenue or accounts receivable in any given period. Contract and other revenue accounted for 15%, 19% and 19% of our consolidated revenue for the years ended December 31, 2024, 2023 and 2022, respectively.

***Costs and Expenses***

Cost of product revenue increased approximately $11.4 million for the year ended December 31, 2024 as compared to 2023, primarily due to higher sales volumes of our memory interface chips.

Cost of contract and other revenue decreased approximately $2.4 million for the year ended December 31, 2024 as compared to 2023. The decrease was primarily due to lower engineering service costs associated with the contracts and the sale of our PHY IP group in the third quarter of 2023.

Total research and development expenses increased approximately $6.1 million for the year ended December 31, 2024 as compared to 2023. The fluctuation was primarily driven by growth in our research and development initiatives, offset by decreases attributable to the sale of our PHY IP group in the third quarter of 2023. The increase was primarily due to increases in prototyping costs of $4.4 million, allocated facility expenses of $2.5 million, headcount-related expenses of $2.2 million, stock-based compensation expense of $1.5 million, as well as lower engineering costs allocated to cost of revenue of $2.4 million, offset by decreases in software EDA tool subscriptions of $4.9 million, consulting expenses of $0.7 million, retention bonus expense related to acquisitions of $0.7 million and depreciation expenses of $0.5 million.

Total sales, general and administrative costs decreased approximately $4.0 million for the year ended December 31, 2024 as compared to 2023, primarily due to lower rent and facility expenses allocated to sales, general and administrative expense of $3.8 million, stock-based compensation expense of $1.6 million, accounting and audit fees of $1.0 million, and acquisition-related costs (including retention bonus expenses) of $0.8 million, offset by increases in consulting expense of $1.4 million, headcount-related expenses of $1.0 million, and legal expenses of $0.7 million.

**Trends**

There are a number of trends that may have a material impact on us in the future, including but not limited to, the evolution of memory technology, adoption of security solutions, the use and adoption of our inventions or technologies generally, industry consolidation and global economic conditions with the resulting impact on sales of consumer electronic systems.

We have a high degree of revenue concentration. Our top five customers represented 62% of our revenue for both 2024 and 2023 and 58% in 2022. The particular customers which account for revenue concentration have varied from period-to-period as a result of the addition of new contracts, expiration of existing contracts, renewals of existing contracts, industry consolidation and the volumes and prices at which the customers have recently sold to their customers. These variations are expected to continue in the foreseeable future.

Our revenue from companies headquartered outside of the United States accounted for 64% of total revenue in 2024 as compared to 62% in 2023 and 39% in 2022. We expect that revenue derived from international customers will continue to represent a significant portion of our total revenue in the future. Currently, our revenue from international customers is predominantly denominated in U.S. dollars. For additional information concerning international revenue, refer to Note 7, “Segments and Major Customers,” of Notes to Consolidated Financial Statements of this Form 10-K.

The royalties we receive from our semiconductor customers are partly a function of the adoption of our technologies by system companies. Many system companies purchase semiconductors containing our technologies from our customers and do not have a direct contractual relationship with us. Our customers generally do not provide us with details as to the identity or volume of licensed semiconductors purchased by particular system companies. As a result, we face difficulty in analyzing the extent to which our future revenue will be dependent upon particular system companies. Several of our licensees have renewed or extended their license agreements with us during the year ended December 31, 2024, including Kioxia, Marvell, Micron and Nanya.

As a part of our overall business strategy, we evaluate businesses and technologies for potential acquisitions that are aligned with our core business and designed to supplement our growth, including the acquisition of Hardent in the second quarter of 2022. Similarly, we evaluate our current businesses and technologies that are not aligned with our core business for potential divestiture, such as the sale of our PHY IP group to Cadence in the third quarter of 2023. We expect to continue to evaluate and potentially enter into strategic acquisitions or divestitures which will impact our business and operating results.

**Results of Operations**

The following table sets forth, for the periods indicated, the percentage of total revenue represented by certain items reflected in our consolidated statements of operations:

| | Years Ended December 31, | | |
|---|---|---|---|
| | 2024 | 2023 | 2022 |
| Revenue: | | | |
| Product revenue | 44.4 % | 48.7 % | 50.0 % |
| Royalties | 40.6 % | 32.6 % | 30.7 % |
| Contract and other revenue | 15.0 % | 18.7 % | 19.3 % |
| Total revenue | 100.0 % | 100.0 % | 100.0 % |
| Cost of revenue: | | | |
| Cost of product revenue | 17.2 % | 18.3 % | 19.6 % |
| Cost of contract and other revenue | 0.5 % | 1.2 % | 1.0 % |
| Amortization of acquired intangible assets | 2.0 % | 2.9 % | 3.1 % |
| Total cost of revenue | 19.7 % | 22.4 % | 23.7 % |
| Gross profit | 80.3 % | 77.6 % | 76.3 % |
| Operating expenses: | | | |
| Research and development | 29.3 % | 34.0 % | 34.9 % |
| Sales, general and administrative | 18.7 % | 23.5 % | 23.4 % |
| Amortization of acquired intangible assets | 0.1 % | 0.3 % | 0.4 % |
| Restructuring and other charges | — % | 2.0 % | — % |
| Gain on divestiture | — % | (19.7)% | — % |
| Impairment of assets | 0.2 % | 2.2 % | — % |
| Change in fair value of earn-out liability | (0.9)% | 2.0 % | 0.7 % |
| Total operating expenses | 47.4 % | 44.3 % | 59.4 % |
| Operating income | 32.9 % | 33.3 % | 16.9 % |
| Interest income and other income (expense), net | 3.3 % | 2.5 % | 1.7 % |
| Gain on fair value of equity security | — % | — % | 0.8 % |
| Loss on extinguishment of debt | — % | — % | (18.4)% |
| Loss on fair value adjustment of derivatives, net | — % | (0.1)% | (2.3)% |
| Gain on sale of non-marketable equity security | — % | 5.2 % | — % |
| Interest expense | (0.3)% | (0.3)% | (0.4)% |
| Interest and other income (expense), net | 3.0 % | 7.3 % | (18.6)% |
| Income (loss) before income taxes | 35.9 % | 40.6 % | (1.7)% |
| Provision for (benefit from) income taxes | 3.6 % | (31.8)% | 1.4 % |
| Net income (loss) | 32.3 % | 72.4 % | (3.1)% |

| (Dollars in millions) | Years Ended December 31, 2024 | 2023 | 2022 | 2023 to 2024 Change | 2022 to 2023 Change |
|---|---|---|---|---|---|
| Total Revenue: | | | | | |
| Product revenue | $ 246.8 | $ 224.6 | $ 227.1 | 9.9 % | (1.1)% |
| Royalties | 226.2 | 150.1 | 139.8 | 50.7 % | 7.4 % |
| Contract and other revenue | 83.6 | 86.4 | 87.9 | (3.2)% | (1.7)% |
| Total revenue | $ 556.6 | $ 461.1 | $ 454.8 | 20.7 % | 1.4 % |

***Product Revenue***

Product revenue consists of revenue from the sale of memory and security products. Product revenue increased by approximately $22.2 million for the year ended December 31, 2024 as compared to 2023, primarily due to higher sales of our memory interface chips. Product revenue declined modestly by approximately $2.5 million for the year ended December 31, 2023 as compared to 2022 in a market that declined during the period.

Growth in our product revenue is dependent on, among other things, the industry transition to a new generation of memory, as well as our ability to continue to obtain orders from customers, meet our customers' demands and mitigate any supply chain and economic disruption.

***Royalties***

Royalty revenue, which includes patent and technology license royalties, increased approximately $76.1 million for the year ended December 31, 2024 as compared to 2023. Royalty revenue increased approximately $10.3 million for the year ended December 31, 2023 as compared to 2022. The increases were primarily due to the timing and structure of license renewals for both periods.

We are continuously in negotiations for licenses with prospective customers. We expect royalty revenue will continue to vary from period to period based on our success in adding new customers, renewing or extending existing agreements, as well as the level of variation in our customers' reported shipment volumes, sales price and product mix, offset in part by the proportion of customer payments that are fixed or hybrid in nature.

***Contract and Other Revenue***

Contract and other revenue consists of revenue from technology development projects. Contract and other revenue decreased approximately $2.8 million for the year ended December 31, 2024 as compared to 2023. Contract and other revenue decreased approximately $1.5 million for the year ended December 31, 2023 as compared to 2022. The decreases for both periods were primarily attributed to the sale of our PHY IP group in the third quarter of 2023.

We believe that contract and other revenue will fluctuate over time based on our ongoing technology development contractual requirements, the amount of work performed, the timing of completing engineering deliverables and the changes to work required, as well as new technology development contracts booked in the future.

***Cost of Product Revenue***

| | Years Ended December 31, | | | 2023 to 2024 | 2022 to 2023 |
|---|---|---|---|---|---|
| (Dollars in millions) | 2024 | 2023 | 2022 | Change | Change |
| Cost of product revenue | $ 95.9 | $ 84.5 | $ 89.0 | 13.5 % | (5.0)% |

Cost of product revenue mainly includes costs attributable to the sale of memory products. Cost of product revenue increased approximately $11.4 million for the year ended December 31, 2024 as compared to 2023, primarily due to higher sales volumes of our memory interface chips. Cost of product revenue decreased approximately $4.5 million for the year ended December 31, 2023 as compared to 2022, primarily due to a change in product mix and lower product revenue.

In the near term, we expect cost of product revenue to fluctuate due to changes in product mix and the timing of orders.

***Cost of Contract and Other Revenue***

| | Years Ended December 31, | | | 2023 to 2024 | 2022 to 2023 |
|---|---|---|---|---|---|
| (Dollars in millions) | 2024 | 2023 | 2022 | Change | Change |
| Cost of contract and other revenue | $ 3.0 | $ 5.4 | $ 4.7 | (44.0)% | 15.7 % |

Cost of contract and other revenue reflects the portion of the total engineering costs which are specifically devoted to individual customer development and support services. Cost of contract and other revenue decreased approximately $2.4 million for the year ended December 31, 2024 as compared to 2023, primarily due to lower engineering services associated with the contracts and the sale of our PHY IP group in the third quarter of 2023. Cost of contract and other revenue increased approximately $0.7 million for the year ended December 31, 2023 as compared to 2022, primarily due to higher engineering services associated with the contracts.

In the near term, we expect cost of contract and other revenue to vary from period to period based on varying revenue recognized from contract and other revenue.

***Research and Development Expenses***

| (Dollars in millions) | Years Ended December 31, 2024 | 2023 | 2022 | 2023 to 2024 Change | 2022 to 2023 Change |
|---|---|---|---|---|---|
| Research and development expenses | | | | | |
| Research and development expenses, excluding stock-based compensation | $ 146.6 | $ 141.9 | $ 145.3 | 3.2 % | (2.3)% |
| Stock-based compensation | 16.3 | 14.9 | 13.5 | 9.9 % | 10.3 % |
| Total research and development expenses | $ 162.9 | $ 156.8 | $ 158.8 | 3.9 % | (1.2)% |

Research and development expenses are those expenses incurred for the development of applicable technologies.

Total research and development expenses increased approximately $6.1 million for the year ended December 31, 2024 as compared to 2023. The fluctuation was primarily driven by growth in our research and development initiatives, offset by decreases attributable to the sale of our PHY IP group in the third quarter of 2023. The increase was primarily due to increases in prototyping costs of $4.4 million, allocated facility expenses of $2.5 million, headcount-related expenses of $2.2 million, stock-based compensation expense of $1.5 million, as well as lower engineering costs allocated to cost of revenue of $2.4 million, offset by decreases in software EDA tool subscriptions of $4.9 million, consulting expenses of $0.7 million, retention bonus expense related to acquisitions of $0.7 million and depreciation expense of $0.5 million.

Total research and development expenses decreased approximately $2.0 million for the year ended December 31, 2023 as compared to 2022, primarily due to decreases in consulting expenses of $3.4 million, retention bonus expense related to acquisitions of $1.6 million, an increase in engineering costs allocated to cost of revenue of $0.8 million, as well as decreases in prototyping costs of $0.8 million and bonus expense of $0.7 million, offset by an increase in headcount-related expenses of $1.8 million, stock-based compensation expense of $1.4 million, depreciation expense of $1.1 million and facilities costs of $0.9 million. The cumulative decrease was largely due to the sale of our PHY IP group in the third quarter of 2023, partially offset by increases in research and development for other core initiatives.

We will continue to make investments in the infrastructure and technologies required to maintain our product innovation in semiconductor, security and other technologies.

***Sales, General and Administrative Expenses***

| (Dollars in millions) | Years Ended December 31, 2024 | 2023 | 2022 | 2023 to 2024 Change | 2022 to 2023 Change |
|---|---|---|---|---|---|
| Sales, general and administrative expenses: | | | | | |
| Sales, general and administrative expenses, excluding stock-based compensation | $ 76.1 | $ 78.6 | $ 85.2 | (3.2)% | (7.8)% |
| Stock-based compensation | 28.0 | 29.5 | 21.5 | (5.3)% | 37.3 % |
| Total sales, general and administrative expenses | $ 104.1 | $ 108.1 | $ 106.7 | (3.7)% | 1.3 % |

Sales, general and administrative expenses include expenses and costs associated with trade shows, public relations, advertising, litigation, general legal, insurance and other sales, marketing and administrative efforts. Consistent with our business model, our licensing, sales and marketing activities aim to develop or strengthen relationships with potential new and current customers. In addition, we work with current customers through marketing, sales and technical efforts to drive adoption of their products that use our innovations and solutions, by system companies. Due to the long business development cycles we face and the semi-fixed nature of sales, general and administrative expenses in a given period, these expenses generally do not correlate to the level of revenue in that period or in comparable recent or future periods.

Total sales, general and administrative costs decreased approximately $4.0 million for the year ended December 31, 2024 as compared to 2023, primarily due to lower rent and facility expenses allocated to sales, general and administrative expenses of $3.8 million, stock-based compensation expense of $1.6 million, accounting and audit fees of $1.0 million, and acquisition-related costs (including retention bonus expenses) of $0.8 million, offset by increases in consulting expense of $1.4 million, headcount-related expenses of $1.0 million, and legal expenses of $0.7 million.

Total sales, general and administrative costs increased approximately $1.4 million for the year ended December 31, 2023 as compared to 2022, primarily due to increases in stock-based compensation expense of $8.0 million and accounting and audit fees of $0.6 million, offset by decreases in acquisition-related costs of $3.7 million, bonus expense related to acquisitions of $1.7 million, rent and facility expenses of $1.1 million and recruiting expense of $0.6 million.

In the future, sales, general and administrative expenses will vary from period to period based on the trade shows, advertising, legal, acquisition and other sales, marketing and administrative activities undertaken, and the change in sales, marketing and administrative headcount in any given period. In the near term, we expect our sales, general and administrative expenses to remain relatively flat.

***Amortization of Acquired Intangible Assets***

| (Dollars in millions) | Years Ended December 31, 2024 | 2023 | 2022 | 2023 to 2024 Change | 2022 to 2023 Change |
|---|---|---|---|---|---|
| Amortization of acquired intangible assets: | | | | | |
| Amortization of acquired intangible assets included in total cost of revenue | $ 11.2 | $ 13.5 | $ 13.9 | (17.2)% | (2.9)% |
| Amortization of acquired intangible assets included in total operating expenses | 0.5 | 1.2 | 1.7 | (58.4)% | (27.3)% |
| Total amortization of acquired intangible assets | $ 11.7 | $ 14.7 | $ 15.6 | (20.6)% | (5.6)% |

Amortization expense is related to various acquired IP.

Total amortization of acquired intangible assets decreased approximately $3.0 million for the year ended December 31, 2024 as compared to 2023, primarily due to certain intangible assets being fully amortized.

Total amortization of acquired intangible assets decreased approximately $0.9 million for the year ended December 31, 2023 as compared to 2022. In the third quarter of 2023, we divested our PHY IP group and as a result, we disposed of approximately $7.4 million of net intangible assets, which reduced our amortization expense in future periods. Refer to Note 6, “Intangible Assets and Goodwill,” of Notes to Consolidated Financial Statements of this Form 10-K for additional information.

***Restructuring and Other Charges***

| (Dollars in millions) | Years Ended December 31, 2024 | 2023 | 2022 | 2023 to 2024 Change | 2022 to 2023 Change |
|---|---|---|---|---|---|
| Restructuring and other charges | $ — | $ 9.4 | $ — | (100.0)% | 100.0% |

In June 2023, we initiated a restructuring program to reduce overall expenses to improve future profitability by reducing our overall spending (the “2023 Restructuring Plan”). In connection with this restructuring program, we initiated a plan resulting in a reduction of 42 employees. During the year ended December 31, 2023, we recorded charges of approximately $9.4 million related to the reduction in workforce, as well as write-downs of obligations related to certain IP development costs and software licenses for engineering development tools. The 2023 Restructuring Plan was substantially completed in the fourth quarter of 2023. Refer to Note 17, “Restructuring and Other Charges,” of Notes to Consolidated Financial Statements of this Form 10-K for additional information.

***Gain on Divestiture***

| (Dollars in millions) | Years Ended December 31, 2024 | 2023 | 2022 | 2023 to 2024 Change | 2022 to 2023 Change |
|---|---|---|---|---|---|
| Gain on divestiture | $ — | $ (90.8) | $ — | (100.0)% | (100.0)% |

In July 2023, we entered into an asset purchase agreement (the “Purchase Agreement”) with Cadence Design Systems, Inc. (the “Purchaser”), pursuant to which we agreed to sell certain assets and the Purchaser agreed to assume certain liabilities from us, in each case with respect to our PHY IP group. The decision to sell this portion of our business reflected the ongoing review of our core semiconductor business to focus on our development of digital IP and chips, including novel memory solutions for high-performance computing, to support the continued evolution of the data center and AI.

Consequently, we recognized a net gain of approximately $90.8 million during the year ended December 31, 2023. Refer to Note 20, “Divestiture,” of Notes to Consolidated Financial Statements of this Form 10-K for additional information.

***Impairment of Assets***

| (Dollars in millions) | Years Ended December 31, 2024 | 2023 | 2022 | 2023 to 2024 Change | 2022 to 2023 Change |
|---|---|---|---|---|---|
| Impairment of assets | $ 1.1 | $ 10.0 | $ — | (89.3)% | 100.0% |

During the year ended December 31, 2024, we recorded a charge of approximately $1.1 million in our Consolidated Statements of Operations of this Form 10-K, related to the write-off of certain fixed assets no longer in use and for which we determined they had no alternate economic use.

Concurrent with the sale of our PHY IP group to Cadence, we recorded a charge of approximately $10.0 million in our Consolidated Statements of Operations for the year ended December 31, 2023. The charge was primarily related to the accelerated amortization of software licenses that were not directly part of the PHY IP disposal group, but where acceleration was warranted due to the lower headcount and corresponding excess capacity for such licenses. Refer to Note 20, “Divestiture,” of Notes to Consolidated Financial Statements of this Form 10-K for additional information.

***Change in Fair Value of Earn-Out Liability***

| (Dollars in millions) | Years Ended December 31, 2024 | 2023 | 2022 | 2023 to 2024 Change | 2022 to 2023 Change |
|---|---|---|---|---|---|
| Change in fair value of earn-out liability | $ (5.0) | $ 9.2 | $ 3.1 | (154.6)% | 196.8% |

The changes in the fair value of the earn-out liability related to the 2021 acquisition of the PLDA Group (“PLDA”), which was subject to certain revenue targets of the acquired business for a period of three years from the date of acquisition, and which was settled annually in shares of our common stock based on the fair value of that common stock fixed at the time we acquired PLDA. The fair value of the earn-out liability was remeasured each quarter, depending on the acquired business’s revenue performance relative to target over the applicable period, and adjusted to reflect changes in the per share value of our common stock.

During the years ended December 31, 2024, 2023 and 2022, we remeasured the fair value of the earn-out liability, which resulted in a reduction of $5.0 million and additional expenses of $9.2 million and $3.1 million, respectively, in our Consolidated Statements of Operations of this Form 10-K. The final earn-out was achieved as of September 30, 2024 and was fully paid during the fourth quarter of 2024.

***Interest and Other Income (Expense), Net***

| (Dollars in millions) | Years Ended December 31, 2024 | 2023 | 2022 | 2023 to 2024 Change | 2022 to 2023 Change |
|---|---|---|---|---|---|
| Interest income and other income (expense), net | $ 18.5 | $ 11.3 | $ 7.8 | 62.9 % | 45.8 % |
| Gain on fair value of equity security | — | — | 3.5 | NM* | (100.0)% |
| Loss on extinguishment of debt | — | — | (83.6) | NM* | (100.0)% |
| Loss on fair value adjustment of derivatives, net | — | (0.2) | (10.6) | 100.0 % | (97.7)% |
| Gain on sale of non-marketable equity security | — | 23.9 | — | (100.0)% | 100.0 % |
| Interest expense | (1.4) | (1.5) | (1.9) | (5.0)% | (20.5)% |
| Interest and other income (expense), net | $ 17.1 | $ 33.5 | $ (84.8) | (49.2)% | (139.5)% |

* NM — percentage is not meaningful

Interest income and other income (expense), net, includes interest income from our investment portfolio and from the significant financing component of licensing agreements, as well as any gains or losses from the re-measurement of our monetary assets or liabilities denominated in foreign currencies. For the years ended December 31, 2024, 2023 and 2022, interest income and other income (expense), net, consisted primarily of interest income from our investment portfolio of $18.5 million, $10.6 million and $1.0 million, respectively, as well as interest income from the significant financing component of licensing agreements of $0.5 million, $2.2 million and $5.6 million, respectively.

The gain on fair value of equity security was $3.5 million in 2022 and related to the sale of an equity security with an immaterial carrying value in our Consolidated Statement of Operations of this Form 10-K.

The $83.6 million loss on extinguishment of debt and the $10.6 million loss on fair value adjustment of derivatives, net, for the year ended December 31, 2022, related to the repurchases of $162.1 million aggregate principal amount of our 1.375% Convertible Senior Notes due 2023 (the "2023 Notes") and the settlement of the related convertible senior note hedges and warrants. The $0.2 million loss on fair value adjustment of derivatives, net, for the years ended December 31, 2023, related to the settlement of the remaining outstanding warrants in the first quarter of 2023.

We made an investment in a non-marketable equity security of a private company in 2018. We accounted for this investment under the equity method of accounting and recorded our share of the income (loss). During the fourth quarter of 2023, we sold our 25% ownership share in the equity investment for approximately $25.0 million, which was included, net of withholding taxes paid, in prepaid and other current assets in our Consolidated Balance Sheet as of December 31, 2023. We recognized a net gain of approximately $23.9 million related to the sale in our Consolidated Statements of Operations for the year ended December 31, 2023 after offsetting $1.1 million of transaction costs from the $25.0 million selling price. Refer to Note 9, "Fair Value of Financial Instruments," of Notes to Consolidated Financial Statements of this Form 10-K for additional information.

Interest expense consists primarily of interest expense associated with long-term software licenses for the years ended December 31, 2024 and 2023. Prior to the second quarter of 2023, interest expense consisted primarily of interest expense associated with long-term software licenses, the non-cash interest expense related to the amortization of the debt issuance costs on the 2023 Notes, as well as the coupon interest related to these notes. The remaining outstanding 2023 Notes were paid in full upon maturity in the first quarter of 2023.

Interest expense remained relatively flat for the years ended December 31, 2024, 2023 and 2022.

Refer to Note 12, "Convertible Notes," of Notes to Consolidated Financial Statements of this Form 10-K for additional information on the repurchases of the convertible notes.

***Provision for (Benefit from) Income Taxes***

| (Dollars in millions) | Years Ended December 31, 2024 | 2023 | 2022 | 2023 to 2024 Change | 2022 to 2023 Change |
|---|---|---|---|---|---|
| Provision for (benefit from) income taxes | $ 20.2 | $ (146.7) | $ 6.5 | (113.8)% | NM* |
| Effective tax rate | 10.1 % | (78.4)% | (82.9)% | | |

* NM — percentage is not meaningful

Our effective tax rate for the year ended December 31, 2024 differed from the U.S. statutory rate primarily due to foreign-derived intangible income deductions and the tax effect of stock-based compensation. Our effective tax rate for the year ended December 31, 2023, differed from the U.S. statutory rate primarily due to the valuation allowance release on our U.S. deferred tax assets, as well as state income taxes and the tax effect of stock-based compensation. Our effective tax rate for the year ended December 31, 2022, differed from the U.S. statutory rate primarily due to the foreign-derived intangible income deduction, acquisition indebtedness and certain capitalized research expenditures, partially offset by the change in the valuation allowance against our U.S. deferred tax assets.

We recorded a provision for income taxes of $20.2 million for the year ended December 31, 2024, which was primarily driven by the statutory tax expense for domestic and foreign jurisdictions for 2024, including withholding taxes, offset by tax benefits from excess stock-based compensation deductions and foreign-derived intangible income deductions. For the year ended December 31, 2024, we paid withholding taxes of $20.6 million. We recorded a benefit from income taxes of $146.7 million for the year ended December 31, 2023, which was primarily driven by the $177.9 million valuation allowance release on our U.S. deferred tax assets, as well as tax benefits from excess stock-based compensation deductions. For the year ended December 31, 2023, we paid withholding taxes of $22.9 million.

We periodically evaluate the realizability of our net deferred tax assets based on all available evidence, both positive and negative. The realizability of our net deferred tax assets is dependent on our ability to generate sufficient future taxable income during periods prior to the expiration of tax attributes to fully utilize these assets. During 2023, based on all available positive and negative evidence, we determined that it was appropriate to release the valuation allowance on the majority of our U.S. federal and other state deferred tax assets. We recognized a $177.9 million tax benefit during the year ended December 31, 2023 as a result of the valuation allowance release.

Upon considering the relative impact of all evidence during 2024, both negative and positive, and the weight accorded to each, we concluded that it was more likely than not that the majority of our deferred tax assets would be realizable, with the exception of primarily our California research and development credits that have not met the "more likely than not" realization

threshold criteria. As a result, we continue to maintain a valuation allowance on only those deferred tax assets that we do not think will be realizable.

We have U.S. federal deferred tax assets related to research and development credits, foreign tax credits and other tax attributes that can be used to offset U.S. federal taxable income in future periods. These credit carryforwards will expire if they are not used within certain time periods. It is possible that some or all of these attributes could ultimately expire unused.

**Liquidity and Capital Resources**

| (In millions) | December 31, 2024 | December 31, 2023 |
|---|---|---|
| Cash and cash equivalents | $ 99.8 | $ 94.8 |
| Marketable securities | 382.0 | 331.0 |
| Total cash, cash equivalents and marketable securities | $ 481.8 | $ 425.8 |

| | Years Ended December 31, | | |
|---|---|---|---|
| (In millions) | 2024 | 2023 | 2022 |
| Net cash provided by operating activities | $ 230.6 | $ 195.8 | $ 230.4 |
| Net cash provided by (used in) investing activities | $ (56.7) | $ (57.4) | $ 152.0 |
| Net cash used in financing activities | $ (168.0) | $ (169.6) | $ (362.9) |

**Liquidity**

We currently anticipate that existing cash, cash equivalents and marketable securities balances and cash flows from operations will be adequate to meet our cash needs for at least the next 12 months. Additionally, the majority of our cash and cash equivalents is in the United States. Our cash needs for the year ended December 31, 2024 were funded primarily from cash collected from our customers.

We do not anticipate any liquidity constraints as a result of either the current credit environment or investment fair value fluctuations. Additionally, we have the intent and ability to hold our debt investments that have unrealized losses in accumulated other comprehensive gain (loss) for a sufficient period of time to allow for recovery of the principal amounts invested. We continually monitor the credit risk in our portfolio and mitigate our credit risk exposures in accordance with our policies.

As a part of our overall business strategy, from time to time, we evaluate businesses and technologies for potential acquisitions that are aligned with our core business and designed to supplement our growth.

To provide us with more flexibility in returning capital to our stockholders, on October 29, 2020, our Board approved a share repurchase program authorizing the repurchase of up to an aggregate of 20.0 million shares (the “2020 Repurchase Program”). Share repurchases under the 2020 Repurchase Program may be made through the open market, established plans or privately negotiated transactions in accordance with all applicable securities laws, rules and regulations. There is no expiration date applicable to the 2020 Repurchase Program. The 2020 Repurchase Program replaced the previous program approved by our Board in January 2015 and canceled the remaining shares outstanding as part of the previous authorization. During the years ended December 31, 2024, 2023 and 2022, we repurchased shares of our common stock under the 2020 Repurchase Program as discussed in the “Share Repurchase Program” section below.

***Operating Activities***

Cash provided by operating activities of $230.6 million for the year ended December 31, 2024 was primarily attributable to the cash generated from customer licensing, product sales and engineering services fees. Changes in operating assets and liabilities for the year ended December 31, 2024, primarily included decreases in unbilled receivables, prepaids and other current assets and an increase in income taxes payable, offset by increases in accounts receivable, inventories and income tax receivable.

Cash provided by operating activities of $195.8 million for the year ended December 31, 2023 was primarily attributable to the cash generated from customer licensing, product sales and engineering services fees. Changes in operating assets and liabilities for the year ended December 31, 2023, primarily included a decrease in unbilled receivables and an increase in other current liabilities, offset by increases in income tax receivable, accounts receivable, inventories, prepaids and other assets, as well as decreases in income taxes payable, accounts payable, deferred revenue and accrued salaries and benefits.

Cash provided by operating activities of $230.4 million for the year ended December 31, 2022 was primarily attributable to the cash generated from customer licensing, product sales and engineering services fees. Changes in operating assets and liabilities for the year ended December 31, 2022, primarily included a decrease in unbilled receivables and increases in accounts payable and accrued salaries and benefits and other liabilities, offset by decreases in income taxes payable, operating lease liabilities and deferred revenue, as well as increases in inventories, accounts receivable and prepaids and other current assets.

***Investing Activities***

Cash used in investing activities of $56.7 million for the year ended December 31, 2024 consisted of purchases of available-for-sale marketable securities of $415.4 million and $30.7 million paid to acquire property and equipment, offset by proceeds from the maturities and sales of available-for-sale marketable securities of $280.8 million and $85.7 million, respectively, and net proceeds from the sale of a non-marketable equity security of $22.8 million.

Cash used in investing activities of $57.4 million for the year ended December 31, 2023 consisted of purchases of available-for-sale marketable securities of $434.2 million and $23.2 million paid to acquire property and equipment, offset by proceeds from sale and maturities of available-for-sale marketable securities of $117.8 million and $175.9 million, respectively, and the sale of our PHY IP group of $106.3 million.

Cash provided by investing activities of $152.0 million for the year ended December 31, 2022 consisted of proceeds from the sale and maturities of available-for-sale marketable securities of $276.7 million and $59.6 million, respectively, and proceeds from the sale of an equity security of $3.0 million, offset by purchases of available-for-sale marketable securities of $150.9 million, $17.5 million paid to acquire property and equipment, the acquisition of Hardent for $16.1 million, net of cash acquired of $0.2 million, and the acquisition of intangible assets for $3.0 million.

***Financing Activities***

Cash used in financing activities of $168.0 million for the year ended December 31, 2024 was primarily due to an aggregate payment of $113.3 million as part of our 2024 ASR program and the Buying Plan (includes $0.2 million in fees related to the ASR program), $41.3 million in payments of taxes on restricted stock units, and $16.4 million paid under installment payment arrangements to acquire fixed assets, offset by $5.5 million in proceeds from the issuance of common stock under equity incentive plans.

Cash used in financing activities of $169.6 million for the year ended December 31, 2023 was primarily due to an aggregate payment of $100.5 million as part of our 2020 Repurchase Program (includes $100.3 million related to the 2023 ASR program and $0.2 million related to the Buying Plan), $38.3 million in payments of taxes on restricted stock units, $16.2 million paid under installment payment arrangements to acquire fixed assets, $10.7 million paid for the retirement of the remaining outstanding warrants, $10.4 million in aggregate principal amount paid upon maturity of the remaining outstanding 2023 Notes, offset by $9.0 million in proceeds from the issuance of common stock under equity incentive plans.

Cash used in financing activities of $362.9 million for the year ended December 31, 2022 was primarily due to $258.1 million paid in connection with the partial repurchases of our 2023 Notes in the first and third quarters of 2022, an aggregate payment of $100.4 million as part of our 2022 ASR program (includes $0.4 million in fees related to the 2022 ASR program), $69.5 million paid in connection with the settlement of warrants associated with the partial repurchases of our 2023 Notes, $18.4 million in payments of taxes on restricted stock units and $14.4 million paid under installment payment arrangements to acquire fixed assets, offset by proceeds of $91.7 million from the settlement of senior convertible note hedges associated with the partial repurchases of our 2023 Notes and $6.1 million in proceeds from the issuance of common stock under equity incentive plans.

**Contractual Obligations**

As of December 31, 2024, our material contractual obligations were as follows:

| (In thousands) | Total | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|---|
| **Contractual obligations** [1] [2] | | | | | | |
| Software licenses [3] | $ 12,034 | $ 9,675 | $ 1,484 | $ 875 | $ — | $ — |
| Other contractual obligations | 268 | 131 | 137 | — | — | — |
| Acquisition retention bonuses [4] | 260 | 260 | — | — | — | — |
| Total | $ 12,562 | $ 10,066 | $ 1,621 | $ 875 | $ — | $ — |

[1] The above table does not reflect possible payments in connection with unrecognized tax benefits of approximately $132.2 million, including $22.8 million recorded as a reduction of long-term deferred tax assets and $109.4 million in long-term income taxes payable, as of December 31, 2024. As noted in Note 18, "Income Taxes," of Notes to Consolidated Financial Statements of this Form 10-K, although it is possible that some of the unrecognized tax benefits could be settled within the next 12 months, we cannot reasonably estimate the timing of the outcome at this time.

[2] For our lease commitments as of December 31, 2024, refer to Note 10, "Leases," of Notes to Consolidated Financial Statements of this Form 10-K.

[3] We have commitments with various software vendors for agreements generally having terms longer than one year.

[4] In connection with the acquisitions of Hardent in the second quarter of 2022 and PLDA in the third quarter of 2021, we are obligated to pay retention bonuses to certain employees subject to certain eligibility and acceleration provisions, including the condition of employment.

**Share Repurchase Program**

On October 29, 2020, our Board approved the 2020 Repurchase Program authorizing the repurchase of up to an aggregate of 20.0 million shares. Share repurchases under the 2020 Repurchase Program may be made through the open market, established plans or privately negotiated transactions in accordance with all applicable securities laws, rules and regulations. There is no expiration date applicable to the 2020 Repurchase Program. The 2020 Repurchase Program replaced the previous program approved by the Board in January 2015 and canceled the remaining shares outstanding as part of the previous authorization.

On September 9, 2022, we entered into the 2022 ASR Program with Wells Fargo. The 2022 ASR Program was part of the 2020 Repurchase Program. Under the 2022 ASR Program, we pre-paid to Wells Fargo the $100.0 million purchase price for our common stock and, in turn, we received an initial delivery of approximately 3.1 million shares of our common stock from Wells Fargo in the third quarter of 2022, which were retired and recorded as an $80.0 million reduction to stockholders' equity. The remaining $20.0 million of the initial payment was recorded as a reduction to stockholders' equity as an unsettled forward contract indexed to our stock. During the fourth quarter of 2022, the accelerated share repurchase program was completed and we received an additional 0.1 million shares of our common stock, which were retired, as the final settlement of the accelerated share repurchase program.

On August 10, 2023, we entered into the 2023 ASR Program with RBC. The 2023 ASR Program was part of the 2020 Repurchase Program. Under the 2023 ASR Program, we pre-paid to RBC the $100.0 million purchase price for our common stock and, in turn, we received an initial delivery of approximately 1.6 million shares of our common stock from RBC on August 11, 2023, which were retired and recorded as an $80.0 million reduction to stockholders' equity. The remaining $20.0 million of the initial payment was recorded as a reduction to stockholders' equity as an unsettled forward contract indexed to our stock. On September 22, 2023, the accelerated share repurchase program was completed and we received an additional 0.2 million shares of our common stock, which were retired, as the final settlement of the 2023 ASR Program.

On November 2, 2023, we entered into the Buying Plan with RBCCM. The Buying Plan was part of the 2020 Repurchase Program. Under the Buying Plan, RBCCM shall commence purchases for a 12-month period starting on November 2, 2023 and ending on November 1, 2024, unless terminated sooner pursuant to the Buying Plan (the "Repurchase Period"). During the Repurchase Period, RBCCM may purchase an aggregate amount of $50.0 million of our common stock, and its execution is dependent on our stock price reaching certain levels. Share repurchases could not exceed $25.0 million in a quarter. During the year ended December 31, 2023, an immaterial amount of shares were repurchased, retired and recorded as a reduction to stockholders' equity. During the first quarter of 2024, the Buying Plan was amended and as a result, no purchases were made from the Buying Plan during the period from March 1, 2024 to March 28, 2024, while the 2024 ASR Program was in effect. During the third quarter of 2024, the Buying Plan was further amended to allow RBCCM to purchase an aggregate amount of $100.0 million of our common stock during the Repurchase Period, not to exceed $50.0 million in a quarter. The execution of

share repurchases is dependent on our stock price reaching certain levels. During the year ended December 31, 2024, we repurchased approximately 1.4 million shares for approximately $63.1 million as part of the Buying Plan, which were retired and recorded as a reduction to stockholders' equity.

On February 29, 2024, we entered into the 2024 ASR Program with RBC. The 2024 ASR Program was part of the 2020 Repurchase Program. Under the 2024 ASR Program, we pre-paid to RBC the $50.0 million purchase price for our common stock and, in turn, we received an initial delivery of approximately 0.7 million shares of our common stock from RBC on March 1, 2024, which were retired and recorded as a $40.0 million reduction to stockholders' equity. The remaining $10.0 million of the initial payment was recorded as a reduction to stockholders' equity as an unsettled forward contract indexed to our stock. On March 18, 2024, the accelerated share repurchase program was completed and we received an additional 0.1 million shares of our common stock, which were retired, as the final settlement of the 2024 ASR Program.

Effective January 1, 2023, our share repurchases are subject to a 1% excise tax as a result of the Inflation Reduction Act of 2022. As of December 31, 2024, we recorded an immaterial excise tax liability on our Consolidated Balance Sheet of this Form 10-K.

During the year ended December 31, 2024, there were no other repurchases of our common stock under the 2020 Repurchase Program.

As of December 31, 2024, there remained an outstanding authorization to repurchase approximately 5.7 million shares of our outstanding common stock under the 2020 Repurchase Program.

We record share repurchases as a reduction to stockholders' equity. We record a portion of the purchase price of the repurchased shares as an increase to accumulated deficit when the price of the shares repurchased exceeds the average original proceeds per share received from the issuance of common stock. During the year ended December 31, 2024, the cumulative price of $47.9 million was recorded as an increase to accumulated deficit.

**Critical Accounting Policies and Estimates**

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, investments, income taxes, litigation and other contingencies. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

***Revenue Recognition***

*Overview*

We recognize revenue upon transfer of control of promised goods and services in an amount that reflects the consideration we expect to receive in exchange for those goods and services. Goods and services that are distinct are accounted for as separate performance obligations.

Where an arrangement includes multiple performance obligations, the transaction price is allocated to these on a relative standalone selling price basis. We have established standalone selling prices for the majority of our distinct offerings - specifically, the same pricing methodology is consistently applied to all licensing arrangements; all services offerings are priced within tightly controlled bands and all contracts that include support and maintenance state a renewal rate or price that is systematically enforced. For certain contracts, we utilize the residual approach to estimate standalone selling prices primarily for service offerings sold to customers at highly variable pricing.

Our revenue consists of product, royalty and contract and other revenue. Products primarily consist of memory interface chips sold directly and indirectly to module manufacturers and OEMs worldwide through multiple channels, including our direct sales force and distributors. Royalty revenue consists of patent and technology license royalties. Contract and other revenue consists of software license fees, engineering fees associated with integration of our technology solutions into our customers' products and support and maintenance fees.

*Product Revenue*

Product revenue is recognized upon shipment of product to customers, net of accruals for estimated sales returns and allowances, and to distributors, net of accruals for price protection and rights of return on products unsold by the distributors. We transact with direct customers primarily pursuant to standard purchase orders for delivery of products and generally allow customers to cancel or change purchase orders within limited notice periods prior to the scheduled shipment date.

*Royalty Revenue*

Our patent and technology licensing arrangements generally range between one year and ten years in duration and generally grant the licensee the right to use applicable portions of our entire IP portfolio as it evolves over time. These arrangements do not typically grant the licensee the right to terminate for convenience and where such rights exist, termination is prospective, with no refund of fees already paid or cancellation of fees already incurred by the licensee.

Patent and technology licensing arrangements result in fixed payments received over time, with guaranteed minimum payments on occasion, variable payments calculated based on the licensee's sale or use of the IP, or a mix of fixed and variable payments.

- For fixed-fee arrangements (including arrangements that include minimum guaranteed amounts), we recognize revenue upon control over the underlying IP use right transferring to the licensee, net of the effect of significant financing components calculated using customer-specific, risk-adjusted lending rates typically ranging between 5% and 10%, with the related interest income recognized over time on an effective rate basis. Where a licensee has the contractual right to terminate a fixed-fee arrangement for convenience without any substantive penalty payable upon such termination, we recognize revenue for the duration of the contract in which the parties have present enforceable rights and obligations.
- For variable arrangements, we recognize revenue based on an estimate of the licensee's sale or usage of the IP during the periods the sale or usage occur, typically quarterly, with a true-up recorded, if required, when we receive the actual royalty report from the licensee.
- We recognize license renewal revenue commencing with the start of the renewal period.

*Contract and Other Revenue*

Contract and other revenue consists of software license fees and engineering fees associated with integration of our technology solutions into our customers' products, and support and maintenance.

An initial software arrangement may consist of a term-based or perpetual license, significant software customization services and support and maintenance services that include post-implementation customer support and the right to unspecified software updates and enhancements on a when and if available basis. We recognize license and customization services revenue at a point in time when final delivery is made or based on an over time model, depending on the nature and amount of customization. For the over time model, we recognize revenue over time by measuring the progress toward complete satisfaction of that performance obligation.

We recognize support and maintenance revenue over the time those services are provided.

*Significant Judgments*

We apply significant judgment in determining the amount and timing of revenue from our contracts with customers, based on our estimate of the man-months necessary for completing development and customization services. We have adequate tools and controls in place, and substantial experience and expertise in timely and accurately tracking man-months incurred in completing customization and other professional services, and quantifying significant changes in estimates.

We recognize revenue on variable fee licensing arrangements on the basis of estimated sales and usage, which we then true up to actual results when we receive the final related reports from our customers.

***Goodwill***

Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in each business combination. Goodwill is not subject to amortization, but is subject to at least an annual assessment for impairment. We perform our impairment analysis of goodwill on an annual basis during the fourth quarter of the year unless conditions arise that warrant a more frequent evaluation.

When goodwill is assessed for impairment, we have the option to perform an assessment of qualitative factors of impairment (optional assessment) prior to necessitating a quantitative impairment test. Should the optional assessment be used for any given year, qualitative factors to consider for a reporting unit include: cost factors; financial performance; legal, regulatory, contractual, political, business, or other factors; entity specific factors; industry and market considerations; macroeconomic conditions; and other relevant events and factors affecting the reporting unit. If we determine in the qualitative assessment that it is more likely than not that the fair value of the reporting unit is less than its carrying value, a quantitative test is then performed. Otherwise, no further testing is required. For a reporting unit tested using a quantitative approach, we compare the fair value of the reporting unit with the carrying amount of the reporting unit, including goodwill. The fair value of the reporting unit is estimated using an income approach.

Under the income approach, we measure fair value of the reporting unit based on a projected cash flow method using a discount rate determined by our management which is commensurate with the risk inherent in its current business model. Our discounted cash flow projections are based on annual financial forecasts developed internally by us for use in managing our business. If the fair value of the reporting unit exceeds its carrying value, goodwill is not impaired and no further testing is required. If the fair value of the reporting unit is less than the carrying value, then the amount of goodwill impairment will be the amount by which the reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill.

***Intangible Assets***

Intangible assets are comprised of existing technology, customer contracts and contractual relationships, and other definite-lived and indefinite-lived intangible assets. Identifiable intangible assets resulting from the acquisitions of entities accounted for using the purchase method of accounting are estimated by management based on the fair value of assets received. Identifiable definite-lived intangible assets are being amortized over the period of estimated benefit using the straight-line method and estimated useful lives ranging from six months to ten years.

Acquired indefinite-lived intangible assets related to our IPR&D are capitalized and subject to impairment testing until completion or abandonment of the projects. Upon successful completion of each project, we make a separate determination of the useful life of the acquired indefinite-lived intangible assets and the related amortization is recorded as an expense over the estimated useful life of the specific projects. Indefinite-lived intangible assets are subject to at least an annual assessment for impairment, applying a fair-value based test. We first perform a qualitative assessment to determine whether it is more likely than not (more than 50% likelihood) that the indefinite-lived intangible assets are impaired. If after assessing the totality of events and circumstances and their potential effect on significant inputs to the fair value determination, we determine that it is more likely than not that the indefinite-lived intangible assets are impaired, then we perform a quantitative impairment test by comparing the fair value of the intangible assets with its carrying amount. We measure fair value of the indefinite-lived intangible assets under the income approach based on a projected cash flow method using a discount rate determined by our management which is commensurate with the risk inherent in our current business model. Our discounted cash flow projections are based on our annual financial forecasts developed internally by our management for use in managing our business. If the fair value of the indefinite-lived intangible assets exceeds its carrying value, the indefinite-lived intangible assets are not impaired and no further testing is required. If the implied fair value of the indefinite-lived intangible assets is less than the carrying value, the difference is recorded as an impairment loss.

***Income Taxes***

As part of preparing our consolidated financial statements, we are required to calculate the income tax expense (benefit) which relates to the pretax income or loss for the period. In addition, we are required to assess the realization of the deferred tax asset or liability to be included in the Consolidated Balance Sheet as of the reporting dates.

As of December 31, 2024, our Consolidated Balance Sheet included net deferred tax assets, before valuation allowance, of approximately $160.1 million, which consists of net operating loss carryovers, tax credit carryovers, capitalized research, amortization, employee stock-based compensation expenses, certain liabilities and certain assets. As of December 31, 2024, we have a valuation allowance of $26.8 million, resulting in net deferred tax assets of $133.3 million.

We periodically evaluate the realizability of our net deferred tax assets based on all available evidence, both positive and negative. The realizability of our net deferred tax assets is dependent on our ability to generate sufficient future taxable income during periods prior to the expiration of tax attributes to fully utilize these assets. During 2023, based on all available positive and negative evidence, we determined that it was appropriate to release the valuation allowance on the majority of our U.S. federal and other state deferred tax assets. Our position on the realizability of our net deferred tax assets has not changed based on our review of all available evidence for 2024.

We maintain liabilities for uncertain tax positions within our long-term income taxes payable accounts and as a reduction to existing deferred tax assets or other refundable taxes to the extent tax attributes are available to offset such liabilities. These

liabilities involve judgment and estimation and are monitored by us based on the best information available including changes in tax regulations, the outcome of relevant court cases and other information.

The calculation of our tax liabilities involves uncertainties in the application of complex tax law and regulations in a multitude of jurisdictions. Although ASC 740, "Income Taxes," provides further clarification on the accounting for uncertainty in income taxes, significant judgment is required by us. If the ultimate resolution of tax uncertainties is different from what is currently estimated, it could materially affect income tax expense.

***Business Combinations***

We account for acquisitions of businesses using the purchase method of accounting, which requires us to recognize separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values.

Accounting for business combinations requires us to make significant estimates and assumptions, especially at the acquisition date including our estimates for intangible assets, contractual obligations assumed and pre-acquisition contingencies where applicable.

***Recent Accounting Pronouncements***

Refer to Note 3, "Recent Accounting Pronouncements," of Notes to Consolidated Financial Statements of this Form 10-K for a discussion of recent accounting pronouncements, including the respective expected dates of adoption.

**Item 7A.** ***Quantitative and Qualitative Disclosures About Market Risk***

We are exposed to financial market risks, primarily arising from the effect of interest rate fluctuations on our investment portfolio. Interest rate fluctuation may arise from changes in the market's view of the quality of the security issuer, the overall economic outlook and the time to maturity of our portfolio. We mitigate this risk by investing only in highly rated, liquid instruments. Securities with original maturities of one year or less must be rated by two of the three industry standard rating agencies as follows: A1 by Standard & Poor's, P1 by Moody's and/or F-1 by Fitch. Securities with original maturities of greater than one year must be rated by two of the following industry standard rating agencies as follows: AA- by Standard & Poor's, Aa3 by Moody's and/or AA- by Fitch. By corporate investment policy, we limit the amount of exposure to $15.0 million or 10% of the portfolio, whichever is lower, for any single non-U.S. Government issuer. A single U.S. Agency can represent up to 25% of the portfolio. No more than 20% of the total portfolio may be invested in the securities of an industry sector, with money market fund investments evaluated separately. Our policy requires that at least 10% of the portfolio be in securities with a maturity of 90 days or less. We may make investments in time deposits, U.S. government-sponsored obligations and corporate bonds, commercial paper and notes with maturities up to 36 months. We bias our investment portfolio to shorter maturities. The majority of our investments are U.S. dollar denominated.

Our policy specifically prohibits trading securities for the sole purpose of realizing trading profits, however, we may liquidate a portion of our portfolio if we experience unforeseen liquidity requirements. In such a case, if the environment has been one of rising interest rates, we may experience a realized loss. Similarly, if the environment has been one of declining interest rates, we may experience a realized gain. As of December 31, 2024, we had an investment portfolio of fixed income marketable securities of $394.4 million, including cash equivalents and time deposits. If market interest rates were to increase immediately and uniformly by 1.0% from the levels as of December 31, 2024, the fair value of the portfolio would decline by approximately $2.3 million. Actual results may differ materially from this sensitivity analysis.

We invoice the majority of our customers in U.S. dollars. Although the fluctuation of currency exchange rates may impact our customers, and thus indirectly impact us, we do not attempt to hedge this indirect and speculative risk, other than as noted in the paragraph below. Our overseas operations consist primarily of international business operations in France, the Netherlands and the United Kingdom, design centers in Bulgaria, Canada, India, and Finland and small business development offices in China, South Korea and Taiwan. We monitor our foreign currency exposure and, as disclosed below, we have entered into foreign currency forward contracts to partially mitigate the exposure in currencies where we believe this is appropriate.

We have on occasion, entered into foreign currency forward contracts (the "Contracts") to manage our exposure related to certain foreign currency denominated monetary assets (the "Hedging Program") and to minimize the related impact of foreign currency fluctuations on our earnings. The hedged monetary assets primarily consisted of certain euro-denominated cash and accounts receivable balances. Contracts are typically entered into at the end of a month, with an approximately one month duration at inception. As of December 31, 2024, no Contracts were outstanding and we have entered into no such contracts during 2024.

**Item 8.** ***Financial Statements and Supplementary Data***

Refer to Item 15, "Exhibits and Financial Statement Schedules," of this Form 10-K for required financial statements and supplementary data.

**Item 9.** ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

None.

**Item 9A.** ***Controls and Procedures***

**Evaluation of Disclosure Controls and Procedures**

We maintain disclosure controls and procedures designed to ensure that information required to be disclosed in the reports we file or submit pursuant to the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management, with the participation of the Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act as of the end of the period covered by this report. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2024, our disclosure controls and procedures were effective.

**Management's Report on Internal Control over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

i. pertain to the maintenance of records that in reasonable detail accurately and fairly reflect our transactions and dispositions of assets;

ii. provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with the authorization of our management and directors; and

iii. provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2024. In making this assessment, our management used the criteria set forth in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this assessment, our management has concluded that, as of December 31, 2024, our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting for the year ended December 31, 2024 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report which appears herein.

**Changes in Internal Control Over Financial Reporting**

There were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the quarter ended December 31, 2024, that materially affected, or that we believe are reasonably likely to materially affect, our internal control over financial reporting.

**Item 9B.** ***Other Information***

**Securities Trading Plans of Directors and Executive Officers**

During our last fiscal quarter, the below directors and/or officers, as defined in Rule 16a-1(f) under the Exchange Act, adopted a "Rule 10b5-1 trading arrangement," as defined in Item 408 of Regulation S-K. Each of the Rule 10b5-1 trading arrangements were entered into during an open insider trading window and are intended to satisfy the affirmative defense in Rule 10b5-1(c)(1) under the Exchange Act and the Company's policies regarding insider transactions.

| Name | Title | Adopted or Terminated | Adoption Date | Expiration Date | Total Number of Shares of Common Stock Sold or to be Sold |
|---|---|---|---|---|---|
| Luc Seraphin | President and Chief Executive Officer | Adopted | December 13, 2024 | December 13, 2025 | Up to 174,400 |
| John Shinn | Senior Vice President and General Counsel | Adopted | December 13, 2024 | December 13, 2025 | Up to 41,764 |
| Desmond M. Lynch | Senior Vice President, Finance and Chief Financial Officer | Adopted | December 13, 2024 | December 13, 2025 | 6,861 |

Other than as disclosed above, no other directors or officers, as defined in Rule 16a-1(f) under the Exchange Act, adopted, modified and/or terminated a "Rule 10b5-1 trading arrangement," or a "non-Rule 10b5-1 trading arrangement," each as defined in Item 408 of Regulation S-K, during our last fiscal quarter.

**Item 9C.** ***Disclosure Regarding Foreign Jurisdictions that Prevent Inspections***

Not applicable.

## PART III

**Item 10.** ***Directors, Executive Officers and Corporate Governance***

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2025 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K. The information under the heading "Our Executive Officers" in Part I, Item 1 of this Annual Report on Form 10-K is also incorporated herein by reference.

**Item 11.** ***Executive Compensation***

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2025 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

**Item 12.** ***Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters***

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2025 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

**Item 13.** ***Certain Relationships and Related Transactions, and Director Independence***

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2025 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

**Item 14.** ***Principal Accountant Fees and Services***

The information responsive to this item is incorporated herein by reference to our Proxy Statement for our 2025 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

## PART IV

**Item 15.** ***Exhibits and Financial Statement Schedules***

**(a) (1) Financial Statements**

The following consolidated financial statements of the Registrant and Reports of Independent Registered Public Accounting Firms, are included herewith: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| Reports of Independent Registered Public Accounting Firms (PCAOB ID No. 185 and PCAOB ID No. 238) | 53 |
| Consolidated Balance Sheets as of December 31, 2024 and 2023 | 56 |
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**(a) (2) Financial Statement Schedule**

All schedules are omitted because they are not applicable or the required information is shown in the Consolidated Financial Statements or the notes thereto.

## Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors

Rambus Inc.:

***Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting***

We have audited the accompanying consolidated balance sheet of Rambus Inc. and subsidiaries (the Company) as of December 31, 2024, the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for the year then ended, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2024, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2024, and the results of its operations and its cash flows for the year then ended, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2024 based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

***Basis for Opinions***

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audit of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

*Definition and Limitations of Internal Control Over Financial Reporting*

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

*Critical Audit Matter*

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

*Sufficiency of audit evidence over revenue*

As discussed in Notes 2 and 4 to the consolidated financial statements, the Company's revenue is generated from contracts with customers and is mainly comprised of product revenue, royalties, and contract and other revenue. The Company's process to account for and recognize revenue differs across revenue streams. The Company recorded $556.6 million of total revenue for the year-ended December 31, 2024.

We identified the evaluation of the sufficiency of audit evidence over revenue as a critical audit matter. Evaluating the nature and extent of audit evidence obtained over each revenue stream required subjective auditor judgment due to the separate processes to account for and recognize revenue, including identification and evaluation of contract terms.

The following are the primary procedures we performed to address this critical audit matter. We applied auditor judgment to determine the nature and extent of procedures to be performed over each revenue stream. For each revenue stream, we evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's revenue recognition process, including controls over the Company's identification and evaluation of contract terms. We performed a software-assisted data analysis to test relationships among certain revenue transactions. For a selection of revenue transactions, we evaluated the Company's assessment of the contract terms impacting the timing of revenue recognition. For a sample of revenue transactions, we (1) assessed the accounting for consistency with the Company's accounting policies, including timing of revenue recognition and (2) compared the recorded amounts for consistency to underlying documentation, including customer contracts. We evaluated the sufficiency of audit evidence obtained by assessing the results of procedures performed, including the appropriateness of the nature and extent of such evidence.

We have served as the Company's auditor since 2024.

/s/ KPMG LLP
Santa Clara, California
February 24, 2025

## Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Rambus Inc.

***Opinion on the Financial Statements***

We have audited the consolidated balance sheet of Rambus Inc. and its subsidiaries (the "Company") as of December 31, 2023, and the related consolidated statements of operations, of comprehensive income (loss), of stockholders' equity and of cash flows for each of the two years in the period ended December 31, 2023, including the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2023 in conformity with accounting principles generally accepted in the United States of America.

*Change in Accounting Principle*

As discussed in Note 3 to the consolidated financial statements, the Company changed the manner in which it accounts for convertible debt in 2022.

***Basis for Opinion***

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
San Jose, California
February 23, 2024, except for the change in the manner in which the Company accounts for segments discussed in Note 3 to the consolidated financial statements, as to which the date is February 24, 2025.

We served as the Company's auditor from 1991 to 2024.

**RAMBUS INC.**

**CONSOLIDATED BALANCE SHEETS**

| (In thousands, except shares and per share amounts) | December 31, 2024 | December 31, 2023 |
|---|---|---|
| **ASSETS** | | |
| Current assets: | | |
| Cash and cash equivalents | $ 99,775 | $ 94,767 |
| Marketable securities | 382,023 | 331,077 |
| Accounts receivable | 122,813 | 82,925 |
| Unbilled receivables | 25,070 | 50,872 |
| Inventories | 44,634 | 36,154 |
| Prepaids and other current assets | 15,942 | 34,850 |
| Total current assets | 690,257 | 630,645 |
| Intangible assets, net | 17,059 | 28,769 |
| Goodwill | 286,812 | 286,812 |
| Property and equipment, net | 75,509 | 67,808 |
| Operating lease right-of-use assets | 21,454 | 21,497 |
| Deferred tax assets | 136,466 | 127,892 |
| Income tax receivable | 109,947 | 88,768 |
| Other assets | 5,632 | 6,036 |
| Total assets | $ 1,343,136 | $ 1,258,227 |
| **LIABILITIES & STOCKHOLDERS' EQUITY** | | |
| Current liabilities: | | |
| Accounts payable | $ 18,522 | $ 18,074 |
| Accrued salaries and benefits | 19,193 | 17,504 |
| Deferred revenue | 19,903 | 17,393 |
| Income taxes payable | 1,264 | 5,099 |
| Operating lease liabilities | 5,617 | 4,453 |
| Other current liabilities | 17,313 | 26,598 |
| Total current liabilities | 81,812 | 89,121 |
| Long-term operating lease liabilities | 24,534 | 26,255 |
| Long-term income taxes payable | 109,383 | 78,947 |
| Other long-term liabilities | 6,715 | 25,803 |
| Total liabilities | 222,444 | 220,126 |
| Commitments and contingencies (Notes 10, 13 and 19) | | |
| Stockholders' equity: | | |
| Convertible preferred stock, $0.001 par value: | | |
| Authorized: 5,000,000 shares; Issued and outstanding: no shares as of December 31, 2024 and December 31, 2023 | — | — |
| Common stock, $0.001 par value: | | |
| Authorized: 500,000,000 shares; Issued and outstanding: 106,843,112 shares as of December 31, 2024 and 107,853,778 shares as of December 31, 2023 | 107 | 108 |
| Additional paid in capital | 1,275,505 | 1,324,796 |
| Accumulated deficit | (153,660) | (285,534) |
| Accumulated other comprehensive loss | (1,260) | (1,269) |
| Total stockholders' equity | 1,120,692 | 1,038,101 |
| Total liabilities and stockholders' equity | $ 1,343,136 | $ 1,258,227 |

Refer to Notes to Consolidated Financial Statements

**RAMBUS INC.**

**CONSOLIDATED STATEMENTS OF OPERATIONS**

| (In thousands, except per share amounts) | Years Ended December 31, 2024 | 2023 | 2022 |
|---|---|---|---|
| Revenue: | | | |
| Product revenue | $ 246,815 | $ 224,632 | $ 227,068 |
| Royalties | 226,172 | 150,110 | 139,816 |
| Contract and other revenue | 83,637 | 86,375 | 87,909 |
| Total revenue | 556,624 | 461,117 | 454,793 |
| Cost of revenue: | | | |
| Cost of product revenue | 95,875 | 84,495 | 88,976 |
| Cost of contract and other revenue | 3,028 | 5,403 | 4,668 |
| Amortization of acquired intangible assets | 11,204 | 13,524 | 13,935 |
| Total cost of revenue | 110,107 | 103,422 | 107,579 |
| Gross profit | 446,517 | 357,695 | 347,214 |
| Operating expenses: | | | |
| Research and development | 162,881 | 156,827 | 158,769 |
| Sales, general and administrative | 104,094 | 108,149 | 106,718 |
| Amortization of acquired intangible assets | 506 | 1,217 | 1,674 |
| Restructuring and other charges | — | 9,368 | — |
| Gain on divestiture | — | (90,784) | — |
| Impairment of assets | 1,071 | 10,045 | — |
| Change in fair value of earn-out liability | (5,044) | 9,234 | 3,111 |
| Total operating expenses | 263,508 | 204,056 | 270,272 |
| Operating income | 183,009 | 153,639 | 76,942 |
| Interest income and other income (expense), net | 18,450 | 11,327 | 7,771 |
| Gain on sale of equity security | — | — | 3,547 |
| Loss on extinguishment of debt | — | — | (83,626) |
| Loss on fair value adjustment of derivatives, net | — | (240) | (10,585) |
| Gain on sale of non-marketable equity security | — | 23,924 | — |
| Interest expense | (1,416) | (1,490) | (1,874) |
| Interest and other income (expense), net | 17,034 | 33,521 | (84,767) |
| Income (loss) before income taxes | 200,043 | 187,160 | (7,825) |
| Provision for (benefit from) income taxes | 20,222 | (146,744) | 6,485 |
| Net income (loss) | $ 179,821 | $ 333,904 | $ (14,310) |
| Net income (loss) per share: | | | |
| Basic | $ 1.67 | $ 3.09 | $ (0.13) |
| Diluted | $ 1.65 | $ 3.01 | $ (0.13) |
| Weighted-average shares used in per share calculations: | | | |
| Basic | 107,438 | 108,183 | 109,472 |
| Diluted | 109,041 | 110,889 | 109,472 |

Refer to Notes to Consolidated Financial Statements

**RAMBUS INC.**

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**

| (In thousands) | Years Ended December 31, 2024 | 2023 | 2022 |
|---|---|---|---|
| Net income (loss) | $ 179,821 | $ 333,904 | $ (14,310) |
| Other comprehensive income (loss): | | | |
| Foreign currency translation adjustment | (230) | 282 | (958) |
| Unrealized gain (loss) on marketable securities, net of tax | 239 | 3,412 | (2,553) |
| Total comprehensive income (loss) | $ 179,830 | $ 337,598 | $ (17,821) |

Refer to Notes to Consolidated Financial Statements

**RAMBUS INC.**

**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

| (In thousands) | Common Stock Shares | Common Stock Amount | Additional Paid-in Capital | Accumulated Deficit | Accumulated Other Comprehensive Gain (Loss) | Total |
|---|---|---|---|---|---|---|
| Balances as of December 31, 2021 | 109,292 | $ 109 | $ 1,298,966 | $ (435,227) | $ (1,452) | $ 862,396 |
| Net loss | — | — | — | (14,310) | — | (14,310) |
| Foreign currency translation adjustment | — | — | — | — | (958) | (958) |
| Unrealized loss on marketable securities, net of tax | — | — | — | — | (2,553) | (2,553) |
| Issuance of common stock upon exercise of options, equity stock and employee stock purchase plan | 1,513 | 2 | (12,279) | — | — | (12,277) |
| Repurchase and retirement of common stock under repurchase program | (3,195) | (3) | (10,278) | (90,140) | — | (100,421) |
| Stock-based compensation | — | — | 35,552 | — | — | 35,552 |
| Retirement of convertible senior note hedges | — | — | 78,415 | — | — | 78,415 |
| Retirement of warrants | — | — | (58,423) | — | — | (58,423) |
| Cumulative effect adjustment from adoption of ASU 2020-06 | — | — | (34,545) | 26,421 | — | (8,124) |
| Balances as of December 31, 2022 | 107,610 | 108 | 1,297,408 | (513,256) | (4,963) | 779,297 |
| Net income | — | — | — | 333,904 | — | 333,904 |
| Foreign currency translation adjustment | — | — | — | — | 282 | 282 |
| Unrealized gain on marketable securities, net of tax | — | — | — | — | 3,412 | 3,412 |
| Issuance of common stock upon exercise of options, equity stock and employee stock purchase plan | 1,698 | 1 | (29,379) | — | — | (29,378) |
| Repurchase and retirement of common stock under repurchase program | (1,859) | (1) | (5,783) | (94,742) | — | (100,526) |
| Stock-based compensation | — | — | 45,011 | — | — | 45,011 |
| Issuance of common stock in connection with the payments of year 1 and year 2 earn-out related to the PLDA Group acquisition | 405 | — | 16,556 | — | — | 16,556 |
| Issuance of common stock in connection with the maturity of the convertible senior notes related to the settlement of the in-the-money conversion feature of the convertible senior notes | 284 | — | — | — | — | — |
| Exercise of the convertible senior note hedges in connection with the conversion of convertible senior notes and retirement of the corresponding shares | (284) | — | 11,440 | (11,440) | — | — |
| Retirement of warrants | — | — | (10,457) | — | — | (10,457) |
| Balances as of December 31, 2023 | 107,854 | 108 | 1,324,796 | (285,534) | (1,269) | 1,038,101 |
| Net income | — | — | — | 179,821 | — | 179,821 |
| Foreign currency translation adjustment | — | — | — | — | (230) | (230) |
| Unrealized gain on marketable securities, net of tax | — | — | — | — | 239 | 239 |
| Issuance of common stock upon exercise of options, equity stock and employee stock purchase plan | 1,023 | 1 | (35,876) | — | — | (35,875) |
| Repurchase and retirement of common stock under repurchase program (includes excise tax) | (2,211) | (2) | (65,750) | (47,947) | | (113,699) |
| Stock-based compensation | — | — | 44,879 | — | — | 44,879 |
| Issuance of common stock in connection with the payment of year 3 earn-out related to the PLDA Group acquisition | 177 | — | 7,456 | — | — | 7,456 |
| Balances as of December 31, 2024 | 106,843 | $ 107 | $ 1,275,505 | $ (153,660) | $ (1,260) | $ 1,120,692 |

Refer to Notes to Consolidated Financial Statements

**RAMBUS INC.**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

| (In thousands) | Years Ended December 31, 2024 | 2023 | 2022 |
|---|---|---|---|
| **Cash flows from operating activities:** | | | |
| Net income (loss) | $ 179,821 | $ 333,904 | $ (14,310) |
| Adjustments to reconcile net income (loss) to net cash provided by operating activities: | | | |
| Stock-based compensation | 44,880 | 45,011 | 35,552 |
| Depreciation | 30,980 | 33,687 | 31,517 |
| Amortization of intangible assets | 11,710 | 14,741 | 15,610 |
| Non-cash interest expense and amortization of convertible debt issuance costs | — | 3 | 207 |
| Loss on extinguishment of debt | — | — | 83,626 |
| Loss on fair value adjustment of derivatives, net | — | 240 | 10,585 |
| Deferred income taxes | (9,875) | (145,350) | 689 |
| Gain on divestiture | — | (90,784) | — |
| Gain on sale of non-marketable equity security | — | (23,924) | — |
| Impairment of assets | 1,071 | 10,045 | — |
| Gain on sale of equity security | — | — | (3,547) |
| Change in fair value of earn-out liability | (5,044) | 9,234 | 3,111 |
| Other | 15 | 645 | 2,413 |
| Change in operating assets and liabilities, net of effects of acquisition/disposition: | | | |
| Accounts receivable | (39,835) | (28,931) | (9,274) |
| Unbilled receivables | 26,191 | 93,796 | 107,945 |
| Prepaid expenses and other assets | (5,500) | 2,763 | (89) |
| Inventories | (8,480) | (15,254) | (12,702) |
| Income taxes receivable | (21,179) | (87,704) | (618) |
| Accounts payable | 580 | (5,768) | 11,975 |
| Accrued salaries and benefits and other liabilities | 571 | 41 | (4,745) |
| Income taxes payable | 26,275 | 59,643 | (19,279) |
| Deferred revenue | 3,774 | (5,048) | (1,354) |
| Operating lease liabilities | (5,356) | (5,204) | (6,919) |
| Net cash provided by operating activities | 230,599 | 195,786 | 230,393 |
| **Cash flows from investing activities:** | | | |
| Purchases of property and equipment | (30,697) | (23,240) | (17,478) |
| Acquisition of intangible assets | — | — | (3,000) |
| Purchases of marketable securities | (415,374) | (434,155) | (150,949) |
| Maturities of marketable securities | 280,829 | 175,854 | 59,642 |
| Proceeds from sale of marketable securities | 85,722 | 117,798 | 276,687 |
| Proceeds from sale of non-marketable equity security | 22,796 | — | — |
| Proceeds from divestiture | — | 106,347 | — |
| Proceeds from sale of equity security | — | — | 3,009 |
| Acquisition of businesses, net of cash acquired | — | — | (15,932) |
| Net cash provided by (used in) investing activities | (56,724) | (57,396) | 151,979 |
| **Cash flows from financing activities:** | | | |
| Proceeds received from issuance of common stock under employee stock plans | 5,465 | 8,950 | 6,136 |
| Payments of taxes on restricted stock units | (41,340) | (38,328) | (18,413) |
| Payments under installment payment arrangements | (16,350) | (16,192) | (14,378) |
| Payments for settlement and repurchase of convertible senior notes | — | (10,381) | (258,060) |
| Proceeds from retirement of convertible senior note hedges | — | — | 91,729 |
| Payments for settlement of warrants | — | (10,697) | (69,528) |
| Payment of deferred purchase consideration from acquisition | (2,450) | (2,450) | — |
| Repurchase and retirement of common stock, including prepayment under accelerated share repurchase program | (113,312) | (100,525) | (100,421) |
| Net cash used in financing activities | (167,987) | (169,623) | (362,935) |
| Effect of exchange rate changes on cash, cash equivalents and restricted cash | (880) | 306 | (2,007) |
| Net increase (decrease) in cash, cash equivalents and restricted cash | 5,008 | (30,927) | 17,430 |
| Cash, cash equivalents and restricted cash at beginning of year | 94,767 | 125,694 | 108,264 |
| Cash, cash equivalents and restricted cash at end of year | $ 99,775 | $ 94,767 | $ 125,694 |

| (In thousands) | Years Ended December 31, 2024 | 2023 | 2022 |
|---|---|---|---|
| **Supplemental disclosure of cash flow information:** | | | |
| Cash paid during the period for: | | | |

| | | | |
|---|---|---|---|
| Interest | $ — | $ 73 | $ 1,525 |
| Income taxes, net of refunds | $ 27,132 | $ 25,932 | $ 25,275 |
| **Non-cash investing and financing activities:** | | | |
| Property and equipment received and accrued in accounts payable and other liabilities | $ 3,935 | $ 21,768 | $ 39,035 |
| Issuance of common stock in connection with the payments of earn-out related to the PLDA Group acquisition | $ 7,456 | $ 16,556 | $ — |
| Operating lease right-of-use assets obtained in exchange for operating lease obligations | $ 4,799 | $ 1,690 | $ 5,931 |

| | As of December 31, | | |
|---|---|---|---|
| **(In thousands)** | **2024** | **2023** | **2022** |
| **Reconciliation of the cash, cash equivalents and restricted cash balances as shown in the consolidated statement of cash flows:** | | | |
| Cash and cash equivalents | $ 99,775 | $ 94,767 | $ 125,334 |
| Restricted cash | — | — | 360 |
| Cash, cash equivalents and restricted cash | $ 99,775 | $ 94,767 | $ 125,694 |

Refer to Notes to Consolidated Financial Statements

**RAMBUS INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

## 1. Formation and Business of the Company

Rambus Inc. ("Rambus" or the "Company") was incorporated in California in March 1990 and reincorporated in Delaware in March 1997. Rambus is a global semiconductor company dedicated to enabling the future of the data center and artificial intelligence ("AI") by delivering innovative memory and security solutions that address the evolving needs of the technology industry.

As a pioneer with nearly 35 years of advanced semiconductor design experience, the Company is at the forefront of enabling the next era of AI-driven computing, addressing the critical challenges of accelerating and securing data movement in the data center, edge, and client markets. The Company is a leader in high-performance memory subsystems, offering a balanced and diverse portfolio of products encompassing chips and silicon intellectual property ("IP"). Focusing primarily on the data center, the Company's innovative solutions maximize performance and security in computationally intensive systems.

The Company provides industry-leading memory interface chips that enable the highest bandwidth and capacity server memory modules, maximizing memory performance for the most demanding data-intensive workloads. These solutions are essential for supporting the training and inference of increasingly complex AI models, including those used in generative AI applications.

The Company generates revenue by selling its semiconductor chips and licensing its IP products and inventions to market-leading companies.

## 2. Summary of Significant Accounting Policies

### *Financial Statement Presentation*

The accompanying consolidated financial statements include the accounts of Rambus and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated on the accompanying consolidated financial statements. Rambus accounts for investments in entities where it owns more than 20% and has significant influence (but not control) over the investee's operations using the equity method. These investments are classified under other assets.

### *Use of Estimates*

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ materially from those estimates.

### *Reclassifications*

Certain prior-year balances were reclassified to conform to the current year's presentation. None of these reclassifications had an impact on reported net income or cash flows for any of the periods presented.

### *Revenue Recognition*

The Company recognizes revenue upon transfer of control of promised goods and services in an amount that reflects the consideration it expects to receive in exchange for those goods and services. Goods and services that are distinct are accounted for as separate performance obligations.

Where an arrangement includes multiple performance obligations, the transaction price is allocated to these on a relative standalone selling price basis. The Company has established standalone selling prices for the majority of its distinct offerings - specifically, the same pricing methodology is consistently applied to all licensing arrangements; all service offerings are priced within tightly controlled bands and all contracts that include support and maintenance state a renewal rate or price that is systematically enforced. For certain contracts, the Company utilizes the residual approach to estimate standalone selling prices primarily for service offerings sold to customers at highly variable pricing.

The Company's revenue consists of product, royalty and contract and other revenue. Products primarily consist of memory interface chips sold directly and indirectly to module manufacturers and OEMs worldwide through multiple channels, including

its direct sales force and distributors. Royalty revenue consists of patent and technology license royalties. Contract and other revenue consists of software license fees, engineering fees associated with integration of the Company's technology solutions into its customers' products and support and maintenance fees.

*Product Revenue*

Product revenue is recognized upon shipment of product to customers, net of accruals for estimated sales returns and allowances, and to distributors, net of accruals for price protection and rights of return on products unsold by the distributors. The Company transacts with direct customers primarily pursuant to standard purchase orders for delivery of products and generally allows customers to cancel or change purchase orders within limited notice periods prior to the scheduled shipment date.

*Royalty Revenue*

Rambus' patent and technology licensing arrangements generally range between one year and ten years in duration and generally grant the licensee the right to use applicable portions of the Company's entire IP portfolio as it evolves over time. These arrangements do not typically grant the licensee the right to terminate for convenience and where such rights exist, termination is prospective, with no refund of fees already paid or cancellation of fees already incurred by the licensee.

Patent and technology licensing arrangements result in fixed payments received over time, with guaranteed minimum payments on occasion, variable payments calculated based on the licensee's sale or use of the IP, or a mix of fixed and variable payments.

- For fixed-fee arrangements (including arrangements that include minimum guaranteed amounts), the Company recognizes revenue upon control over the underlying IP use right transferring to the licensee, net of the effect of significant financing components calculated using customer-specific, risk-adjusted lending rates typically ranging between 5% and 10%, with the related interest income recognized over time on an effective rate basis. Where a licensee has the contractual right to terminate a fixed-fee arrangement for convenience without any substantive penalty payable upon such termination, the Company recognizes revenue for the duration of the contract in which the parties have present enforceable rights and obligations.
- For variable arrangements, the Company recognizes revenue based on an estimate of the licensee's sale or usage of the IP during the periods the sale or usage occur, typically quarterly, with a true-up recorded, if required, when the Company receives the actual royalty report from the licensee.
- The Company recognizes license renewal revenue commencing with the start of the renewal period.

*Contract and Other Revenue*

Contract and other revenue consists of software license fees and engineering fees associated with integration of the Company's technology solutions into its customers' products, and support and maintenance.

An initial software arrangement may consist of a term-based or perpetual license, significant software customization services and support and maintenance services that include post-implementation customer support and the right to unspecified software updates and enhancements on a when and if available basis. The Company recognizes license and customization services revenue at a point in time when final delivery is made or based on an over time model, depending on the nature and amount of customization. For the over time model, the Company recognizes revenue over time by measuring the progress toward complete satisfaction of that performance obligation.

The Company recognizes support and maintenance revenue over the time those services are provided.

*Significant Judgments*

The Company applies significant judgment when determining the amount and timing of revenue from the Company's contracts with customers, based on its estimate of the man-months necessary for completing development and customization services. The Company has adequate tools and controls in place, and substantial experience and expertise in timely and

accurately tracking man-months incurred in completing customization and other professional services, and quantifying significant changes in estimates.

The Company recognizes revenue on variable fee licensing arrangements on the basis of estimated sales and usage, which the Company then trues up to actual results when it receives the final related reports from its customers.

*Contract Balances*

Timing of revenue recognition may differ from the timing of invoicing to the Company's customers. The Company records contract assets when revenue is recognized prior to invoicing, and a contract liability when revenue is recognized subsequent to invoicing. The contract assets are transferred to receivables when the billing occurs.

***Cost of Revenue***

Cost of revenue includes cost of professional services, materials, including cost of wafers processed by third-party foundries, costs associated with packaging and assembly, test and shipping, cost of personnel, including stock-based compensation, and equipment associated with manufacturing support, logistics and quality assurance, warranty costs, amortization of existing technology, write-down of inventories, amortization of production mask costs, overhead and an allocated portion of occupancy costs.

***Leases***

The Company leases office space, domestically and internationally, under operating leases. The Company's leases have remaining lease terms generally between one year and eight years. Operating leases are included in operating lease right-of-use ("ROU") assets, operating lease liabilities and long-term operating lease liabilities in the Company's Consolidated Balance Sheets. The Company does not have any finance leases. The Company determines if an arrangement is a lease, or contains a lease, at inception. The Company assesses all relevant facts and circumstances in making the determination of the existence of a lease. For leases with terms greater than 12 months, the Company records the related asset and obligation at the present value of lease payments over the term. The Company uses its incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments, and uses the implicit rate when readily determinable. Many of the Company's leases include rental escalation clauses, renewal options and/or termination options that are factored into the determination of lease payments when appropriate. Leases with an initial term of 12 months or less are not recorded on the balance sheet, and the Company does not separate non-lease components from lease components. Operating lease costs are included in research and development and selling, general and administrative costs in the Company's Consolidated Statements of Operations.

***Goodwill***

Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in each business combination. Goodwill is not subject to amortization, but is subject to at least an annual assessment for impairment. The Company performs its impairment analysis of goodwill on an annual basis during the fourth quarter of the year unless conditions arise that warrant a more frequent evaluation.

When goodwill is assessed for impairment, the Company has the option to perform an assessment of qualitative factors of impairment (optional assessment) prior to necessitating a quantitative impairment test. Should the optional assessment be used for any given year, qualitative factors to consider for a reporting unit include: cost factors; financial performance; legal, regulatory, contractual, political, business, or other factors; entity specific factors; industry and market considerations; macroeconomic conditions; and other relevant events and factors affecting the reporting unit. If the Company determines in the qualitative assessment that it is more likely than not that the fair value of the reporting unit is less than its carrying value, a quantitative test is then performed. Otherwise, no further testing is required. For a reporting unit tested using a quantitative approach, the Company compares the fair value of the reporting unit with the carrying amount of the reporting unit, including goodwill. The fair value of the reporting unit is estimated using an income approach.

Under the income approach, the Company measures fair value of the reporting unit based on a projected cash flow method using a discount rate determined by its management which is commensurate with the risk inherent in its current business model. The Company's discounted cash flow projections are based on annual financial forecasts developed internally by management for use in managing its business. If the fair value of the reporting unit exceeds its carrying value, goodwill is not impaired and no further testing is required. If the fair value of the reporting unit is less than the carrying value, then the amount of goodwill impairment will be the amount by which the reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill.

The Company performed its annual goodwill impairment analysis as of December 31, 2024 and determined that there was no impairment of its goodwill. For the years ended December 31, 2023 and 2022, the Company did not recognize any goodwill impairment charges.

***Intangible Assets***

Intangible assets are comprised of existing technology, customer contracts and contractual relationships, and other definite-lived and indefinite-lived intangible assets. Identifiable intangible assets resulting from the acquisitions of entities accounted for using the purchase method of accounting are estimated by management based on the fair value of assets received. Identifiable definite-lived intangible assets are amortized over the period of estimated benefit using the straight-line method, with estimated useful lives ranging from six months to ten years.

Acquired indefinite-lived intangible assets related to the Company's in-process research and development ("IPR&D") are capitalized and subject to impairment testing until completion or abandonment of the projects. Upon successful completion of each project, the Company makes a separate determination of the useful life of the acquired indefinite-lived intangible assets and the related amortization is recorded as an expense over the estimated useful life of the specific projects. Indefinite-lived intangible assets are subject to at least an annual assessment for impairment, applying a fair-value based test. The Company first performs a qualitative assessment to determine whether it is more likely than not (more than 50% likelihood) that the indefinite-lived intangible assets are impaired. If after assessing the totality of events and circumstances and their potential effect on significant inputs to the fair value determination, the Company determines that it is more likely than not that the indefinite-lived intangible assets are impaired, then the Company performs a quantitative impairment test by comparing the fair value of the intangible assets with its carrying amount. The Company measures fair value of the indefinite-lived intangible assets under the income approach based on a projected cash flow method using a discount rate determined by its management which is commensurate with the risk inherent in its current business model. The Company's discounted cash flow projections are based on its annual financial forecasts developed internally by management for use in managing its business. If the fair value of the indefinite-lived intangible assets exceeds its carrying value, the indefinite-lived intangible assets are not impaired and no further testing is required. If the implied fair value of the indefinite-lived intangible assets is less than the carrying value, the difference is recorded as an impairment loss.

***Inventories***

Inventories are stated at the lower of cost or net realizable value. Cost is computed using standard cost, which approximates actual cost, on a first-in, first-out basis. Inventories are reduced for write-downs based on periodic reviews for evidence of excess or obsolete parts. The write-down is based on comparison between inventory on hand and estimated future sales for each specific product. Once written down, inventory write-downs are not reversed until the inventory is sold or scrapped. Inventory write-downs are also established when conditions indicate that the net realizable value is less than cost due to physical deterioration, obsolescence, changes in price level or other causes.

***Property and Equipment***

Property and equipment include computer software, computer equipment, leasehold improvements, machinery, and furniture and fixtures. Computer software, computer equipment, machinery, and furniture and fixtures are stated at cost and generally depreciated on a straight-line basis over an estimated useful life of three to seven years. Refer to Note 11, "Balance Sheet Details," for additional information. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or the remaining terms of the leases. Upon disposal, assets and related accumulated depreciation are removed from the accounts and the related gain or loss is included in the results from operations.

***Definite-Lived Asset Impairment***

The Company evaluates definite-lived assets (including property and equipment and intangible assets) for impairment whenever events or changes in circumstances indicate the carrying value of an asset group may not be recoverable. The carrying value is not recoverable if it exceeds the undiscounted cash flows resulting from the use of the asset group and its eventual disposition. The Company's estimates of future cash flows attributable to its asset groups require significant judgment based on its historical and anticipated results and are subject to many factors. Factors that the Company considers important which could trigger an impairment review include significant negative industry or economic trends, significant loss of clients and significant changes in the manner of its use of the acquired assets or the strategy for its overall business.

When the Company determines that the carrying value of an asset group may not be recoverable based upon the existence of one or more of the above indicators of impairment, the Company measures the potential impairment based on a projected

discounted cash flow method using a discount rate determined by the Company to be commensurate with the risk inherent in the Company's current business model. An impairment loss is recognized only if the carrying amount of the asset group is not recoverable and exceeds its fair value. The impairment charge is recorded to reduce the pre-impairment carrying amount of the assets based on the relative carrying amount of those assets, though not to reduce the carrying amount of an asset below its fair value. Different assumptions and judgments could materially affect the calculation of the fair value of the assets. During 2024, 2023 and 2022, the Company did not recognize any impairment of its definite-lived and indefinite-lived assets, except as described in Note 20, "Divestiture."

***Income Taxes***

Income taxes are accounted for using an asset and liability approach, which requires the recognition of deferred tax assets and liabilities for expected future tax events that have been recognized differently in the Company's consolidated financial statements and tax returns. The measurement of current and deferred tax assets and liabilities is based on provisions of the enacted tax law and the effects of future changes in tax laws or rates are not anticipated. A valuation allowance is established when necessary to reduce deferred tax assets to the amount of future tax benefit that is more likely than not to be realized.

In addition, the calculation of the Company's tax liabilities involves dealing with uncertainties in the application of complex tax regulations. As a result, the Company reports a liability for unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in its tax return. The company recognizes the benefit from a tax position only if it is more-likely-than-not that the position would be sustained upon audit based solely on the technical merits of the tax position.

***Stock-Based Compensation and Equity Incentive Plans***

The Company maintains stock plans covering a broad range of equity grants including stock options, nonvested equity stock and equity stock units and performance-based instruments. In addition, the Company sponsors an Employee Stock Purchase Plan ("ESPP"), whereby eligible employees are entitled to purchase common stock semi-annually, by means of limited payroll deductions, at a 15% discount from the fair market value of the common stock as of specific dates. The Company determines compensation expense associated with restricted stock units based on the fair value of its common stock on the date of grant.

***Cash and Cash Equivalents***

Cash equivalents are investments with original maturity of three months or less at the date of purchase. The Company maintains its cash balances with high-quality financial institutions. Cash equivalents are invested in highly rated, liquid money market securities, time deposits and certain U.S. government sponsored obligations.

***Marketable Securities***

Rambus invests its excess cash and cash equivalents primarily in U.S. government-sponsored obligations, corporate bonds, commercial paper and notes, time deposits and money market funds that mature within three years. Available-for-sale securities are carried at fair value, based on quoted market prices, with the unrealized gains or losses reported, net of tax, in stockholders' equity as part of accumulated other comprehensive income (loss). The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity, both of which are included in interest and other income, net. Realized gains and losses are recorded based on the specific identification method and are included in interest and other income, net. The Company reviews its investments in marketable securities for possible other than temporary impairments on a regular basis. If any loss on investment is believed to be a credit loss, a charge will be recognized in operations. In evaluating whether a credit loss on a debt security has occurred, the Company considers the following factors: 1) the Company's intent to sell the security, 2) if the Company intends to hold the security, whether or not it is more likely than not that the Company will be required to sell the security before recovery of the security's amortized cost basis and 3) even if the Company intends to hold the security, whether or not the Company expects the security to recover the entire amortized cost basis. Due to the high credit quality and short-term nature of the Company's investments, there have been no material credit losses recorded to date. The classification of funds between short-term and long-term is based on whether the securities are available for use in operations or other purposes.

***Fair Value of Financial Instruments***

The fair value measurement statement defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, and requires disclosure that establishes a framework for measuring fair value and expands disclosure about fair value measurements. The statement requires that fair value measurement be classified and disclosed in one of the following three categories:

*Level 1:* Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities. The Company uses unadjusted quotes to determine fair value. The financial assets in Level 1 include money market funds.

*Level 2:* Quoted prices in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability. The Company uses observable pricing inputs including benchmark yields, reported trades and broker/dealer quotes. The financial assets in Level 2 include U.S. government bonds and notes, and corporate bonds, commercial paper and notes.

*Level 3:* Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (*i.e.*, supported by little or no market activity). When determining fair value, the Company considers the principal or most advantageous market in which the Company would transact, and the Company considers assumptions that market participants would use when pricing the asset or liability, such as inherent risk, transfer restrictions and risk of non-performance.

The Company does not have any financial assets or liabilities in Level 3 as of December 31, 2024 and 2023, except for the Company's liability for the earn-out consideration related to the PLDA acquisition as of December 31, 2023, which was recorded within other long-term liabilities. The Company had classified this liability within Level 3 of the fair value hierarchy because the fair value was determined using significant unobservable inputs. Refer to Note 9, "Fair Value of Financial Instruments," for additional information.

The carrying value of cash equivalents, accounts receivable and accounts payable approximate their fair values due to their relatively short maturities as of December 31, 2024 and 2023.

The Company's financial instruments are measured and recorded at fair value, except for equity method investments and convertible notes. Marketable securities are comprised of available-for-sale securities that are reported at fair value with the related unrealized gains and losses included in accumulated other comprehensive income (loss), a component of stockholders' equity, net of tax. Fair value of the marketable securities is determined based on quoted market prices. The fair value of the Company's convertible notes fluctuated with interest rates and with the market price of the common stock, but did not affect the carrying value of the debt on the balance sheet.

The Company's non-financial assets, such as goodwill, intangible assets and property and equipment, are measured at fair value when there is an indicator of impairment and recorded at fair value only when an impairment charge is recognized. The Company's equity method investments were initially recognized at cost, and the carrying amount was increased or decreased to recognize the Company's share of the profit or loss of the investee after the date of acquisition. The Company's share of the investee's profit or loss was recognized in interest and other income (expense), net in the Company's Consolidated Statements of Operations. Distributions received from an investee reduced the carrying amount of the investment.

***Research and Development***

Costs incurred in research and development, which include engineering expenses, such as salaries and related benefits, stock-based compensation, depreciation, professional services and overhead expenses related to the general development of the Company's products, are expensed as incurred.

***Computation of Earnings (Loss) Per Share***

Basic earnings (loss) per share is calculated by dividing the net income (loss) by the weighted-average number of common shares outstanding during the period. Diluted earnings per share is calculated by dividing the earnings by the weighted-average number of common shares and potentially dilutive securities outstanding during the period. Potentially dilutive common shares consist of incremental common shares issuable upon exercise of stock options, employee stock purchases, and restricted stock and restricted stock units, and shares issuable upon the conversion of convertible notes. The dilutive effect of outstanding shares is reflected in diluted earnings per share by application of the treasury stock method, or the if-converted method for the in-the-money conversion benefit feature of the 2023 Notes. This method includes consideration of the amounts to be paid by the employees, the amount of excess tax benefits that would be recognized in equity if the instrument was exercised and the amount of unrecognized stock-based compensation related to future services. No potentially dilutive common shares are included in the computation of diluted earnings per share amount when a net loss is reported.

***Comprehensive Income (Loss)***

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources, including foreign currency translation adjustments and unrealized gains and losses on marketable securities. Other comprehensive income (loss), net of tax, is presented in the Consolidated Statements of Comprehensive Income (Loss).

***Credit Concentration***

As of December 31, 2024 and 2023, the Company's cash, cash equivalents and marketable securities were invested with various financial institutions in the form of corporate bonds, commercial paper and notes, money market funds, time deposits, U.S. Treasuries and U.S. Government Agencies. The Company's exposure to market risk for changes in interest rates relates primarily to its investment portfolio. The Company places its investments with high-credit issuers and, by investment policy, attempts to limit the amount of credit exposure to any one issuer. As stated in the Company's investment policy, it will ensure the safety and preservation of the Company's invested funds by limiting default risk and market risk. The Company has certain investments denominated in foreign currencies and therefore is subject to foreign exchange risk from these assets. The Company holds cash, cash equivalents and marketable securities in excess of federally insured limits.

The Company mitigates default risk by investing in high credit quality securities and by positioning its portfolio to respond appropriately to a significant reduction in a credit rating of any investment issuer or guarantor. The portfolio includes only marketable securities with active secondary or resale markets to enable portfolio liquidity.

The Company's accounts receivable are derived from revenue earned from customers located in the U.S. and internationally. Refer to Note 7, "Segments and Major Customers," for additional information.

The Company's unbilled receivables are collected from customers located in the U.S. and internationally. Refer to Note 4, "Revenue Recognition," for additional information.

***Foreign Currency Translation and Re-Measurement***

The Company translates the assets and liabilities of its non-U.S. dollar functional currency subsidiaries into U.S. dollars using exchange rates in effect at the end of each period. Revenue and expenses for these subsidiaries are translated using rates that approximate those in effect during the period. Gains and losses from these translations are recognized in foreign currency translation included in accumulated other comprehensive gain (loss) in the Company's Consolidated Statements of Stockholders' Equity. The Company's subsidiaries that use the U.S. dollar as their functional currency re-measure monetary assets and liabilities at exchange rates in effect at the end of each period, and inventories, property and non-monetary assets and liabilities at historical rates. Additionally, foreign currency transaction gains and losses are included in interest income and other (income) expense, net, in the Company's Consolidated Statements of Operations and were not material in the periods presented.

***Business Combinations***

The Company accounts for acquisitions of businesses using the purchase method of accounting, which requires the Company to recognize separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values.

Accounting for business combinations requires management to make significant estimates and assumptions, especially at the acquisition date including the Company's estimates for intangible assets, contractual obligations assumed and pre-acquisition contingencies where applicable.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Recent Accounting Pronouncements

***Recent Accounting Pronouncements Adopted***

In August 2020, the Financial Accounting Standards Board ("FASB") issued ASU No. 2020-06, "Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40) ("ASU 2020-06")." The amendments in this ASU simplify the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts in an entity's own equity. Among other changes, the guidance removes the liability and equity separation models for convertible instruments. Instead, entities will account for convertible debt instruments wholly as debt unless convertible instruments contain features that require bifurcation as a derivative or that result in substantial premiums accounted for as paid-in capital. The guidance also requires the application of the if-converted method to calculate the impact of convertible instruments on diluted earnings per share. The guidance is effective for fiscal years beginning after December 15, 2021. The Company adopted this guidance on January 1, 2022 on a modified retrospective basis. Upon adoption, the Company reversed approximately $35.2 million of debt discount related to the Company's 1.375% Convertible Senior Notes due 2023 (the "2023 Notes") from additional paid-in capital, reversed approximately $8.3 million representing the unamortized debt discount from liabilities, and recorded the net impact of $26.9 million to accumulated deficit. The Company also removed approximately $0.7 million of debt issuance costs related to the 2023 Notes from additional paid-in capital and recorded approximately $0.5 million to accumulated deficit related to the amortization of debt issuance costs that were historically allocated to equity.

In November 2023, the FASB issued ASU No. 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures." This guidance requires disclosure of incremental segment information on an annual and interim basis, primarily through enhanced disclosures about significant segment expenses that are regularly provided to the chief operating decision maker. In addition, this ASU requires that all existing annual disclosures about segment profit or loss must be provided on an interim basis and clarifies that single reportable segment entities are subject to the disclosure requirement under Topic 280 in its entirety. This ASU is effective for annual reporting periods beginning after December 15, 2023, and interim reporting periods within annual reporting periods beginning after December 15, 2024. The Company adopted this guidance for the year ended December 31, 2024 on a retrospective basis. Refer to Note 7, "Segments and Major Customers," for additional information.

***Recent Accounting Pronouncements Not Yet Adopted***

In December 2023, the FASB issued ASU No. 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures." This guidance requires additional disclosures related to rate reconciliation, income taxes paid and other disclosures. For each annual period presented, public business entities are required to 1) disclose specific categories in the rate reconciliation and 2) provide additional information for reconciling items that meet a quantitative threshold. In addition, this ASU requires all reporting entities to disclose on an annual basis the amount of income taxes paid disaggregated by federal, state and foreign taxes, as well as the amount of income taxes paid disaggregated by individual jurisdictions which meet a quantitative threshold. This ASU is effective for annual reporting periods beginning after December 15, 2024, with early adoption permitted for annual financial statements that have not yet been issued or made available for issuance. The amendments in this ASU should be applied on a prospective basis, with retrospective application permitted. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements and related disclosures.

In November 2024, the FASB issued ASU No. 2024-03, "Income Statement—Reporting Comprehensive Income—Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses ("ASU 2024-03")." This guidance requires public business entities to disclose additional information about specific expense categories in the notes to financial statements at interim and annual reporting periods, including amounts of inventory purchases, employee compensation, and depreciation and amortization included in each income statement expense caption, as applicable. The ASU also requires a qualitative description of the amounts remaining in expense captions that are not separately disaggregated quantitatively, as well as disclosure of the total amount of selling expenses and, in annual reporting periods, the entity's definition of selling expenses. This ASU is effective for annual reporting periods beginning after December 15, 2026 and interim reporting periods beginning after December 15, 2027. Early adoption is permitted. The amendments in this ASU may be applied either on a prospective or retrospective basis. The Company is currently evaluating the impact of this ASU on its consolidated financial statements and related disclosures.

In November 2024, the FASB issued ASU No. 2024-04, "Debt—Debt with Conversion and Other Options (Subtopic 470-20): Induced Conversions of Convertible Debt Instruments." This guidance clarifies the requirements for determining

whether certain settlements of convertible debt instruments should be accounted for as an induced conversion. The ASU also clarifies that the induced conversion guidance applies to a convertible debt instrument that is not currently convertible as long as it had a substantive conversion feature as of both its issuance date and the date the inducement offer is accepted. This ASU is effective for annual reporting periods beginning after December 15, 2025 and interim reporting periods within those annual reporting periods. Early adoption is permitted for all entities that have adopted the amendments of ASU 2020-06. The amendments in this ASU may be applied either on a prospective or retrospective basis. The Company currently expects no impact from this ASU on its consolidated financial statements and related disclosures.

## 4. Revenue Recognition

***Contract Balances***

The contract assets are primarily related to the Company's fixed fee IP licensing arrangements and rights to consideration for performance obligations delivered but not billed as of December 31, 2024.

The Company's contract balances were as follows:

| | As of December 31, | |
|---|---|---|
| **(In thousands)** | **2024** | **2023** |
| Unbilled receivables | $ 29,104 | $ 55,295 |
| Deferred revenue | 21,852 | 18,085 |

During the years ended December 31, 2024 and December 31, 2023, the Company recognized $17.5 million and $20.8 million, respectively, of revenue that was included in deferred revenue as of December 31, 2023 and December 31, 2022, respectively.

***Remaining Performance Obligations***

Revenue allocated to remaining performance obligations represents the transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied, which includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods. Contracted but unsatisfied performance obligations were approximately $25.7 million as of December 31, 2024, which the Company primarily expects to recognize over the next 2 years.

## 5. Earnings (Loss) Per Share

The following table sets forth the computation of basic and diluted net income (loss) per share:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| **(In thousands, except per share amounts)** | **2024** | **2023** | **2022** |
| Net income (loss) per share: | | | |
| Numerator: | | | |
| Net income (loss) | $ 179,821 | $ 333,904 | $ (14,310) |
| Denominator: | | | |
| Weighted-average common shares outstanding - basic | 107,438 | 108,183 | 109,472 |
| Effect of potentially dilutive common shares | 1,603 | 2,706 | — |
| Weighted-average common shares outstanding - diluted | 109,041 | 110,889 | 109,472 |
| Basic net income (loss) per share | $ 1.67 | $ 3.09 | $ (0.13) |
| Diluted net income (loss) per share | $ 1.65 | $ 3.01 | $ (0.13) |

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following potentially dilutive securities were excluded from the calculation of diluted net loss per share attributable to the Company's common stockholders for the year ended December 31, 2022 because the impact of including them would have been anti-dilutive (in thousands):

| (In thousands) | For the Year Ended December 31, 2022 |
|---|---|
| Stock options | 282 |
| Restricted stock units | 2,361 |
| Potentially issuable shares related to the in-the-money conversion benefit feature of convertible notes | 175 |
| Total | 2,818 |

The shares in the tables above did not include the principal amount of the Company's 2023 Notes ("the 2023 Notes") as the principal amount of the 2023 Notes had to be paid in cash. The Company settled the conversion of the remaining $10.4 million aggregate principal amount of the 2023 Notes in the first quarter of 2023. Accordingly, the Company delivered approximately 0.3 million shares of the Company's common stock as settlement related to the in-the-money conversion feature of the 2023 Notes and received an equal amount of shares due to the settlement of the convertible senior note hedges. The Company included dilutive instruments exercised during the period in the denominator of diluted earnings (loss) per share for the period prior to exercise, and thereafter, the Company included the actual shares issued in the denominator for both basic and diluted earnings (loss) per share. Refer to Note 12, "Convertible Notes," for additional information.

As a result of the Company's adoption of ASU No. 2020-06 on January 1, 2022, the dilutive impact of the 2023 Notes on the calculation of diluted net income (loss) per share was considered using the if-converted method. Furthermore, because the principal amount of the 2023 Notes had to be settled in cash, the dilutive impact of applying the if-converted method was limited to the in-the-money portion, if any, of the 2023 Notes.

## 6. Intangible Assets and Goodwill

### *Goodwill*

The following tables present goodwill information for the years ended December 31, 2024 and December 31, 2023:

| (In thousands) | December 31, 2023 | Adjustment to Goodwill | December 31, 2024 |
|---|---|---|---|
| Total goodwill | $ 286,812 | — | $ 286,812 |

| (In thousands) | December 31, 2022 | Divestiture of Goodwill[1] | December 31, 2023 |
|---|---|---|---|
| Total goodwill | $ 292,040 | $ (5,228) | $ 286,812 |

(1) In September 2023, the Company divested its PHY IP group, which resulted in the Company recognizing a decrease in goodwill based on the relative fair value of the Company's single reporting unit in proportion to the fair value of the divested PHY IP group. Refer to Note 20, "Divestiture," for additional information.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

***Intangible Assets, Net***

The components of the Company's intangible assets as of December 31, 2024 and December 31, 2023 were as follows:

| | | As of December 31, 2024 | | |
|---|---|---|---|---|
| (In thousands, except useful life) | Useful Life | Gross Carrying Amount [1] | Accumulated Amortization [1] | Net Carrying Amount |
| Existing technology | 3 to 10 years | $ 288,001 | $ (270,954) | $ 17,047 |
| Customer contracts and contractual relationships | 0.5 to 10 years | 37,496 | (37,484) | 12 |
| Non-compete agreements and trademarks | 3 years | 300 | (300) | — |
| Total intangible assets | | $ 325,797 | $ (308,738) | $ 17,059 |

[1] The IPR&D projects acquired in connection with the acquisition of PLDA in 2021 were completed during the fourth quarter of 2024. The related intangible assets of $7.4 million were reclassified as existing technology and are being amortized over their expected useful life of five years. During the year ended December 31, 2024, the amortization for the reclassified assets was not material.

| | | As of December 31, 2023 | | |
|---|---|---|---|---|
| (In thousands, except useful life) | Useful Life | Gross Carrying Amount [1] | Accumulated Amortization [1] | Net Carrying Amount |
| Existing technology | 3 to 10 years | $ 286,712 | $ (265,756) | $ 20,956 |
| Customer contracts and contractual relationships | 0.5 to 10 years | 37,496 | (37,083) | 413 |
| Non-compete agreements and trademarks | 3 years | 300 | (300) | — |
| IPR&D | Not applicable | 7,400 | — | 7,400 |
| Total intangible assets | | $ 331,908 | $ (303,139) | $ 28,769 |

[1] In September 2023, the Company disposed of approximately $7.4 million of net intangible assets (including $3.8 million of IPR&D) in connection with the divestiture of the Company's PHY IP group. Refer to Note 20, "Divestiture," for additional information.

Amortization expense for intangible assets for the years ended December 31, 2024, 2023 and 2022 was $11.7 million, $14.7 million and $15.6 million, respectively.

The estimated future amortization expense of intangible assets as of December 31, 2024 was as follows (in thousands):

| Years Ending December 31: | Amount |
|---|---|
| 2025 | $ 7,226 |
| 2026 | 5,191 |
| 2027 | 1,929 |
| 2028 | 1,480 |
| 2029 | 1,233 |
| Total intangible assets | $ 17,059 |

## 7. Segments and Major Customers

Operating segments are based upon the Company's internal organization structure, the manner in which its operations are managed, the criteria used by its Chief Operating Decision Maker ("CODM") to evaluate segment performance and availability of separate financial information regularly reviewed for resource allocation and performance assessment.

The Company has determined its CODM to be the Chief Executive Officer ("CEO"). The CEO reviews financial information presented on a consolidated basis for purposes of managing the business, allocating resources, making operating decisions and assessing financial performance. On this basis, the Company is organized and operates as a single segment within the semiconductor space. As of December 31, 2024, the Company has a single operating and reportable segment.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The CODM uses net income to assess segment performance, allocate resources and manage the business on a consolidated basis. The significant expenses for the segment exclude certain non-cash adjustments and non-recurring items, and are used to monitor budget versus actual results and to analyze the period-over-period comparisons.

The significant expenses that are regularly provided to the CODM and reconciliations to the consolidated net income for the years ended December 31, 2024, 2023 and 2022, respectively, were as follows:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| **(In thousands)** | **2024** | **2023** | **2022** |
| Total revenue | $ 556,624 | $ 461,117 | $ 454,793 |
| Adjusted cost of revenue [1] | (98,368) | (89,322) | (93,101) |
| Adjusted research and development [2] | (146,431) | (140,793) | (142,853) |
| Adjusted sales, general and administrative [3] | (76,038) | (76,669) | (78,335) |
| Other segment items: | | | |
| Stock-based compensation expenses [4] | (44,879) | (45,011) | (35,552) |
| Amortization of acquired intangible assets [4] | (11,710) | (14,741) | (15,610) |
| Impairment of assets | (1,071) | (10,045) | — |
| Acquisition & divestiture-related costs [5] | (162) | (1,625) | (7,179) |
| Interest and other income (expense), net | 17,034 | 33,521 | (84,767) |
| Change in fair value of earn-out liability | 5,044 | (9,234) | (3,111) |
| Restructuring charges | — | (9,368) | — |
| Gain on divestiture | — | 90,784 | — |
| Other [6] | — | (1,454) | (2,110) |
| Provision for (benefit from) income taxes | (20,222) | 146,744 | (6,485) |
| Net income (loss) | $ 179,821 | $ 333,904 | $ (14,310) |

[1] Excludes stock-based compensation expenses and amortization of acquisition-related intangible assets.

[2] Excludes stock-based compensation expenses and retention bonus expense related to acquisitions.

[3] Excludes stock-based compensation expenses and acquisition/divestiture-related costs and retention bonus expense.

[4] The Company excludes these expenses from its adjusted cost of revenue and operating expenses primarily because such expenses are non-cash expenses that the Company does not believe are reflective of ongoing operating results.

[5] The Company excludes these expenses in order to provide better comparability between periods as they are related to acquisitions and divestitures and have no direct correlation to the Company's ongoing operating results.

[6] Includes gain on sale of equity security, expense on abandoned operating leases, facility restoration costs and certain other one-time adjustments. The Company excludes these items as they are not reflective of ongoing results.

The following represents the Company's significant expenses related to research and development expenses and sales, general and administrative expenses, as shown above, for the years ended December 31, 2024, 2023 and 2022:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| **(In thousands)** | **2024** | **2023** | **2022** |
| Payroll and benefits | $ 129,228 | $ 123,056 | $ 124,130 |
| Variable research and development expenses [1] | 27,342 | 28,228 | 29,482 |
| Professional fees | 20,055 | 22,148 | 21,524 |
| Temporary labor services and consulting expenses | 14,264 | 13,577 | 17,276 |
| Facilities costs | 11,853 | 12,347 | 11,205 |
| Amortization and depreciation | 10,076 | 10,144 | 9,265 |
| Other expenses | 9,651 | 7,962 | 8,306 |
| Total adjusted operating expenses | $ 222,469 | $ 217,462 | $ 221,188 |

[1] Includes primarily software tools, software licenses and prototyping costs.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The measure of segment assets is reported on the Company's Consolidated Balance Sheets as total consolidated assets.

Accounts receivable from the Company's major customers representing 10% or more of total accounts receivable as of December 31, 2024 and 2023, respectively, was as follows:

| | As of December 31, | |
|---|---|---|
| **Customer** | **2024** | **2023** |
| Customer 1 | 39 % | 49 % |
| Customer 2 | 17 % | 13 % |
| Customer 3 | * | 12 % |

* Customer accounted for less than 10% of total accounts receivable in the period.

Revenue from the Company's major customers representing 10% or more of total revenue for the years ended December 31, 2024, 2023 and 2022, respectively, was as follows:

| | Years Ended December 31, | | |
|---|---|---|---|
| **Customer** | **2024** | **2023** | **2022** |
| Customer A | 23 % | 27 % | * |
| Customer B | 17 % | 18 % | 19 % |
| Customer C | 12 % | * | 17 % |
| Customer D | * | * | 14 % |

* Customer accounted for less than 10% of total revenue in the period.

Revenue from customers in the geographic regions based on the location of contracting parties was as follows:

| | Years Ended December 31, | | |
|---|---|---|---|
| **(In thousands)** | **2024** | **2023** | **2022** |
| United States | $ 201,466 | $ 176,821 | $ 277,776 |
| South Korea | 197,515 | 152,328 | 7,222 |
| Singapore | 67,318 | 53,327 | 57,309 |
| Other | 90,325 | 78,641 | 112,486 |
| Total | $ 556,624 | $ 461,117 | $ 454,793 |

As of December 31, 2024, of the $75.5 million of total property and equipment, approximately $70.4 million was located in the United States, $2.6 million was located in India and $2.5 million was located in other foreign locations. As of December 31, 2023, of the $67.8 million of total property and equipment, approximately $64.1 million was located in the United States, $3.0 million was located in India and $0.7 million was located in other foreign locations.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 8. Marketable Securities

All cash equivalents and marketable securities are classified as available-for-sale. Total cash, cash equivalents and marketable securities are summarized as follows:

| | As of December 31, 2024 | | | |
|---|---|---|---|---|
| (In thousands) | Fair Value | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses |
| Cash | $ 87,415 | $ 87,415 | $ — | $ — |
| Cash equivalents: | | | | |
| Money market funds | 6,025 | 6,025 | — | — |
| Corporate notes, bonds and commercial paper | 6,335 | 6,334 | 1 | — |
| Total cash equivalents | 12,360 | 12,359 | 1 | — |
| Total cash and cash equivalents | 99,775 | 99,774 | 1 | — |
| Marketable securities: | | | | |
| Time deposits | 12,870 | 12,870 | — | — |
| U.S. Government bonds and notes | 220,056 | 220,034 | 184 | (162) |
| Corporate bonds, commercial paper and notes | 149,097 | 149,085 | 121 | (109) |
| Total marketable securities | 382,023 | 381,989 | 305 | (271) |
| Total cash, cash equivalents and marketable securities | $ 481,798 | $ 481,763 | $ 306 | $ (271) |

| | As of December 31, 2023 | | | |
|---|---|---|---|---|
| (In thousands) | Fair Value | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses |
| Cash | $ 88,486 | $ 88,486 | $ — | $ — |
| Cash equivalents: | | | | |
| Money market funds | 3,790 | 3,790 | — | — |
| U.S. Government bonds and notes | 2,491 | 2,491 | — | — |
| Total cash equivalents | 6,281 | 6,281 | — | — |
| Total cash and cash equivalents | 94,767 | 94,767 | — | — |
| Marketable securities: | | | | |
| U.S. Government bonds and notes | 194,428 | 194,389 | 251 | (212) |
| Corporate bonds, commercial paper and notes | 136,649 | 136,892 | 162 | (405) |
| Total marketable securities | 331,077 | 331,281 | 413 | (617) |
| Total cash, cash equivalents and marketable securities | $ 425,844 | $ 426,048 | $ 413 | $ (617) |

Available-for-sale securities are reported at fair value on the balance sheets and were classified along with cash as follows:

| | As of December 31, | |
|---|---|---|
| (In thousands) | 2024 | 2023 |
| Cash | $ 87,415 | $ 88,486 |
| Cash equivalents | 12,360 | 6,281 |
| Total cash and cash equivalents | 99,775 | 94,767 |
| Marketable securities | 382,023 | 331,077 |
| Total cash, cash equivalents and marketable securities | $ 481,798 | $ 425,844 |

The Company continues to invest in highly rated, liquid debt securities. The Company holds all of its marketable securities as available-for-sale, marks them to market and regularly reviews its portfolio to ensure adherence to its investment policy and to monitor individual investments for risk analysis, proper valuation and impairment.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The estimated fair value and gross unrealized losses of cash equivalents and marketable securities classified by the length of time that the securities have been in a continuous unrealized loss position as of December 31, 2024 and 2023 are as follows:

| | Fair Value | | Gross Unrealized Losses | |
|---|---|---|---|---|
| (In thousands) | December 31, 2024 | December 31, 2023 | December 31, 2024 | December 31, 2023 |
| **Less than 12 months** | | | | |
| U.S. Government bonds and notes | $ 83,162 | $ 32,454 | $ (162) | $ (53) |
| Corporate bonds, commercial paper and notes | 48,360 | 46,407 | (109) | (40) |
| Total cash equivalents and marketable securities in a continuous unrealized loss position for less than 12 months | 131,522 | 78,861 | (271) | (93) |
| **12 months or greater** | | | | |
| U.S. Government bonds and notes | — | 6,841 | — | (159) |
| Corporate bonds, commercial paper and notes | — | 16,619 | — | (365) |
| Total marketable securities in a continuous unrealized loss position for 12 months or greater | — | 23,460 | — | (524) |
| Total cash equivalents and marketable securities in a continuous unrealized loss position | $ 131,522 | $ 102,321 | $ (271) | $ (617) |

The gross unrealized losses as of December 31, 2024 and 2023 were not material in relation to the Company's total available-for-sale portfolio. The gross unrealized losses can be primarily attributed to a combination of market conditions as well as the demand for and duration of the U.S. government-sponsored obligations and corporate bonds, commercial paper and notes. The Company reasonably believes that there is no need to sell these investments and that it can recover the amortized cost of these investments. The Company has found no evidence of impairment due to credit losses in its portfolio. Therefore, these unrealized losses were recorded in other comprehensive income (loss). The Company cannot provide any assurance that its portfolio of cash, cash equivalents and marketable securities will not be impacted by adverse conditions in the financial markets, which may require the Company in the future to record an impairment charge for credit losses which could adversely impact its financial results.

The contractual maturities of cash equivalents (excluding money market funds which have no maturity) and marketable securities are summarized as follows:

| (In thousands) | December 31, 2024 |
|---|---|
| Due less than one year | $ 294,611 |
| Due from one year through three years | 93,747 |
| Total | $ 388,358 |

Refer to Note 9, "Fair Value of Financial Instruments," for a discussion regarding the fair value of the Company's cash equivalents and marketable securities.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**9. Fair Value of Financial Instruments**

The following table presents the financial instruments and liabilities that are carried at fair value and summarizes their valuation by the respective pricing levels detailed in Note 2, "Summary of Significant Accounting Policies," as of December 31, 2024 and 2023:

| | As of December 31, 2024 | | | |
|---|---|---|---|---|
| (In thousands) | Total | Quoted Market Prices in Active Markets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
| **Assets carried at fair value** | | | | |
| Money market funds | $ 6,025 | $ 6,025 | $ — | $ — |
| Time deposits | 12,870 | — | 12,870 | — |
| U.S. Government bonds and notes | 220,056 | — | 220,056 | — |
| Corporate bonds, commercial paper and notes | 155,432 | — | 155,432 | — |
| Total assets carried at fair value | $ 394,383 | $ 6,025 | $ 388,358 | $ — |

| | As of December 31, 2023 | | | |
|---|---|---|---|---|
| (In thousands) | Total | Quoted Market Prices in Active Markets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
| **Assets carried at fair value** | | | | |
| Money market funds | $ 3,790 | $ 3,790 | $ — | $ — |
| U.S. Government bonds and notes | 196,919 | — | 196,919 | — |
| Corporate bonds, commercial paper and notes | 136,649 | — | 136,649 | — |
| Total assets carried at fair value | $ 337,358 | $ 3,790 | $ 333,568 | $ — |
| **Liabilities carried at fair value** | | | | |
| Earn-out consideration related to PLDA acquisition | $ 12,500 | $ — | $ — | $ 12,500 |
| Total liabilities carried at fair value | $ 12,500 | $ — | $ — | $ 12,500 |

The Company's liabilities related to earn-out consideration are classified within Level 3 of the fair value hierarchy because the fair value is determined using significant unobservable inputs. The following table presents additional information about liabilities measured at fair value for which the Company utilizes Level 3 inputs to determine fair value, as of December 31, 2024 and 2023:

| | Years Ended December 31, | | |
|---|---|---|---|
| (In thousands) | 2024 | 2023 | 2022 |
| Balance as of beginning of period | $ 12,500 | $ 14,800 | $ 16,900 |
| Change in fair value of earn-out liability due to remeasurement | (5,044) | 9,234 | 3,111 |
| Change in fair value of earn-out liability due to achievement of revenue target | (7,456) | (11,534) | (5,211) |
| Balance as of end of period | $ — | $ 12,500 | $ 14,800 |

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

For the years ended December 31, 2024, 2023 and 2022, the changes in the fair value of the earn-out liability related to the 2021 acquisition of PLDA, which was subject to certain revenue targets of the acquired business for a period of three years from the date of acquisition, and which was settled annually in shares of the Company's common stock based on the fair value of that common stock fixed at the time the Company acquired PLDA. The fair value of the earn-out liability was remeasured each quarter, depending on the acquired business's revenue performance relative to target over the applicable period, and adjusted to reflect changes in the per share value of the Company's common stock. The Company classified its liability for the contingent earn-out liability related to the PLDA acquisition within Level 3 of the fair value hierarchy because the fair value calculation included significant unobservable inputs, such as revenue forecast, revenue volatility, equity volatility and weighted average cost of capital. During the years ended December 31, 2024, 2023 and 2022, the Company remeasured the fair value of the earn-out liability, which resulted in a reduction of $5.0 million and additional expenses of $9.2 million and $3.1 million, respectively, in the Company's Consolidated Statements of Operations. The final earn-out was achieved as of September 30, 2024 and was fully paid during the fourth quarter of 2024.

The Company monitors its investments for impairment and records appropriate reductions in carrying value when necessary. During the years ended December 31, 2024 and 2023, the Company recorded no other-than-temporary impairment charges on its investments.

In 2018, the Company made an investment in a non-marketable equity security of a private company. This investment was accounted for under the equity method of accounting, and the Company accounted for its equity method share of the income (loss) on a quarterly basis. During the fourth quarter of 2023, the Company sold its 25.0% ownership share in the equity investment for approximately $25.0 million, which was included, net of withholding taxes paid, in prepaid and other current assets in the Company's Consolidated Balance Sheet as of December 31, 2023. The Company recognized a gain of $25.0 million related to the sale of the Company's 25.0% ownership share in the non-marketable equity security. The gain was offset by transaction costs of approximately $1.1 million, resulting in a net gain of approximately $23.9 million, which was included in the Company's Consolidated Statement of Operations for the year ended December 31, 2023. Subsequently, the Company received proceeds, net of tax, of approximately $22.8 million from this transaction during the first quarter of 2024.

During the year ended December 31, 2022, the Company recorded a gain on fair value of approximately $3.5 million related to the sale of an equity security with an immaterial carrying value in its Consolidated Statements of Operations.

During the years ended December 31, 2024 and 2023, there were no transfers of financial instruments between different categories of fair value.

Information regarding the Company's goodwill and long-lived assets balances are disclosed in Note 6, "Intangible Assets and Goodwill."

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 10. Leases

The Company has a lease agreement with 237 North First Street Holdings, LLC for an office space located at 4453 North First Street in San Jose, California (the "Lease"). The Lease has a term of 128 months from the amended commencement date in April 2020. The annual base rent increases each year to certain fixed amounts over the course of the term. In addition to the base rent, the Company will also pay operating expenses, insurance expenses, real estate taxes and a management fee. The Lease allows for an option to expand, wherein the Company has the right of first refusal to rent additional space in the building. The Company has a one-time option to extend the Lease for a period of 60 months and may elect to terminate the Lease, via written notice to the Landlord, in the event the office space is damaged or destroyed. These options were not recognized as part of operating lease right-of-use assets and operating lease liabilities.

The table below reconciles the undiscounted cash flows for the first five years and total of the remaining years to the operating lease liabilities recorded in the Consolidated Balance Sheet as of December 31, 2024 (in thousands):

| Years ending December 31, | Amount |
|---|---|
| 2025 | $ 7,105 |
| 2026 | 7,421 |
| 2027 | 5,906 |
| 2028 | 4,773 |
| 2029 | 4,790 |
| Thereafter | 4,661 |
| Total minimum lease payments | 34,656 |
| Less: amount of lease payments representing interest | (4,505) |
| Present value of future minimum lease payments | 30,151 |
| Less: current obligations under leases | (5,617) |
| Long-term lease obligations | $ 24,534 |

As of December 31, 2024, the weighted-average remaining lease term for the Company's operating leases was 5.3 years, and the weighted-average discount rate used to determine the present value of the Company's operating leases was 7.6%.

Operating lease costs included in research and development and selling, general and administrative costs in the Company's Consolidated Statements of Operations were $5.5 million, $6.0 million and $7.5 million for the years ended December 31, 2024, 2023 and 2022, respectively.

Cash paid for amounts included in the measurement of operating lease liabilities were $6.1 million, $6.7 million and $8.6 million for the years ended December 31, 2024, 2023 and 2022, respectively.

## 11. Balance Sheet Details

***Inventories*** [1]

Inventories consisted of the following:

| | As of December 31, | |
|---|---|---|
| (In thousands) | 2024 | 2023 |
| Raw materials | $ 14,777 | $ 17,483 |
| Work in process | 9,646 | 5,299 |
| Finished goods | 20,211 | 13,372 |
| Total | $ 44,634 | $ 36,154 |

[1] As of December 31, 2024 and 2023, the Company had inventory reserve balances of approximately $6.7 million and $6.0 million included in the Consolidated Balance Sheets, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

***Property and Equipment, net***

Property and equipment, net is comprised of the following:

| (In thousands) | As of December 31, 2024 | 2023 |
|---|---|---|
| Computer software | $ 44,745 | $ 44,226 |
| Computer equipment | 38,282 | 36,198 |
| Leasehold improvements | 31,973 | 27,810 |
| Machinery | 49,204 | 30,446 |
| Furniture and fixtures | 14,164 | 12,561 |
| Construction in progress | 7,789 | 5,660 |
| Property and equipment, gross | 186,157 | 156,901 |
| Less accumulated depreciation and amortization | (110,648) | (89,093) |
| Property and equipment, net | $ 75,509 | $ 67,808 |

Depreciation expense for the years ended December 31, 2024, 2023 and 2022 was $26.1 million, $37.7 million and $26.0 million, respectively.

***Other Current Liabilities***

Other current liabilities are comprised of the following:

| (In thousands) | As of December 31, 2024 | 2023 |
|---|---|---|
| EDA tools software licenses liability | $ 8,438 | $ 14,566 |
| Price protection liability | 4,677 | 6,563 |
| Other current liabilities | 4,198 | 5,469 |
| Total | $ 17,313 | $ 26,598 |

***Accumulated Other Comprehensive Loss***

Accumulated other comprehensive loss is comprised of the following:

| (In thousands) | As of December 31, 2024 | 2023 |
|---|---|---|
| Foreign currency translation adjustments | $ (1,144) | $ (913) |
| Unrealized loss on available-for-sale securities, net of tax | (116) | (356) |
| Total | $ (1,260) | $ (1,269) |

**12. Convertible Notes**

The Company did not have any convertible notes outstanding as of December 31, 2024 and 2023.

On March 2, 2022, the Company entered into individual, privately negotiated transactions with certain holders of its outstanding 1.375% Convertible Senior Notes due 2023 (“2023 Notes”), pursuant to which the Company paid an aggregate of approximately $199.1 million in cash for the repurchase of approximately $123.1 million aggregate principal amount of its 2023 Notes (“Q1 2022 Partial Notes Repurchase”). The cash consideration was based on a volume-weighted average price of $29.6789 for the 19-trading day measurement period ending March 29, 2022. Of the $123.1 million aggregate principal amount, approximately $107.9 million was settled on March 31, 2022 for $174.5 million in cash. The remaining $15.2 million aggregate principal amount was settled on April 1, 2022 for $24.6 million in cash. In addition, this transaction resulted in a loss on extinguishment of debt of $66.5 million and a loss on fair value adjustment of derivatives, net of $8.3 million.

On August 11, 2022, the Company entered into individual, privately negotiated transactions with certain holders of its outstanding 2023 Notes, pursuant to which the Company paid an aggregate of approximately $58.9 million in cash for the repurchase of approximately $39.0 million aggregate principal amount of its 2023 Notes (“Q3 2022 Partial Notes Repurchase”).

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The cash consideration was based on a volume-weighted average price of $27.8456 for the 10-trading day measurement period ending August 25, 2022. In addition, this transaction resulted in a loss on extinguishment of debt of $17.1 million and a loss on fair value adjustment of derivatives, net of $2.3 million.

Upon entering into the Q1 2022 and Q3 2022 Partial Notes Repurchase agreements, the conversion feature related to the 2023 Notes repurchased, as well as the settlements of the convertible senior note hedges and warrants, were subject to derivative accounting. As described in the preceding paragraphs above, the combination of these two transactions resulted in $10.6 million in losses on fair value adjustment of derivatives, net, for the year ended December 31, 2022.

During the first quarter of 2023, the holders of the remaining $10.4 million aggregate principal amount of the 2023 Notes elected to convert the notes pursuant to the original terms of the conversion feature. Accordingly, upon maturity, the Company paid $10.4 million in cash to settle the aggregate principal amount of the 2023 Notes and delivered approximately 0.3 million shares of the Company's common stock to settle the conversion spread.

In connection with the Q1 2022 Partial Notes Repurchase, the Company entered into agreements with certain financial institutions to retire the corresponding portions of convertible senior note hedges and warrants the Company had previously entered into with the counterparties in connection with the issuance of the 2023 Notes. Upon settlement, the Company received $72.4 million in cash for the retirement of the proportionate amount of convertible senior note hedges and paid $55.1 million in cash for the retirement of the proportionate amount of warrants during the first quarter of 2022.

In connection with the Q3 2022 Partial Notes Repurchase, the Company entered into agreements with certain financial institutions to retire the corresponding portions of convertible senior note hedges and warrants the Company had previously entered into with the counterparties in connection with the issuance of the 2023 Notes. Upon settlement, the Company received $19.3 million in cash for the retirement of the proportionate amount of convertible senior note hedges and paid $14.4 million in cash for the retirement of the proportionate amount of warrants during the third quarter of 2022.

In connection with the settlement of the conversion of the remaining 2023 Notes, the Company received 0.3 million shares of the Company’s common stock for the retirement of the remaining convertible senior note hedges and paid $10.7 million in cash for the retirement of the remaining warrants during the first quarter of 2023. Additionally, the retirement of the remaining warrants was subject to derivative accounting, resulting in a loss on fair value adjustment of derivatives of $0.2 million for the year ended December 31, 2023.

As of December 31, 2024, none of the note hedges and warrants remained outstanding.

For the year ended December 31, 2024, there was no interest expense related to the convertible notes. Interest expense related to the convertible notes for the years ended December 31, 2023 and 2022 was immaterial.

### 13. Commitments and Contingencies

As of December 31, 2024, the Company’s material contractual obligations were as follows:

| (In thousands) | Total | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|---|
| **Contractual obligations** [1] [2] | | | | | | |
| Software licenses [3] | $ 12,034 | $ 9,675 | $ 1,484 | $ 875 | $ — | $ — |
| Other contractual obligations | 268 | 131 | 137 | — | — | — |
| Acquisition retention bonuses [4] | 260 | 260 | — | — | — | — |
| Total | $ 12,562 | $ 10,066 | $ 1,621 | $ 875 | $ — | $ — |

[1] The above table does not reflect possible payments in connection with unrecognized tax benefits of approximately $132.2 million, including $22.8 million recorded as a reduction of long-term deferred tax assets and $109.4 million in long-term income taxes payable, as of December 31, 2024. As noted below in Note 18, “Income Taxes,” although it is possible that some of the unrecognized tax benefits could be settled within the next 12 months, the Company cannot reasonably estimate the timing of the outcome at this time.

[2] For the Company’s lease commitments as of December 31, 2024, refer to Note 10, “Leases.”

[3] The Company has commitments with various software vendors for agreements generally having terms longer than one year.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(4) In connection with the acquisitions of Hardent in the second quarter of 2022 and PLDA in the third quarter of 2021, the Company is obligated to pay retention bonuses to certain employees subject to certain eligibility and acceleration provisions, including the condition of employment.

***Indemnifications***

From time to time, the Company indemnifies certain customers as a necessary means of doing business. Indemnification covers customers for losses suffered or incurred by them as a result of any patent, copyright, or other IP infringement or any other claim by any third party arising as a result of the applicable agreement with the Company. The Company generally attempts to limit the maximum amount of indemnification that the Company could be required to make under these agreements to the amount of fees received by the Company, however, this may not always be possible. The fair value of the liability as of December 31, 2024 and 2023, respectively, was not material.

**14. Equity Incentive Plans and Stock-Based Compensation**

***Equity Incentive Plans***

The Company has two equity incentive plans under which grants are currently outstanding: the 2015 Equity Incentive Plan (the "2015 Plan") and the 2019 Inducement Equity Incentive Plan (the "2019 Inducement Plan"). The 2015 Plan and 2019 Inducement Plan were the Company's only plans for providing stock-based incentive awards to eligible employees, executive officers, non-employee directors and consultants as of December 31, 2024. Grants under all plans typically have a requisite service period of 60 months or 48 months, have straight-line vesting schedules and expire not more than 10 years from date of grant.

A summary of shares available for grant under the Company's plans is as follows:

| | Shares Available for Grant |
|---|---|
| Total shares available for grant as of December 31, 2021 | 10,492,178 |
| Nonvested equity stock and stock units granted (1) (2) | (4,107,633) |
| Nonvested equity stock and stock units forfeited (1) | 1,271,224 |
| Total shares available for grant as of December 31, 2022 | 7,655,769 |
| Increase in shares approved for issuance (3) | 5,210,000 |
| Nonvested equity stock and stock units granted (1) (4) | (2,082,334) |
| Nonvested equity stock and stock units forfeited (1) | 1,170,715 |
| Total shares available for grant as of December 31, 2023 | 11,954,150 |
| Stock options expired | 1,125 |
| Nonvested equity stock and stock units granted (1) (5) | (1,482,074) |
| Nonvested equity stock and stock units forfeited (1) | 416,677 |
| Total shares available for grant as of December 31, 2024 | 10,889,878 |

(1) For purposes of determining the number of shares available for grant under the 2015 Plan against the maximum number of shares authorized, each restricted stock unit granted prior to April 27, 2023 reduces the number of shares available for grant by 1.5 shares and each restricted stock unit forfeited increases shares available for grant by 1.5 shares. Each restricted stock unit granted on or after April 27, 2023 reduces the number of shares available for grant by 1.0 share and each restricted stock unit forfeited increases shares available for grant by 1.0 share.

(2) Amount includes approximately 0.6 million shares that have been reserved for potential future issuance related to certain performance unit awards granted in 2022 and discussed under the section titled "Nonvested Equity Stock and Stock Units" below.

(3) On April 27, 2023, the Company's stockholders approved these additional shares to be reserved for issuance under the 2015 Plan.

(4) Amount includes approximately 0.2 million shares that have been reserved for potential future issuance related to certain performance unit awards granted in 2023 and discussed under the section titled "Nonvested Equity Stock and Stock Units" below.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(5) Amount includes approximately 0.2 million shares that have been reserved for potential future issuance related to certain performance unit awards granted in 2024 and discussed under the section titled "Nonvested Equity Stock and Stock Units" below.

***General Stock Option Information***

The following table summarizes stock option activity under the Company's equity incentive plans for the years ended December 31, 2024, 2023 and 2022 and information regarding stock options outstanding and vested as of December 31, 2024:

| | Options Outstanding | | | |
|---|---|---|---|---|
| | Number of Shares | Weighted-Average Exercise Price Per Share | Weighted-Average Remaining Contractual Term (years) | Aggregate Intrinsic Value (In thousands) |
| Outstanding as of December 31, 2021 | 549,581 | $ 10.71 | | |
| Options exercised | (117,138) | $ 7.43 | | |
| Outstanding as of December 31, 2022 | 432,443 | $ 11.60 | | |
| Options exercised | (307,711) | $ 11.61 | | |
| Outstanding as of December 31, 2023 | 124,732 | $ 11.60 | | |
| Options exercised | (33,607) | $ 9.42 | | $ 1,460 |
| Options expired | (1,125) | $ 8.76 | | |
| Outstanding and vested as of December 31, 2024 | 90,000 | $ 12.45 | 3.53 | $ 3,637 |

***Employee Stock Purchase Plan***

During the years ended December 31, 2024, 2023 and 2022, the Company had one employee stock purchase plan, the 2015 Employee Stock Purchase Plan ("2015 ESPP"). Employees generally will be eligible to participate in the plan if they are employed by the Company for more than 20 hours per week and more than five months in a fiscal year. The 2015 ESPP provides for six-month offering periods, with a new offering period commencing on the first trading day on or after May 1 and November 1 of each year. Under the plan, employees may purchase stock at the lower of 85% of the fair market value of the Company's common stock at the beginning of the offering period (the enrollment date) or the end of each offering period (the purchase date). Employees generally may not purchase more than the number of shares having a value greater than $25,000 in any calendar year, as measured at the purchase date.

The Company issued 119,350 shares at an average price of $43.14 per share during the year ended December 31, 2024. The Company issued 172,711 shares at an average price of $31.10 per share during the year ended December 31, 2023. The Company issued 255,614 shares at an average price of $20.60 per share during the year ended December 31, 2022. As of December 31, 2024, 2.3 million shares under the ESPP remained available for issuance.

***Stock-Based Compensation***

*Stock Options*

There were no stock options granted during the years ended December 31, 2024, 2023 and 2022, respectively.

There was no stock-based compensation expense related to stock options for the year ended December 31, 2024. Stock-based compensation expenses related to stock options were immaterial for the years ended December 31, 2023 and 2022. As of December 31, 2023, all compensation cost net of expected forfeitures, related to unvested stock-based compensation arrangements granted under the stock option plans had been fully recognized.

As of December 31, 2024, all stock options had been fully vested and there were no stock options vested during the year ended December 31, 2024. The total fair value of options vested for the years ended December 31, 2023 and 2022 were $0.5 million and $1.7 million, respectively.

*Employee Stock Purchase Plan*

During the years ended December 31, 2024, 2023 and 2022, the Company recorded stock-based compensation expenses related to the 2015 ESPP of $1.9 million, $1.8 million and $1.7 million, respectively.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

As of December 31, 2024, there was $1.0 million of total unrecognized compensation cost related to stock-based compensation arrangements granted under the 2015 ESPP. That cost is expected to be recognized over four months.

***Valuation Assumptions***

The Company estimates the fair value of stock awards using the BSM model. The BSM model determines the fair value of stock-based compensation and is affected by the Company's stock price on the date of the grant, as well as assumptions regarding a number of highly complex and subjective variables. These variables include expected volatility, expected life of the award, expected dividend rate and expected risk-free rate of return. The assumptions for expected volatility and expected life are the two assumptions that significantly affect the grant-date fair value. If actual results differ significantly from these estimates, stock-based compensation expense and the Company's results of operations could be materially impacted.

The fair value of stock awards is estimated as of the grant date using the BSM option-pricing model assuming a dividend yield of 0% and the additional weighted-average assumptions as listed in the table below.

| | Employee Stock Purchase Plan for Years Ended December 31, | | |
|---|---|---|---|
| | 2024 | 2023 | 2022 |
| **Employee Stock Purchase Plan** | | | |
| Expected stock price volatility | 47%-54% | 48%-53% | 40%-44% |
| Risk free interest rate | 4.42%-5.43% | 5.14%-5.51% | 1.49%-4.58% |
| Expected term (in years) | 0.5 | 0.5 | 0.5 |
| Weighted-average fair value of purchase rights granted under the purchase plan | $14.96 | $14.86 | $8.02 |

*Expected Stock Price Volatility:* Given the volume of market activity in its market traded options, the Company determined that it would use the implied volatility of its nearest-to-the-money traded options. The Company believes that the use of implied volatility is more reflective of market conditions and a better indicator of expected volatility than historical volatility. If there is not sufficient volume in its market traded options, the Company will use an equally weighted blend of historical and implied volatility.

*Risk-free Interest Rate:* The Company bases the risk-free interest rate used in the BSM valuation method on implied yield currently available on the U.S. Treasury zero-coupon issues with an equivalent term. Where the expected terms of the Company's stock-based awards do not correspond with the terms for which interest rates are quoted, the Company uses an approximation based on rates on the closest term currently available.

*Expected Term:* The expected term of options granted represents the period of time that options granted are expected to be outstanding. The expected term was determined based on historical experience of similar awards, giving consideration to the contractual terms of the stock-based awards, vesting schedules and expectations of future employee behavior. The expected term of ESPP grants is based upon the length of each respective purchase period.

***Nonvested Equity Stock and Stock Units***

The Company grants nonvested equity stock units to officers, employees and directors. For the years ended December 31, 2024, 2023 and 2022, the Company granted nonvested equity stock units totaling 1.3 million, 1.3 million and 2.3 million shares, respectively. These awards have a service condition, generally a service period of four years, except in the case of grants to directors, for which the service period is one year. For the years ended December 31, 2024, 2023 and 2022, the nonvested equity stock units were valued at the date of grant, giving them a fair value of approximately $74.8 million, $60.7 million and $65.6 million, respectively. During the years ended December 31, 2024, 2023 and 2022, the Company granted performance unit awards to certain Company executive officers with vesting subject to the achievement of certain performance and/or market conditions. The ultimate number of performance units that can be earned can range from 0% to 200% of target depending on performance relative to target over the applicable period. The shares earned will vest on the third anniversary of the date of grant. The Company's shares available for grant have been reduced to reflect the shares that could be earned at the maximum target.

For the years ended December 31, 2024, 2023 and 2022, the Company recorded stock-based compensation expense of approximately $43.0 million, $43.1 million and $33.8 million, respectively, related to all outstanding nonvested equity stock grants.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Unrecognized compensation cost related to all nonvested equity stock grants, net of estimated forfeitures, was approximately $79.9 million as of December 31, 2024. This amount is expected to be recognized over a weighted-average period of 1.9 years.

The following table reflects the activity related to nonvested equity stock and stock units for the years ended December 31, 2024, 2023 and 2022:

| Nonvested Equity Stock and Stock Units | Shares | Weighted-Average Grant-Date Fair Value |
|---|---|---|
| Nonvested as of December 31, 2021 | 4,718,385 | $ 16.62 |
| Granted | 2,338,255 | $ 28.10 |
| Vested | (1,853,260) | $ 14.42 |
| Forfeited | (485,320) | $ 20.48 |
| Nonvested as of December 31, 2022 | 4,718,060 | $ 22.78 |
| Granted | 1,268,973 | $ 46.93 |
| Vested | (1,797,002) | $ 18.07 |
| Forfeited | (759,839) | $ 28.60 |
| Nonvested as of December 31, 2023 | 3,430,192 | $ 32.90 |
| Granted | 1,312,367 | $ 57.03 |
| Vested | (1,289,945) | $ 27.14 |
| Forfeited | (302,453) | $ 39.07 |
| Nonvested as of December 31, 2024 | 3,150,161 | $ 44.72 |

**15. Stockholders' Equity**

***Share Repurchase Programs***

On October 29, 2020, the Board approved a share repurchase program authorizing the repurchase of up to an aggregate of 20.0 million shares (the "2020 Repurchase Program"). Share repurchases under the 2020 Repurchase Program may be made through the open market, established plans or privately negotiated transactions in accordance with all applicable securities laws, rules and regulations. There is no expiration date applicable to the 2020 Repurchase Program. During the years ended December 31, 2024, 2023 and 2022, the Company repurchased shares of its common stock under the 2020 Repurchase Program as discussed below.

On September 9, 2022, the Company entered into an accelerated share repurchase program with Wells Fargo Bank, National Association ("Wells Fargo") (the "2022 ASR Program"). The 2022 ASR Program was part of the 2020 Repurchase Program. Under the 2022 ASR Program, the Company pre-paid to Wells Fargo the $100.0 million purchase price for its common stock and, in turn, the Company received an initial delivery of approximately 3.1 million shares of its common stock from Wells Fargo in the third quarter of 2022, which were retired and recorded as an $80.0 million reduction to stockholders' equity. The remaining $20.0 million of the initial payment was recorded as a reduction to stockholders' equity as an unsettled forward contract indexed to the Company's stock. During the fourth quarter of 2022, the accelerated share repurchase program was completed and the Company received an additional 0.1 million shares of its common stock, which were retired, as the final settlement of the 2022 ASR Program.

On August 10, 2023, the Company entered into an accelerated share repurchase program with Royal Bank of Canada ("RBC") (the "2023 ASR Program"). The 2023 ASR Program was part of the 2020 Repurchase Program. Under the 2023 ASR Program, the Company pre-paid to RBC the $100.0 million purchase price for its common stock and, in turn, the Company received an initial delivery of approximately 1.6 million shares of its common stock from RBC on August 11, 2023, which were retired and recorded as an $80.0 million reduction to stockholders' equity. The remaining $20.0 million of the initial payment was recorded as a reduction to stockholders' equity as an unsettled forward contract indexed to the Company's stock. On September 22, 2023, the accelerated share repurchase program was completed and the Company received an additional 0.2 million shares of its common stock, which were retired, as the final settlement of the 2023 ASR Program.

On February 29, 2024, the Company entered into an accelerated share repurchase program with Royal Bank of Canada ("RBC") (the "2024 ASR Program"). The 2024 ASR Program was part of the 2020 Repurchase Program. Under the 2024 ASR

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Program, the Company pre-paid to RBC the $50.0 million purchase price for its common stock and, in turn, the Company received an initial delivery of approximately 0.7 million shares of its common stock from RBC on March 1, 2024, which were retired and recorded as a $40.0 million reduction to stockholders' equity. The remaining $10.0 million of the initial payment was recorded as a reduction to stockholders' equity as an unsettled forward contract indexed to the Company's stock. On March 18, 2024, the accelerated share repurchase program was completed and the Company received an additional 0.1 million shares of its common stock, which were retired, as the final settlement of the 2024 ASR Program.

On November 2, 2023, the Company entered into a share repurchase plan (the "Buying Plan") with RBC Capital Markets, LLC ("RBCCM"). The Buying Plan was part of the 2020 Repurchase Program. Under the Buying Plan, RBCCM commenced purchases for a 12-month period starting on November 2, 2023 and ending on November 1, 2024, with a provision to terminate sooner pursuant to the Buying Plan (the "Repurchase Period"). During the Repurchase Period, RBCCM may purchase an aggregate amount of $50.0 million of the Company's common stock, and its execution is dependent on the Company's stock price reaching certain levels. Share repurchases could not exceed $25.0 million in a quarter. During the year ended December 31, 2023, an immaterial amount of shares were repurchased, retired and recorded as a reduction to stockholders' equity. During the first quarter of 2024, the Buying Plan was amended and as a result, no purchases were made from the Buying Plan during the period from March 1, 2024 to March 28, 2024, while the 2024 ASR Program was in effect. During the third quarter of 2024, the Buying Plan was further amended to allow RBCCM to purchase an aggregate amount of $100.0 million of the Company's common stock during the Repurchase Period, not to exceed $50.0 million in a quarter. The execution of share repurchases is dependent on the Company's stock price reaching certain levels. During the year ended December 31, 2024, the Company repurchased approximately 1.4 million shares for approximately $63.1 million as part of the Buying Plan, which were retired and recorded as a reduction to stockholders' equity.

Effective January 1, 2023, the Company's share repurchases are subject to a 1% excise tax as a result of the Inflation Reduction Act of 2022. As of December 31, 2024, the Company recorded an immaterial excise tax liability on its accompanying Consolidated Balance Sheet.

As of December 31, 2024, there remained an outstanding authorization to repurchase approximately 5.7 million shares of the Company's outstanding common stock under the 2020 Repurchase Program.

The Company records share repurchases as a reduction to stockholders' equity. The Company records a portion of the purchase price of the repurchased shares as an increase to accumulated deficit when the price of the shares repurchased exceeds the average original proceeds per share received from the issuance of common stock in accordance with its accounting policy. During the years ended December 31, 2024, 2023 and 2022, the cumulative price of $47.9 million, $94.7 million and $90.1 million, respectively, was recorded as increases to accumulated deficit.

**16. Benefit Plans**

The Company has a 401(k) Plan (the "401(k) Plan") qualified under Section 401(k) of the Internal Revenue Code of 1986. Each eligible employee may elect to contribute up to 60% of the employee's annual compensation to the 401(k) Plan, up to the Internal Revenue Service limit. The Company, at the discretion of its Board of Directors, may match employee contributions to the 401(k) Plan. The Company matches 50% of eligible employee's contribution, up to the first 6% of an eligible employee's qualified earnings. For the years ended December 31, 2024, 2023 and 2022, the Company made matching contributions totaling approximately $2.1 million, $2.0 million and $1.9 million, respectively.

**17. Restructuring and Other Charges**

***2023 Restructuring Plan***

In June 2023, the Company initiated a restructuring program to reduce overall expenses to improve future profitability by reducing the Company's overall spending (the "2023 Restructuring Plan"). In connection with this restructuring program, the Company initiated a plan resulting in a reduction of 42 employees. During the year ended December 31, 2023, the Company recorded charges of approximately $9.4 million to "Restructuring and other charges" in its Consolidated Statement of Operations, related to the reduction in workforce, as well as write-downs of obligations related to certain IP development costs and software licenses for engineering development tools. The 2023 Restructuring Plan was materially completed in the fourth quarter of 2023.

## 18. Income Taxes

Income (loss) before taxes consisted of the following:

| (In thousands) | For the Years Ended December 31, 2024 | 2023 | 2022 |
|---|---|---|---|
| Domestic | $ 190,382 | $ 154,434 | $ (16,663) |
| Foreign | 9,661 | 32,726 | 8,838 |
| | $ 200,043 | $ 187,160 | $ (7,825) |

The provision for (benefit from) income taxes was comprised of:

| (In thousands) | For the Years Ended December 31, 2024 | 2023 | 2022 |
|---|---|---|---|
| Federal: | | | |
| Current | $ 2,760 | $ 1,075 | $ 183 |
| Deferred | (9,447) | (126,734) | 2,479 |
| State: | | | |
| Current | 468 | 893 | (215) |
| Deferred | 1,245 | (17,264) | 24 |
| Foreign: | | | |
| Current | 26,869 | (3,362) | 5,828 |
| Deferred | (1,673) | (1,352) | (1,814) |
| | $ 20,222 | $ (146,744) | $ 6,485 |

The differences between the Company's effective tax rate and the U.S. federal statutory regular tax rate were as follows:

| | For the Years Ended December 31, 2024 | 2023 | 2022 |
|---|---|---|---|
| U.S. federal statutory rate | 21.0 % | 21.0 % | 21.0 % |
| State income tax expense (benefit) | 0.9 | (8.7) | 6.1 |
| Withholding tax | 8.4 | 3.9 | (36.6) |
| Foreign rate differential | (1.4) | (2.6) | (28.3) |
| Research and development credit | (1.9) | (2.9) | 4.8 |
| Executive compensation | 4.0 | 3.9 | (49.0) |
| Stock-based compensation | (6.1) | (5.2) | 47.9 |
| Foreign tax credit | (8.4) | (2.5) | 57.4 |
| Foreign-derived intangible income deduction | (6.8) | (1.9) | 70.5 |
| Acquisition | (0.1) | 1.6 | (25.1) |
| Debt extinguishment | — | — | (226.7) |
| Other | 0.5 | 0.3 | (1.0) |
| Valuation allowance | — | (85.3) | 76.1 |
| | 10.1 % | (78.4)% | (82.9)% |

The components of the net deferred tax assets (liabilities) were as follows:

| (In thousands) | As of December 31, 2024 | 2023 |
|---|---|---|
| Deferred tax assets: | | |
| Lease liabilities | $ 6,384 | $ 6,607 |
| Other timing differences, accruals and reserves | 3,893 | 5,306 |
| Deferred equity compensation | 6,678 | 3,973 |
| Net operating loss carryovers | 12,003 | 14,578 |
| Capitalized research | 96,739 | 77,244 |
| Tax credits | 47,960 | 50,445 |
| Total gross deferred tax assets | 173,657 | 158,153 |
| Deferred tax liabilities: | | |
| Lease right-of-use assets | (4,498) | (4,589) |
| Depreciation and amortization | (9,077) | (5,078) |
| Total gross deferred tax liabilities | (13,575) | (9,667) |
| Total net deferred tax assets | 160,082 | 148,486 |
| Valuation allowance | (26,790) | (25,056) |
| Net deferred tax assets | $ 133,292 | $ 123,430 |

| (In thousands) | As of December 31, 2024 | 2023 |
|---|---|---|
| Reported as: | | |
| Non-current deferred tax assets | $ 136,466 | $ 127,892 |
| Non-current deferred tax liabilities | (3,174) | (4,462) |
| Net deferred tax assets | $ 133,292 | $ 123,430 |

The Company periodically evaluates the realizability of its net deferred tax assets based on all available evidence, both positive and negative. The realizability of the Company's net deferred tax assets is dependent on its ability to generate sufficient future taxable income during periods prior to the expiration of tax attributes to fully utilize these assets. During 2023, based on all available positive and negative evidence, the Company determined that it was appropriate to release the valuation allowance on the majority of the Company's U.S. federal and other state deferred tax assets. The Company recognized a $177.9 million tax benefit during the year ended December 31, 2023 as a result of the valuation allowance release.

Upon considering the relative impact of all evidence during 2024, both negative and positive, and the weight accorded to each, the Company concluded that it was more likely than not that the majority of its deferred tax assets would be realizable, with the exception of primarily its California research and development credits that have not met the "more likely than not" realization threshold criteria. As a result, the Company continues to maintain a valuation allowance on only those deferred tax assets that it does not think will be realizable.

The following table presents the tax valuation allowance information for the years ended December 31, 2024, 2023 and 2022:

| (In thousands) | Balance at Beginning of Period | Charged (Credited) to Operations | Charged to Other Account* | Valuation Allowance Release | Balance at End of Period |
|---|---|---|---|---|---|
| **Tax Valuation Allowance** | | | | | |
| Year ended December 31, 2022 | $ 206,874 | (7,233) | 2,242 | — | $ 201,883 |
| Year ended December 31, 2023 | $ 201,883 | 1,776 | (717) | (177,886) | $ 25,056 |
| Year ended December 31, 2024 | $ 25,056 | 1,784 | (50) | — | $ 26,790 |

* Amounts not charged to operations are charged to other comprehensive income or retained earnings.

As of December 31, 2024, the Company had California net operating loss carryforwards of $171.9 million. As of December 31, 2024, the Company had federal research and development tax credit carryforwards of $41.6 million and foreign tax credits of $1.0 million. As of December 31, 2024, the Company had California research and development tax credit carryforwards of $30.0 million and California alternative minimum tax credit carryforwards of $0.5 million. The federal research and development tax credits begin to expire in 2028. The Company's foreign tax credits will continue to carryover and do not begin to expire until 2028, if unused. The California net operating losses begin to expire in 2031. The California research and development credits carry forward indefinitely.

In the event of a change in ownership, as defined under federal and state tax laws, the Company's net operating loss and tax credit carryforwards could be subject to annual limitations. The annual limitations could result in the expiration of the net operating loss and tax credit carryforwards prior to utilization.

As of December 31, 2024, the Company had $203.8 million of unrecognized tax benefits, before interest accrual, including $22.8 million recorded as a reduction of long-term deferred tax assets, $74.8 million recorded as a reduction of other assets associated with refundable withholding taxes previously withheld from licensees in South Korea and $106.2 million recorded to long-term income taxes payable, which are primarily comprised of $105.1 million in income taxes payable related to withholding taxes previously withheld from licensees in South Korea.

As a result of recent court rulings in 2023, the Company determined that it is more likely than not that withholding taxes paid in South Korea in the preceding five years are recoverable. In October 2023, the Company filed refund claims for withholding taxes paid in South Korea in the amount of $82.7 million related to the period from the fourth quarter of 2018 through the third quarter of 2023. The Company intends to file additional refund claims in the future for $4.2 million of withholding taxes paid in the fourth quarter of 2023 and $18.2 million paid in 2024. Therefore, the Company recorded long-term tax receivables of $110.0 million and $88.8 million as of December 31, 2024 and 2023, respectively.

If the South Korea withholding taxes are recovered through the refund claim process, the U.S. foreign tax credit claimed for these withholding taxes on historical federal tax returns will be forfeited. Therefore, during the year ended December 31, 2023, the Company recorded a long-term tax payable in the amount of $72.6 million and a reduction to deferred tax assets related to foreign tax credits in the amount of $10.1 million. During the year ended December 31, 2024, the Company utilized most of the foreign tax credits. Therefore, the Company recorded a long-term tax payable of $105.1 million as of December 31, 2024. These amounts exclude interest and reflect the future U.S. federal tax liability in the event of filing amended federal tax returns to revise the foreign tax credit amounts.

The recovery of South Korea withholding taxes paid before the fourth quarter of 2018 of $74.8 million is uncertain due to the statute of limitations for filing a refund claim. Thus, the Company did not record a long-term tax receivable and included the amount in the uncertain tax benefit disclosure below.

As of December 31, 2023, the Company had $185.7 million of unrecognized tax benefits, including $31.7 million recorded as a reduction of long-term deferred tax assets, $75.0 million recorded as a reduction of other assets associated with refundable withholding taxes previously withheld from licensees in South Korea and $78.9 million recorded to long-term income taxes payable, which were primarily comprised of $77.1 million in income taxes payable related to withholding taxes previously withheld from licensees in South Korea.

A reconciliation of the beginning and ending amounts of unrecognized income tax benefits for the years ended December 31, 2024, 2023 and 2022 was as follows:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| **(In thousands)** | **2024** | **2023** | **2022** |
| Balance as of January 1 | $ 184,921 | $ 164,531 | $ 146,215 |
| Tax positions related to current year: | | | |
| Additions | 19,844 | 19,403 | 18,515 |
| Tax positions related to prior years: | | | |
| Additions | — | 1,378 | — |
| Reductions | (971) | (391) | (199) |
| Balance as of December 31 | $ 203,794 | $ 184,921 | $ 164,531 |

The Company recognizes interest and penalties related to uncertain tax positions as a component of the income tax provision (benefit). As of December 31, 2024 and 2023, an immaterial amount of interest and penalties was included in long-term income taxes payable.

Rambus files income tax returns for the U.S., California, India and various other state and foreign jurisdictions. The U.S. federal returns are subject to examination from 2021 and forward. The California returns are subject to examination from 2020 and forward. In addition, any research and development credit carryforward or net operating loss carryforward generated in prior years and utilized in these or future years may also be subject to examination. The India returns are under examination by the Indian tax administration for tax years beginning with 2011, except for 2012 through 2016, which were assessed in the Company's favor, and are subject to examination from 2017 and forward. These examinations may result in proposed adjustments to the income taxes as filed during these periods. Management regularly assesses the likelihood of outcomes resulting from income tax examinations to determine the adequacy of their provision for income taxes and believes their provision for unrecognized tax benefits is adequate. The estimated potential reduction in the Company's unrecognized tax benefits in the next 12 months would not be material.

As of December 31, 2024, no other income taxes (state or foreign) have been provided on undistributed earnings of approximately $58.0 million from the Company's international subsidiaries since these earnings have been, and under current plans will continue to be, indefinitely reinvested outside the United States, with the exception of France. If the non-France earnings were distributed, the Company would incur approximately $1.4 million of foreign withholding taxes and an immaterial amount of U.S. taxes.

**19. Litigation and Contingent Liability**

Rambus is not currently a party to any material pending legal proceeding; however, from time to time, Rambus may become involved in legal proceedings or be subject to claims arising in the ordinary course of its business. Although the results of litigation and claims cannot be predicted with certainty, the Company currently believes that the final outcome of these ordinary course matters will not have a material adverse effect on its business, operating results, financial position or cash flows. Regardless of the outcome, litigation can have an adverse impact on the Company because of defense and settlement costs, diversion of management attention and resources and other factors.

The Company records a contingent liability when it is probable that a loss has been incurred and the amount is reasonably estimable in accordance with accounting for contingencies.

**20. Divestiture**

***2023 Divestiture***

In July 2023, the Company entered into an asset purchase agreement (the "Purchase Agreement") with Cadence Design Systems, Inc. (the "Purchaser"), pursuant to which the Company agreed to sell certain assets and the Purchaser agreed to assume certain liabilities from the Company, in each case with respect to the Company's PHY IP group, for $110.0 million in cash, subject to certain adjustments and certain closing conditions (the "Transaction"). The decision to sell this business reflects the evolution of the Company's core semiconductor business to focus on the development of digital IP and chips, including novel memory solutions for high-performance computing, to support the continued advancement of the data center and artificial intelligence.

The Transaction was completed on September 6, 2023 and resulted in net proceeds of approximately $106.3 million, which consisted of the initial selling price of $110.0 million offset by approximately $3.7 million related to certain purchase price adjustments. The Company recognized a net gain on divestiture of the PHY IP group in its Consolidated Statements of Operations of approximately $90.8 million during the year ended December 31, 2023. Transaction costs of approximately $1.4 million were included in the net gain of $90.8 million.

The divestiture of the PHY IP group did not represent a strategic shift that would have a major effect on the Company's consolidated results of operations, and therefore its results of operations were not reported as discontinued operations.

Concurrent with the Transaction, the Company also recorded a charge of approximately $10.0 million in its Consolidated Statements of Operations during the year ended December 31, 2023. The charge was primarily related to the accelerated amortization of software licenses that were not directly part of the PHY IP disposal group.

**21. Acquisition**

***2022 Acquisition***

*Hardent, Inc.*

On May 20, 2022, (the "Closing Date"), the Company completed its acquisition of Hardent, a leading electronic design company, by acquiring all of its outstanding shares. The Company acquired Hardent for a total consideration of approximately $16.1 million, which consisted of $14.7 million in initial cash consideration paid at the Closing Date, $1.2 million deposited into an escrow account to fund indemnification obligations to be released within 18 months after the Closing Date and $0.2 million deposited into an escrow account to fund other contractual provisions related to certain working capital adjustments. The addition of the technology and expertise from Hardent augments the Company's CXL memory interconnect initiative.

As part of the acquisition, the Company agreed to pay certain Hardent employees approximately $1.2 million in cash over three years following the Closing Date (the "Retention Bonus"), to be paid in three equal installments on each of the dates that were 12 months, 24 months and 36 months following the Closing Date. The Retention Bonus payouts are subject to the condition of continued employment, therefore the Retention Bonus payouts will be treated as compensation and will be expensed ratably over the retention period.

As of December 31, 2022, the Company had incurred approximately $1.2 million in external acquisition costs in connection with the transaction, which were expensed as incurred.

The fair value of the intangible assets acquired was determined by management primarily by using the multi-period excess earnings method under the income approach. This method reflects the present value of the projected cash flows that are expected to be generated by the existing technologies less charges representing the contribution of other assets to those cash flows. The fair values of the remaining assets acquired and liabilities assumed approximated their carrying values at the Closing Date. The Company performed a valuation of the net assets acquired as of the Closing Date.

The total consideration from the acquisition was allocated as of the Closing Date and reflects adjustments made during the measurement period to finalize the purchase price accounting, as follows:

| (In thousands) | Total |
|---|---|
| Cash and cash equivalents | $ 209 |
| Accounts receivable | 1,088 |
| Unbilled receivables | 239 |
| Prepaid expenses and other current assets | 16 |
| Identified intangible assets | 5,000 |
| Goodwill | 12,069 |
| Accounts payable | (55) |
| Deferred revenue | (578) |
| Income taxes payable | (466) |
| Deferred tax liability | (1,325) |
| Other current liabilities | (56) |
| Total | $ 16,141 |

The goodwill arising from the acquisition was primarily attributed to synergies related to the combination of new and complementary technologies of the Company and the assembled workforce of the acquired business. This goodwill was not deductible for tax purposes.

The identified intangible assets assumed in the acquisition of Hardent were recognized as follows based upon their estimated fair values as of the acquisition date:

| | Total | Estimated Weighted-Average Useful Life |
|---|---|---|
| | (in thousands) | (in years) |
| Existing technology | $ 4,800 | 5 years |
| Customer contracts and contractual relationships | 200 | 2 years |
| Total | $ 5,000 | |

*Unaudited Pro Forma Combined Consolidated Financial Information*

The following pro forma financial information presents the combined results of operations for the Company and Hardent as if the acquisition had occurred on January 1, 2021. The pro forma financial information was prepared for comparative purposes only and does not purport to be indicative of the actual operating results that would have been recorded had the acquisition actually taken place on January 1, 2021, and should not be taken as indicative of future consolidated operating results. Additionally, the pro forma financial results do not include any anticipated synergies or other expected benefits from the acquisition:

| (In thousands) | For the Year Ended December 31, 2022 |
|---|---|
| | (unaudited) |
| Total revenue | $ 457,852 |
| Net loss | $ (13,251) |

The pro forma net loss for 2022 was adjusted to exclude $1.2 million of acquisition-related costs incurred in 2023.

## INDEX TO EXHIBITS

| Exhibit Number | Description of Document |
|---|---|
| 3.1(1) | Amended and Restated Certificate of Incorporation of Registrant dated April 27, 2023. |
| 3.2(1) | Amended and Restated Bylaws of Registrant dated April 27, 2023. |
| 4.1(2) | Form of Registrant's Common Stock Certificate. |
| 4.2(3) | Description of Securities. |
| 10.1(4)* | Form of Indemnification Agreement entered into by Registrant with each of its directors and executive officers. |
| 10.2(5)* | Form of Change of Control Severance Agreement, Agreement entered into by Registrant with each of its named executive officers other than its chief executive officer. |
| 10.3(6)* | 2006 Equity Incentive Plan, as amended. |
| 10.4(6)* | Forms of agreements under the 2006 Equity Incentive Plan, as amended. |
| 10.5(1)* | 2015 Equity Incentive Plan, as amended. |
| 10.6(7)* | Form of Restricted Stock Unit Agreement (2015 Equity Incentive Plan). |
| 10.7(7)* | Form of Stock Option Agreement (2015 Equity Incentive Plan). |
| 10.8(8)* | 2015 Employee Stock Purchase Plan, as amended. |
| 10.9+ | Settlement Agreement, dated January 19, 2010, among Registrant, Samsung Electronics Co., Ltd, Samsung Electronics America, Inc., Samsung Semiconductor, Inc. and Samsung Austin Semiconductor, L.P. |
| 10.10+ | Semiconductor Patent License Agreement, dated January 19, 2010, between Registrant and Samsung Electronics Co., Ltd. |
| 10.11(9)* | Employment Agreement between the Company and Luc Seraphin, dated as of October 25, 2018. |
| 10.12(9)* | Amended and Restated Change of Control Severance Agreement between the Company and Luc Seraphin, dated as of October 25, 2018. |
| 10.13+ | Settlement Agreement, dated June 11, 2013, among Registrant, SK hynix and certain SK hynix affiliates. |
| 10.14+ | Semiconductor Patent License Agreement, dated June 11, 2013, between Registrant and SK hynix. |
| 10.15+ | Settlement Agreement, dated December 9, 2013, between Rambus Inc., Micron Technology, Inc., and certain Micron affiliates. |
| 10.16+ | Semiconductor Patent License Agreement, dated December 9, 2013, between Rambus, Inc. and Micron Technology, Inc. |
| 10.17+ | Amendment to Semiconductor Patent License Agreement, dated December 30, 2013, by and between Rambus Inc. and Samsung Electronics Co., Ltd. |
| 10.18+ | Amendment 1 to Semiconductor Patent License Agreement, dated June 17, 2015, by and between Rambus Inc. and SK hynix Inc. |
| 10.19(10) | Lease agreement between Rambus Inc. and 237 North First Street Holdings, LLC dated July 8, 2019. |
| 10.20(11)* | Offer Letter, dated August 9, 2019, by and between Rambus Inc. and Sean Fan. |
| 10.21(11)* | 2019 Inducement Equity Incentive Plan. |
| 10.22(11)* | Form of Restricted Stock Unit Agreement (2019 Inducement Equity Incentive Plan). |
| 10.23(11)* | Form of Performance Based Restricted Stock Unit Agreement (2019 Inducement Equity Incentive Plan). |
| 10.24(12) | First Amendment to Net Lease Agreement dated April 22, 2020 relating to the New San Jose Headquarters Location between Rambus Inc. and 237 North First Street Holdings, LLC. |
| 10.25(13)+ | Amendment No. 1 to Semiconductor Patent License Agreement, dated September 2, 2020, between Rambus, Inc. and Micron Technology, Inc. |
| 10.26(14)+ | Amendment No. 2 dated December 15, 2020, to the Semiconductor Patent License Agreement between Rambus Inc. and Micron Technology, Inc. |
| 10.27(15)+ | Amendment No. 2 dated October 27, 2022, to the Semiconductor Patent License Agreement, dated January 19, 2010, between Registrant and Samsung Electronics Co., Ltd. |
| 10.28(16)+ | Amendment 2 to Semiconductor Patent License Agreement, dated March 31, 2023, between Registrant and SK hynix. |
| 10.29+ | Amendment 3 to Semiconductor Patent License Agreement, dated December 10, 2024, between Registrant and Micron Technology, Inc. |
| 19.1 | Insider Trading Policy. |
| 21.1 | Subsidiaries of Registrant. |
| 23.1 | Consent of KPMG LLP, Independent Registered Public Accounting Firm. |

| Exhibit Number | Description of Document |
|---|---|
| 23.2 | Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm. |
| 24.1 | Power of Attorney (included on the signature page to this Annual Report on Form 10-K). |
| 31.1 | Certification of Principal Executive Officer, pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2 | Certification of Principal Financial Officer, pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 32.1† | Certification of Principal Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 32.2† | Certification of Principal Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 97.1* | Compensation Recovery Policy, as adopted on July 27, 2023. |
| 101.INS | XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document. |
| 101.SCH | XBRL Taxonomy Extension Schema Document |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase Document |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase Document |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase Document |
| 104 | Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101) |

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|---|---|
| * | Management contracts or compensation plans or arrangements in which directors or executive officers are eligible to participate. |
| + | Portions of this exhibit have been redacted in compliance with Regulation S-K Item 601(b)(10). |
| † | The certifications furnished in Exhibits 32.1 and 32.2 hereto are deemed to accompany this Annual Report on Form 10-K and will not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended. Such certifications will not be deemed to be incorporated by reference into any filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that the registrant specifically incorporates it by reference. |
| (1) | Incorporated by reference to the Form 8-K filed on May 2, 2023. |
| (2) | Incorporated by reference to the Form S-1/A (file no. 333-22885) filed on April 24, 1997. |
| (3) | Incorporated by reference to the Form 10-K filed on February 23, 2024. |
| (4) | Incorporated by reference to the Form 10-Q filed on May 7, 2021. |
| (5) | Incorporated by reference to the Form 8-K filed on March 9, 2015. |
| (6) | Incorporated by reference to the Form 8-K filed on April 30, 2014. |
| (7) | Incorporated by reference to the Form 10-Q filed on July 23, 2015. |
| (8) | Incorporated by reference to the Form 8-K filed on May 6, 2020. |
| (9) | Incorporated by reference to the Form 8-K filed on October 29, 2018. |
| (10) | Incorporated by reference to the Form 10-Q filed on August 2, 2019. |
| (11) | Incorporated by reference to the Form 8-K filed on August 28, 2019. |
| (12) | Incorporated by reference to the Form 10-Q filed on August 7, 2020. |
| (13) | Incorporated by reference to the Form 10-Q filed on November 6, 2020. |
| (14) | Incorporated by reference to the Form 10-K filed on February 26, 2021. |
| (15) | Incorporated by reference to the Form 10-K filed on February 24, 2023. |
| (16) | Incorporated by reference to the Form 10-Q filed on May 5, 2023. |

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

RAMBUS INC.

By: /s/ Desmond Lynch
Desmond Lynch
Senior Vice President, Finance and Chief Financial Officer
(Principal Financial Officer)

Date: February 24, 2025

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Luc Seraphin, Desmond Lynch and John Shinn as his true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments to this Annual Report on Form 10-K, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith and (iii) take any and all actions that may be necessary or appropriate to be done, as fully for all intents and purposes as he might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

| Signature | Title | Date |
|---|---|---|
| /s/ LUC SERAPHIN<br>Luc Seraphin | Chief Executive Officer, President and Director<br>(Principal Executive Officer) | February 24, 2025 |
| /s/ DESMOND LYNCH<br>Desmond Lynch | Senior Vice President, Finance and Chief Financial Officer<br>(Principal Financial Officer) | February 24, 2025 |
| /s/ JOHN ALLEN<br>John Allen | Vice President, Accounting and Chief Accounting Officer<br>(Principal Accounting Officer) | February 24, 2025 |
| /s/ CHARLES KISSNER<br>Charles Kissner | Chairman of the Board of Directors | February 24, 2025 |
| /s/ EMIKO HIGASHI<br>Emiko Higashi | Director | February 24, 2025 |
| /s/ STEVEN LAUB<br>Steven Laub | Director | February 24, 2025 |
| /s/ MEERA RAO<br>Meera Rao | Director | February 24, 2025 |
| /s/ NECIP SAYINER<br>Necip Sayiner | Director | February 24, 2025 |
| /s/ ERIC STANG<br>Eric Stang | Director | February 24, 2025 |

**Exhibit 10.9**

**CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [***] INDICATES THAT INFORMATION HAS BEEN REDACTED.**

# SETTLEMENT AGREEMENT

**THIS SETTLEMENT AGREEMENT** (the "Agreement") is made by and among Rambus Inc., a Delaware corporation ("Rambus"), on the one hand, and Samsung Electronics Co., Ltd., a corporation organized under the laws of Korea ("Samsung Electronics"), Samsung Electronics America, Inc., a Delaware corporation, Samsung Semiconductor, Inc., a California corporation and Samsung Austin Semiconductor, L.P., a Texas limited partnership (collectively, "Samsung," with Rambus and Samsung each being a "Party" and together the "Parties"), on the other hand, effective as of January 19, 2010 (the "Effective Date").

**WHEREAS**, Samsung and its Subsidiaries (as defined in Article 1) are and will continue to be engaged in the manufacture, use, sale and/or importation of various products and devices, including but not limited to memory products and memory interface technologies (collectively, the "Samsung Products"), which utilize diverse and varied technologies;

**WHEREAS**, Rambus and/or its Subsidiaries have and will continue to have rights under Patents (as defined in Article 1), including but not limited to the right to license such Patents to third parties (collectively, all such patents are the "Rambus Patents"), covering diverse and varied technologies;

**WHEREAS**, the Parties are currently parties to a number of Disputes (as defined in Article 1) relating to the Samsung Products and the Rambus Patents, including but not limited to disputes as to whether claims of Rambus Patents are infringed by Samsung Products, and disputes relating to the validity, enforceability and use of certain Rambus Patents, and the Antitrust Litigation (as defined in Article 1);

**WHEREAS**, the Parties acknowledge that the Disputes have been costly, not only in terms of the out-of-pocket costs incurred by each of them, but also in terms of management time and other resources devoted to such efforts;

**WHEREAS**, the Parties recognize that, without this Agreement, given the diversity of claims of the Rambus Patents, and the breadth of technologies utilized by the Samsung Products, Rambus could, after the Effective Date, assert that other claims of Rambus Patents are infringed by Samsung Products, and that such disputes, if they were to occur would involve similar costs and business disruptions;

**WHEREAS**, the Parties recognize that litigation of the Disputes, and of other disputes that may arise between them after the Effective Date, is inherently uncertain, and is subject to certain risks, including but not limited to (a) whether the Rambus Patents, including Patents which are known to Samsung but which to date have not been asserted against Samsung, are determined to be valid, enforceable and infringed in various trial and appellate court, Patent and Trademark Office and International Trade Commission proceedings, and (b) whether Rambus prevails in various other court or regulatory proceedings, such as the Antitrust Litigation, and that such events are subject to various possible outcomes;

**WHEREAS**, the Parties desire to eliminate the risks associated with such litigation and to enter into a comprehensive resolution to compromise, settle and release the Disputes, and to compromise, resolve and avoid other disputes that may arise after the Effective Date with respect to the Samsung Products and the Rambus Patents;

**WHEREAS**, as part of the comprehensive resolution of other disputes that may arise after the Effective Date with respect to the Samsung Products and the Rambus Patents, Rambus and its Subsidiaries desire to grant Samsung and its Subsidiaries a license to certain of the claims of the Rambus Patents from the Effective Date for a limited term, and to grant Samsung and its Subsidiaries a fully paid-up license for certain of the Samsung Products to certain of the claims of the Rambus Patents, and Samsung and its Subsidiaries desire to grant Rambus and its Subsidiaries a license to certain of the claims of the Samsung Patents;

**WHEREAS**, the Parties acknowledge that in resolving the Disputes, and other disputes that may arise after the Effective Date, each of them is giving up the possibility of more favorable outcomes in exchange for the promises and covenants it will receive under this Agreement, and the other agreements contemplated hereby, to ensure that they do not ultimately face less favorable outcomes and to avoid the costs, delays and disruptions associated with litigation, and that such promises and covenants represent a package, and are not intended to be severable from each other; in particular, (a) Samsung is receiving a full and final release of the claims asserted against it in the Disputes, and securing a license to claims of the Rambus Patents in exchange for making the license and other payments, and entering into the other agreements, described herein, and (b) Rambus is receiving the Comprehensive Resolution Payments (as defined in Article 1), and the benefit of the other agreements described herein, in exchange for granting the releases and licenses, and entering into the other agreements, described herein;

**WHEREAS**, the Parties acknowledge that it is therefore essential that their respective obligations under this Agreement and the other agreements described herein be certain and not subject to collateral attack, or otherwise subject to change or modification except on the terms expressly set forth therein; and

**WHEREAS**, this Agreement is entered into for the purpose of settlement and compromise only;

**NOW, THEREFORE**, in consideration of the promises and the mutual covenants herein contained and for other good and valuable consideration, the adequacy and receipt of which are hereby acknowledged, Rambus and Samsung agree as follows:

## Article 1

### Definitions

In addition to the terms defined in other parts of this Agreement, the following terms used herein with initial capital letters shall have the respective meanings specified in this Article 1.

1.1 Agreement. The term "Agreement" has the meaning set forth in the introductory paragraph.

1.2 Antitrust Litigation. The term "Antitrust Litigation" means the matter entitled *Rambus Inc. v. Micron Technology Inc. et al.*, No. 04-431105 (Supr. Ct. Cal., San Fran. Filed May 5, 2004).

1.3 Comprehensive Resolution Agreements. The term "Comprehensive Resolution Agreements" means this Agreement, the License Agreement, the Stock Purchase Agreement, and the MOU.

1.4 Comprehensive Resolution Payments. The term "Comprehensive Resolution Payments" means the Initial Payment and the License Payments.

1.5 Control. The term "Control" (including "Controlled" and other forms) of an entity means (a) beneficial ownership (whether directly or indirectly through entities or other means) of more than fifty percent (50%) of the outstanding voting securities of that entity or (b) in the case of an entity that has no outstanding voting securities, having the power (whether directly or indirectly through entities or other means) presently to designate more than fifty percent (50%) of the directors of a corporation, or in the case of unincorporated entities, of individuals exercising similar functions. Notwithstanding the foregoing sentence, where Samsung has fifty percent (50%) of such beneficial ownership or power to designate with respect to any other entity, Samsung shall be deemed to "Control" such other entity if such other entity is part of the "Samsung Group of Companies" and such entity is lawfully registered under a corporate name, and lawfully operates and generally and routinely conducts its business under a corporate name, that includes "Samsung," *provided that*, such entity agrees in a writing, delivered to both Parties within thirty (30) days of the Effective Date (or if later, within thirty (30) days after formation of such entity), to be bound by all applicable terms and conditions of this Agreement.

1.6 DDR/DDR2 Controller Products. The term "DDR/DDR2 Controller Products" means any controllers capable of interfacing with and controlling any DDR/DDR2 Products.

1.7 DDR/DDR2 SDRAM Products. The term "DDR/DDR2 SDRAM Products" means double data rate (DDR), double data rate2 (DDR2), graphics double data rate (GDDR) and graphics double data rate2 (GDDR2) synchronous dynamic random access memory (SDRAM) chips as well as any mobile or low power versions of any such chips.

1.8 Delaware Litigation. The term "Delaware Litigation" means the matter entitled *Samsung Electronics Co., Ltd. et al v. Rambus Inc.*, No. 6081113 (Del. Chan. Filed June 23, 2005).

1.9 Disputes. The term "Disputes" means the Patent Litigation, the Antitrust Litigation, the Virginia Litigation, the Delaware Litigation and the Patent Actions, and any and all disputes related thereto.

1.10 Effective Date. The term "Effective Date" has the meaning set forth in the introductory paragraph.

1.11 Effective Time Period. The term "Effective Time Period" has the meaning set forth in Section 3.1(b).

1.12 Excluded Entity. The term "Excluded Entity" means Micron Technology, Inc., Micron Semiconductor Products, Inc., Micron Electronics, Inc., Hynix Semiconductor Inc., Hynix Semiconductor America, Inc., Hynix Semiconductor Manufacturing America Inc., Hynix Semiconductor U.K. Ltd., Hynix Semiconductor Deutschland GmbH, Nanya Technology Corporation, Nanya Technology Corporation U.S.A. and NVIDIA Corporation.

1.13 Initial Payment. The term "Initial Payment" has the meaning set forth in Section 2.1.

1.14 License Agreement. The term "License Agreement" has the meaning set forth in Section 3.1.

1.15 License Payments. The term "License Payments" has the meaning set forth in Section 2.3.

1.16 Licensed Product. The term "Licensed Product" has the meaning set forth in the License Agreement.

1.17 MOU. The term "MOU" has the meaning set forth in Section 3.3.

1.18 Other Products. The term "Other Products" means single data rate (SDR), double data rate 3 (DDR3), graphics double data rate 3 (GDDR3), graphics double data rate 4 (GDDR4) and graphics double data rate 5 (GDDR5) synchronous dynamic random access memory (SDRAM) chips, as well as single data rate (SDR) synchronous graphics random access memory (SGRAM) chips, as well as any mobile or low power versions of any such chips and any controllers capable of interfacing with and controlling any of the foregoing.

1.19 Party. The terms "Party" and "Parties" have the meanings set forth in the introductory paragraph.

1.20 Patent Actions. The term "Patent Actions" means all United States Patent and Trademark Office reexamination proceedings, actions or challenges filed, requested or supported by Samsung with respect to any Rambus Patents as of the Effective Date, including without limitation reexaminations of U.S. Patent numbers 6,038,195, 6,182,184, 6,266,285, 6,314,051, 6,324,120, 6,378,020, 6,426,916, 6,452,863, 6,546,446, 6,584,037, 6,697,295, 6,715,020, and 6,751,696.

1.21 Patent Litigation. The term "Patent Litigation" means the matters entitled *Rambus Inc. v. Samsung Electronics Co., Ltd., et al.*, No. C- 05-02298 (N.D. Cal. Filed June 6, 2005) and *Rambus Inc. v. Hynix Semiconductor Inc., et al.*, No. C-05-00334 (N.D. Cal. Filed Jan. 25, 2005).

1.22 Patents. The term "Patents" means patents and utility models and applications therefor, including without limitation all continuations, continuations-in-part and divisionals thereof, in all countries of the world that are owned by the applicable Party.

1.23 Rambus. The term "Rambus" has the meaning set forth in the introductory paragraph.

1.24 Rambus Patents. The term "Rambus Patents" has the meaning set forth in the Recitals.

1.25 Release Date. The term "Release Date" means February 4, 2010.

1.26 Samsung. The term "Samsung" has the meaning set forth in the introductory paragraph.

1.27 Samsung Electronics. The term "Samsung Electronics" has the meaning set forth in the introductory paragraph.

1.28 Samsung Patents. The term "Samsung Patents" means Patents as to which Samsung has rights.

1.29 Samsung Products. The term "Samsung Products" has the meaning set forth in the Recitals.

1.30 Stock Purchase Agreement. The term "Stock Purchase Agreement" has the meaning set forth in Section 3.2.

1.31 Subsidiary. The term "Subsidiary" means any entity Controlled by a Party, but such entity shall be deemed to be a Subsidiary only so long as such Control exists. For the avoidance of doubt, in the case of Samsung, the term "Subsidiary" shall include all of the entities described in the last sentence of Section 1.5 so long as the Control described therein exists.

1.32 Third Party. The term "Third Party" means any entity that is not a Party or a Subsidiary of a Party on the Effective Date.

1.33 Virginia Litigation. The term "Virginia Litigation" means the matter entitled *Samsung Electronics Co., Ltd. v. Rambus Inc.*, No. 3:05cv406 (E.D. Va. Filed June 7, 2005).

## Article 2

### Comprehensive Resolution Payments

2.1 Initial Payment. As a condition to the effectiveness of the releases and covenants not to sue set forth in Article 4 and the Parties' obligations under Section 4.8, Samsung Electronics will, on or before January 22, 2010 pay Rambus the sum of One Hundred Million Dollars (US$100,000,000) and will, on or before the Release Date, pay Rambus the sum of One Hundred Million Dollars (US $100,000,000) (collectively, the"Initial Payment").

2.2 Allocation of Initial Payment. The Parties agree to allocate the Initial Payment in accordance with the following, which they acknowledge represents a reasonable estimated allocation of the Initial Payment to Rambus's claims under the Disputes:

[***] shall be deemed to be paid in consideration for [***];

[***] shall be deemed to be paid in consideration for [***]; and

[***] shall be deemed to be paid in consideration for [***].

2.3 License Payments. As described more fully in the License Agreement and as an integral part of the overall consideration received by Rambus in respect of its releases and covenants not to sue under Article 4, and its other obligations under the Comprehensive Resolution Agreements, over the next five (5) years Samsung Electronics will pay Rambus aggregate license fees of Five Hundred Million Dollars (US$500,000,000), subject to certain adjustments and conditions as described in the License Agreement (the "License Payments"). In the event that Samsung fails to pay any License Payment (and fails to cure such failure within the time period provided for in Section 6.2 of the License Agreement), Samsung will pay to Rambus Five Hundred Million Dollars (US $500,000,000), less the aggregate License Payments previously paid by Samsung and retained by Rambus, as part of the overall consideration received by Rambus under the Comprehensive Resolution Agreements, in order for Rambus to receive the full amount of the overall consideration intended to be received in respect of its releases, covenants not to sue, and other obligations under the Comprehensive Resolution Agreements. Samsung will apply such amounts to the Quarterly Base Payments due under the License Agreement.

2.4 No Refunds. Once made, any Comprehensive Resolution Payment shall not be refunded or refundable to Samsung for any reason except as may be required pursuant to Section 3.3 of the License Agreement. Notwithstanding the foregoing, in case of clerical error with respect to any payment made under the License Agreement, the Parties agree to remedy any such error through proper payment adjustments.

2.5 Currency. All Comprehensive Resolution Payments shall be made in United States dollars.

2.6 Wire Instructions. The Initial Payment shall be made by wire transfer to Rambus as follows:
Rambus Inc. Account: [***]

All other Comprehensive Resolution Payments shall be made in accordance with the terms of the applicable Comprehensive Resolution Agreement.

2.7 Taxes. If the Korean government imposes any withholding tax on any Comprehensive Resolution Payments, such tax shall be borne by Rambus. Samsung agrees, at its reasonable discretion, to assist Rambus in its efforts to minimize Rambus' tax liability. Samsung shall withhold the amount of any such taxes levied on such payments to Rambus imposed by the Korean government, shall promptly effect payment of the taxes so withheld to the Korean tax office, and Samsung shall send to Rambus the official certificate of such payment in a form reasonably sufficient to enable Rambus to support a claim for a foreign tax credit with respect to any such taxes so withheld.

## Article 3

## Other Agreements

Concurrent with the execution and delivery of this Agreement, and as an integral part of the overall consideration received by the Parties in respect of their releases, covenants not to sue, and other obligations under the Comprehensive Resolution Agreements, the Parties and/or their Subsidiaries shall enter into or deliver the following agreements or documents. For the avoidance of doubt, the MOU described in Section 3.3 is non-binding to the Parties and, while the existence and execution thereof are an integral part of the overall consideration, the contents therein represent solely the understanding between the Parties regarding certain business and technology collaborations, and the failure to enter into any definitive agreement contemplated thereby shall not constitute failure in the consideration hereunder or under any of the other Comprehensive Resolution Agreements.

3.1 License Agreement. Rambus and Samsung Electronics shall enter into the License Agreement in the form attached hereto as Exhibit A (the "License Agreement"), pursuant to which Rambus shall grant Samsung licenses under Rambus Applicable Patent Claims, and Samsung will grant to Rambus licenses under Samsung Applicable Patent Claims, as defined in the License Agreement, on the terms set forth therein.

(a) The Parties acknowledge that the licenses granted under the License Agreement are in respect of claims under multiple Rambus Patents and multiple Samsung Patents, respectively, so that the Parties' rights and obligations under the License Agreement, are not dependent upon the validity or enforceability of specific Rambus Patents or specific Samsung Patents, or upon any specific use of such patents permitted under the License Agreement. Specifically, Samsung acknowledges that the License Agreement covers a broad array of Rambus Patent claims, and agrees to make the full amount of the Comprehensive Resolution Payments regardless of whether any of the Rambus Patents is determined not to be infringed by any particular Licensed Product or a court or United States, European, or other patent office determines any Rambus Patent to be invalid or unenforceable in any reexamination, action or other proceeding.

(b) Each Party acknowledge that its assessment of the value of the Disputes and the License Agreement may depend on certain events that may occur, or that may not occur, after the Effective Date, that it is aware of and has evaluated and considered the uncertainties associated with such events, and that it has agreed to the amount of the Comprehensive Resolution Payments to eliminate such uncertainties so that, for example, Samsung will be protected from the consequences of Rambus prevailing on infringement and other claims in other proceedings, and Rambus will be protected from the consequences of certain of the Rambus Patents being held to be invalid, unenforceable, and/or not infringed in other proceedings. It is therefore essential that the Parties' obligations under the License Agreement, including but not limited to the amount of the License Payments, be certain and not subject to collateral attack. Accordingly,

(i) Samsung covenants, whether through litigation or otherwise, not to seek to adjust the amount of the License Payments, or to avoid, defer or modify its obligations under the License Agreement, provided that the foregoing shall not prevent Samsung from seeking enforcement of the terms and conditions of the License Agreement or taking any action expressly contemplated in the License Agreement.

(ii) Samsung and its Subsidiaries acknowledge and agree that, for all acts or omissions that occur during the time period up to and including the [***] anniversary of the Effective Date (the "Effective Time Period"), Rambus or its Subsidiaries have patent claims that are valid, enforceable and infringed by a substantial portion of the Licensed Product (as defined under the License Agreement). After the Effective Time Period, Rambus and its Subsidiaries covenant not to rely on such acknowledgement or agreement in any manner against Samsung or its Subsidiaries or their past, present or future distributors or customers in negotiations, and further covenant that no evidence of such acknowledgement or agreement may be introduced in any negotiation by or on behalf of Rambus or its Subsidiaries against Samsung or its Subsidiaries or their past, present or future distributors or customers. Rambus and its Subsidiaries further covenant, with respect to any acts or omissions occurring after the Effective Time Period, not to rely on such acknowledgement or agreement in any manner against Samsung or its Subsidiaries or their past, present or future distributors or customers before any court, government agencies, other regulatory body or arbitrator, and further covenant that no evidence of such acknowledgement or agreement may be introduced in any motion, hearing, trial or other proceeding by or on behalf of Rambus or its Subsidiaries against Samsung or its Subsidiaries or their past, present or future distributors or customers.

3.2 Stock Purchase Agreement. Rambus and Samsung Electronics shall enter into the Stock Purchase Agreement in the form attached hereto as Exhibit B (the "Stock Purchase Agreement"). Concurrent with the execution and delivery of the Stock Purchase Agreement, Rambus and Samsung Electronics shall complete the equity investment in Rambus in accordance with the terms thereof.

3.3 Memorandum of Understanding. Samsung Electronics and Rambus shall enter into a Memorandum of Understanding in the form attached hereto as Exhibit C (the "MOU").

## Article 4

### Releases

Effective as of the Release Date but subject to the delivery of the Initial Payment in accordance with Article 2, the execution and delivery of the License Agreement, the Stock Purchase Agreement and the MOU in accordance with Article 3, and the completion of the equity investment in Rambus in accordance with the Stock Purchase Agreement (for the avoidance of doubt, none of the Parties' releases, covenants not to sue, or other obligations under this Article 4 shall be effective until Samsung has delivered the full amount of the Initial Payment in accordance with Article 2 and the Parties have complied with their other obligations under this sentence):

4.1 Release by Rambus. Rambus, on behalf of itself and its Subsidiaries, hereby irrevocably releases, acquits, and forever discharges Samsung, its Subsidiaries, its and their respective former or current directors, officers, employees, and attorneys from any claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind arising from or that could have been raised based upon the facts and circumstances alleged or asserted in any pleading, motion, brief or other paper filed by Rambus in the Patent Litigation, the Antitrust Litigation, the Delaware Litigation or the Virginia Litigation up until the Effective Date. To the extent not covered in the preceding sentence, Rambus, on behalf of itself and its Subsidiaries, hereby further irrevocably releases, acquits, and forever discharges Samsung, its Subsidiaries, and its and their respective former or current directors, officers, employees, and attorneys from any claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind (i) for infringement of the Rambus Patents arising from the manufacture, use, importation, sale and offer for sale of Samsung Products up until the Effective Date to the extent that infringement by such Samsung Products would have been licensed under the License Agreement if such License Agreement had been in existence at the time of such infringing activity or (ii) otherwise relating in any way to any act or omission concerning any anticompetitive, tortious or unfair business practice arising from the manufacture, use, marketing, sale, offer for sale, and/or importation of any Samsung Product up until the Effective Date.

4.2 Release by Samsung. Samsung, on behalf of itself and its Subsidiaries, hereby irrevocably releases, acquits and forever discharges Rambus, its Subsidiaries, and its and their respective former or current directors, officers, employees, and attorneys from any claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind arising from or that could have been raised based upon the facts and circumstances alleged or asserted in any pleading, motion, brief or other paper filed by Samsung in the Patent Litigation, the Antitrust Litigation, the Delaware Litigation or the Virginia Litigation up until the Effective Date. To the extent not covered in the preceding sentence, Samsung, on behalf of itself and its Subsidiaries, hereby further irrevocably releases, acquits, and forever discharges Rambus, its Subsidiaries, and its and their respective former or current directors, officers, employees, and attorneys from any claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind (i) for infringement of any Samsung Patents arising from the manufacture, use, importation, sale and offer for sale of any Rambus product up until the Effective Date to the extent that infringement by such product would have been licensed under the License Agreement if such License Agreement had been in existence at the time of such infringing activity. or (ii) otherwise relating in any way to any act or omission concerning any anticompetitive, tortious or unfair business practice arising from the manufacture, use, marketing, sale, offer for sale, and/or importation of any Rambus Product up until the Effective Date.

4.3 Additional Release by Samsung. Samsung, on behalf of itself and its Subsidiaries, hereby irrevocably releases, acquits and forever discharges Rambus from any defenses, claims, counterclaims, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind and nature that Samsung or its Subsidiaries might raise or assert in an effort avoid, defer or modify its obligations under the License Agreement, including but not limited to its obligation to make the License Payments, except as expressly permitted under the License Agreement, including for instance and by way of example, claims or defenses based on the allegation, or on the finding, determination or judgment in any reexamination, action or other proceeding that one or more of the patent claims licensed under the License Agreement is invalid, unenforceable or not infringed, that the License Agreement is not enforceable or should be rescinded or revised, or that Rambus has committed any type of patent misuse.

4.4 Releases Shall Remain Effective. Each of Rambus and Samsung acknowledges that, after entering into this Agreement, they may discover facts different from, or in addition to, those they now believe to be true with respect to the conduct of the other Party. Each of Rambus and Samsung intends that the releases and discharges set forth in this Article 4 shall be, and shall remain, in effect in all respects as written, notwithstanding the discovery of any different or additional facts.

4.5 Waiver of California Civil Code § 1542. In connection with the releases and discharges described in this Article 4, each of Rambus and Samsung acknowledges that it is aware of the provisions of section 1542 of the Civil Code of the State of California, and hereby expressly waives and relinquishes all rights and benefits that it has or may have had under that section (or any equivalent law or rule of any other jurisdiction), which reads as follows:

> A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

4.6 Covenants Not to Sue.

(a) Rambus, on behalf of itself and its Subsidiaries, hereby covenants not to assert any claims of infringement of the Rambus Patents against Samsung, its Subsidiaries, and its and their respective former or current directors, officers, employees, attorneys, distributors and customers solely arising from the use, importation, sale and offer for sale of Samsung Products up until the Effective Date to the extent that Samsung, its Subsidiaries, and such former or current directors, officers, employees, attorneys, distributors or customers would not have been liable for such use, importation, sale and offer for sale of Samsung Products had the License Agreement been in existence at the time of such infringing activity.

(b) Samsung, on behalf of itself and its Subsidiaries, hereby covenants not to assert any claims of infringement of the Samsung Patents against Rambus, its Subsidiaries, and its and their respective former or current directors, officers, employees, attorneys, distributors and customers solely arising from the use, importation, sale or offer for sale of any Rambus product up until the Effective Date to the extent that Rambus, its Subsidiaries, and such former or current directors, officers, employees, attorneys, distributors or customers would not have been liable for such use, importation, sale and offer for sale of Rambus products had the License Agreement been in existence at the time of such infringing activity.

(c) Rambus, on behalf of itself and its Subsidiaries, hereby covenants not to assert against Samsung, its Subsidiaries, and its and their respective former or current directors, officers, employees, and attorneys any action or other proceeding based upon any claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action released by Rambus pursuant to clause (ii) of the last sentence of Section 4.1.

(d) Samsung, on behalf of itself and its Subsidiaries, hereby covenants not to assert against Rambus, its Subsidiaries, and its and their respective former or current directors, officers, employees, and attorneys any action or other proceeding based upon any claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action released by Samsung pursuant to clause (ii) of the last sentence of Section 4.2.

4.7 Certain Exclusions. For the avoidance of doubt:

(a) The releases and covenants not to sue contained in this Article 4 (other than the releases set forth in Section 4.3) shall apply solely to activities occurring prior to the Effective Date. In no event shall the releases and covenants not to sue contained in this Article 4 apply to (i) any Third Party that may acquire or combine with any Party or its Subsidiaries or (ii) any Third Party, portion of a Third Party, and/or any portion of the assets of business of a Third Party that may be acquired by or combined with any Party or its Subsidiaries, in each case after the Effective Date.

(b) The releases and covenants not to sue contained in this Article 4 are not intended to and do not extend to any defendant in either the Patent Litigation or the Antitrust Litigation (or any of their Subsidiaries), unless that defendant is explicitly named as a Party to this Agreement, or to any Excluded Entity or its Subsidiaries.

4.8 Dismissals and Other Provisions Terminating the Disputes.

(a) On the Effective Date, Samsung and Rambus, through their respective counsel, shall execute or cause to be executed stipulations for dismissal dismissing with prejudice all of the claims, counterclaims, cross-claims and cross-complaints asserted against one another (but only as to one another and not to the extent asserted against others) in the Patent Litigation and the Antitrust Litigation in the forms attached hereto as Exhibits D-1 through D-6. On the Release Date, Samsung and Rambus, through their respective counsel, shall cause such stipulations for dismissal to be entered, subject to receipt by Rambus of the full amount of the Initial Payment pursuant to Section 2.1.

(b) Samsung shall, within five (5) business days of the Release Date, file a request to withdraw its *Amicus Curiae* Brief in *Hynix Semiconductor, Inc., et al. v. Rambus, Inc.*, United States Court of Appeals for the Federal Circuit Case No. 2009-1299, -1347.

(c) Both Parties shall, within ten (10) business days following the Release Date, withdraw any pending complaints, actions, or other proceedings they may have pending against the other Party or its Subsidiaries before any regulatory body anywhere in the world related to the claims, counterclaims, demands, damages, debts, liabilities, accounts, actions and causes of action released by this Agreement or that relate in any way to the Rambus Patents or the Samsung Patents. For the avoidance of doubt, this provision does not require Rambus to withdraw any complaint or other proceeding as against parties other than other than Samsung or its Subsidiaries, including but not limited to the Patent Litigation and the Antitrust Litigation.

(d) Within ten (10) business days following the Release Date, Samsung shall, to the full extent permitted by applicable law, withdraw, cease to prosecute or pursue and notify the Patent and Trademark Office that it no longer intends to participate in, the Patent Actions.

(e) In the event that Rambus sues Samsung, its Subsidiaries, or its or their respective former or current directors, officers, employees and attorneys for infringement of one or more of the patents asserted by Rambus in the Patent Litigation as a result of the manufacture (or having manufactured), use, importation, sale or offer for sale of Samsung Products, to the extent that such Samsung Products are not Licensed Product under the License Agreement, Rambus agrees that it will not contend that the stipulations for dismissal with prejudice filed in the Patent Litigation pursuant to subparagraph (a) above bar Samsung, its Subsidiaries, or its or their respective former or current directors, officers, employees and attorneys from raising in its or their defense in such action involving Samsung Products that are not Licensed Product under the License Agreement that (i) all or any of such patents are invalid, or that (ii) all or any of such patents are unenforceable by reason of failure to disclose art or other information to the United States Patent and Trademark Office, to the extent such defense was raised in the Patent Litigation.

4.9 Costs and Attorneys' Fees. For all cases, including but not limited to the Patent Litigation and the Antitrust Litigation, the Parties agree that each will pay its own costs and attorneys' fees.

4.10 No Admission. Nothing contained in any of the Comprehensive Resolution Agreements, or done or omitted in connection with any of the Comprehensive Resolution Agreements, is intended as, or shall be construed as, an admission by any Party of any fault, liability or wrongdoing.

4.11 No Further Actions. As part of the settlement of claims and releases contemplated by this Agreement, during the term of the License Agreement, and in each case unless and to the extent required by subpoena or judicial or regulatory agency order or rule:

(a) Samsung covenants not to bring, or aid, assist or participate in, any action challenging or contesting the assertion, enforcement, validity or enforceability of, or any use or infringement by any Third Party of, the Rambus Patents, including but not limited to filing, requesting, participating or assisting in any of the Patent Actions; and

(b) Each Party covenants not to support, cooperate with or otherwise assist any entity in any dispute against the other Party or its Subsidiaries, or any regulatory body in any proceeding involving the other Party or its Subsidiaries, in any matter related to the claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action released by this Agreement, including but not limited to filing, requesting, participating or assisting in any United States, European, or other patent office reexamination proceedings, actions, challenges, oppositions or interferences with respect to Patents of the other Party or its Subsidiaries, and filing *amicus curiae* briefs in the Patent Litigation, the Antitrust Litigation, or any other Dispute.

## Article 5

### Warranties

Each Party represents, warrants and covenants, on behalf of itself and its Subsidiaries, to the other Party during the term of this Agreement:

5.1 Due Organization. Such Party is duly organized, validly existing and in good standing under the laws of its jurisdiction of formation with the requisite corporate authority to own and use its properties and assets and to carry on its business as currently conducted.

5.2 Due Authorization; Enforceability. Such Party has the requisite corporate or other authority to enter into, and to grant the releases and discharges, make the covenants, and consummate the transactions contemplated by, this Agreement, on behalf of itself and its Subsidiaries, and otherwise to carry out its and its Subsidiaries' obligations hereunder. The execution, delivery and performance of this Agreement by such Party and its Subsidiaries has been duly authorized by all necessary action of such Party and its Subsidiaries, and no other act or proceeding on the part of or on behalf of such Party and its Subsidiaries is necessary to approve the execution and delivery of this Agreement, the performance by such Party and its Subsidiaries of their obligations hereunder and the consummation of the transactions contemplated hereby. This Agreement has been duly executed and delivered by such Party and constitutes a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium and similar laws relating to or affecting creditors generally, by general equity principles or by limitations on indemnification pursuant to public policy.

5.3 No Conflicts; No Consents. The execution, delivery and performance of this Agreement by such Party and its Subsidiaries, including but not limited to the granting of the releases and discharges contemplated hereby, will not infringe any law, regulation, judgment or order applicable to such Party and its Subsidiaries and is not and will not be contrary to the provisions of the constitutional documents of such Party and its Subsidiaries and will not (with or without notice, lapse of time or both) result in any breach of the terms of, or constitute a default under, any instrument or agreement to which such Party and its Subsidiaries is a party or by which it or its property is bound. All consents and approvals of any court, government agencies or other regulatory body required by such Party and its Subsidiaries for the execution, delivery and performance of the terms of this Agreement have been obtained and are in full force and effect.

5.4 No Assignment of Claims. Each Party represents and warrants that it has not assigned, transferred or granted to any Third Party any rights or interests with respect to any claim or cause of action, or any right(s) underlying any claim or cause of action, it had, has, or may have against the other or its Subsidiaries as of, or prior to, the Effective Date of this Agreement.

## Article 6

### Notices and other Communications

6.1 Any notice or other communication required or permitted to be made or given to either Party pursuant to this Agreement shall be sufficiently made or given within three (3) business days of the date of mailing if sent to such Party by overnight express air courier and by registered First Class mail, postage prepaid, addressed to such Party at the address set forth below, or to such other address as a Party shall designate by written notice given to the other Party:

In the case of Samsung:

Samsung Electronics Co., Ltd.
Jay Shim
Vice President and General Patent Counsel San #16 Banwol-Dong

Hwaseong-City, Gyeonggi-Do, Korea 445-701 In the case of Rambus:

Rambus Inc.
Thomas R. Lavelle
Senior Vice President and General Counsel 4440 El Camino Real
Los Altos, CA 94022

(with a copy, which shall not constitute notice, to the following:)

Satish Rishi
Chief Financial Officer Rambus Inc.
4440 El Camino Real Los Altos, CA 94022

## Article 7

### Successors and Assigns

7.1 Subject to the limitation in Section 4.7, this Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective heirs, successors and assigns, and upon any corporation, limited liability partnership, limited liability company, or other entity into or with which any Party hereto may merge, combine or consolidate. For the avoidance of doubt, this provision does not govern the rights or obligations of successors or assigns of the Parties under either the License Agreement, the Stock Purchase Agreement or the MOU. The releases, dismissals and covenants granted by each Party and its Subsidiaries under this Agreement (but not any benefits received by such Party or its Subsidiaries under this Agreement) shall run with (i) in the case of Samsung, the Samsung Patents or (ii) in the case of Rambus, the Rambus Patents, and remain in full force and effect regardless of any subsequent assignment, sale or other transfer of any such Samsung Patents or Rambus Patents or any rights or interests therein. Any such assignment, sale, or transfer of rights in contravention of the foregoing shall be null and void *ab initio* and of no force or effect.

## Article 8

### Dispute Resolution

8.1 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of California, without giving effect to any choice-of-law or conflict-of-law provision or rule (whether of the State of California or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of California.

8.2 English Language. This Agreement is executed in the English language and no translation shall have any legal effect.

8.3 Jurisdiction and Venue. Any legal action, suit or proceeding arising under, or relating to, this Agreement, shall be brought in the United States District Court for the Northern District of California or, if such court shall decline to accept jurisdiction over a particular matter, in the San Francisco Superior Court, and each Party agrees that any such action, suit or proceeding may be brought only in such courts. Each Party further waives any objection to the laying of jurisdiction and venue for any such suit, action or proceeding in such courts.

## Article 9

### Miscellaneous

9.1 Entire Agreement. This Agreement, together with the License Agreement, the Stock Purchase Agreement, and the MOU, constitute the entire agreement between the Parties regarding the subject matter hereof, and supersede any and all prior negotiations, representations, warranties, undertakings or agreements, written or oral, between the Parties regarding such subject matter.

9.2 Relationship of the Parties. Nothing contained in this Agreement or any other Comprehensive Resolution Agreement shall be construed as creating any association, partnership, joint venture or the relation of principal and agent between Rambus and Samsung. Each Party is acting as an independent contractor, and no Party shall have the authority to bind any other Party or its representatives in any way.

9.3 Headings and Recitals. The headings of the several articles and sections are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement. The recitals to this Agreement are intended to be a part of and affect the meaning and interpretation of this Agreement.

9.4 Amendment. This Agreement may not be modified or amended except in a writing executed by authorized representatives of each of the Parties.

9.5 No Assignment. This Agreement is personal to the Parties, and the Agreement and/or any right or obligation hereunder is not assignable, whether in conjunction with a change in ownership, merger, acquisition, the sale or transfer of all, or substantially all or any part of either Party's or any of their respective Subsidiaries' business or assets or otherwise, voluntarily, by operation of law, reverse triangular merger or otherwise, without the prior written consent of the other Party, which consent may be withheld at the sole discretion of such other Party. Each Party understands that, as a condition to such consent, the other Party may require it to convey, assign or otherwise transfer its rights and obligations under the other Comprehensive Resolution Agreements to the entity assuming such Party's rights and obligations under this Agreement. Any such purported or attempted assignment or transfer in violation of the foregoing shall be deemed a breach of this Agreement and shall be null and void. A Change of Control of either Party shall be deemed an assignment. For purposes of the foregoing, a Change of Control" means a transaction or a series of related transactions in which (a) one or more Third Parties who did not previously Control a Party obtain Control of such Party, or (b) the subject Party merges with or transfers substantially all of its assets to a Third Party where the shareholders of the assigning Party, immediately before the transaction or series of related transactions, own less than a fifty percent (50%) interest in the acquiring or surviving entity immediately after the transaction or series of related transactions. Notwithstanding the foregoing, either Party shall be entitled to, and each Party hereby agrees to, assign this Agreement to a successor to all or substantially all of a Party's assets in a transaction entered into solely to change a Party's place of incorporation.

9.6 Interpretation. Each Party confirms that it and its respective counsel have reviewed, negotiated and adopted this Agreement as the agreement and understanding of the Parties hereto and the language used in this Agreement shall be deemed to be the language chosen by the Parties hereto to express their mutual intent. Neither Party shall be considered to be the drafter of this Agreement or any of its provisions for the purpose of any statute, case law, or rule of interpretation or construction that would, or might cause, any provision to be construed against such Party.

9.7 Authority. Each Party represents that it is fully authorized to enter into the terms and conditions of, and to execute, this Agreement.

9.8 No Third Party Beneficiaries. Unless otherwise expressly stated herein, nothing in this Agreement, express or implied, is intended to confer upon any person other than the Parties hereto or their respective permitted assignees, successors in interest, and Subsidiaries any rights or remedies under or by reason of this Agreement. The former and current directors, officers, employees, and attorneys of the Parties and their Subsidiaries are intended beneficiaries of Sections 4.1, 4.2, 4.4, 4.5, 4.6 and 4.7.

9.9 Severability. If any provision of any Comprehensive Resolution Agreement is held to be invalid or unenforceable, the meaning of such provision shall be construed, to the extent feasible, so as to render the provision enforceable and to effectuate the intent and purpose of the Parties with respect to such invalid or unenforceable provision, and if no feasible interpretation shall save such provision, (a) a suitable and equitable provision shall be substituted therefor in order to effectuate, so far as may be valid and enforceable, the intent and purpose of the Parties with respect to such invalid or unenforceable provision, and (b) the remainder of such Comprehensive Resolution Agreement shall remain in full force and effect.

9.10 No Waiver. The failure of either Party to enforce, at any time, any of the provisions of this Agreement shall in no way be construed as a waiver of such provisions, and shall not be deemed in any way to affect the validity of this Agreement or any part thereof, or the right of either Party to later enforce each and every such provision. No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach.

9.11 Counterparts; Facsimile Transmission. This Agreement may be executed in multiple counterparts, each of which shall constitute an original, but all of which together shall constitute one and the same agreement. Each Party may rely on facsimile or .pdf signature pages as if such facsimile or .pdf pages were originals.

9.12 Further Actions. Each of the Parties hereto agrees to take and cause its Subsidiaries to take any and all actions reasonably necessary in order to effectuate the intent, and to carry out the provisions, of this Agreement.

9.13 Public Disclosures and Confidentiality. The Parties shall issue a press release with respect to the Comprehensive Resolution Agreement in a mutually acceptable form. Each Party agrees that, after the issuance of such press release, each Party shall be entitled to disclose the general nature of this Agreement, but that the terms and conditions of this Agreement, to the extent not already disclosed pursuant to such press release, shall be treated as confidential information and that neither Party will disclose such terms or conditions to any Third Party without the prior written consent of the other Party, provided, however, that each Party may disclose the terms and conditions of this Agreement:

(a) as required by any court or other governmental body;

(b) as otherwise required by law;

(c) as otherwise may be required by applicable securities and other law and regulation, including to legal and financial advisors in their capacity of advising a party in such matters, so long as the disclosing Party shall seek confidential treatment of such terms and conditions to the extent reasonably possible;

(d) to legal counsel, accountants, and other professional advisors of the Parties;

(e) in confidence, to banks, investors and other financing sources and their advisors;

(f) in connection with the enforcement of this Agreement or rights under this Agreement;

(g) during the course of litigation so long as the disclosure of such terms and conditions are restricted in the same manner as is the confidential information of other litigating parties and so long as (A) the restrictions are embodied in a court-entered protective order limiting disclosure to outside counsel and (B) the disclosing party informs the other party in writing at least ten (10) business days in advance of the disclosure and discusses the nature and contents of the disclosure, in good faith, with the other party (for purposes of this provision, the Protective Order entered in the Antitrust Litigation is acceptable, as long as the disclosure is designated as both “Highly Confidential-BP and Highly Confidential-IP”); or

(h) in confidence, in connection with an actual or prospective merger or acquisition or similar transaction.

In addition, upon execution of this Agreement, or thereafter, Rambus, in its discretion, shall be entitled to file a copy of this Agreement with the U.S. Securities and Exchange Commission, so long as Rambus seeks confidential treatment of such agreement to the extent reasonably possible.

IN WITNESS WHEREOF, this Agreement has been duly and executed and delivered by the duly authorized officers of the Parties hereto as of the date first written above.

RAMBUS INC.

By: /s/ Harold Hughes

Name: Harold Hughes

SAMSUNG ELECTRONICS CO., LTD.

By: /s/ Oh-Hyun Kwon

Name: Oh-Hyun Kwon

SAMSUNG ELECTRONICS AMERICA, INC.

By: /s/ Oh-Hyun Kwon for CS Choi

Name: Changsoo Choi

SAMSUNG SEMICONDUCTOR, INC.

By: /s/ Oh-Hyun Kwon for WH Hong

Name: Wanhoon Hong

SAMSUNG AUSTIN SEMICONDUCTOR, L.P.

By: /s/ Oh-Hyun Kwon for WS Han

Name: Woosung Han

The registrant agrees to furnish to the Securities and Exchange Commission upon request a copy of any omitted schedule or exhibit.

**Exhibit 10.10**

**CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [***] INDICATES THAT INFORMATION HAS BEEN REDACTED.**

# SEMICONDUCTOR PATENT LICENSE AGREEMENT BETWEEN

# RAMBUS INC.

# AND

# SAMSUNG ELECTRONICS CO., LTD.

## SEMICONDUCTOR PATENT LICENSE AGREEMENT

This SEMICONDUCTOR PATENT LICENSE AGREEMENT ("Agreement") is made and entered into on this 19th day of January, 2010 ("Effective Date") by and between Rambus Inc., a corporation duly organized and existing under the laws of Delaware, U.S.A., having its principal place of business at 4440 El Camino Real, Los Altos, California 94022, U.S.A., (hereinafter "Rambus") and Samsung Electronics Co., Ltd., a Korean corporation having its principal place of business at San # 16, Banwol-Dong, Hwasung-City, Gyeonggi-Do, Korea, 445-701 (hereinafter "Samsung").

**WHEREAS,** the parties are currently parties to a number of disputes relating to the Samsung products and the Rambus patents, including but not limited to disputes as to whether claims of Rambus patents are infringed by Samsung products and the Antitrust Litigation, and recognize that, without this Agreement, given the diversity of claims of the Rambus patents, and the breadth of technologies utilized by the Samsung products, Rambus could, after the Effective Date, assert that other claims of Rambus patents are infringed by Samsung products;

**WHEREAS**, the parties recognize that litigation of such is inherently uncertain, and is subject to certain risks and to various possible outcomes, some of which would b e more favorable to Rambus, and some of which would be more favorable to Samsung;

**WHEREAS**, concurrent with the execution and delivery of this Agreement, the parties have entered into a Settlement Agreement (the "Settlement Agreement") to eliminate the risks associated with such litigation and to enter into a comprehensive resolution to compromise, settle and release certain existing disputes between them, and to compromise, resolve and avoid other disputes that may arise after the Effective Date with respect to the Samsung products and the Rambus patents;

**WHEREAS**, as part of such comprehensive resolution, the parties have agreed to enter into this Agreement; and

**WHEREAS**, because this Agreement is part of such comprehensive resolution, the parties acknowledge that it is therefore essential that their respective obligations under this Agreement be certain and not subject to collateral attack, or otherwise subject to change or modification except on the terms expressly set forth herein.

**NOW, THEREFORE**, in consideration of the mutual covenants and premises contained herein, and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties, the parties agree as follows:

**1. DEFINITIONS**

1.1 "Acquired Business" means a Third Party, the portion of a Third Party, and/or any portion of the assets or business of a Third Party that Samsung or its Subsidiaries acquire in an Acquisition.

1.2 "Acquisition" means, as to a party, a transaction or a series of related transactions in which such party acquires, through merger (including reverse triangular merger), acquisition of stock, acquisition of assets or otherwise, a Third Party and/or any portion of the assets or business of a Third Party.

1.3 "Acquisition Date" means the effective date of any Acquisition completed by Samsung or any of its Subsidiaries as described under Section 3.3.

1.4 Antitrust Litigation means the matter entitled Rambus Inc. v. Micron Technology Inc. et al., No. 04-431105 (Supr. Ct. Cal., San Fran. Filed May 5, 2004).

1.5 "Change of Control" means a transaction or a series of related transactions in which (i) one or more Third Parties who did not previously Control a party obtain Control of such party, or (ii) the subject party merges with or transfers substantially all of its assets to a Third Party where the shareholders of the assigning party, immediately before the transaction or series of related transactions, own less than a fifty percent (50%) interest in the acquiring or surviving entity immediately after the transaction or series of related transactions.

1.6 "Combination Product" means either (a) a Component containing two (2) or more Integrated Circuits at least one of which is a Licensed Product and where all other Integrated Circuits contained in such Component are each either a Licensed Product or a Permitted Third Party Product, or (b) solely that portion of a Component consisting of a combination of two (2) or more Integrated Circuits that are each a Licensed Product ("Eligible Portion") where such Component also contains an Integrated Circuit that is neither a Licensed Product nor a Permitted Third Party Product. For clarity, an Eligible Portion may not contain any Integrated Circuit that is not a Licensed Product.

1.7 "Combination Product License" means the rights and licenses granted under Section 2.1(c).

1.8 "Component" means a product comprised of one or more Integrated Circuits physically connected, stacked, or attached to a unitary substrate or other Integrated Circuit where all other elements of such product are passive elements intended to provide physical support, packaging and/or connectivity with respect to such Integrated Circuits. Examples of Components would include DIMMs, SIMMs and other modules, and cards, multi-chip packages (MCP), system-on-chip, system-in-package, system-on-insulator, solid state storage devices, and other form factors.

1.9 “Control” (including “Controlled” and other forms) of an entity means (a) beneficial ownership (whether directly or indirectly through entities or other means) of more than fifty percent (50%) of the outstanding voting securities of that entity or (b) in the case of an entity that has no outstanding voting securities, having the power (whether directly or indirectly through entities or other means) presently to designate more than fifty percent (50%) of the directors of a corporation, or in the case of unincorporated entities, of individuals exercising similar functions. Notwithstanding the foregoing sentence, where Samsung has fifty percent (50%) of such beneficial ownership or power to designate with respect to any other entity, Samsung shall be deemed to “Control” such other entity if such other entity is part of the “Samsung Group of Companies” and such entity is lawfully registered under a corporate name, and lawfully operates and generally and routinely conducts its business under a corporate name, that includes “Samsung,” provided that, such entity agrees in a writing, delivered to both Parties within thirty (30) days of the Effective Date (or if later, within thirty (30) days after formation of such entity), to be bound by all applicable terms and conditions of this Agreement.

1.10 “DDR DRAM” means each double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for DDR DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; or (2) with data bit width other than x4, x8 and/or x16.

1.11 “DDR2 DRAM” means each double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for DDR2 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; or (2) with data bit width other than x4, x8 and/or x16.

1.12 “DDR3 DRAM” means each double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for DDR3 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; or (2) with data bit width other than x4, x8 and/or x16.

1.13 “DRAM” means a dynamic random access memory Integrated Circuit the primary purpose of which is data storage and retrieval.

1.14 “DRAM Controller” means any Integrated Circuit having circuitry integrated thereon or contained therein that is capable through an Interface of transmitting and/or receiving data from a DRAM.
1.15 “Effective Date” has the meaning assigned in the first paragraph of this Agreement.
1.16 “Existing Agreement” has the meaning ascribed to such term under Section 3.3(b) below.
1.17 “Expiration Date” means the fifth (5th) anniversary of the Effective Date.
1.18 “Foundry Product” means any product that would constitute a Paid-up Product or Term Product but for the fact that such product does not constitute a Samsung Product.
1.19 “Foundry Product License” means the rights and licenses granted under Section 2.1(d) below.
1.20 “GDDR DRAM” means each graphics double date rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for GDDR DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; or (2) with data bit width other than x16 and x32.
1.21 “GDDR2 DRAM” means each graphics double date rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for GDDR2 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; or (2) with data bit width other than x16 and x32.
1.22 “GDDR3 DRAM” means each graphics double date rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for GDDR3 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; or (2) with data bit width other than x16 and x32.
1.23 “GDDR4 DRAM” means each graphics double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for GDDR4 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; or (2) with data bit width other than x16 and x32.

1.24 “GDDR5 DRAM” means each graphics double data rate DRAM that (a) implements those interface features, parameters, and protocols in the same manner in all material respects as the DRAM Sold by Samsung or its Subsidiaries on or before the Effective Date as “GDDR5 DRAM” or implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for GDDR5 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol contained in DRAM Sold by Samsung or its Subsidiaries on or before the Effective Date as “GDDR5 DRAM;” and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; (2) with data bit width other than x16 and x32.
1.25 “Indirect Infringement” means any form of alleged patent infringement where the accused infringer is not directly infringing the subject patent right(s), but is in some manner liable for a Third Party’s direct infringement of the subject patent right(s) by, for example (without limitation), supplying designs, parts or instructions to the Third Party that enable such Third Party to infringe directly the subject patent right(s). Indirect Infringement includes without limitation contributory infringement and inducing infringement.
1.26 “Integrated Circuit” means a single, discrete integrated circuit chip, whether in wafer, cingulated die or packaged die form.
1.27 “Interface” means an electrical, optical, RF, mechanical, or software data path that is capable of transmitting and/or receiving information between two or more (a) Integrated Circuits or (b) portions of an Integrated Circuit, in each case together with the set of protocols defining the electrical, physical, timing and/or functional characteristics, sequences and/or control procedures of such data path.
1.28 “JEDEC” means the JEDEC Solid State Technology Association, originally known as the Joint Electron Device Engineering Council, a non-stock corporation organized and existing under the laws of the Commonwealth of Virginia.
1.29 “Licensed Product” means a Paid-up Product, Term Product, or Combination Product made (including have made), used, Sold, offered for Sale, and/or imported pursuant to the Paid-up Product License, the Term Product License and Combination Product License, respectively.
1.30 “Licensed Foundry Product Portion” means that portion of a Foundry Product made, used, Sold, offered for Sale, and/or imported pursuant to the Foundry Product License.
1.31 “LPDDR DRAM” means each low-power double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for LPDDR DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; or (2) with data bit width other than x8, x16 and/or x32.

1.32 “LPDDR2 DRAM” means each low-power double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for LPDDR2 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; or (2) with data bit width other than x8, x16 and/or x32.
1.33 “Other DRAM” means any DRAM that does not constitute a Paid-up Product.
1.34 “Paid-up Product” means each Samsung Product that is SDR DRAM, DDR DRAM, DDR2 DRAM, DDR3 DRAM, GDDR DRAM, GDDR2 DRAM, GDDR3 DRAM, GDDR4 DRAM, GDDR5 DRAM, LPDDR DRAM, and LPDDR2 DRAM. Notwithstanding the foregoing sentence, any product that constitutes a Rambus Leadership Product shall be deemed not to be a Paid-up Product.
1.35 “Paid-up Product License” means the rights and licenses granted pursuant to Section 2.1(a).
1.36 “Patents” means patents and utility models and applications therefor, including, without limitation, all continuations, continuations-in-part and divisionals thereof, in all countries of the world that now or hereafter are (i) owned or controlled by the applicable party hereto and its Subsidiaries and/or (ii) otherwise licensable by the applicable party hereto and its Subsidiaries, in each case of (i) and (ii) where such party and its Subsidiaries have the right to grant the licenses, sublicenses or other rights and covenants of the scope granted herein.
1.37 “Permitted Third Party Product” means any Integrated Circuit that is neither a Samsung Product nor a DRAM, SerDes IC, DRAM Controller, Synchronous Flash Memory or Synchronous Flash Controller.
1.38 “Quarterly Acquisition Adjustment Payment” means each quarterly fixed amount initially payable by Samsung under this Agreement upon Samsung’s or any of its Subsidiaries’ Acquisition of any Acquisition Products as provided for under Section 3.3.
1.39 “Quarterly Base Payment” means twenty-five million United States Dollars (US$25,000,000).

1.40 “Quarterly Buffer” means, for a subject quarter during this Agreement, the following upper limit (“Ceiling”) and lower limit (“Floor”) for such quarter.
Quarter Quarter Quarter Quarter

| | 5 - 8 | 9 - 12 | 13 - 16 | 17 - 20 |
|---|---|---|---|---|
| Ceiling | [***] | [***] | [***] | [***] |
| Floor | [***] | [***] | [***] | [***] |

1.41 “Quarterly DRAM Revenue” means the total amount of revenue Samsung and its Subsidiaries received for Sales of DRAM during a subject quarter as reported by iSuppli Corporation (“iSuppli”) in its DRAM Market Tracker (or in such alternate source as may be used as set forth below) for the subject quarter. Upon the earlier of, either iSuppli (or such alternate source) (1) ceasing to report such information on a quarterly basis, or (2) failing to report such information by the end of the quarter two (2) quarters after the subject quarter, the parties shall negotiate in good faith to determine an alternate source for determining the Quarterly DRAM Revenue for the subject quarter, provided that, if the parties fail to reach agreement on such alternate source within thirty (30) days following the second quarter after the subject quarter for which such Quarterly DRAM Revenue report was not available, then either party may, as its sole and exclusive remedy to resolve such dispute, submit such dispute to binding arbitration pursuant to Section 8 and Samsung’s obligation to remit its Quarterly License Payment pursuant to Section 4.1 for the subject quarter shall be tolled until the earlier of either the final resolution of such arbitration determining such alternate source or the parties’ agreement on an alternate source.

1.42 “Quarterly License Payment” has the meaning ascribed to such term in Section 4.1.

1.43 “Quarterly Reference DRAM Revenue” means the sum of the Quarterly DRAM Revenue for 2010 divided by four (4).

1.44 “Quarterly DRAM Revenue Ratio” means the ratio of the Quarterly DRAM Revenue and the Quarterly Reference DRAM Revenue.

1.45 “Rambus Applicable Manufacturing Claims” are defined and determined separately for each specific product. For each such product, a Rambus Applicable Manufacturing Claim means each process or method claim of a Rambus Patent [***] infringed when such product is made (or have made).

1.46 “Rambus Applicable Patent Claims” means Rambus Applicable Manufacturing Claims and Rambus Applicable Product Claims.

1.47 “Rambus Applicable Product Claims” are defined and determined separately for each specific product. For each such product, a Rambus Applicable Product Claim means each claim of a Rambus Patent [***] infringed by the use, Sale, Offer for Sale, or import of such product in the form first made (or have made).

1.48 “Rambus Leadership Product” means any product that implements a Rambus Proprietary Specification.
1.49 “Rambus Patents” means Patents of Rambus and its Subsidiaries.
1.50 “Rambus Product Design” means any human or machine readable representation of the design, such as a circuit layout in a drawing or a register transfer level description (RTL) file, for any product, element or instrumentality, including, but not limited to any Rambus Leadership Product.
1.51 “Rambus Product Design License” means the rights and licenses granted under Section 2.2.
1.52 “Rambus Proprietary Specification” means any Technical Specification that is first designed and developed (as demonstrated by customary means, including, but not limited to, engineering notebooks) by, or on behalf of, Rambus or any of its Subsidiaries, over which Rambus and/or any of its Subsidiaries has exclusive control and that neither Rambus nor any of its Subsidiaries has voluntarily (a) disclosed except under a confidentiality or non-disclosure agreement; or (b) proposed or disclosed to any standards setting organization. In addition to the foregoing sentence, Rambus Proprietary Specification also includes any Technical Specification exclusively acquired by Rambus from a Third Party where such Technical Specification would otherwise meet the definition of a Rambus Proprietary Specification had Rambus, and not the relevant Third Party, been the original developer and owner of such Technical Specification. Notwithstanding the above, a Technical Specification independently developed by or on behalf of Samsung, or by a Third Party and acquired by Samsung, shall not be deemed to be a Rambus Proprietary Specification, even if it describes similar or identical functions. A Technical Specification shall not be deemed to be independently developed for purposes of the preceding sentence to the extent such Technical Specification, or any portion thereof, was developed or derived based on information (i) for which Samsung or any of its Subsidiaries, or any other Third Party, is bound by an obligation of confidentiality or non-use to Rambus; (ii) obtained from any other Third Party in violation of its obligation of confidentiality or non-use to Rambus; or (iii) obtained by Samsung, any of its Subsidiaries or any other Third Party based on reverse engineering of any product that implements a Rambus Proprietary Specification.
1.53 “Samsung Applicable Manufacturing Claims” are defined and determined separately for each specific product. For each such product, a Samsung Applicable Manufacturing Claim means each process or method claim of a Samsung Patent [***] infringed when such product is made (or have made).
1.54 “Samsung Applicable Patent Claims” means Samsung Applicable Manufacturing Claims and Samsung Applicable Product Claims.

1.55 “Samsung Applicable Product Claims” are defined and determined separately for each specific product. For each such product, a Samsung Applicable Product Claim means each claim of a Samsung Patent [***] infringed by the use, Sale, Offer for Sale, or import of such product in the form first made (or have made).

1.56 “Samsung Patent” means Patents of Samsung and its Subsidiaries.

1.57 “Samsung Product” means, an Integrated Circuit, for which Samsung or any of its Subsidiaries either:

(a) owns the entire design of such Integrated Circuit with no limitations on how it may use such design; and/or

(b) has a license from the party or parties that created or otherwise owns the design of such Integrated Circuit, under which license Samsung and/or its Subsidiaries (i) can make (and/or have made) such Integrated Circuit; (ii) is free to Sell such made (or have made) Integrated Circuit without restriction as to whom Samsung and/or its Subsidiaries may Sell such Integrated Circuit and (iii) is not required or bound to discriminate in price or other terms with respect to such Integrated Circuit.

1.58 “SDR DRAM” means each single data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for SDR DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification and (c) is not Sold or specified as being capable of operating: (1) at a data transfer rate exceeding [***]; or (2) with data bit width other than x4, x8 and/or x16.

1.59 “Second Preceding Quarter” means, with respect to a subject quarter, the quarter that is two (2) quarters earlier than the subject quarter. For example, the Second Preceding Quarter to the fourth (4th) quarter of this Agreement would be the second (2nd) quarter.

1.60 “Sell” (including “Sale” and “Sold” and other forms) means to sell, lease, or otherwise transfer or dispose of a product, or if the product is transferred and used internally by an entity, then such transfer and use shall also be deemed a Sale.

1.61 “SerDes IC” means any Integrated Circuit having circuitry integrated thereon or contained therein that (a) de-serializes data received by such Integrated Circuit from a different Integrated Circuit and/or (b) serializes data originating on such Integrated Circuit prior to transmitting such data to a different Integrated Circuit. Notwithstanding the foregoing, any Integrated Circuit, the primary purpose of which is data storage and/or retrieval shall be deemed not to be a SerDes IC.

1.62 “Settlement Agreement” has the meaning assigned in the recitals to this Agreement.

1.63 “Subsidiary” means with respect to any identified entity (“Identified Entity”), any entity Controlled by such Identified Entity, but only so long as such Control exists.
1.64 “Synchronous Flash Controller” means any Integrated Circuit having circuitry integrated thereon or contained therein that is capable through an Interface of transmitting and/or receiving data from a Synchronous Flash Memory.
1.65 “Synchronous Flash Memory” means any Integrated Circuit the primary purpose of which is data storage or retrieval that has a synchronous Interface and memory cells that retain data stored in such memory cells even when it ceases to receive electrical power.
1.66 “Technical Specification” means a final specification for an optical, RF, electrical, mechanical, or software component that describes all of the characteristics of such component necessary for such component to operate. As example, the electrical interface (including timing and signaling parameters and characteristics) for a data bus connecting two (2) Integrated Circuits would meet the definition of a Technical Specification provided that such interface specified all of the signals necessary for such data bus to function.
1.67 “Term” means, as the case may be, the (a) term of the Paid-Up License, (b) the term of the Term Product License; (c) term of the Combination Product License, and/or (d) term of the Foundry Product License in each case of (a), (b), (c) and (d) as provided for under Section 6.1.
1.68 “Term Product” means each Samsung Product that is a (a) Other DRAM; (b) DRAM Controller; (c) Synchronous Flash Memory; (d) Synchronous Flash Controller; (e) SerDes IC; and (f) any other Integrated Circuit other than a Paid-up Product. Notwithstanding the foregoing sentence, any product that constitutes a Rambus Leadership Product shall be deemed not to be a Term Product.
1.69 “Term Product License” means the rights and licenses granted under Section 2.1(b).
1.70 “Third Party” means with respect to (i) Rambus or any Subsidiary of Rambus, any entity that is not a Subsidiary of Rambus and (ii) with respect to Samsung or any Subsidiary of Samsung, any entity that is not a Subsidiary of Samsung.
1.71 “Ultimate Parent” means with respect to any identified entity (“Identified Entity”), any entity that Controls such Identified Entity and where such Controlling entity is not under the Control of any other entity.

**2. GRANT OF RIGHTS**

2.1 License to Samsung.

(a) Paid-up Product License. Subject to the terms and conditions of this Agreement, Rambus, on behalf of itself and its Subsidiaries, hereby grants to Samsung and its

Subsidiaries, for each product that falls within the definition of a Paid-up Product: a non-exclusive, non-transferable, royalty-bearing, worldwide license, without the right to sublicense, solely under the associated Rambus Applicable Patent Claims for such Paid-up Product, to make (including have made), use, Sell, offer for Sale, and/or import such Paid-up Product until the expiration or termination of this license pursuant to Section 6.1(a).
(b) Term Product License. Subject to the terms and conditions of this Agreement, Rambus, on behalf of itself and its Subsidiaries, hereby grants to Samsung and its Subsidiaries, for each product that falls within the definition of a Term Product: a non-exclusive, non-transferable, royalty-bearing, worldwide license, without the right to sublicense, solely under the associated Rambus Applicable Patent Claims for such Term Product, to make (including have made), use, Sell, offer for Sale, and/or import such Term Product until the expiration or termination of this license pursuant to Section 6.1(b).
(c) Combination Product License. Subject to the terms and conditions of this Agreement, Rambus, on behalf of itself and its Subsidiaries, hereby grants to Samsung and its Subsidiaries, for each product that falls within the definition of a Combination Product: a non-exclusive, non-transferable, royalty-bearing, worldwide license, without the right to sublicense, solely under the associated Rambus Applicable Patent Claims for such Combination Product, to make (including have made), use, Sell, offer for Sale, and/or import such Combination Product until the expiration or termination of this license pursuant to Section 6.1(c). For clarity, the grant of the license to Combination Products pursuant to this Section 2.1(c) does not supersede or otherwise limit the licenses granted to each Term Product and Paid-up Product under Section 2.1(a) and Section 2.1(b), respectively, that may be contained in any such Combination Product.
(d) Foundry Product License. Except as expressly set forth in Sections 2.1(d)(i) and 2.1(d)(ii) below, all Foundry Products are expressly excluded from the licenses granted under Sections 2.1(a), 2.1(b) and 2.1(c) of this Agreement.

(i) Manufacturing. Rambus, on behalf of itself and its Subsidiaries, hereby grants to Samsung and its Subsidiaries, for any product that constitutes a Foundry Product: a non-exclusive, non-transferable, worldwide license, without the right to sublicense, under the associated Rambus Applicable Manufacturing Claims for such Foundry Product, to make (but not have made), use, Sell, and offer for Sale any such Foundry Product until the expiration or termination of this license pursuant to Section 6.1(d). For the avoidance of doubt, except as expressly set forth in Section 2.1(d)(ii), no license is granted under any Rambus Applicable Product Claims for any Foundry Products.

(ii) Samsung Supplied Technology. For any portion of a Foundry Product supplied by Samsung and/or its Subsidiaries ("Samsung Supplied Portion") for which Samsung or any of its Subsidiaries either (1) owns the entire design of such Samsung Supplied Portion with no limitations on how it may use such design; and/or (2) has a license from the Third Party (or Third Parties) that created or otherwise owns the design of such Samsung Supplied Portion, under which license Samsung and/or its Subsidiaries (i) can make (and/or have made) such Samsung Supplied Portion; (ii) is free to Sell such made Samsung Supplied Portion without restriction as to whom Samsung and/or its Subsidiaries may Sell such Samsung Supplied Portion and (iii) is not required or bound to discriminate in price or other terms with respect to such Samsung Supplied Portion, Rambus, on behalf of itself and its Subsidiaries, hereby grants to Samsung and its Subsidiaries, a non-exclusive, non-transferable, worldwide license, without the right to sublicense, under the associated Rambus Applicable Product Claims for such Samsung Supplied Portion, to use, Sell, offer for Sale, or import any such Samsung Supplied Portion as part of any such Foundry Product until the expiration of termination of this license pursuant to Section 6.1(d).

2.2 Rambus Product Design License. Subject to the terms and conditions of this Agreement, Samsung, on behalf of itself and its Subsidiaries, hereby grants to Rambus and its Subsidiaries, for each product that falls within the definition of Rambus Product Design: a non-exclusive, non-transferable, worldwide license, without the right to sublicense, solely under the associated Samsung Applicable Patent Claims for such Rambus Product Design, to make (including have made), use, Sell, offer for Sale, and/or import such Rambus Product Design until the expiration or termination of this license pursuant to Section 6.1(e). For the avoidance of doubt, this license does not in any way, expressly or impliedly, extend, nor is it intended to extend, to any devices or products made essentially based on or incorporating such Rambus Product Design or in combination of such Rambus Product Design.

2.3 Obligations When Transferring Patents. Each party agrees that it shall take all actions necessary to ensure that any Third Party to whom any Patents are transferred, assigned or exclusively licensed or any right to enforce is granted (including any successor in interest thereto) is bound in writing to all covenants, licenses and other rights granted hereunder with respect such transferred, assigned or exclusively licensed Patents, provided further that if Rambus or any of its Subsidiaries transfers to any Third Party ownership of, or otherwise grants any Third Party the right to enforce, any claim of any Rambus Patent that is subject to the Covenant to Sue Last provided for under Section 2.4 below, such claim shall, upon such transfer of ownership or grant of right to enforce, automatically and immediately be deemed to be included in the rights and licenses granted hereunder with respect to Licensed Products and Licensed Foundry Product Portions notwithstanding the fact that such claim does not constitute a Rambus Applicable Patent Claim.

2.4 Covenant [***]. For so long as a product constitutes a Licensed Product or Licensed Foundry Product Portion hereunder, Rambus, on behalf of itself and its Subsidiaries, covenants that [***].

2.5 Full Force and Effect. The parties expressly acknowledge and agree that nothing in this Agreement shall in any way limit or alter the effect of the first sale or patent exhaustion doctrines under U.S. law, and any equivalent or similar doctrines under the law of any jurisdiction with respect to Rambus Applicable Patent Claims with respect to any Licensed Product or Licensed Foundry Product Portion based on the Sale of such Licensed Product or Licensed Foundry Product Portion.

2.6 No Release, No Implied or Other Rights and Licenses.

(a) The rights and licenses granted and covenants made herein apply solely to those products and activities expressly licensed during the Term. Nothing in this Agreement shall be deemed to, and shall not be construed to, constitute any release, forbearance, forfeiture or other waiver of any rights of either party or their respective Subsidiaries to enforce any of their respective intellectual property rights with respect to any activities undertaken by either party, their respective Subsidiaries and/or any other Third Party to the extent not expressly granted or made hereunder. Nothing in this Agreement is intended to limit or alter any rights under applicable law relating to patent exhaustion.

(b) Except as expressly provided for under this Agreement, no authorization, release, license, covenant or other right is granted or made, by implication, estoppel, acquiescence or otherwise under this Agreement, to either party, their respective Subsidiaries and/or any other Third Party under any patents, utility models, patent or utility model claims, or other intellectual property rights now or hereafter owned or controlled by either party or their respective Subsidiaries. Nothing in this Agreement is intended to limit or alter any rights under applicable law relating to patent exhaustion.

(c) Except as expressly provided for under this Agreement, no authorization, release, license, covenant or other right is granted or made, by implication, estoppel, acquiescence or otherwise under this Agreement, to either party, their respective Subsidiaries and/or any other Third Party under any patents, utility models, patent or utility model claims, or other intellectual property rights now or hereafter owned or controlled by either party or their respective Subsidiaries. Nothing in this Agreement is intended to limit or alter any rights under applicable law relating to patent exhaustion.

(d) Except as expressly provided for under this Agreement, none of the terms of this Agreement shall be deemed to, and shall not be construed to, constitute, whether by implication, estoppel, acquiescence or otherwise, (i) an authorization by either party, their respective Subsidiaries and/or any other Third Party to Sell, offer for Sale and/or import any product (1) in or for combination with any other element (including, but not limited to any function or feature), product or instrumentality; or (2) unconditionally for use in or for combination with any other element (including, but not limited to any function or feature), product or instrumentality; or (ii) a waiver by either party or their respective Subsidiaries of any liability for infringement based on either party's, their respective Subsidiaries and/or any other Third Party's use, Sale, offer for Sale and/or import of any product in combination with any other element (including, but not limited to any function or feature), product or instrumentality. Nothing in this Agreement is intended to limit or alter any rights under applicable law relating to patent exhaustion.

**3. SUBSIDIARIES, FORMER SUBSIDIARIES AND ACQUISITIONS**

3.1 Subsidiaries. The parties intend that this Agreement shall extend to all of each party's Subsidiaries. The parties agree that to the extent they are not already bound, each party

shall ensure that all of its Subsidiaries (including without limitation all entities that become Subsidiaries after the Effective Date ("New Subsidiaries")) are bound by the terms of this Agreement. Without limiting the foregoing:

(a) each party shall ensure that each New Subsidiary's patents, utility models and applications therefor are included within the definition of the applicable party's Patents; and

(b) each party shall ensure that each New Subsidiary is bound as applicable, by Section 2.3 and 2.4.

3.2 Former Subsidiaries. All rights and licenses granted and covenants made to any Subsidiary of either party shall immediately and automatically terminate upon a party ceasing to Control such entity ("Former Subsidiary"). However, if a Subsidiary of a party that holds any patent or utility model or applications therefor that are subject to the rights and licenses granted or covenants made hereunder becomes a Former Subsidiary, such rights and licenses granted or covenants made by such Former Subsidiary (including every successor entity in interest to any such patents or utility models and applications therefor) shall continue in accordance with the terms of this Agreement after such entity becomes a Former Subsidiary.

3.3 Acquisitions.

(a) Acquired Business [***]. If Samsung or any of its Subsidiaries completes an Acquisition where [***] then Samsung shall pay Rambus a fixed quarterly payment (in addition to Samsung's Quarterly License Payments or any other Quarterly Acquisition Adjustment Payment owed pursuant to Section 3.3(b) in connection with such Acquisition or any other Acquisition), based on such Acquisition, starting, on a prorated basis, with the first calendar quarter during which the Acquisition Date occurred, [***]. If iSuppli data as required for the calculations in this Section 3.3(a) is not available for an Acquired Business or for Samsung, or the most recent version of such data covers a period ending more than twelve (12) months before the Acquisition Date, the parties shall initially meet within thirty (30) days following the associated Acquisition Date and negotiate in good faith an alternate source for the information that was to be provided by iSuppli. If the parties cannot reach agreement on such alternate source within thirty (30) days following the date required for such initial meeting, either party may, as its sole and exclusive remedy to resolve such dispute, submit such dispute to binding arbitration pursuant to the terms of Section 3.3(d). For the avoidance of doubt, any Acquired Business that has revenue attributable from the Sale of Acquisition Products of [***] or less (as reported by iSuppli for the most recent twelve (12) months preceding the Acquisition Date for which iSuppli has reported such Sales) shall be licensed without additional payments of any kind.

(b) Acquired Business [***]. If Samsung or any of its Subsidiaries completes an Acquisition where [***], Samsung shall pay Rambus a fixed quarterly payment (in addition to Samsung's Quarterly License Payments or any other Quarterly Acquisition Adjustment Payment owed pursuant to Section 3.3(a) in connection with such Acquisition or any other Acquisition), based on such Acquisition, starting, on a pro-rated basis with the first calendar quarter during which the Acquisition Date occurred. [***] If the Existing Agreement required payments for less than four (4) quarters prior to the Acquisition Date, the parties shall initially meet within thirty (30) days following the associated Acquisition Date and negotiate in good faith an alternate method to determine the average quarterly payments from the Existing Agreement. If the parties cannot reach agreement on such alternate method within thirty (30) days following the date required for such initial meeting, then either party may, as its sole and exclusive remedy to resolve such dispute, submit such dispute to binding arbitration pursuant to the terms of Section 3.3(d).

(c) Attributable Revenue. For purposes of the calculations in this Section 3.3, [***].

(d) Dispute Resolution. If the parties fail to resolve any dispute identified in this Section 3.3 as subject to binding arbitration, then either party may, as its sole and exclusive remedy, submit such dispute to binding arbitration pursuant to Section 8 and Samsung's obligation to remit its Quarterly Acquisition Adjustment Payment based on such disputed Acquisition pursuant to Section 5.1(a)(ii) shall be tolled until the earlier of either the final resolution of such arbitration or the parties' resolution of such dispute, and in either case within thirty (30) days after such resolution Samsung will make all payments necessary to satisfy its payment obligations under this Section 3.3 from the date such obligations accrued.

3.4 No Release. The releases granted and covenants made under Article IV of the Settlement Agreement shall not apply to any Acquired Business. None of the rights and licenses granted and covenants made under Section 2 shall apply to any activity of any Acquired Business unless and until such Acquired Business becomes licensed hereunder in accordance with this Section 3, and in any case, none of the rights and licenses granted and covenants made under Section 2 shall apply to nor in any way reduce any liability associated with any activity of any Acquired Business that took place prior to the applicable Acquisition Date, provided that nothing in this Section 3.4 shall have the effect of negating or nullifying any release or license granted in any Existing Agreement. Notwithstanding anything to the contrary contained in Section 3.3, for any Acquisition for which Samsung wishes to acquire a release of liability for the Acquired Business for infringement of Rambus' patents and/or utility models that took place prior to the applicable Acquisition Date, the parties will negotiate such release in good faith and may consider the calculations set forth in Section 3.3(a) and/or the total past liability for infringing Rambus' patents and/or utility models incurred by such Acquired Business.

**4. CONSIDERATION**

4.1 Quarterly License Payment. Beginning with the first calendar quarter of 2010, Samsung will pay Rambus the following quarterly payments (each a "Quarterly License Payment"):

(a) First 6 Quarterly License Payments. Each of the first six (6) Quarterly License Payments due hereunder will be in the amount of the Quarterly Base Payment.

(b) Quarterly License Payment for all remaining Quarters. The amount of each Quarterly License Payment for quarters seven (7) through twenty (20) will be calculated as follows.

(i) If the Quarterly DRAM Revenue Ratio for the Second Preceding Quarter is [***], then the Quarterly License Payment for the subject quarter will be equal to the Quarterly Base Payment.

(ii) If the Quarterly DRAM Revenue Ratio for the Second Preceding Quarter is [***], then the Quarterly License Payment for the subject quarter shall be equal to an amount based on the following calculation.
[***]

(iii) If the Quarterly DRAM Revenue Ratio for the Second Preceding Quarter is [***], then the Quarterly License Payment for the subject quarter shall be equal to an amount based on the following calculation.
[***]

(iv) Minimum and Maximum Quarterly License Payments. Notwithstanding any adjustment to the Quarterly Base Payment made pursuant to the terms of this Section 4.1(b), in no event shall any Quarterly License Payment (i) be less than ten (10) million United States Dollars (US$10,000,000) or (ii) be greater than forty (40) million United States Dollars (US$40,000,000).

(c) Final Adjustment. If, in Quarter twenty-one (21) of this Agreement, the Quarterly DRAM Revenue Ratio for the Second Preceding Quarter is [***], then Samsung shall pay Rambus a final, adjustment payment ("Final Adjustment Payment") based on the following calculation, provided that, in no event shall the Final Adjustment Payment exceed [***].
[***]

4.2 Quarterly Acquisition Adjustment Payment. To the extent required pursuant to Section 3.3, Samsung shall pay Rambus a Quarterly Acquisition Adjustment Payment for each Acquisition occurring during the Term of this Agreement.

**5. PAYMENTS**

5.1 Payments.

(a) Timing of Payments.

(i) Quarterly License Payments and Final Adjustment Payment. Samsung shall pay Rambus each Quarterly License Payment and the Final Adjustment Payment (if any) within ten (10) United States business days of its receipt (as determined for notices under Section 9.2) of Rambus' invoice therefor. Rambus shall invoice Samsung for each of the twenty (20) Quarterly License Payments and the Final Adjustment Payment (if any) no earlier than thirty (30) days after the first day of the quarter to which each such Quarterly License Payment or the Final Adjustment Payment (if any) relates.

(ii) Quarterly Acquisition Adjustment Payments. Samsung shall pay Rambus each Quarterly Acquisition Adjustment Payment within ten (10) United States business days of its receipt (as determined for notices under Section 9.2) of Rambus' invoice therefor. Rambus shall invoice Samsung for each Quarterly Acquisition Adjustment Payment no earlier than the end of the quarter to which such Quarterly Acquisition Adjustment Payment relates.

(b) Method of Payment. Samsung's payments to Rambus of all amounts hereunder shall be made by electronic transfer either directly to or via the Federal Reserve Bank of San Francisco for credit to the following account or another designated in writing by Rambus:

Rambus Inc.
[***]

5.2 Currency and Late Payments. All payments to Rambus hereunder shall be in United States Dollars. Late payments hereunder shall be subject to interest at the 1-year U.S. Government Treasury Constant Maturity Rate, as published by the Federal Reserve (www.federalreserve.gov) on the date the amount payable was due, plus five percent (5%) (or the maximum interest rate allowed by applicable law, if lower).The amount of interest shall be calculated from the payment due date to the date of electronic transfer.

5.3 Taxes. If the Korean government imposes any withholding tax on any amounts paid by Samsung to Rambus hereunder, such tax shall be borne by Rambus. Samsung agrees, at its reasonable discretion, to assist Rambus in its efforts to minimize Rambus' tax liability. Samsung shall withhold the amount of any such taxes levied on such payments to Rambus imposed by the Korean government, shall promptly effect payment of the taxes so withheld to the Korean tax office, and Samsung shall send to Rambus the official certificate of such payment in a form reasonably sufficient to enable Rambus to support a claim for a foreign tax credit with respect to any such taxes so withheld.

5.4 No Escrow. Payment of amounts due under this Agreement to any person, firm or entity, other than Rambus, including without limitation, any escrow fund or escrow agent, unless agreed by Rambus or ordered by any court or government agency of competent jurisdiction or arbitration panel, shall constitute a material breach of this Agreement. Any payment once made by Samsung to Rambus shall not be refunded or refundable to Samsung for any reason except as may be required pursuant to Section 8. Notwithstanding the foregoing, in case of clerical error with respect to any payment made hereunder, the parties agree to remedy any such error through proper payment adjustments.

**6. TERM & TERMINATION**

6.1 Term.

(a) Paid-up Product License. The Paid-up Product License shall commence on the Effective Date and shall continue in full force and effect unless and until terminated in accordance with this Section 6.

(b) Term Product License. The Term Product License shall commence on the Effective Date and shall continue in full force and effect until the Expiration Date unless earlier terminated in accordance with this Section 6.

(c) Combination Product License. The Combination Product License shall commence on the Effective Date and shall continue in full force and effect until the Expiration Date unless earlier terminated in accordance with this Section 6. Notwithstanding the foregoing, the Combination Product License shall continue in full force and effect solely for combinations consisting solely of two (2) or more Paid-up Products for so long as the Paid-up Product License remains in full force and effect.

(d) Foundry Product License. The Foundry Product License shall commence on the Effective Date and shall continue in full force and effect until the Expiration Date unless earlier terminated in accordance with this Section 6.

(e) Rambus Product Design License. The Rambus Product Design License shall commence on the Effective Date and shall continue in full force and effect until the Expiration Date unless earlier terminated in accordance with this Section 6.

6.2 Material Breach. A party may terminate this Agreement upon notice if the other party hereto (or any of its Subsidiaries) commits a material breach of Section 1.41 or Section 3.3(d) with respect to the exclusive resolution though arbitration of disputes regarding alternate sources and/or methods pursuant to Section 8 as provided for in such sections

and does not correct such breach within thirty (30) days after receiving written notice complaining thereof. In addition, Rambus may terminate this Agreement upon notice if Samsung materially breaches its payment obligations under this Agreement and does not correct such breach within thirty (30) days after receiving written notice complaining thereof. Failure of Samsung to remit any payment due and payable in accordance with the terms of this Agreement shall constitute a material breach of this Agreement. For the avoidance of doubt, any payments tolled in accordance with the terms of this Agreement shall not be due and payable during such tolling period.

6.3 Bankruptcy. Either party may terminate this Agreement effective upon written notice to the other party if the other party becomes the subject of a voluntary or involuntary petition in bankruptcy or any proceeding relating to insolvency, or composition for the benefit of creditors, if that petition or proceeding is not dismissed within sixty (60) days after filing.

6.4 Change of Control. In addition to the rights set forth in Sections 6.2 and 6.3 above, if prior to the Expiration Date, Samsung undergoes a Change of Control, Rambus may terminate this Agreement effective upon written notice thereof to Samsung or the relevant successor in interest. Notwithstanding the foregoing, if Rambus receives written notice of such Change of Control from Samsung (or its successor in interest) no later than ten (10) business days after such Change of Control, Rambus agrees to negotiate in good faith with such successor in interest, for a period of one hundred and eighty (180) days after receipt of such notice, the application of this Agreement to such successors' business activities prior to terminating this Agreement based on such Change of Control. Rambus' failure to terminate this Agreement after a given Change of Control by Samsung (or any successor in interest) shall not in any way limit Rambus' right to exercise these rights for any subsequent Change of Control. Termination of this Agreement based on a Change of Control shall be deemed to be effective immediately prior to the effective date of such Change of Control.

6.5 Survival. All payment obligations accruing prior to any termination of this Agreement shall survive any such termination. In addition, the following Sections shall survive and remain in full force and effect after any termination of this Agreement: Section 1 (Definitions), Section 2.3 (Obligations When Transferring Patents), Section 2.5 (Full Force and Effect), 2.6 (No Release, No Implied or Other Rights and Licenses), Section 3.1 (Subsidiaries), 3.2 (Former Subsidiaries), 3.3(d) (Dispute Resolution), Section 3.4 (No Release), Section 4 (Consideration) and Section 5 (Payments) (in each case with respect to amounts incurred prior to termination of this Agreement), this Section 6.4 (Survival), Section 7.2 (Confidentiality), Section 8 (Dispute Resolution), and Section 9 (Miscellaneous).

**7. CONFIDENTIALITY**

7.1 Press Release. The parties intend to issue a press release as set forth in the Settlement Agreement.

7.2 Confidentiality. Each party agrees that only after the announcement referenced in Section 7.1 above, each party shall be entitled to disclose the general nature of this Agreement but that the terms and conditions of this Agreement, to the extent not already disclosed pursuant to Section 7.1 above, shall be treated as Confidential Information and that neither party will disclose such terms or conditions to any Third Party without the prior written consent of the other party, provided, however, that each party may disclose the terms and conditions of this Agreement:

(a) as required by any court or other governmental body;

(b) as otherwise required by law;
(c) as otherwise may be required by applicable securities and other law and regulation, including to legal and financial advisors in their capacity of advising a party in such matters so long as the disclosing party shall seek confidential treatment of such terms and conditions to the extent reasonably possible;
(d) to legal counsel, accountants, and other professional advisors of the parties;
(e) in confidence, to banks, investors and other financing sources and their advisors;

(f) in connection with the enforcement of this Agreement or rights under this Agreement;
(g) during the course of litigation so long as the disclosure of such terms and conditions are restricted in the same manner as is the confidential information of other litigating parties and so long as (A) the restrictions are embodied in a court-entered protective order limiting disclosure to outside counsel and (B) the disclosing party informs the other party in writing at least ten (10) business days in advance of the disclosure and discusses the nature and contents of the disclosure, in good faith, with the other party; or
(h) in confidence, in connection with an actual or prospective merger or acquisition or similar transaction.

Upon execution of this Agreement, or thereafter, Rambus, in its discretion, shall be entitled to file a copy of this Agreement with the U.S. Securities and Exchange Commission, so long as Rambus seeks confidential treatment of such agreement to the extent reasonably possible.

**8. DISPUTE RESOLUTION**

Any dispute submitted to binding arbitration pursuant to Section 1.41 or Section 3.3 shall take place in Santa Clara County, California before one arbitrator, and shall be administered by Judicial Arbitration and Mediation Services, Inc. pursuant to its Streamlined Arbitration Rules and Procedures, except that each party shall submit to the arbitrator and exchange with each other in advance of the hearing their last, best alternate sources and/or methods, as applicable, and the arbitrator shall be limited to awarding only one or the other of the two alternate sources and/or methods, as applicable, submitted. Judgment on the award may be entered in any court having jurisdiction.

**9. MISCELLANEOUS**

9.1 Disclaimers. Nothing contained in this Agreement shall be construed as:

(a) a warranty or representation by either party as to the validity, enforceability, and/or scope of any intellectual property rights;

(b) imposing upon either party any obligation to institute any suit or action for infringement of any intellectual property right, or to defend any suit or action brought by a Third Party which challenges or concerns the validity, enforceability or scope of any intellectual property rights;

(c) imposing on either party any obligation to file any application or registration with respect to any intellectual property rights or to secure or maintain in force any intellectual property rights;

(d) imposing on either party any obligation to furnish any technical information or know-how; or

(e) imposing or requiring, whether by implication or otherwise, any support, maintenance or any technology deliverable obligations on either party's or their respective Subsidiaries' part under this Agreement (and neither party nor any of their respective Subsidiaries are providing any support, maintenance or technology deliverables under this Agreement).

9.2 Notices. All notices and other communications required or permitted hereunder shall be in writing and shall be mailed by first class air mail (registered or certified if available), postage prepaid, or otherwise delivered by hand, by messenger or by telecommunication, addressed to the addresses first set forth above or at such other address furnished with a notice in the manner set forth herein. Such notices shall be deemed to have been effective when delivered or, if delivery is not accomplished by reason of some fault or refusal of the addressee, when tendered. All notices shall be in English.

9.3 Governing Law & Venue.

(a) This Agreement shall be governed by and construed in accordance with the laws of the State of California, without giving effect to any choice-of-law or conflict-of-law provision or rule (whether of the State of California or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of California.

(b) This Agreement is executed in the English language and no translation shall have any legal effect.

(c) Except for disputes subject to Section 8, any legal action, suit or proceeding arising under, or relating to, this Agreement, shall be brought in the United States District Court for the Northern District of California or, if such court shall decline to accept jurisdiction over a particular matter, in the San Francisco Superior Court, and each Party agrees that any such action, suit or proceeding may be brought only in such courts. Each Party further waives any objection to the laying of jurisdiction and venue for any such suit, action or proceeding in such courts.

9.4 No Assignment. This Agreement is personal to the parties, and the Agreement and/or any right or obligation hereunder is not assignable, whether in conjunction with a change in ownership, merger, acquisition, the sale or transfer of all, or substantially all or any part of either party's or any of their respective Subsidiaries business or assets or otherwise, voluntarily, by operation of law, reverse triangular merger or otherwise, without the prior written consent of the other party, which consent may be withheld at the sole discretion of such other party. Any such purported or attempted assignment or transfer in violation of the foregoing shall be deemed a breach of this Agreement and shall be null and void. Subject to the foregoing, this Agreement shall be binding upon and inure to the benefit of the parties and their permitted successors and assigns. Notwithstanding the foregoing, either party shall be entitled to, and each party hereby agrees to, assign this Agreement to a successor to all or substantially all of a party's assets in a transaction entered into solely to change a party's place of incorporation.

9.5 No Rule of Strict Construction. Regardless of which party may have drafted this Agreement or any part thereof, no rule of strict construction shall be applied against either party. For the avoidance of doubt "includes", "including", "included", and other variations of such terms shall be deemed to be followed by the phrase "without limitation".

9.6 Severability. If any provision of this Agreement is held to be invalid or unenforceable, the meaning of such provision shall be construed, to the extent feasible, so as to render the provision enforceable, and if no feasible interpretation shall save such provision, (a) a suitable and equitable provision shall be substituted therefore in order to carry out, so far as may be valid and enforceable, the intent and purpose of such invalid or unenforceable provision, and (b) the remainder of this Agreement shall remain in full force and effect.

9.7 Entire Agreement. This Agreement and the Settlement Agreement embodies the entire understanding of the parties with respect to the subject matter hereof, and merges all prior oral or written communications between them, and neither of the parties shall be bound by any conditions, definitions, warranties, understandings, or representations with respect to the subject matter hereof other than as expressly provided herein. No oral explanation or oral information by either party hereto shall alter the meaning or interpretation of this Agreement.

9.8 Modification; Waiver. No modification or amendment to this Agreement, nor any waiver of any rights, will be effective unless assented to in writing by the party to be charged, and the waiver of any breach or default will not constitute a waiver of any other right hereunder or any subsequent breach or default.
9.9 Counterparts. This Agreement may be executed in two (2) or more counterparts, all of which, taken together, shall be regarded as one and the same instrument.
9.10 Bankruptcy Code. All rights, licenses, privileges, releases, and immunities granted under this Agreement shall be deemed to be, for the purposes of Section 365(n) of the U.S. Bankruptcy Code, as amended (the "Bankruptcy Code"), licenses of rights to "intellectual property" as defined under Section 101(35A) of the Bankruptcy Code. The parties agree that each of the parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code. The parties further agree that, in the event that any proceeding shall be instituted by or against a party seeking to adjudicate it as bankrupt or insolvent, or seeking liquidation, winding up, reorganization, arrangement, adjustment, protection, relief or composition of that party or that party's debts under any law relating to bankruptcy, insolvency, or reorganization or relief of debtors, or seeking an entry of an order for relief or the appointment of a receiver, trustee or other similar official for that party or any substantial part of its property or if a party hereto shall take any action to authorize any of the foregoing actions, the other party shall have the right to retain and enforce their respective rights under this Agreement.
9.11 Non-Controlled Entity. Samsung hereby represents and warrants that on the Effective Date it is not a Subsidiary of any entity or person.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed by duly authorized officers or representatives as of the date first above written.

RAMBUS INC. SAMSUNG ELECTRONICS CO., LTD.
By: /s/ Harold Hughes By: /s/ Oh-Hyun Kwon
Name: Harold Hughes Name: Oh-Hyun Kwon
Title: CEO Title: President
Date: January 19, 2010 Date: January 19, 2010

**Exhibit 10.13**

**CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [***] INDICATES THAT INFORMATION HAS BEEN REDACTED.**

# SETTLEMENT AGREEMENT

**THIS SETTLEMENT AGREEMENT** (the "Agreement") is made and entered into as of the July 1, 2013 by and among Rambus Inc., a Delaware corporation ("Rambus"), on the one hand, and SK hynix Inc., a corporation organized under the laws of Korea ("SK hynix"), SK hynix America Inc., a California corporation ("SK hynix U.S."), Hynix Semiconductor Manufacturing America Inc., a California corporation, SK hynix U.K. Ltd., a corporation organized under the laws of the United Kingdom, and SK hynix Deutschland, GmbH, a corporation organized under the laws of Germany (collectively, "SK hynix," with Rambus and SK hynix each being a "Party" and together the "Parties"), on the other hand.

**WHEREAS**, SK hynix and its Subsidiaries (as defined in Article 1) are and will continue to be engaged in the manufacture, use, sale and/or importation of various products and devices ("SK hynix Products") which utilize diverse and varied technologies;

**WHEREAS**, Rambus and/or its Subsidiaries have and will continue to have rights under Rambus Patents (as defined in Article 1) covering diverse and varied technologies;

**WHEREAS**, the Parties are currently parties to a number of Disputes (as defined in Article 1) relating to the SK hynix Products and the Rambus Patents, including but not limited to disputes as to whether claims of Rambus Patents are infringed by SK hynix Products, and disputes relating to the validity, enforceability and scope of certain Rambus Patents, the Antitrust Litigation, and the Other Actions (as defined in Article 1);

**WHEREAS**, the Parties acknowledge that the Disputes have been costly, not only in terms of the out-of-pocket costs incurred by each of them, but also in terms of management time and other resources devoted to such efforts;

**WHEREAS**, the Parties recognize that, without this Agreement, given the diversity of claims of the Rambus Patents, and the breadth of technologies utilized by the SK hynix Products, Rambus could, after the Effective Date (as defined in Article 1), assert that other claims of Rambus Patents are infringed by SK hynix Products, and that such disputes, if they were to occur, would involve similar costs and business disruptions;

**WHEREAS**, the Parties recognize that litigation of the Disputes, and of other disputes that may arise between them after the Effective Date, is inherently uncertain, and is subject to certain risks, including but not limited to, (a) whether the Rambus Patents, including Patents which are known to SK hynix but which to date have not been asserted against SK hynix, are determined to be valid, enforceable and infringed in various trial and appellate courts, the U.S. Patent and Trademark Office, the European Patent Office, the International Trade Commission proceedings, and in other proceedings, and (b) whether Rambus prevails in various other court or regulatory proceedings, such as the Antitrust Litigation, and that such events are subject to various possible outcomes;

**WHEREAS**, the Parties desire to eliminate the risks associated with such litigation and to enter into a comprehensive resolution to compromise, settle and release the Disputes, and to compromise, resolve and avoid other disputes that may arise after the Effective Date with respect to the SK hynix Products and the Rambus Patents;

**WHEREAS**, as part of the comprehensive resolution of other disputes that may arise after the Effective Date with respect to the SK hynix Products and the Rambus Patents, Rambus and its Subsidiaries desire to grant SK hynix and its Subsidiaries a license to certain of the claims of the Rambus Patents from the Effective Date and SK hynix and its Subsidiaries desire to grant Rambus and its Subsidiaries a license to certain of the claims of the SK hynix Patents (as defined in Article 1) from the Effective Date;

**WHEREAS**, the Parties acknowledge that in resolving the Disputes, and other disputes that may arise after the Effective Date, each of them is giving up the possibility of more favorable outcomes in exchange for the promises and covenants it will receive under this Agreement and the License Agreement (as defined in Article 1), to ensure that they do not ultimately face less favorable outcomes and to avoid the costs, delays and disruptions associated with litigation, and that such promises and covenants represent a package, and are not intended to be severable from each other; in particular, (a) SK hynix is receiving a full and final release of the claims asserted against it in the Disputes, and securing a license to claims of the Rambus Patents, in exchange for making Comprehensive Resolution Payments (as defined in Article 1) and entering into the License Agreement, and (b) Rambus is receiving the Comprehensive Resolution Payments and the benefit of the License Agreement, in exchange for granting the releases and licenses, and entering into the License Agreement;

**WHEREAS**, the Parties acknowledge that it is therefore essential that their respective obligations under this Agreement and the License Agreement be certain and not subject to collateral attack, or otherwise subject to change or modification except on the terms expressly set forth therein; and

**WHEREAS**, this Agreement is entered into for the purpose of settlement and compromise only,

**NOW, THEREFORE**, in consideration of the promises and the mutual covenants herein contained, and for other good and valuable consideration, the adequacy and receipt of which are hereby acknowledged, Rambus and SK hynix agree as follows:

## Article 1

## Definitions

In addition to the terms defined in other parts of this Agreement, the following terms used herein with initial capital letters shall have the respective meanings specified in this Article 1.

1.1 Acquired Business. The term "Acquired Business" means a Third Party, the portion of a Third Party, and/or any portion of the assets or business of a Third Party that a Party or its Subsidiaries acquire in an Acquisition.

1.2 Acquisition. The term "Acquisition" means, as to a Party, a transaction or a series of related transactions in which such Party acquires, through merger (including reverse triangular merger), acquisition of stock, acquisition of assets or otherwise, Control of a Third Party and/or any portion of the assets or business of a Third Party.

1.3 Affiliate. The term "Affiliate" means, for an identified entity, any other entity that (a) is a Subsidiary of such identified entity; or (b) Controls or is under common Control with such identified entity, but only so long as such Control exists.

1.4 Agreement. The term "Agreement" has the meaning set forth in the introductory paragraph.

1.5 Antitrust Litigation. The term "Antitrust Litigation" means the matter entitled *Rambus Inc. v. Micron Technology Inc. et al.*, No. 04-431105 (Supr. Ct. Cal., San Fran. Filed May 5, 2004) and any appeals and remand proceedings therefrom.

1.6 Change of Control. The term "Change of Control" means a transaction or a series of related transactions in which (a) one or more Third Parties who did not previously Control a Party obtain Control of such Party, or (b) the subject Party merges with or transfers substantially all of its assets to a Third Party where the shareholders of the assigning Party, immediately before the transaction or series of related transactions, own less than a fifty percent (50%) interest in the acquiring or surviving entity immediately after the transaction or series of related transactions.

1.7 Comprehensive Resolution Agreements. The term "Comprehensive Resolution Agreements" means this Agreement and the License Agreement.

1.8 Comprehensive Resolution Payments. The term "Comprehensive Resolution Payments" means the License Payments.

1.9 Control. The term "Control" (including "Controlled" and other forms) of an entity means (a) beneficial ownership (whether directly or indirectly through entities or other means) of more than fifty percent (50%) of the outstanding voting securities of that entity or (b) in the case of an entity that has no outstanding voting securities, having the power (whether directly or indirectly through entities or other means) presently to designate more than fifty percent (50%) of the directors of a corporation, or in the case of unincorporated entities, of individuals exercising similar functions. Notwithstanding the foregoing sentence, where SK hynix has fifty percent (50%) of such beneficial ownership or power to designate with respect to any other entity, SK hynix shall be deemed to "Control" such other entity if such other entity is part of the SK Group and such entity is lawfully registered under a corporate name, and lawfully operates and generally and routinely conducts its business under a corporate name, that includes "SK," *provided that*, such entity agrees in a writing, delivered to both parties within thirty (30) days of the Effective Date (or if later, within thirty (30) days after formation of such entity), to be bound by all applicable terms and conditions of this Agreement.

1.10 CRI. The term "CRI" means Cryptography Research, Inc., a whollyowned Subsidiary of Rambus.

1.11 Disputes. The term "Disputes" means the Patent Litigation, the German Patent Litigation, the Antitrust Litigation, the Patent Actions, and the Other Actions, and any and all disputes related thereto.

1.12 Effective Date. The term “Effective Date” means July 1, 2013 except for “Other Actions” the Effective Date shall be June 15, 2013.

1.13 Effective Time Period. The term “Effective Time Period” has the meaning set forth in Section 3.2(b).

1.14 Excluded Entity. The term “Excluded Entity” means Broadcom Corporation, LSI Corporation, MediaTek Inc., Micron Technology, Inc., Micron Semiconductor Products, Inc., Micron Electronics, Inc., Micron Semiconductor (Deutschland) GmbH, Micron Technology Italia Srl, Nanya Technology Corporation, Nanya Technology Corporation U.S.A., NVIDIA Corporation, Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Semiconductor, Inc., Samsung Austin Semiconductor, L.P., STMicroelectronics N.V., STMicroelectronics Inc., and any other Third Party (including the Affiliates of such Third Party) that is an adverse party to Rambus or its Subsidiaries in any pending lawsuit, litigation or other similar proceedings.

1.15 German Patent Litigation. The term “German Patent Litigation” means the infringement action based on the German part of EP 1 022 642 filed by Rambus Inc. against SK hynix Deutschland, GmbH at the District Court Mannheim/Germany (Court docket 7 O 279/05) on June 2, 2005.

1.16 License Agreement. The term “License Agreement” has the meaning set forth in Article 3.

1.17 License Payments. The term “License Payments” has the meaning set forth in Section 2.1.

1.18 Licensed Product. The term “Licensed Product” has the meaning set forth in the License Agreement.

1.19 Other Actions. The term “Other Actions” means (a) Case T-148/10, SK hynix v Commission, filed on 25 March 2010, Official Journal of the European Union [2010] C 148/41 and (b) Case T-149/10, SK hynix v Commission, filed on 25 March 2010, Official Journal of the European Union [2010] C 148/42.

1.20 Party. The terms “Party” and “Parties” have the meanings set forth in the introductory paragraph.

1.21 Patent Actions. The term “Patent Actions” means all United States Patent and Trademark Office, all European Patent Office and all other governmental reexamination proceedings, oppositions, actions or challenges filed, requested or supported by SK hynix with respect to any Rambus Patents, and any appeals thereof, as of the Effective Date, including without limitation the reexaminations and/or oppositions of U.S. Patent, European Patent and or other governmental Patent numbers listed in Schedule 1.

1.22 Patent Litigation. The term “Patent Litigation” means the matters entitled SK hynix Inc. et al v. Rambus Inc., No. CV 00-20905 (N.D.Cal. Filed Aug. 29, 2000) and

*Rambus Inc. v. SK hynix Inc., et al.*, No. C-05-00334 (N.D. Cal. Filed Jan. 25, 2005).

1.23 Patents. The term "Patents" means patents, including reexaminations and reissues thereof, and utility models and applications therefor, including, without limitation, all continuations, continuations-in-part and divisionals thereof, in all countries of the world that now or hereafter are (a) owned or controlled by the applicable Party hereto and/or one or more of its Subsidiaries and/or (b) otherwise licensable by the applicable Party hereto and its Subsidiaries, in each case of (a) and (b) where such Party and/or one or more of its Subsidiaries have the right to grant the licenses, sublicenses or other rights and covenants of the scope granted in the License Agreement.

1.24 Rambus. The term "Rambus" has the meaning set forth in the introductory paragraph.

1.25 Rambus Patents. The term "Rambus Patents" means Patents owned or controlled or otherwise licenseable, in each case in accordance with Section 1.23 above, by Rambus or any of its Subsidiaries in each case other than those Patents of CRI that have effective filing dates that are earlier than June 6, 2011 (the effective date of Rambus' acquisition of CRI).

1.26 SK hynix. The term "SK hynix" has the meaning set forth in the introductory paragraph.

1.27 SK hynix Patents. The term "SK hynix Patents" means Patents owned or controlled or otherwise licenseable, in each case in accordance with Section 1.23 above, by SK hynix or any of its Subsidiaries.

1.28 SK hynix U.S. The term "SK hynix U.S." has the meaning set forth in the introductory paragraph.

1.29 Subsidiary. The term "Subsidiary" means, with respect to any identified entity ("Identified Entity"), any entity Controlled by such Identified Entity, but only so long as such Control exists.

1.30 Third Party. The term "Third Party" means (a) with respect to Rambus or any Subsidiary of Rambus, any entity that is not a Subsidiary of Rambus and (b) with respect to SK hynix or any Subsidiary of SK hynix, any entity that is not a Subsidiary of SK hynix.

**Article 2**

**Comprehensive Resolution Payments**

2.1 License Payments. As described more fully in the License Agreement and as an integral part of the overall consideration received by Rambus in respect of its releases and covenants not to sue under Article 4, and its other obligations under the Comprehensive Resolution Agreements, over the next five (5) years SK hynix

will pay Rambus aggregate license fees of Two Hundred Forty Million dollars (US $240,000,000.00), subject to certain adjustments and conditions as described in the License Agreement (the "License Payments"). In the event that SK hynix fails to pay any License Payment (and fails to cure such failure within the time period provided for in Section 6.2 of the License Agreement), Rambus shall have the option, at its sole discretion, to either:

(a) exercise its option to terminate the License Agreement in accordance with Section 6.2 therein; or,

(b) upon providing written notice to SK hynix, exercise its option to have SK hynix pay to Rambus, within one-hundred and eighty (180) days of the date of such notice, one-hundred and ten percent (110%) of the Remaining Balance (where the term "Remaining Balance" means the total amounts other than Quarterly Acquisition Adjustment Payments remaining unpaid, if any, under the License Agreement or the Substitute Agreement (as such term is defined in the License Agreement)) as part of the overall consideration received by Rambus under the Comprehensive Resolution Agreements, in order for Rambus to receive the full amount of the overall consideration intended to be received in respect of its releases, covenants not to sue, and other obligations under the Comprehensive Resolution Agreements, in which case (i.e., Rambus' exercise of the option set forth in this subsection (b)):

(i) SK hynix will continue to be obligated, to pay any amounts that become due under Section 3.3 of the License Agreement prior to the Expiration Date of the License Agreement until terminated;

(ii) Rambus and SK hynix agree that it would be impractical and extremely difficult to fix the damages which Rambus may suffer if SK hynix fails to make the License Payments; and,

(iii) that such amount is a reasonable estimate under the circumstances existing as of the date hereof of the total net detriment Rambus would suffer in the event SK hynix fails to make such payments. Rambus will apply such amounts to any subsequent License Payments due under the License Agreement.

2.2 No Refunds. Once made, any Comprehensive Resolution Payment shall not be refunded or refundable to SK hynix for any reason except as may be required pursuant to Section 8 of the License Agreement. Notwithstanding the foregoing, in case of clerical error with respect to any payment made under the License Agreement, the Parties agree to remedy any such error through proper payment adjustments.

2.3 Currency. All Comprehensive Resolution Payments shall be made in United States dollars.

2.4 Wire Instructions. All Comprehensive Resolution Payments shall be made in accordance with the terms of the License Agreement.

2.5 Taxes. If the Korean government imposes any withholding tax on any Comprehensive Resolution Payments, such tax shall be borne by Rambus. SK hynix agrees, at its reasonable discretion, to assist Rambus in its efforts to minimize Rambus' tax liability. SK hynix shall withhold the amount of any such taxes levied on such payments to Rambus imposed by the Korean government, shall effect payment of the taxes so withheld to the Korean tax office when due, and SK hynix shall send to Rambus the official certificate of such payment in a form reasonably sufficient to enable Rambus to support a claim for a foreign tax credit with respect to any such taxes so withheld.

**Article 3**

**License Agreement**

Concurrent with the execution and delivery of this Agreement, and as an integral part of the overall consideration received by the Parties in respect of their respective releases, covenants not to sue, and other obligations under this Agreement, Rambus and SK hynix shall enter into the License Agreement in the form attached hereto as Exhibit A (the "License Agreement").

3.1 The Parties acknowledge that the licenses granted under the License Agreement are in respect of claims under multiple Rambus Patents and multiple SK hynix Patents, respectively, so that the Parties' rights and obligations under the License Agreement are not dependent upon the validity or enforceability of specific Rambus Patents or specific SK hynix Patents, or upon any specific use of such patents permitted under the License Agreement. Specifically, SK hynix acknowledges that the License Agreement covers a broad array of Rambus Patent claims, and agrees to make the full amount of the Comprehensive Resolution Payments regardless of whether any of the Rambus Patents is determined not to be infringed by any particular Licensed Product or whether any court, United States, European, or other patent office, or United States, European, or other governmental agency determines any Rambus Patent to be invalid or unenforceable in any reexamination, action or other proceeding.

3.2 Each Party acknowledges that its assessment of the value of the Disputes and the License Agreement may depend on certain events that may occur, or that may not occur, after the Effective Date, that it is aware of and has evaluated and considered the uncertainties associated with such events, and that it has agreed to the amount of the Comprehensive Resolution Payments to eliminate such uncertainties so that, for example, SK hynix will be protected from the consequences of Rambus prevailing on infringement and other claims in other proceedings, including the Antitrust Litigation, and Rambus will be protected from the consequences of certain of the Rambus Patents being held to be invalid, unenforceable, and/or not infringed in other proceedings. It is therefore essential that the Parties' obligations

under the License Agreement, including but not limited to the amount of the License Payments, be certain and not subject to collateral attack. Accordingly:

(a) SK hynix covenants not to seek, whether through litigation or otherwise, to adjust the amount of the License Payments, or to avoid, defer or modify its obligations under the License Agreement, provided that the foregoing shall not prevent SK hynix from seeking enforcement of the terms and conditions of the License Agreement or taking any action expressly contemplated in the License Agreement.

(b) SK hynix and its Subsidiaries acknowledge and agree that, for all acts or omissions that occur during the time period up to and including the [***] anniversary of the Effective Date (the "Effective Time Period"), Rambus or its Subsidiaries have patent claims that are valid, enforceable and infringed by a substantial portion of the Licensed Products. After the Effective Time Period, Rambus and its Subsidiaries covenant not to rely on such acknowledgement or agreement in any manner against SK hynix or its Subsidiaries or their past, present or future distributors or customers in negotiations, and further covenant that no evidence of such acknowledgement or agreement may be introduced in any negotiation by or on behalf of Rambus or its Subsidiaries against SK hynix or its Subsidiaries or their past, present or future distributors or customers. Rambus and its Subsidiaries further covenant, with respect to any acts or omissions occurring after the Effective Time Period, not to rely on such acknowledgement or agreement in any manner against SK hynix or its Subsidiaries or their past, present or future distributors or customers before any court, government agencies, other regulatory body or arbitrator, and further covenant that no evidence of such acknowledgement or agreement may be introduced in any motion, hearing, trial or other proceeding by or on behalf of Rambus or its Subsidiaries against SK hynix or its Subsidiaries or their past, present or future distributors or customers.

**Article 4**

**Releases**

4.1 Release by Rambus.

(a) Rambus, on behalf of itself and its Subsidiaries, hereby irrevocably releases, acquits, and forever discharges SK hynix, its Subsidiaries, its and their respective former or current directors, officers, employees, and attorneys from any claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind that were alleged or that could have been alleged by Rambus in any Dispute.

(b) To the extent not covered in the preceding paragraph, Rambus, on behalf of itself and its Subsidiaries, hereby further irrevocably releases, acquits, and forever discharges SK hynix, its Subsidiaries, and its and their respective former or

current directors, officers, employees, and attorneys from any claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind for infringement of the Rambus Patents arising from the manufacture, use, importation, exportation, sale and offer for sale of any products up until the Effective Date, but only to the extent that such activities would have been (i) licensed under the License Agreement if such License Agreement had been in existence at the time of such activity and/or (ii) subject to the covenants set forth in Sections 2.4 and/or 2.5 of the License Agreement if such License Agreement had been in existence at the time of such activity.

4.2 Release by SK hynix.

(a) SK hynix, on behalf of itself and its Subsidiaries, hereby irrevocably releases, acquits and forever discharges Rambus, its Subsidiaries, and its and their respective former or current directors, officers, employees, and attorneys from any claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind that were alleged or that could have been alleged by SK hynix in any Dispute.

(b) To the extent not covered in the preceding paragraph, SK hynix, on behalf of itself and its Subsidiaries, hereby further irrevocably releases, acquits, and forever discharges Rambus, its Subsidiaries, and its and their respective former or current directors, officers, employees, and attorneys from any claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind for infringement of any SK hynix Patents arising from the manufacture, use, importation, exportation, sale and offer for sale of any products up until the Effective Date, but only to the extent that such activities would have been licensed under the License Agreement if such License Agreement had been in existence at the time of such activity.

4.3 Additional Releases.

(a) SK hynix, on behalf of itself and its Subsidiaries, hereby irrevocably releases, acquits and forever discharges Rambus and its Subsidiaries from any defenses, claims, counterclaims, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind and nature that SK hynix or its Subsidiaries might raise or assert in an effort to avoid, defer or modify its obligations under the Comprehensive Resolution Agreements, including but not limited to its obligation to make the License Payments, except as expressly permitted under the License Agreement, including for instance and by way of example, claims or defenses based on the allegation, or on the finding, determination or judgment in any reexamination, action or other proceeding, or any appeal thereof, that one or more of the patent claims licensed under the License Agreement is invalid, unenforceable or not infringed, that the License Agreement is not enforceable or

should be rescinded or revised, or that Rambus has committed any type of patent misuse.

(b) Rambus, on behalf of itself and its Subsidiaries, hereby irrevocably releases, acquits and forever discharges SK hynix and its Subsidiaries from any defenses, claims, counterclaims, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind and nature that Rambus or its Subsidiaries might or could raise or assert to avoid, defer or modify its obligations under the [***] Release attached as Exhibit C hereto, that any provision of the [***] Release is invalid or unenforceable, or that [***] Release should be rescinded or revised. Rambus agrees that it will never, under any circumstances, bring any lawsuit, action or claim of any nature against SK hynix relating to the [***] Release.

4.4 Releases Shall Remain Effective. Each of Rambus and SK hynix acknowledges that, after entering into this Agreement, they may discover facts different from, or in addition to, those they now believe to be true with respect to the conduct of the other Party. Each of Rambus and SK hynix intends that the releases and discharges set forth in this Article 4 and the [***] Release (attached hereto as Exhibit C hereto) shall be, and shall remain, in effect in all respects as written, notwithstanding the discovery of any different or additional facts.

4.5 Waiver of California Civil Code § 1542. In connection with the releases and discharges described in this Article 4, each of Rambus and SK hynix acknowledges that it is aware of the provisions of section 1542 of the Civil Code of the State of California, and hereby expressly waives and relinquishes all rights and benefits that it has or may have had under that section (or any equivalent law or rule of any other jurisdiction), which reads as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

4.6 Covenants Not to Sue.

(a) Rambus, on behalf of itself and its Subsidiaries, hereby covenants not to assert any claims of infringement of the Rambus Patents against SK hynix's distributors and customers and SK hynix's Subsidiaries' distributors and customers solely arising from the use, importation, sale and offer for sale of any products up until the Effective Date to the extent that such distributors or customers would not have been liable for such use, importation, exportation, sale and offer for sale of such products had the License Agreement been in existence at the time of such infringing activity.

(b) SK hynix, on behalf of itself and its Subsidiaries, hereby covenants not to assert any claims of infringement of the SK hynix Patents against Rambus' distributors and customers and Rambus' Subsidiaries' distributors and customers solely arising from the use, importation, exportation, sale or offer for sale of any products up until the Effective Date to the extent that such distributors or customers would not have been liable for such use, importation, exportation, sale and offer for sale of such products had the License Agreement been in existence at the time of such infringing activity.

4.7 Certain Exclusions. For the avoidance of doubt:

(a) The releases and covenants not to sue contained in this Article 4 (other than the releases set forth in Section 4.3) shall apply solely to (i) the activities occurring prior to the Effective Date of each of the Parties, and (ii) the activities occurring prior to the Effective Date of each of the Parties' respective Subsidiaries existing on or prior to the Effective Date. In no event shall the releases and covenants not to sue contained in this Article 4 apply to the activities, whether occurring prior to or after the Effective Date, of (1) any Third Party with or into which a Party merges or combines, whether or not such Party remains the surviving entity, or (2) any Acquired Business, in each case, after the Effective Date.

(b) Other than as set forth in the [***] Release, the releases and covenants not to sue contained in this Article 4 are not intended to and do not extend to any defendant in either the Patent Litigation or the Antitrust Litigation (or any of their Subsidiaries), unless that defendant is explicitly named as a Party to this Agreement, or to any Excluded Entity.

4.8 Dismissals and Other Provisions Terminating the Disputes.

(a) On the Effective Date, SK hynix and Rambus, through their respective counsel, shall execute or cause to be executed stipulations for dismissal dismissing with prejudice all of the claims, counterclaims, cross-claims and cross-complaints asserted against one another (but only as to one another and not to the extent asserted against other defendants) in the Patent Litigation and the Antitrust Litigation in the forms attached hereto as Exhibits B-1 through B-3 and within five days, SK hynix and Rambus, through their respective counsel, shall cause such stipulations for dismissal to be entered.

(b) Both Parties shall, within ten (10) business days following the Effective Date, withdraw or discontinue any formal or informal complaints, requests, petitions, actions, or other proceedings they may have pending against the other Party or its Subsidiaries before any regulatory body anywhere in the world related to the claims, counterclaims, demands, damages, debts, liabilities, accounts, actions and causes of action released by this Agreement or that relate in any way to the Rambus Patents or the SK hynix Patents. For the avoidance of doubt, this provision (i) requires Rambus to withdraw and

discontinue the German Patent Litigation, (ii) requires SK hynix to withdraw and discontinue the Other Actions, and (iii) does not require Rambus to withdraw any complaint or other proceeding as against parties other than SK hynix or its Subsidiaries, including but not limited to the Antitrust Litigation.

(c) Within ten (10) business days following the Effective Date, SK hynix shall, to the full extent permitted by applicable law, withdraw, cease to prosecute or pursue and notify the U.S. Patent and Trademark Office, the European Patent Office, and/or other governmental agency, that it no longer intends to participate in, the Patent Actions.

4.9 Costs and Attorneys' Fees. For all cases, including but not limited to the Patent Litigation, German Patent Litigation, the Antitrust Litigation and the Other Actions, the Parties agree that each will pay its own costs and attorneys' fees and that neither will file requests for, or otherwise seek to recover, its costs or fees.

4.10 No Admission. Nothing contained in any of the Comprehensive Resolution Agreements, or done or omitted in connection with any of the Comprehensive Resolution Agreements, is intended as, or shall be construed as, an admission by any Party of any fault, liability or wrongdoing.

4.11 No Further Actions. As part of the settlement of claims and releases contemplated by this Agreement, prior to the Expiration Date set forth in the License Agreement, and in each case unless and to the extent required by subpoena or judicial or regulatory agency order or rule:

(a) SK hynix covenants, except to the extent that it is compelled to do otherwise by court order or summons, not to bring, or aid, assist or participate in, any action challenging or contesting the assertion, enforcement, validity or enforceability of, or any use or infringement by any Third Party of, the Rambus Patents, including but not limited to filing, requesting, participating or assisting in any of the Patent Actions, provided that, notwithstanding the foregoing, SK hynix may assist (e.g., provide prior art and/or non-infringement analyses to) each Third Party to whom SK hynix has Sold a Licensed Product, during the term of the license associated with such Licensed Product as set forth in the License Agreement, in its defense of any claim of a Rambus Patent asserted against such Third Party by Rambus to the extent that SK hynix is obligated to provide such Third Party with such assistance pursuant to an indemnification provision; and

(b) Each Party covenants not to (i) file or bring a complaint against, or formally or informally request or urge investigation of, the other Party or any of its Subsidiaries before any regulatory body, or (ii) support, cooperate with or otherwise assist any entity in any dispute against the other Party or its Subsidiaries, or any regulatory body in any proceeding involving the other Party or its Subsidiaries, in each case in any matter related to the claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts,

actions and causes of action released by this Agreement, including but not limited to filing, requesting, participating or assisting in any United States, European, or other patent office reexamination proceedings, actions, challenges, oppositions or interferences with respect to Patents of the other Party or its Subsidiaries, and filing *amicus curiae* briefs in the Patent Litigation, the Antitrust Litigation, the Other Actions or any other Dispute.

**Article 5**

**Warranties**

Each Party represents, warrants and covenants, on behalf of itself and its Subsidiaries, to the other Party during the term of this Agreement:

5.1 Due Incorporation. Such Party is duly incorporated, validly existing and in good standing under the laws of its jurisdiction of formation with the requisite corporate authority to own and use its properties and assets and to carry on its business as currently conducted.

5.2 Due Authorization; Enforceability. Such Party has the requisite corporate or other authority to enter into, and to grant the releases and discharges, make the covenants, and consummate the transactions contemplated by this Agreement, on behalf of itself and its Subsidiaries, and otherwise to carry out its and its Subsidiaries' obligations hereunder. The execution, delivery and performance of this Agreement by such Party and its Subsidiaries have been duly authorized by all necessary action of such Party and its Subsidiaries, and no other act or proceeding on the part of or on behalf of such Party and its Subsidiaries is necessary to approve the execution and delivery of this Agreement, the performance by such Party and its Subsidiaries of their obligations hereunder and the consummation of the transactions contemplated hereby. This Agreement has been duly executed and delivered by such Party and constitutes a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium and similar laws relating to or affecting creditors generally, by general equity principles or by limitations on indemnification pursuant to public policy.

5.3 No Conflicts; No Consents. The execution, delivery, and performance of this Agreement by such Party and its Subsidiaries, including but not limited to the granting of the releases and discharges contemplated hereby, will not infringe any law, regulation, judgment or order applicable to such Party and its Subsidiaries and are not and will not be contrary to the provisions of the constitutional documents of such Party and its Subsidiaries and will not (with or without notice, lapse of time or both) result in any breach of the terms of, or constitute a default under, any instrument or agreement to which such Party and its Subsidiaries is a party or by which it or its property is bound. All consents and approvals of any court, government agencies or other regulatory body required by such Party and its

Subsidiaries for the execution, delivery and performance of the terms of this Agreement have been obtained and are in full force and effect.

5.4 No Assignment of Claims. Each Party represents and warrants that it has not assigned, transferred or granted to any Third Party any rights or interests with respect to any claim or cause of action, or any right(s) underlying any claim or cause of action, it had, has, or may have against the other Party or its Subsidiaries as of, or prior to, the Effective Date of this Agreement.

**Article 6**

**Notices and other Communications**

6.1 All notices or other communication required or permitted hereunder shall be in writing and shall be (a) mailed by first class air mail (registered or certified if available), postage prepaid, or otherwise delivered by hand, by messenger, addressed to the addresses set forth below, or (b) delivered by facsimile to the facsimile number set forth below. Each Party may change its address or facsimile number for notices by providing a notice to the other Party in the manner set forth herein. Such notices shall be deemed to have been effective when delivered or, if delivery is not accomplished by reason of some fault or refusal of the addressee, when tendered (which tender, in the case of mail, shall be deemed to have occurred upon posting, and in the case of facsimile, shall be deemed to have occurred upon transmission). All notices shall be in English.

If to SK hynix:

SK hynix Inc.
Kyunghyun Min
Vice President, Head of IP Group
10F, Daechi Tower, 424, Teheran-ro, Gangnam-gu
Seoul, 135-738, Korea
Fax: 82)-31-645-8171

If to Rambus:

Rambus Inc.
Jae Kim
General Counsel
1050 Enterprise Way, Suite 700
Sunnyvale, CA 94089

(with a copy, which shall not constitute notice, to the following:)

Satish Rishi
Chief Financial Officer

Rambus Inc.
1050 Enterprise Way, Suite 700
Sunnyvale, CA 94089
Telephone: +1-408-462-8000
Facsimile: +1-408-462-8001

**Article 7**

**Successors and Assigns**

7.1 Subject to the limitation in Sections 4.7 and 9.5, this Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective heirs, successors and assigns, and upon any corporation, limited liability partnership, limited liability company, or other entity into or with which any Party hereto may merge, combine or consolidate. For the avoidance of doubt, this provision does not govern the rights or obligations of successors or assigns of the Parties under the License Agreement. The releases, dismissals and covenants granted by each Party and its Subsidiaries under this Agreement (but not any benefits received by such Party or its Subsidiaries under this Agreement) shall run with (a) in the case of SK hynix, the SK hynix Patents or (b) in the case of Rambus, the Rambus Patents, and remain in full force and effect regardless of any subsequent assignment, sale or other transfer of any such SK hynix Patents or Rambus Patents or any rights or interests therein. Any such assignment, sale, or transfer of rights in contravention of the foregoing shall be null and void ab initio and of no force or effect.

**Article 8**

**Dispute Resolution**

8.1 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of California, without giving effect to any choice-of-law or conflict-of-law provision or rule (whether of the State of California or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of California.

8.2 English Language. This Agreement is executed in the English language and no translation shall have any legal effect.

8.3 Jurisdiction and Venue. Any legal action, suit or proceeding arising under, or relating to, this Agreement, shall be brought in the United States District Court for the Northern District of California or, if such court shall decline to accept jurisdiction over a particular matter, in the Santa Clara County Superior Court, and each Party agrees that any such action, suit or proceeding may be brought only in such courts. Each Party further waives any objection to the laying of jurisdiction and venue for any such suit, action or proceeding in such courts.

**Article 9**

**Miscellaneous**

9.1 Entire Agreement. This Agreement and the License Agreement, and all Exhibits thereto, constitute the entire agreement between the Parties regarding the subject matter hereof, and supersede any and all prior negotiations, representations, warranties, undertakings or agreements, written or oral, between the Parties regarding such subject matter.

9.2 Relationship of the Parties. Nothing contained in this Agreement or the License Agreement shall be construed as creating any association, partnership, joint venture or the relation of principal and agent between Rambus and SK hynix. Each Party is acting as an independent contractor, and no Party shall have the authority to bind any other Party or its representatives in any way.

9.3 Headings and Recitals. The headings of the several articles and sections are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement. The recitals to this Agreement are intended to be a part of and affect the meaning and interpretation of this Agreement.

9.4 Amendment. This Agreement may not be modified or amended except in a writing executed by authorized representatives of each of the Parties.

9.5 No Assignment. This Agreement is personal to the Parties, and the Agreement and/or any right or obligation hereunder is not assignable, whether in conjunction with a change in ownership, merger, acquisition, the sale or transfer of all, or substantially all or any part of either Party's or any of their respective Subsidiaries' business or assets or otherwise, voluntarily, by operation of law, reverse triangular merger or otherwise, without the prior written consent of the other Party, which consent may be withheld at the sole discretion of such other Party. Each Party understands that, as a condition to such consent, the other Party may require it to convey, assign or otherwise transfer its rights and obligations under the other Comprehensive Resolution Agreements to the entity assuming such Party's rights and obligations under this Agreement. Any such purported or attempted assignment or transfer in violation of the foregoing shall be deemed a breach of this Agreement and shall be null and void. A Change of Control of either Party shall be deemed an assignment, provided that Articles 2, 4, 8, and 9 shall survive any termination of this Agreement arising from such assignment. Notwithstanding the foregoing, either Party shall be entitled to, and each Party hereby agrees to, assign this Agreement to a successor to all or substantially all of a Party's assets in a transaction entered into solely to change a Party's place of incorporation.

9.6 Interpretation. Each Party confirms that it and its respective counsel have reviewed, negotiated and adopted this Agreement as the agreement and understanding of the Parties hereto and the language used in this Agreement shall

be deemed to be the language chosen by the Parties hereto to express their mutual intent. Neither Party shall be considered to be the drafter of this Agreement or any of its provisions for the purpose of any statute, case law, or rule of interpretation or construction that would, or might cause, any provision to be construed against such Party.

9.7 Authority. Each Party represents that it is fully authorized to enter into the terms and conditions of, and to execute, this Agreement.

9.8 No Third Party Beneficiaries. Unless otherwise expressly stated herein or as set forth in the [***] Release, nothing in this Agreement, express or implied, is intended to confer upon any person other than the Parties hereto or their respective permitted assignees, successors in interest, and Subsidiaries any rights or remedies under or by reason of this Agreement. The former and current directors, officers, employees, and attorneys of the Parties and their Subsidiaries are intended beneficiaries of Sections 4.1, 4.2, 4.3, 4.4, and 4.5.

9.9 Severability. If any provision of any Comprehensive Resolution Agreement is held to be invalid or unenforceable, the meaning of such provision shall be construed, to the extent feasible, so as to render the provision enforceable and to effectuate the intent and purpose of the Parties with respect to such invalid or unenforceable provision, and if no feasible interpretation shall save such provision, (a) a suitable and equitable provision shall be substituted therefor in order to effectuate, so far as may be valid and enforceable, the intent and purpose of the Parties with respect to such invalid or unenforceable provision, and (b) the remainder of such Comprehensive Resolution Agreement shall remain in full force and effect.

9.10 No Waiver. The failure of either Party to enforce, at any time, any of the provisions of this Agreement shall in no way be construed as a waiver of such provisions, and shall not be deemed in any way to affect the validity of this Agreement or any part thereof, or the right of either Party to later enforce each and every such provision. No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach.

9.11 Counterparts; Facsimile Transmission. This Agreement may be executed in multiple counterparts, each of which shall constitute an original, but all of which together shall constitute one and the same agreement. Each Party may rely on facsimile or .pdf signature pages as if such facsimile or .pdf pages were originals.

9.12 Further Actions. Each of the Parties hereto agrees to take and cause its Subsidiaries to take any and all actions reasonably necessary in order to effectuate the intent, and to carry out the provisions, of this Agreement.

9.13 Public Disclosures and Confidentiality. The Parties shall issue a press release with respect to the Comprehensive Resolution Agreement in a mutually acceptable form. Each Party agrees that, after the issuance of such press release, each Party shall be entitled to disclose the general nature of this Agreement, but that the terms

and conditions of this Agreement, to the extent not already disclosed pursuant to such press release, shall be treated as confidential information and that neither Party will disclose such terms or conditions to any Third Party without the prior written consent of the other Party, provided, however, that each Party may disclose the terms and conditions of this Agreement:

(a) as required by any court or other governmental body;

(b) as otherwise required by law;

(c) as otherwise may be required by applicable securities and other law and regulation, including to legal and financial advisors in their capacity of advising a Party in such matters, so long as the disclosing Party shall seek confidential treatment of such terms and conditions to the extent reasonably possible;

(d) to legal counsel, accountants, and other professional advisors of the Parties;

(e) in confidence, to banks, investors, and other financing sources and their advisors, and to SK Telecom (provided that at the time of any such disclosure to SK Telecom, SK Telecom owns at least twenty (20) percent of the outstanding voting securities of SK hynix);

(f) in connection with the enforcement of this Agreement or rights under this Agreement;

(g) during the course of litigation so long as the disclosure of such terms and conditions are restricted in the same manner as is the confidential information of other litigating parties and so long as (i) the restrictions are embodied in a court-entered protective order limiting disclosure to outside counsel and (ii) the disclosing Party informs the other Party in writing at least ten (10) business days in advance of the disclosure and discusses the nature and contents of the disclosure, in good faith, with the other Party (for purposes of this provision, the Protective Order entered in the Antitrust Litigation is acceptable, as long as the disclosure is designated as both "Highly ConfidentialBP and Highly Confidential-IP");

(h) in confidence, in connection with an actual or prospective merger or acquisition or similar transaction.

(i) in confidence, to the outside legal counsel of Elpida Memory, Inc. ("Elpida") in connection with a Rambus's obligation(s), if any, under any most favored nation, or similar clause, whereby Rambus is contractually obligated to disclose and offer terms given to Elpida.

In addition, upon execution of this Agreement, or thereafter, Rambus, in its discretion, shall be entitled to file a copy of this Agreement with the U.S. Securities and Exchange Commission, so long as Rambus seeks confidential treatment of such agreement to the extent reasonably possible.

IN WITNESS WHEREOF, this Agreement has been duly and executed and delivered by the duly authorized officers of the Parties hereto as of the date first written above.

RAMBUS INC.

By: /s/ Kevin Donnelly

Name: Kevin Donnelly

SK HYNIX INC.

By: /s/ Kyunghyun Min

Name: Kyunghyun Min

**SCHEDULE 1 PATENT ACTIONS**

EP 1 997 111 B1 (Application No. 07 758 147.8); Appeal Number: T0945/12-3.5.04

EP 1 653 374 B1 (Application No. 05 022 021.9); Appeal Number: T0731/12-3.5.06

EP 2 192 494 B1 (Application No. 10 150 033.8)

EP 1 981 033 B1 (Application No. 08 153 150.1)

Farmwald/Horowitz

EP 0 994 420 B1 (Application No. 99 118 308.8); Appeal Number : T 1643/10-3.5.06

EP 1 022 641 B1 (Application No. 00 100 018.1); Appeal Number: T 1643/10-3.5.06

EP 1 022 642 B1 (Application No. 00 108 822.8); Appeal Number: T 1345/11-3.5.06

EP 1 197 830 B1 (Application No. 02 000 378.6); Appeal Number: T 0724/10-3.5.06

EP 1 640 847 B1 (Application No. 05 026 720.2); Appeal Number: T2347/11-3.5.06

EP 1 816 569 B1 (Application No. 06 125 946.1)

**EXHIBIT A LICENSE AGREEMENT**

Incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, filed on July 29, 2013.

**EXHIBIT B**

**FORMS OF DISMISSAL**

**EXHIBIT B1**

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA, SAN JOSE DIVISION

SK HYNIX INC., et al., CASE NO. CV 00-20905 RMW

Plaintiffs, **STIPULATION AND [PROPOSED] ORDER OF DISMISSAL**

vs.

RAMBUS INC.,

Defendant.

Rambus Inc. ("Rambus") and SK hynix Inc. (f/k/a/ Hynix Semiconductor Inc.), SK hynix America Inc. (f/k/a/ Hynix Semiconductor America Inc.), SK hynix U.K. Limited (f/k/a Hynix Semiconductor U.K. Ltd.), and SK hynix Deutschland GmbH (f/k/a/ Hynix Semiconductor Deutschland GmbH) (collectively, "SK hynix") have settled the disputes between them raised in the abovecaptioned action on mutuallyagreeable terms.

The parties stipulate, in accordance with Federal Rule of Civil Procedure 41, as follows:

1.Rambus hereby dismisses all claims and/or counterclaims brought against SK hynix in this action with prejudice;

2.SK hynix hereby dismisses all claims and/or counterclaims brought against Rambus in this action with prejudice; and

3.Each party shall bear its own attorneys' fees and costs.

IT IS SO STIPULATED.

Dated: June 11, 2013 MUNGER, TOLLES & OLSON LLP SIDLEY AUSTIN LLP

By: */s/*
GREGORY P. STONE (SBN 078329)

Email:gregory.stone@mto.com
MUNGER, TOLLES & OLSON LLP

355 South Grand Avenue, 35th Floor Los Angeles, CA 90071
Telephone: (213) 683-9100
Facsimile: (213) 687-3702

Attorneys for RAMBUS INC.

Dated: June 11, 2013 O'MELVENY & MYERS LLP

KILPATRICK TOWNSEND & STOCKTON LLP

By: /s/
KENNETH L. NISSLY (SBN 77589)
Email: knissly@omm.com
O'MELVENY & MYERS LLP
2765 Sand Hill Road
Menlo Park, California 94025 Telephone: (650) 473-2600
Facsimile: (650) 473-2601

Attorneys for SK HYNIX INC., SK HYNIX AMERICA INC., SK HYNIX U.K. LIMITED, and SK HYNIX DEUTSCHLAND GMBH

**ORDER**

IT IS SO ORDERED.

Dated: June , 2013

Hon. Ronald M. Whyte
United States District Judge

**EXHIBIT B2**

(All parties and counsel listed on Signature Page)

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA, SAN JOSE DIVISION

RAMBUS INC., CASE NO. CV 05-00334 RMW

Plaintiff, **STIPULATION AND [PROPOSED] ORDER OF DISMISSAL AS TO SK HYNIX**

vs.

HYNIX SEMICONDUCTOR INC., et al.,

Defendants.

Rambus Inc. ("Rambus") and SK hynix Inc. (f/k/a/ Hynix Semiconductor Inc.), SK hynix America Inc. (f/k/a/ Hynix Semiconductor America Inc.), Hynix Semiconductor Manufacturing America Inc., SK hynix U.K. Limited (f/k/a/ Hynix Semiconductor U.K. Ltd.), and SK hynix Deutschland GmbH (f/k/a/ Hynix Semiconductor Deutschland GmbH) (collectively, "SK hynix") have settled the disputes between them raised in the above captioned action on mutually-agreeable terms.

The parties stipulate, in accordance with Federal Rule of Civil Procedure 41, as follows:

1.Rambus hereby dismisses all claims and/or counterclaims brought against SK hynix in this action with prejudice;

2.SK hynix hereby dismisses all claims and/or counterclaims brought against Rambus in this action with prejudice; and

3.Each party shall bear its own attorneys' fees and costs.

IT IS SO STIPULATED.

Dated: June 11, 2013 MUNGER, TOLLES & OLSON LLP
SIDLEY AUSTIN LLP

By: */s/* _____
GREGORY P. STONE (SBN 078329)

Email:gregory.stone@mto.com
MUNGER, TOLLES & OLSO LLP

355 South Grand Avenue, 35th Floor Los Angeles, CA 90071
Telephone: (213) 683-9100
Facsimile: (213) 687-3702

Attorneys for RAMBUS INC.

Dated: June 11, 2013 O'MELVENY & MYERS LLP

KILPATRICK TOWNSEND & STOCKTON LLP

By: /s/ _____
KENNETH L. NISSLY (SBN 77589)
Email: knissly@omm.com
O'MELVENY & MYERS LLP
2765 Sand Hill Road
Menlo Park, California 94025 Telephone: (650) 473-2600
Facsimile: (650) 473-2601

Attorneys for SK HYNIX INC., SK HYNIX AMERICA INC., HYNIX SEMICONDUCTOR MANUFACTURING AMERICA INC., SK HYNIX U.K. LIMITED, and SK HYNIX DEUTSCHLAND GMBH

**ORDER**

IT IS SO ORDERED.

Dated: June , 2013

Hon. Ronald M. Whyte
United States District Judge

**Filer's Attestation:**

I, Gregory P. Stone, am the ECF User whose identification and password are being used to file this **STIPULATION AND [PROPOSED] ORDER OF DISMISSAL**. In compliance with Local Rule 5-1(i), I hereby attest that Kenneth L. Nissly concurs in this filing.

By: */s/*
GREGORY P. STONE (SBN 078329)

**EXHIBIT B3**

**Case No. A135150**

**IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA**

**FIRST APPELLATE DISTRICT, DIVISION TWO**

**RAMBUS INC.,**

*Plaintiff and Appellant*, vs.

**MICRON TECHNOLOGY, INC., et al.,**

*Defendants and Respondents*.

Appeal from the Superior Court of the County of San Francisco Case No. CGC-04-431105
The Honorable James J. McBride
The Honorable Richard A. Kramer

**STIPULATION FOR DISMISSAL OF APPEAL AS TO RESPONDENTS HYNIX SEMICONDUCTOR INC. AND HYNIX SEMICONDUCTOR AMERICA INC.**

MUNGER, TOLLES & OLSON LLP
Steven M. Perry (SBN 106154)
Bart H. Williams (SBN 134009)
Sean Eskovitz (SBN 241877)
Fred A. Rowley, Jr. (SBN 192298)
355 South Grand Avenue, 35th Floor Los Angeles, CA 90071-1560
Telephone: 213-683-9100
Facsimile: 213-687-3702

Attorneys for Plaintiff and Appellant RAMBUS INC.

**STIPULATION FOR DISMISSAL OF APPEAL AS TO RESPONDENTS HYNIX SEMICONDUCTOR INC. AND HYNIX SEMICONDUCTOR AMERICA INC.**

WHEREAS, on April 2, 2012, PlaintiffAppellant Rambus Inc. ("Rambus") filed its notice of appeal from the February 15, 2012 judgment entered in this case by the Superior Court in favor of Defendants-Respondents Hynix Semiconductor Inc., Hynix Semiconductor America Inc., Micron Technology, Inc., and Micron Semiconductor Products, Inc.;

WHEREAS, the record in this appeal was filed in this Court on July 10, 2012;

WHEREAS, Rambus has reached a settlement agreement with Hynix Semiconductor Inc. and Hynix Semiconductor America Inc. regarding the causes of action brought by Rambus against Hynix Semiconductor Inc. and Hynix Semiconductor America Inc. in this case;

WHEREAS, Rambus has not reached a settlement agreement with the remaining Defendants-Respondents, Micron Technology, Inc. and Micron Semiconductor Products, Inc., and has not resolved its causes of action against those parties, and therefore intends to continue to litigate with respect to those parties all factual and legal disputes presented in the appeal;

WHEREAS, pursuant to California Rules of Court, rule 8.244(a)(1), Rambus filed its Notice of Settlement With Respondents Hynix Semiconductor Inc. and Hynix Semiconductor America Inc. in this Court on ;

NOW THEREFORE, pursuant to California Rules of Court, rule 8.244(a)(3) and rule 8.244(c)(1), the undersigned parties hereby stipulate that the appeal filed on April 2, 2012 in the

above entitled action should be dismissed solely as to Respondents Hynix Semiconductor Inc. and Hynix Semiconductor America Inc.

Rambus shall not be entitled to recover costs on appeal from Hynix Semiconductor Inc. or Hynix Semiconductor America Inc.; Hynix Semiconductor Inc. and Hynix Semiconductor America Inc. shall not be entitled to recover costs on appeal from Rambus.

The remaining Defendants-Respondents, Micron Technology, Inc. and Micron Semiconductor Products, Inc., are not parties to this stipulation, and this stipulation shall be without prejudice to Rambus continuing to litigate its causes of action against Micron Technology, Inc. and Micron Semiconductor Products, Inc., including litigating with respect to those parties all factual and legal disputes presented in the appeal.

Because the appeal remains pending as to Micron Technology, Inc. and Micron Semiconductor Products, Inc., the remittitur should not issue as to Micron Technology, Inc. or Micron Semiconductor Products, Inc. until this Court's decision is final with respect to those parties.

DATED: June , 2013 MUNGER, TOLLES & OLSON LLP STEVEN M. PERRY
BART H. WILLIAMS SEAN ESKOVITZ
FRED A. ROWLEY, JR.

By: _____
STEVEN M. PERRY

Attorneys for Plaintiff and Appellant RAMBUS INC.

DATED: June , 2013 O'MELVENY & MYERS, LLP

CHARLES LIFLAND

By: _____
CHARLES LIFLAND

Attorneys for Defendants and Respondents

HYNIX SEMICONDUCTOR, INC. and HYNIX SEMICONDUCTOR AMERICA, INC.

**EXHIBIT C**

**[***]**

In consideration of all the terms of this Settlement Agreement, and in order to induce SK hynix to enter into this Settlement Agreement, and to permit SK hynix to fully comply with [***] under that [***] between [***] and their respective successors and assigns [***] relating to the [***] the Parties agree as follows. For purposes of this provision, [***] means all of [***] including for any [***], if any, and for [***] in the [***] for which the [***] in the [***] could be [***].

(a) Subject to subparagraph (d) below, [***] hereby irrevocably releases, acquits and forever discharges [***] to the extent that any [***] based in whole or in part on the [***] is ever included in a [***] after exhaustion of all [***], in the [***].

(b) Subject to subparagraph (d) below, this [***] and [***] expressly includes the complete [***] of any [***] of any [***] of any [***], after exhaustion of all [***] based in whole or in part on the [***], and [***] will take, or refrain from taking, any and all actions necessary such that it does not [***] against [***] in the [***] after exhaustion of all [***] based in whole or in part on the [***].

(c) [***] has not provided a copy of the [***] or any portion of the [***], to [***] and has not permitted [***] to review the [***] or any portion of it.

(d) [***] confirms, to its present knowledge and good faith belief, that it is obligated by the [***] to obtain the [***] contained in [***].

(e) [***] agrees that however the [***] may be interpreted, applied or enforced in any future proceedings, the [***] in [***] shall remain fully effective and enforceable.

(f) It is the express intent of the Parties that, upon execution of this Agreement, under no circumstance shall [***] on or in connection with any future [***] in the [***], after exhaustion of all [***], based in whole or in part on the [***].

**Exhibit 10.14**

**CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [***] INDICATES THAT INFORMATION HAS BEEN REDACTED.**

# SEMICONDUCTOR PATENT LICENSE AGREEMENT

This SEMICONDUCTOR PATENT LICENSE AGREEMENT ("Agreement") is effective as of July 1, 2013 (the "Effective Date") by and between Rambus Inc., a corporation duly organized and existing under the laws of Delaware, U.S.A., having its principal place of business at 1050 Enterprise Way, Suite #700, Sunnyvale, California 94089, U.S.A., (hereinafter "Rambus") and SK hynix Inc., a corporation duly organized and existing under the laws of Korea., having its principal place of business at 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do, Korea (hereinafter "SK hynix ").

**WHEREAS,** the parties are currently parties to a number of disputes relating to the SK hynix products and the Rambus patents, including but not limited to disputes as to whether claims of Rambus patents are infringed by SK hynix products and the Antitrust Litigation, and recognize that, without this Agreement, given the diversity of claims of the Rambus patents, and the breadth of technologies utilized by the SK hynix products, Rambus could, after the Effective Date, assert other claims of Rambus patents that are infringed by SK hynix products;

**WHEREAS**, the parties recognize that litigation of such is inherently uncertain, and is subject to certain risks and to various possible outcomes, some of which would be more favorable to Rambus, and some of which would be more favorable to SK hynix;

**WHEREAS**, concurrent with the execution and delivery of this Agreement, the parties have entered into a Settlement Agreement (the "Settlement Agreement") to eliminate the risks associated with such litigation and to enter into a comprehensive resolution to compromise, settle and release certain existing disputes between them, and to compromise, resolve and avoid other disputes that may arise after the Effective Date with respect to the SK hynix products and the Rambus patents;

**WHEREAS**, as part of such comprehensive resolution, the parties have agreed to enter into this Agreement; and

**WHEREAS**, because this Agreement is part of such comprehensive resolution, the parties acknowledge that it is therefore essential that their respective obligations under this Agreement be certain and not subject to collateral attack, or otherwise subject to change or modification except on the terms expressly set forth herein.

**NOW, THEREFORE**, in consideration of the mutual covenants and premises contained herein, and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties, the parties agree as follows:

## 1. Definitions

1.1 "Acquired Business" means a Third Party, the portion of a Third Party, and/or any portion of the assets or business of a Third Party that SK hynix or its Subsidiaries acquire in an Acquisition.

1.2 "Acquisition" means, as to a party, a transaction or a series of related transactions in which such party acquires, through merger (including reverse triangular merger), acquisition of stock, acquisition of assets or otherwise, Control of a Third Party and/or any portion of the assets or business of a Third Party.

1.3 "Acquisition Date" means the effective date of any Acquisition completed by SK hynix or any of its Subsidiaries as described under Section 3.3.

1.4 "Antitrust Litigation" means the matter entitled *Rambus Inc. v. Micron Technology Inc. et al.*, No. 04-431105 (Supr. Ct. Cal., San Fran. Filed May 5, 2004) and any appeals and remand proceedings therefrom.

1.5 "Change of Control" means a transaction or a series of related transactions in which (a) one or more Third Parties who did not previously Control a party obtain Control of such party, or (b) the subject party merges

with or transfers substantially all of its assets to a Third Party where the shareholders of the assigning party, immediately before the transaction or series of related transactions, own less than a fifty percent (50%) interest in the acquiring or surviving entity immediately after the transaction or series of related transactions.

1.6 "Combination Product" means either (a) a Component containing two (2) or more Integrated Circuits at least one of which is either a Paid-Up Product or a Term Product and where all other Integrated Circuits contained in such Component are each a Paid-Up Product, a Term Product, or a Permitted Third Party Product, or (b) solely that portion of a Component consisting of a combination of two (2) or more Integrated Circuits that are each a Paid-Up Product or a Term Product ("Eligible Portion") where such Component also contains an Integrated Circuit that is not a Paid-Up Product, a Term Product, or a Permitted Third Party Product. For clarity, an Eligible Portion may not contain any Integrated Circuit that is neither a Paid-Up Product nor a Term Product.

1.7 "Combination Product License" means the rights and licenses granted under Section 2.1(c).

1.8 "Component" means a product comprised of one or more Integrated Circuits physically connected, stacked, or attached to a unitary substrate or other Integrated Circuit where all other elements of such product are passive elements intended to provide physical support, packaging and/or connectivity with respect to such Integrated Circuits. Examples of Components would include DIMMs, SIMMs and other modules, and cards, multi-chip packages (MCP), system-on-chip, system-in- package, system-on-insulator, solid state storage devices, and other form factors.

1.9 "Control" (including "Controlled" and other forms) of an entity means (a) beneficial ownership (whether directly or indirectly through entities or other means) of more than fifty percent (50%) of the outstanding voting securities of that entity or (b) in the case of an entity that has no outstanding voting securities, having the power (whether directly or indirectly through entities or other means) presently to designate more than fifty percent (50%) of the directors of a corporation, or in the case of unincorporated entities, of individuals exercising similar functions. Notwithstanding the foregoing sentence, where SK hynix has fifty percent (50%) of such beneficial ownership or power to designate with respect to any other entity, SK hynix shall be deemed to "Control" such other entity if such other entity is part of the SK Group and such entity is lawfully registered under a corporate name, and lawfully operates and generally and routinely conducts its business under a corporate name, that includes "SK," *provided that*, such entity agrees in a writing, delivered to both parties within thirty (30) days of the Effective Date (or if later, within thirty (30) days after formation of such entity), to be bound by all applicable terms and conditions of this Agreement.

1.10 "CRI" means Cryptography Research, Inc., a wholly-owned Subsidiary of Rambus.

1.11 "DDR DRAM" means each double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for DDR DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC- published specification; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; or (ii) with data bit width other than x4, x8 and/or x16.

1.12 "DDR2 DRAM" means each double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for DDR2 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC- published specification; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; or (ii) with data bit width other than x4, x8 and/or x16.

1.13 "DDR3 DRAM" means each double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for DDR3 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC- published specification; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; or (ii) with data bit width other than

x4, x8 and/or x16.

1.14 “DRAM” means a dynamic random access memory Integrated Circuit the primary purpose of which is data storage and retrieval.

1.15 “DRAM Controller” means any Integrated Circuit having circuitry integrated thereon or contained therein that is capable through an Interface of transmitting and/or receiving data from a DRAM.

1.16 “Effective Date” has the meaning ascribed to such term in the first paragraph of this Agreement.

1.17 “Existing Agreement” has the meaning ascribed to such term under Section 3.3(b) below.

1.18 “Expiration Date” means the fifth (5th) anniversary of the Effective Date.

1.19 “Foundry Product” means any product that would constitute a Paid-Up Product or Term Product but for the fact that such product does not constitute a SK hynix Product.

1.20 “Foundry Product License” means the rights and licenses granted under Section 2.1(d) below.

1.21 “GDDR DRAM” means each graphics double date rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for GDDR DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; or (ii) with data bit width other than x16 and x32.

1.22 “GDDR2 DRAM” means each graphics double date rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for GDDR2 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; or (ii) with data bit width other than x16 and x32.

1.23 “GDDR3 DRAM” means each graphics double date rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for GDDR3 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; or (ii) with data bit width other than x16 and x32.

1.24 “GDDR4 DRAM” means each graphics double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for GDDR4 DRAM; andis solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; or (ii) with data bit width other than x16 and x32.

1.25 “GDDR5 DRAM” means each graphics double data rate DRAM that (a) implements those interface features, parameters, and protocols in the same manner in all material respects as the DRAM Sold by SK hynix or its Subsidiaries on or before the Effective Date as “GDDR5 DRAM” or implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for GDDR5 DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol contained in such DRAM Sold by SK hynix or its Subsidiaries on or before the Effective Date as “GDDR5 DRAM”; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; (ii) with a data bit width other than x16 and x32.

1.26 “Indirect Infringement” means any form of alleged patent infringement where the accused infringer is not directly infringing the subject patent right(s), but is in some manner liable for a Third Party's direct infringement of the subject patent right(s) by, for example (without limitation), supplying designs, parts or

instructions to the Third Party that enable such Third Party to infringe directly the subject patent right(s). Indirect Infringement includes without limitation contributory infringement and inducing infringement.

1.27 "Integrated Circuit" means a single, discrete integrated circuit chip, whether in wafer, cingulated die or packaged die form.

1.28 "Interface" means an electrical, optical, RF, mechanical, or software data path that is capable of transmitting and/or receiving information between two or more (a) Integrated Circuits or (b) portions of an Integrated Circuit, in each case together with the set of protocols defining the electrical, physical, timing and/or functional characteristics, sequences and/or control procedures of such data path.

1.29 "JEDEC" means the JEDEC Solid State Technology Association, originally known as the Joint Electron Device Engineering Council, a non-stock corporation organized and existing under the laws of the Commonwealth of Virginia.

1.30 "Licensed Product" means a Paid-Up Product, Term Product, or Combination Product made (including have made), used, Sold, offered for Sale, exported and/or imported pursuant to the Paid-Up Product License, the Term Product License and Combination Product License, respectively.

1.31 "LPDDR DRAM" means each low-power double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for LPDDR DRAM; and
(b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; or (ii) with data bit width other than x8, x16 and/or x32.

1.32 "LPDDR2 DRAM" means each low-power double data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for LPDDR2 DRAM; and
(b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC-published specification; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; or (ii) with data bit width other than x8, x16 and/or x32.

1.33 "LPSDR DRAM" means each low-power SDR DRAM, but including each such DRAM with a data bit width of x32.

1.34 "Opposition Proceedings" means oppositions filed by SK hynix against the Opposed Rambus Patents, to the extent that they are pending before the European Patent Office as of the Effective Date.

1.35 "Opposed Rambus Patents" means the following Rambus Patents, each of which is subject to one or more of the Opposition Proceedings:

EP 1 997 111 B1 (Application No. 07 758 147.8; "MEMORY DEVICE WITH MODE-SELECTABLE PREFETCH AND CLOCK-TO-CORE TIMING");

EP 1 653 374 B1 (Application No. 05 022 021.9; "METHOD AND APPARATUS FOR COORDINATING MEMORY OPERATIONS AMONG DIVERSELY-LOCATED MEMORY COMPONENTS");

EP 2 192 494 B1 (Application No. 10 150 033.8; "METHOD AND APPARATUS FOR COORDINATING MEMORY OPERATIONS AMONG DIVERSELY-LOCATED MEMORY COMPONENTS"); and,

EP 1 981 033 B1 (Application No. 08 153 150.1; "APPARATUS AND METHOD FOR PIPELINED MEMORY OPERATIONS").

1.36 "Other DRAM" means any DRAM that does not constitute a Paid-Up Product.

1.37 "Paid-Up Product" means each SK hynix Product that is an SDR DRAM, DDR DRAM, DDR2 DRAM, DDR3 DRAM, GDDR DRAM, GDDR2 DRAM, GDDR3 DRAM, GDDR4 DRAM, GDDR5 DRAM, LPSDR DRAM, LPDDR DRAM, and LPDDR2 DRAM. Notwithstanding the foregoing sentence, any product that constitutes a Rambus Leadership Product shall be deemed not to be a Paid-Up Product.

1.38 “Paid-Up Product License” means the rights and licenses granted pursuant to Section 2.1(a).

1.39 “Patents” means patents, including re-examinations and reissues thereof, and utility models and applications therefor, including, without limitation, all continuations, continuations-in-part and divisionals thereof, in all countries of the world that now or hereafter are (a) owned or controlled by the applicable party hereto and its Subsidiaries and/or (b) otherwise licensable by the applicable party hereto and its Subsidiaries, in each case of (a) and (b) where such party and its Subsidiaries have the right to grant the licenses, sublicenses or other rights and covenants of the scope granted herein.

1.40 “Permitted Third Party Product” means any Integrated Circuit that is neither a SK hynix Product nor a DRAM, SerDes IC, DRAM Controller, Synchronous Flash Memory or Synchronous Flash Controller.

1.41 “Quarterly Acquisition Adjustment Payment” means each quarterly fixed amount initially payable by SK hynix under this Agreement upon SK hynix's or any of its Subsidiaries' Acquisition of any Acquired Business as provided for under Section 3.3.

1.42 “Quarterly License Payment” has the meaning ascribed to such term in Section 4.1.

1.43 “Rambus Applicable Manufacturing Claims” are defined and determined separately for each specific product. For each such product, a Rambus Applicable Manufacturing Claim means each process or method claim of a Rambus Patent [***] infringed when such product is made (or have made).

1.44 “Rambus Applicable Patent Claims” means Rambus Applicable Manufacturing Claims and Rambus Applicable Product Claims.

1.45 “Rambus Applicable Product Claims” are defined and determined separately for each specific product. For each such product, a Rambus Applicable Product Claim means:

(a) each claim of each Opposed Rambus Patent that is [***] by the use, Sale, offer for Sale, export, or import of such product in the form first made (or have made), in each case during the pendency of the Opposition Proceeding associated with such Opposed Rambus Patent and any and all appeals therefrom; and,

(b) each claim of:

(i) each Opposed Rambus Patent that is [***] by the use, Sale, offer for Sale, export, or import of such product in the form first made (or have made), in each case following the pendency of the Opposition Proceeding associated with such Opposed Rambus Patent; and,

(ii) each other Rambus Patent that is [***] by the use, Sale, offer for Sale, export, or import of such product in the form first made (or have made).

1.46 “Rambus Leadership Product” means any product that implements a Rambus Proprietary Specification.

1.47 “Rambus Patents” means Patents owned or controlled or otherwise licenseable, each in accordance with Section 1.39 above by Rambus or any of its Subsidiaries, in each case other than those Patents of CRI that have effective filing dates that are earlier than June 6, 2011 (the effective date of Rambus' acquisition of CRI).

1.48 “Rambus Product Design” means any human or machine readable representation of the design, such as a circuit layout in a drawing or a register transfer level description (RTL) file, for any product, element or instrumentality, including, but not limited to any Rambus Leadership Product.

1.49 “Rambus Product Design License” means the rights and licenses granted under Section 2.2.

1.50 “Rambus Proprietary Specification” means any Technical Specification that is first designed and developed (as demonstrated by customary means, including, but not limited to, engineering notebooks) by, or on behalf of, Rambus or any of its Subsidiaries, over which Rambus and/or any of its Subsidiaries has exclusive control and that neither Rambus nor any of its Subsidiaries has voluntarily (a) disclosed except under a confidentiality or non-disclosure agreement; or (b) proposed or disclosed to any standards setting organization. In addition to the foregoing sentence, Rambus Proprietary Specification also includes any Technical Specification exclusively acquired by Rambus from a Third Party where such Technical Specification would otherwise

meet the definition of a Rambus Proprietary Specification had Rambus, and not the relevant Third Party, been the original developer and owner of such Technical Specification. Notwithstanding the above, a Technical Specification independently developed by or on behalf of SK hynix, or by a Third Party, shall not be deemed to be a Rambus Proprietary Specification, even if it describes similar or identical functions. A Technical Specification shall not be deemed to be independently developed for purposes of the preceding sentence to the extent such Technical Specification, or any portion thereof, was developed or derived based on information (i) for which SK hynix or any of its Subsidiaries, or any other Third Party, is bound by an obligation of confidentiality or non-use to Rambus; (ii) obtained from any other Third Party in violation of its obligation of confidentiality or non-use to Rambus; or (iii) obtained by SK hynix, any of its Subsidiaries or any other Third Party based on reverse engineering of any product that implements a Rambus Proprietary Specification.

1.51 "SDR DRAM" means each single data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any final JEDEC-published specification for SDR DRAM; and (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in any such JEDEC- published specification; and (c) is not Sold or specified as being capable of operating: (i) at a data transfer rate exceeding [***]; or (ii) with data bit width other than x4, x8 and/or x16.

1.52 "Sell" (including "Sale" and "Sold" and other forms) means to sell, lease, or otherwise transfer or dispose of a product, or if the product is transferred and used internally by an entity, then such transfer and use shall also be deemed a Sale.

1.53 "SerDes IC" means any Integrated Circuit having circuitry integrated thereon or contained therein that (a) de-serializes data received by such Integrated Circuit from a different Integrated Circuit and/or (b) serializes data originating on such Integrated Circuit prior to transmitting such data to a different Integrated Circuit. Notwithstanding the foregoing, any Integrated Circuit, the primary purpose of which is data storage and/or retrieval shall be deemed not to be a SerDes IC.

1.54 "Settlement Agreement" has the meaning assigned in the recitals to this Agreement.

1.55 "SK hynix Applicable Manufacturing Claims" are defined and determined separately for each specific product. For each such product, a SK hynix Applicable Manufacturing Claim means each process or method claim of a SK hynix Patent [***] when such product is made (or have made).

1.56 "SK hynix Applicable Patent Claims" means SK hynix Applicable Manufacturing Claims and SK hynix Applicable Product Claims.

1.57 "SK hynix Applicable Product Claims" are defined and determined separately for each specific product. For each such product, a SK hynix Applicable Product Claim means each claim of a SK hynix Patent [***] by the use, Sale, offer for Sale, or import of such product in the form first made (or have made).

1.58 "SK hynix Patent" means Patents owned or controlled or otherwise licenseable, each in accordance with Section 1.39 above by SK hynix or any of its Subsidiaries.

1.59 "SK hynix Product" means, an Integrated Circuit, for which SK hynix or any of its Subsidiaries either:

(a) owns the entire design of such Integrated Circuit with no limitations on how it may use such design; and/or,

(b) has a license from the party or parties that created or otherwise owns the design of such Integrated Circuit, under which license SK hynix and/or its Subsidiaries (i) can make (and/or have made) such Integrated Circuit; (ii) is free to Sell such made (or have made) Integrated Circuit without restriction as to whom SK hynix and/or its Subsidiaries may Sell such Integrated Circuit; and (iii) is not required or bound to discriminate in price or other terms with respect to such Integrated Circuit.

1.60 "SK hynix Supplied Portion" has the meaning ascribed to in Section 2.1(d)(ii) below.

1.61 "Subsidiary" means with respect to any identified entity ("Identified Entity"), any entity Controlled by such

Identified Entity, but only so long as such Control exists.

1.62 "Synchronous Flash Controller" means any Integrated Circuit having circuitry integrated thereon or contained therein that is capable through an Interface of transmitting and/or receiving data from a Synchronous Flash Memory.

1.63 "Synchronous Flash Memory" means any Integrated Circuit the primary purpose of which is data storage or retrieval that has a synchronous Interface and Flash memory cells that retain data stored in such Flash memory cells even when it ceases to receive electrical power.

1.64 "Technical Specification" means a final specification for an optical, RF, electrical, mechanical, or software component that describes all of the characteristics of such component necessary for such component to operate. As example, the electrical interface (including timing and signaling parameters and characteristics) for a data bus connecting two (2) Integrated Circuits would meet the definition of a Technical Specification provided that such interface specified all of the signals necessary for such data bus to function.

1.65 "Term" means, as the case may be, the (a) term of the Paid-Up License, (b) the term of the Term Product License; (c) term of the Combination Product License, and/or (d) term of the Foundry Product License in each case of (a), (b), (c) and (d) as provided for under Section 6.1.

1.66 "Term Product" means each SK hynix Product that is an (a) Other DRAM; (b) DRAM Controller; (c) Synchronous Flash Memory; (d) Synchronous Flash Controller; (e) SerDes IC; and (f) any other Integrated Circuit other than a Paid-Up Product. Notwithstanding the foregoing sentence, any product that constitutes a Rambus Leadership Product shall be deemed not to be a Term Product.

1.67 "Term Product License" means the rights and licenses granted under Section 2.1(b).

1.68 "Third Party" means (a) with respect to Rambus or any Subsidiary of Rambus, any entity that is not a Subsidiary of Rambus and (b) with respect to SK hynix or any Subsidiary of SK hynix, any entity that is not a Subsidiary of SK hynix.

## 2. GRANT OF RIGHTS

2.1 License to SK hynix.

(a) Paid-Up Product License. Subject to the terms and conditions of this Agreement, Rambus, on behalf of itself and its Subsidiaries, hereby grants to SK hynix and its Subsidiaries, for each product that falls within the definition of a Paid-Up Product: a non-exclusive, non-transferable, royalty-bearing, worldwide license, without the right to sublicense, solely under the associated Rambus Applicable Patent Claims for such Paid-Up Product, to make (including have made), use, Sell, offer for Sale, export, and/or import such Paid-Up Product until the expiration or termination of this license pursuant to Section 6.1(a).

(b) Term Product License. Subject to the terms and conditions of this Agreement, Rambus, on behalf of itself and its Subsidiaries, hereby grants to SK hynix and its Subsidiaries, for each product that falls within the definition of a Term Product: a non-exclusive, non-transferable, royalty-bearing, worldwide license, without the right to sublicense, solely under the associated Rambus Applicable Patent Claims for such Term Product, to make (including have made), use, Sell, offer for Sale, export, and/or import such Term Product until the expiration or termination of this license pursuant to Section 6.1 (b).

(c) Combination Product License. Subject to the terms and conditions of this Agreement, Rambus, on behalf of itself and its Subsidiaries, hereby grants to SK hynix and its Subsidiaries, for each product that falls within the definition of a Combination Product: a non-exclusive, non-transferable, royalty-bearing, worldwide license, without the right to sublicense, solely under the associated Rambus Applicable Patent Claims for such Combination Product, to make (including have made), use, Sell, offer for Sale, export, and/or import such Combination Product until the expiration or termination of this license pursuant to Section 6.1(c). For clarity, the grant of the license to Combination Products pursuant to this Section 2.1(c) does not supersede or otherwise limit the licenses granted to each Term Product and Paid- Up Product under Section 2.1(a) and Section 2.1(b), respectively, that may be contained in any such Combination Product.

(d) Foundry Product License. Except as expressly set forth in Sections 2.1(d)(i) and 2.1(d)(ii) below, all Foundry Products are expressly excluded from the licenses granted under Sections 2.1(a), 2.1(b) and 2.1(c) of this Agreement.

(i) Manufacturing. Rambus, on behalf of itself and its Subsidiaries, hereby grants to SK hynix and its Subsidiaries, for any product that constitutes a Foundry Product: a non-exclusive, non-transferable, worldwide license, without the right to sublicense, under the associated Rambus Applicable Manufacturing Claims for such Foundry Product, to make (but not have made), use, Sell, offer for Sale, import, and export any such Foundry Product until the expiration or termination of this license pursuant to Section 6.1(d). For the avoidance of doubt, except as expressly set forth in Section 2.1(d)(ii), no license is granted under any Rambus Applicable Product Claims for any Foundry Products.

(ii) SK hynix Supplied Technology. For any portion of a Foundry Product supplied by SK hynix and/or its Subsidiaries ("SK hynix Supplied Portion") for which SK hynix or any of its Subsidiaries either (A) owns the entire design of such SK hynix Supplied Portion with no limitations on how it may use such design; and/or (B) has a license from the Third Party (or Third Parties) that created or otherwise owns the design of such SK hynix Supplied Portion, under which license SK hynix and/or its Subsidiaries (I) can make (and/or have made) such SK hynix Supplied Portion; (II) is free to Sell such made SK hynix Supplied Portion without restriction as to whom SK hynix and/or its Subsidiaries may Sell such SK hynix Supplied Portion and (III) is not required or bound to discriminate in price or other terms with respect to such SK hynix Supplied Portion, Rambus, on behalf of itself and its Subsidiaries, hereby grants to SK hynix and its Subsidiaries, a non-exclusive, non-transferable, worldwide license, without the right to sublicense, under the associated Rambus Applicable Product Claims for such SK hynix Supplied Portion, to use, Sell, offer for Sale, or import any such SK hynix Supplied Portion as part of any such Foundry Product until the expiration or termination of this license pursuant to Section 6.1(d).

2.2 Rambus Product Design License. Subject to the terms and conditions of this Agreement, SK hynix, on behalf of itself and its Subsidiaries, hereby grants to Rambus and its Subsidiaries, for each product that falls within the definition of Rambus Product Design: a non-exclusive, non-transferable, worldwide license, without the right to sublicense, solely under the associated SK hynix Applicable Patent Claims for such Rambus Product Design, to make (including have made), use, Sell, offer for Sale, and/or import such Rambus Product Design until the expiration or termination of this license pursuant to Section 6.1(e). For the avoidance of doubt, this license does not in any way, expressly or impliedly, extend, nor is it intended to extend, to any devices or products made essentially based on or incorporating such Rambus Product Design or in combination of such Rambus Product Design.

2.3 Obligations When Transferring Patents. Each party agrees that it shall take all actions necessary to ensure that any Third Party to whom any Patents are transferred, assigned or exclusively licensed or any right to enforce is granted (including any successor in interest thereto) is bound in writing to all covenants, licenses and other rights granted hereunder with respect such transferred, assigned or exclusively licensed Patents, *provided further* that if Rambus or any of its Subsidiaries transfers to any Third Party ownership of, or otherwise grants any Third Party the right to enforce, any claim of any Rambus Patent that is subject to the Covenant to Sue Last provided for under Section 2.4 below, such claim shall, upon such transfer of ownership or grant of right to enforce, automatically and immediately be deemed to be included in the rights and licenses granted hereunder with respect to Licensed Products and SK hynix Supplied Portions notwithstanding the fact that such claim does not constitute a Rambus Applicable Patent Claim.

2.4 Covenant [***]. For so long as a product constitutes a Licensed Product or a SK hynix Supplied Portion hereunder, Rambus, on behalf of itself and its Subsidiaries, covenants that [***]

2.5 Further Covenant. For so long as a product or portion thereof Sold by SK hynix:

(a) [***];

(b) [***]; or,

(c) [***];

Rambus, on behalf of itself and its Subsidiaries, covenants that [***].

2.6 Full Force and Effect. The parties expressly acknowledge and agree that nothing in this Agreement shall in any way limit or alter the effect of the first sale or patent exhaustion doctrines under U.S. law, and any equivalent or similar doctrines under the law of any jurisdiction with respect to Rambus Applicable Patent Claims with respect to any Licensed Product or SK hynix Supplied Portion based on the Sale of such Licensed Product or SK hynix Supplied Portion.

2.7 No Release, No Implied or Other Rights and Licenses.

(a) The rights and licenses granted and covenants made herein apply solely to those products and activities expressly licensed during the Term. Nothing in this Agreement shall be deemed to, and shall not be construed to, constitute any release, forbearance, forfeiture or other waiver of any rights of either party or their respective Subsidiaries to enforce any of their respective intellectual property rights with respect to any activities undertaken by either party, their respective Subsidiaries and/or any other Third Party to the extent not expressly granted or made hereunder. Nothing in this Agreement is intended to limit or alter any rights under applicable law relating to patent exhaustion.

(b) Except as expressly provided for under this Agreement, no authorization, release, license, covenant or other right is granted or made, by implication, estoppel, acquiescence or otherwise under this Agreement, to either party, their respective Subsidiaries and/or any other Third Party under any patents, utility models, patent or utility model claims, or other intellectual property rights now or hereafter owned or controlled by either party or their respective Subsidiaries. Nothing in this Agreement is intended to limit or alter any rights under applicable law relating to patent exhaustion.

(c) Except as expressly provided for under this Agreement, none of the terms of this Agreement shall be deemed to, and shall not be construed to, constitute, whether by implication, estoppel, acquiescence or otherwise, (i) an authorization by either party, their respective Subsidiaries and/or any other Third Party to Sell, offer for Sale and/or import any product (A) in or for combination with any other element (including, but not limited to any function or feature), product or instrumentality; or (B) unconditionally for use in or for combination with any other element (including, but not limited to any function or feature), product or instrumentality; or (ii) a waiver by either party or their respective Subsidiaries of any liability for infringement based on either party's, their respective Subsidiaries and/or any other Third Party's use, Sale, offer for Sale and/or import of any product in combination with any other element (including, but not limited to any function or feature), product or instrumentality. Nothing in this Agreement is intended to limit or alter any rights under applicable law relating to patent exhaustion.

**3. SUBSIDIARIES, FORMER SUBSIDIARIES, AND ACQUISITIONS**

3.1 Subsidiaries. The parties intend that this Agreement shall extend to all of each party's Subsidiaries. The parties agree that to the extent they are not already bound, each party shall ensure that all of its Subsidiaries (including without limitation all entities that become Subsidiaries after the Effective Date ("New Subsidiaries")) are bound by the terms of this Agreement. Without limiting the foregoing:

(a) each party shall ensure that each New Subsidiary's patents, utility models and applications therefor are included within the definition of the applicable party's Patents; and

(b) each party shall ensure that each New Subsidiary is bound as applicable, by Sections 2.3, 2.4, and 2.5.

3.2 Former Subsidiaries. All rights and licenses granted and covenants made to any Subsidiary of either party shall immediately and automatically terminate upon a party ceasing to Control such entity ("Former Subsidiary"). However, if a Subsidiary of a party that holds any patent or utility model or applications therefor that are subject to the rights and licenses granted or covenants made hereunder becomes a Former Subsidiary, such rights and licenses granted or covenants made by such Former Subsidiary (including every successor entity in interest to any such patents or utility models and applications therefor) shall continue in accordance with the terms of this Agreement after such entity becomes a Former Subsidiary.

3.3 Acquisitions.

(a) Acquired Business [***]. If SK hynix or any of its Subsidiaries completes an Acquisition [***], then SK hynix shall pay Rambus a fixed quarterly payment (in addition to SK hynix's Quarterly License Payments or any other Quarterly Acquisition Adjustment Payments owed under this Section 3.3(a) and/or pursuant to Section 3.3(b) below in connection with such Acquisition or any other Acquisition) for each calendar quarter remaining in the Term, based on such Acquisition, starting, on a prorated basis, with the first calendar quarter during which the Acquisition Date occurred, [***]. If iSuppli data as required for the calculations in this Section 3.3(a) is not available for an Acquired Business or for SK hynix, or the most recent version of such data covers a period ending more than twelve (12) months before the Acquisition Date, the parties shall initially meet within thirty (30) days following the associated Acquisition Date and negotiate in good faith an alternate source for the information that was to be provided by iSuppli. If the parties cannot reach agreement on such alternate source within thirty (30) days following the date required for such initial meeting, either party may, as its sole and exclusive remedy to resolve such dispute, submit such dispute to binding arbitration pursuant to the terms of Section 8. For the avoidance of doubt, any Acquired Business that has revenue attributable from the Sale of Acquisition Products of [***] or less (as reported by iSuppli for the most recent twelve (12) months preceding the Acquisition Date for which iSuppli has reported such Sales) shall be licensed without additional payments of any kind.

(b) Acquired Business [***]. If SK hynix or any of its Subsidiaries completes an Acquisition [***], SK hynix shall pay Rambus a fixed quarterly payment (in addition to SK hynix's Quarterly License Payments or any other Quarterly Acquisition Adjustment Payment owed pursuant to Section 3.3(a) above and/or under this Section 3.3(b) in connection with such Acquisition or any other Acquisition) for each calendar quarter remaining in the Term, based on such Acquisition, starting, on a pro-rated basis with the first calendar quarter during which the Acquisition Date occurred. [***] If the Existing Agreement required payments for less than four (4) quarters prior to the Acquisition Date, the parties shall initially meet within thirty (30) days following the associated Acquisition Date and negotiate in good faith an alternate method to determine the average quarterly payments from the Existing Agreement. If the parties cannot reach agreement on such alternate method within thirty (30) days following the date required for such initial meeting, then either party may, as its sole and exclusive remedy to resolve such dispute, submit such dispute to binding arbitration pursuant to the terms of Section 8.

(c) Attributable Revenue. For purposes of the calculations in this Section 3.3, [***].

(d) Dispute Resolution. If the parties fail to resolve any dispute identified in this Section 3.3 as subject to binding arbitration, then either party may, as its sole and exclusive remedy, submit such dispute to binding arbitration pursuant to Section 8 and SK hynix's obligation to remit its Quarterly Acquisition Adjustment Payment based on such disputed Acquisition pursuant to Section 5.1(a)(iii) shall be tolled until the earlier of either the final resolution of such arbitration or the parties' resolution of such dispute, and in either case within thirty (30) days after such resolution SK hynix will make all payments necessary to satisfy its payment obligations under this Section 3.3 from the date such obligations accrued.

3.4 No Release. The releases granted and covenants made under Article 4 of the Settlement Agreement shall not apply to any Acquired Business. None of the rights and licenses granted and covenants made under Section 2 shall apply to any activity of any Acquired Business unless and until such Acquired Business becomes licensed hereunder in accordance with this Section 3, and in any case, none of the rights and licenses granted and covenants made under Section 2 shall apply to nor in any way reduce any liability associated with any activity of any Acquired Business that took place prior to the applicable Acquisition Date, provided that nothing in this Section 3.4 shall have the effect of negating or nullifying any release or license granted in any Existing Agreement. Notwithstanding anything to the contrary contained in Section 3.3, for any Acquisition for which SK hynix wishes to acquire a release of liability for the Acquired Business for infringement of Rambus' patents and/or utility models that took place prior to the applicable Acquisition Date, the parties will negotiate such release in good faith and may consider the calculations set forth in Section 3.3(a) and/or the total past liability for infringing Rambus' patents and/or utility models incurred by such Acquired Business.

**4. CONSIDERATION**

4.1 Quarterly License Payment. For each of the first twenty calendar quarters that occur during the Term, beginning with the third calendar quarter of 2013, SK hynix will pay to Rambus a quarterly license payment of twelve million United States Dollars (US$12,000,000; each such payment, a "Quarterly License Payment").

4.2 Quarterly Acquisition Adjustment Payment. To the extent required pursuant to Section 3.3, SK hynix shall pay, for each Acquisition occurring during the Term, to Rambus a Quarterly Acquisition Adjustment Payment for each of the calendar quarters that occur between [***].

**5. PAYMENTS**

5.1 Payment Terms.

(a) Timing of Payments.

(i) First Quarterly License Payment. SK hynix shall pay to Rambus the first Quarterly License Payment within ten (10) United States business days of its receipt (as determined for notices under Section 9.2) of Rambus' invoice therefor. Rambus shall invoice SK hynix for such first Quarterly License Payment no earlier than July 1, 2013.

(ii) Subsequent Quarterly License Payments. Starting with the Quarterly License Payment associated with the fourth calendar quarter of 2013, SK hynix shall pay Rambus each subsequent Quarterly License Payment within ten (10) United States business days of its receipt (as determined for notices under Section 9.2) of Rambus' invoice therefor. Rambus shall invoice SK hynix for each of the nineteen (19) subsequent Quarterly License Payments no earlier than thirty (30) days after the first day of the quarter to which each such Quarterly License Payment relates.

(iii) Quarterly Acquisition Adjustment Payments. SK hynix shall pay Rambus each Quarterly Acquisition Adjustment Payment within ten (10) United States business days of its receipt (as determined for notices under Section 9.2) of Rambus' invoice therefor. Rambus shall invoice SK hynix for each Quarterly Acquisition Adjustment Payment no earlier than thirty (30) days after the first day of the quarter to which each such Quarterly Acquisition Adjustment Payment relates, provided that any prorated portion of such payment due in accordance with Section 3.3 above may not be invoiced by Rambus earlier than thirty (30) days after the first day of the calendar quarter following the respective Acquisition Date.

(b) Method of Payment. SK hynix's payments to Rambus of all amounts hereunder shall be made by electronic transfer either directly to or via the Federal Reserve Bank of San Francisco for credit to the following account or another designated in writing by Rambus:

Rambus Inc. [***]

5.2 Currency and Late Payments. All payments to Rambus hereunder shall be in United States Dollars. Late payments hereunder shall be subject to interest at the 1-year U.S. Government Treasury Constant Maturity Rate, as published by the Federal Reserve (www.federalreserve.gov) on the date the amount payable was due, plus five percent (5%) (or the maximum interest rate allowed by applicable law, if lower). The amount of interest shall be calculated from the payment due date to the date of electronic transfer.

5.3 Taxes. If the Korean government imposes any withholding tax on any amounts paid by SK hynix to Rambus hereunder, such tax shall be borne by Rambus. SK hynix agrees, at its reasonable discretion, to assist Rambus in its efforts to minimize Rambus' tax liability. SK hynix shall withhold the amount of any such taxes levied on such payments to Rambus imposed by the Korean government, shall effect payment of the taxes so withheld to the Korean tax office when due, and SK hynix shall send to Rambus the official certificate of such payment in a form reasonably sufficient to enable Rambus to support a claim for a foreign tax credit with respect to any such taxes so withheld.

5.4 No Escrow. Payment of amounts due under this Agreement to any person, firm or entity, other than Rambus, including without limitation, any escrow fund or escrow agent, unless agreed by Rambus or ordered by any

court or government agency of competent jurisdiction or arbitration panel, shall constitute a material breach of this Agreement by SK hynix. Any payment once made by SK hynix to Rambus shall not be refunded or refundable to SK hynix for any reason except as may be required pursuant to Section 8. Notwithstanding the foregoing, in case of clerical error with respect to any payment made hereunder, the parties agree to remedy any such error through proper payment adjustments.

**6. TERM & TERMINATION**

6.1 Term.

(a) Paid-up Product License. The Paid-Up Product License shall commence on the Effective Date and shall continue in full force and effect unless and until terminated in accordance with this Section 6.

(b) Term Product License. The Term Product License shall commence on the Effective Date and shall continue in full force and effect until the Expiration Date unless earlier terminated in accordance with this Section 6.

(c) Combination Product License. The Combination Product License shall commence on the Effective Date and shall continue in full force and effect until the Expiration Date unless earlier terminated in accordance with this Section 6. Notwithstanding the foregoing, the Combination Product License shall continue in full force and effect solely for combinations consisting solely of two (2) or more Paid-Up Products for so long as the Paid-Up Product License remains in full force and effect.

(d) Foundry Product License. The Foundry Product License shall:

(i) with respect to Foundry Products that are, or contain, products that would constitute Paid-Up Products but for the fact that such products do not constitute SK hynix Products, commence on the Effective Date and shall continue in full force and effect unless and until terminated in accordance with this Section 6; and,

(ii) otherwise commence on the Effective Date and shall continue in full force and effect until the Expiration Date unless earlier terminated in accordance with this Section 6.

(e) Rambus Product Design License. The Rambus Product Design License shall commence on the Effective Date and shall continue in full force and effect until the Expiration Date unless earlier terminated in accordance with this Section 6.

The parties shall, starting no later than six (6) months prior to the Expiration Date, negotiate in good faith renewal terms, if any, for the licenses associated with subsections (b)-(e) above.

6.2 Material Breach. A party may terminate this Agreement upon notice if the other party hereto (or any of its Subsidiaries) commits a material breach of Section 3.3(d) with respect to the exclusive resolution though arbitration of disputes regarding alternate sources and/or methods pursuant to Section 8 as provided for in such section and does not correct such breach within thirty (30) days after receiving written notice complaining thereof. In addition, unless it has exercised its option under Section 2.1(b) of the Settlement Agreement and received timely payment thereunder, Rambus may terminate this Agreement upon notice if SK hynix materially breaches its payment obligations under this Agreement and does not correct such breach within thirty (30) days after receiving written notice complaining thereof. Failure of SK hynix to remit any payment due and payable in accordance with the terms of this Agreement shall constitute a material breach of this Agreement. For the avoidance of doubt, any payments tolled in accordance with the terms of this Agreement shall not be due and payable during such tolling period.

6.3 Bankruptcy. Either party may terminate this Agreement effective upon written notice to the other party if the other party becomes the subject of a voluntary or involuntary petition in bankruptcy or any proceeding relating to insolvency, or composition for the benefit of creditors, if that petition or proceeding is not dismissed within sixty (60) days after filing.

6.4 Change of Control. In addition to the rights set forth in Sections 6.2 and 6.3 above, if prior to the Expiration Date, SK hynix undergoes a Change of Control, then Rambus may terminate this Agreement effective upon

written notice thereof to SK hynix or the relevant successor in interest.

If Rambus receives written notice of such Change of Control from SK hynix (or its successor in interest) no later than ten (10) business days after such Change of Control, Rambus agrees to negotiate in good faith with such successor in interest, for a period of one hundred and eighty (180) days after receipt of such notice, the application of this Agreement to such successor in interest's business activities prior to terminating this Agreement based on such Change of Control.

Rambus' failure to terminate this Agreement after a given Change of Control by SK hynix (or any successor in interest) shall not in any way limit Rambus' right to exercise these rights for any subsequent Change of Control.

Notwithstanding the foregoing, if prior to the Expiration Date or during any renewal term, SK hynix undergoes a Change of Control pursuant to which another member of the SK Group obtains Control of SK hynix (such member, the "Controlling Member"), then Rambus shall have no right to terminate this Agreement in accordance with the preceding sentence, but, in the event that such Controlling Member and/or one or more of its Subsidiaries had revenue from the Sale of Acquisition Products (as defined above) during the most recent twelve (12) calendar months preceding the date of the Change of Control, then:

(i) SK hynix shall provide written notice of such Change of Control to Rambus;

(ii) this Agreement shall automatically be assigned by SK hynix to such Controlling Member (notwithstanding the provisions set forth in Section 9.4 below);

(iii) each reference to SK hynix in this Agreement (including those in the definitions) shall, as of the date of such Change of Control, be deemed to be a reference to such Controlling Member; and,

(iv) such Controlling Member and its Subsidiaries shall be subject to Section 3.3 above as if it (such Controlling Member and such Subsidiaries, collectively) were an Acquired Business (e.g., a Quarterly Acquisition Adjustment Payment will be calculated by using the Sale, if any, by such Controlling Member and its Subsidiaries of Acquisition Products during the twelve (12) calendar months preceding the Acquisition Date).

6.5 Survival. All payment obligations accruing prior to any termination of this Agreement shall survive any such termination. In addition, the following Sections shall survive and remain in full force and effect after any termination of this Agreement: Section 1 (Definitions), Section 2.3 (Obligations When Transferring Patents), Section 2.6 (Full Force and Effect), 2.7 (No Release, No Implied or Other Rights and Licenses), Section 3.1 (Subsidiaries), 3.2 (Former Subsidiaries), 3.3(d) (Dispute Resolution), Section 3.4 (No Release), Section 4 (Consideration) and Section 5 (Payments) (in each case with respect to amounts incurred prior to termination of this Agreement), this Section 6.5 (Survival), Section 7.2 (Confidentiality), Section 8 (Dispute Resolution), and Section 9 (Miscellaneous).

## 7. CONFIDENTIALITY

7.1 Press Release; Additional Obligations. The parties intend to issue a press release as set forth in the Settlement Agreement. The parties shall perform the obligations set forth in Exhibit A in accordance with the terms and conditions contained therein.

7.2 Confidentiality. Each party agrees that only after the announcement referenced in Section 7.1 above, each party shall be entitled to disclose the general nature of this Agreement but that the terms and conditions of this Agreement, to the extent not already disclosed pursuant to Section 7.1 above, shall be treated as Confidential Information and that neither party will disclose such terms or conditions to any Third Party without the prior written consent of the other party, provided, however, that each party may disclose the terms and conditions of this Agreement:

(a) as required by any court or other governmental body;

(b) as otherwise required by law;

(c) as otherwise may be required by applicable securities and other law and regulation, including to legal and financial advisors in their capacity of advising a party in such matters so long as the disclosing party shall seek confidential treatment of such terms and conditions to the extent reasonably possible;

(d) to legal counsel, accountants, and other professional advisors of the parties;

(e) in confidence, to banks, investors and other financing sources and their advisors or to SK Telecom (provided that at the time of any such disclosure to SK Telecom, SK Telecom owns at least twenty (20) percent of the outstanding voting securities of SK hynix);

(f) in connection with the enforcement of this Agreement or rights under this Agreement;

(g) during the course of litigation so long as the disclosure of such terms and conditions are restricted in the same manner as is the confidential information of other litigating parties and so long as (i) the restrictions are embodied in a court-entered protective order limiting disclosure to outside counsel and (ii) the disclosing party informs the other party in writing at least ten (10) business days in advance of the disclosure and discusses the nature and contents of the disclosure, in good faith, with the other party;

(h) in confidence, to a Third Party to whom either party assigns one or more of its Patents, but solely to the extent necessary to inform such Third Party of the encumbrances contained herein on such Patents;

(i) in confidence, in connection with an actual or prospective merger or acquisition or similar transaction; and,

(j) by Rambus, in confidence, to the outside legal counsel of Elpida Memory, Inc. (“Elpida”) in connection with Rambus' obligation(s) under any most favored nation, or similar clause, whereby Rambus is contractually obligated to disclose and offer terms agreed upon herein with SK hynix.

Upon execution of this Agreement, or thereafter, Rambus, in its discretion, shall be entitled to file a copy of this Agreement with the U.S. Securities and Exchange Commission, so long as Rambus seeks confidential treatment of such agreement to the extent reasonably possible.

**8. DISPUTE RESOLUTION**

Any dispute submitted to binding arbitration pursuant to Section 3.3(d) or as otherwise identified herein as subject to binding arbitration shall take place in Santa Clara County, California before one arbitrator, and shall be administered by Judicial Arbitration and Mediation Services, Inc. pursuant to its Streamlined Arbitration Rules and Procedures, except that, if such dispute was submitted in accordance with Section 3.3(d), each party shall submit to the arbitrator and exchange with each other in advance of the hearing their last, best alternate sources and/or methods, as applicable, and the arbitrator shall be limited to awarding only one or the other of the two alternate sources and/or methods, as applicable, submitted. Judgment on such award may be entered in any court having jurisdiction.

**9. MISCELLANEOUS**

9.1 Disclaimers. Nothing contained in this Agreement shall be construed as:

(a) a warranty or representation by either party as to the validity, enforceability, and/or scope of any intellectual property rights;

(b) imposing upon either party any obligation to institute any suit or action for infringement of any intellectual property right, or to defend any suit or action brought by a Third Party which challenges or concerns the validity, enforceability or scope of any intellectual property rights;

(c) imposing on either party any obligation to file any application or registration with respect to any intellectual property rights or to secure or maintain in force any intellectual property rights;

(d) imposing on either party any obligation to furnish any technical information or know-how; or

(e) imposing or requiring, whether by implication or otherwise, any support, maintenance or any technology deliverable obligations on either party's or their respective Subsidiaries' part under this Agreement (and

neither party nor any of their respective Subsidiaries are providing any support, maintenance or technology deliverables under this Agreement).

9.2 Notices. All notices or other communication required or permitted hereunder shall be in writing and shall be (a) mailed by first class air mail (registered or certified if available), postage prepaid, or otherwise delivered by hand, by messenger, addressed to the addresses set forth below, or (b) delivered by facsimile to the facsimile number set forth below. Each Party may change its address or facsimile number for notices by providing a notice to the other Party in the manner set forth herein. Such notices shall be deemed to have been effective when delivered or, if delivery is not accomplished by reason of some fault or refusal of the addressee, when tendered (which tender, in the case of mail, shall be deemed to have occurred upon posting, and in the case of facsimile, shall be deemed to have occurred upon transmission). All notices shall be in English.

If to SK hynix:

SK hynix Inc.
Kyunghyun Min
Vice President, Head of IP Group
10F, Daechi Tower, 424, Teheran-ro, Gangnam-gu
Seoul, 135-738, Korea
Fax: 82)-31-645-8171

If to Rambus:
Rambus Inc.
Jae Kim
General Counsel
1050 Enterprise Way, Suite 700
Sunnyvale, CA 94089

with a copy, which shall not constitute notice, to the following:

Satish Rishi
Chief Financial Officer Rambus Inc.
1050 Enterprise Way, Suite 700
Sunnyvale, CA 94089
Telephone: +1-408-462-8000

Facsimile: +1-408-462-8001

9.3 Governing Law & Venue.

(a) This Agreement shall be governed by and construed in accordance with the laws of the State of California, without giving effect to any choice-of-law or conflict-of-law provision or rule (whether of the State of California or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of California.

(b) This Agreement is executed in the English language and no translation shall have any legal effect.

(c) Except for disputes subject to Section 8, any legal action, suit or proceeding arising under, or relating to, this Agreement, shall be brought in the United States District Court for the Northern District of California or, if such court shall decline to accept jurisdiction over a particular matter, in the Santa Clara County Superior Court, and each party agrees that any such action, suit or proceeding may be brought only in such courts. Each party further waives any objection to the laying of jurisdiction and venue for any such suit, action or proceeding in such courts.

9.4 No Assignment. This Agreement is personal to the parties, and the Agreement and/or any right or obligation hereunder is not assignable, whether in conjunction with a change in ownership, merger, acquisition, the

sale or transfer of all, or substantially all or any part of either party's or any of their respective Subsidiaries business or assets or otherwise, voluntarily, by operation of law, reverse triangular merger or otherwise, without the prior written consent of the other party, which consent may be withheld at the sole discretion of such other party. Any such purported or attempted assignment or transfer in violation of the foregoing shall be deemed a breach of this Agreement and shall be null and void. Subject to the foregoing, this Agreement shall be binding upon and inure to the benefit of the parties and their permitted successors and assigns. Notwithstanding the foregoing, either party shall be entitled to, and each party hereby agrees to, assign this Agreement to a successor to all or substantially all of a party's assets in a transaction entered into solely to change a party's place of incorporation.

9.5 No Rule of Strict Construction. Regardless of which party may have drafted this Agreement or any part thereof, no rule of strict construction shall be applied against either party. For the avoidance of doubt "includes", "including", "included", and other variations of such terms shall be deemed to be followed by the phrase "without limitation".

9.6 Severability. If any provision of this Agreement is held to be invalid or unenforceable, the meaning of such provision shall be construed, to the extent feasible, so as to render the provision enforceable, and if no feasible interpretation shall save such provision, (a) a suitable and equitable provision shall be substituted therefore in order to carry out, so far as may be valid and enforceable, the intent and purpose of such invalid or unenforceable provision, and (b) the remainder of this Agreement shall remain in full force and effect.

9.7 Entire Agreement. This Agreement and the Settlement Agreement embody the entire understanding of the parties with respect to the subject matter hereof, and merges all prior oral or written communications between them, and neither of the parties shall be bound by any conditions, definitions, warranties, understandings, or representations with respect to the subject matter hereof other than as expressly provided herein. No oral explanation or oral information by either party hereto shall alter the meaning or interpretation of this Agreement.

9.8 Modification; Waiver. No modification or amendment to this Agreement, nor any waiver of any rights, will be effective unless assented to in writing by the party to be charged, and the waiver of any breach or default will not constitute a waiver of any other right hereunder or any subsequent breach or default.

9.9 Counterparts. This Agreement may be executed in two (2) or more counterparts, all of which, taken together, shall be regarded as one and the same instrument.

9.10 Bankruptcy Code. All rights, licenses, privileges, releases, and immunities granted under this Agreement shall be deemed to be, for the purposes of Section 365(n) of the U.S. Bankruptcy Code, as amended (the "Bankruptcy Code"), licenses of rights to "intellectual property" as defined under Section 101(35A) of the Bankruptcy Code. The parties agree that each of the parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code. The parties further agree that, in the event that any proceeding shall be instituted by or against a party seeking to adjudicate it as bankrupt or insolvent, or seeking liquidation, winding up, reorganization, arrangement, adjustment, protection, relief or composition of that party or that party's debts under any law relating to bankruptcy, insolvency, or reorganization or relief of debtors, or seeking an entry of an order for relief or the appointment of a receiver, trustee or other similar official for that party or any substantial part of its property or if a party hereto shall take any action to authorize any of the foregoing actions, the other party shall have the right to retain and enforce their respective rights under this Agreement.

9.11 Non-Controlled Entity. SK hynix hereby represents and warrants that on the Effective Date it is not a Subsidiary of any entity or person.

9.12 CRI Representation. Rambus represents and warrants that, to the best of its knowledge, SK hynix does not currently infringe or otherwise need a license under those Patents of CRI that have an effective filing date that are earlier than June 6, 2011.

**REMAINDER OF PAGE INTENTIONALLY BLANK; SIGNATURE PAGE FOLLOWS**

**IN WITNESS WHEREOF,** the parties hereto have caused this Agreement to be signed by duly authorized officers or representatives as of the date first above written.

| **RAMBUS INC.** | | **SK HYNIX INC.** | |
|---|---|---|---|
| By: | /s/ Kevin Donnelly | By: | /s/ Kyunghyun Min |
| Name: | Kevin Donnelly | Name: | Kyunghyun Min |
| Title: | SVP | Title: | VP |
| Date: | June 11, 2013 | Date: | June 10, 2013 |

**EXHIBIT A ADDITIONAL OBLIGATIONS**

A "Triggering Agreement" means, for this Exhibit A, an agreement or a series of agreements, in which each agreement in such series of agreements is fully-executed by the parties within a thirty-day period, entered into between (a) Rambus and/or one or more of its Subsidiaries and (b) [***] or one of its Subsidiaries pursuant to which Rambus grants [***] and each of its Subsidiaries (collectively, "[***]") a license, under the Rambus Patents, to Sell [***], at any time between the Effective Date of this Agreement and the expiration or termination of the Term Product License contained herein, whether or not such license also covers the Sale of other products and pursuant to which:

(a) in the event that [***] **has not**, as of the date of the later authorized signature of Rambus or [***] to such agreement or such series of agreements, [***], the actual average (mean) annual payments due under such agreement or such series of agreements from [***] (or if such payments are based on a running per unit royalty or percentage of total sales, the projected annual average (mean) amount that [***] will pay to Rambus) during the first [***] years of such agreement or such series of agreements immediately following the date of the later authorized signature of Rambus or [***] to such agreement or such series of agreements, irrespective of the term of such agreement or such series of agreements (such average, the "[***]Only Annual Average Payment") is less than the multiple of [***] dollars (USD [***]) and (w/x), where "w" is the total amount of revenue of [***] and each of its Subsidiaries attributable to the Sale of [***] for the calendar year [***] as reported by iSuppli (USD [***]) and "x" is the total amount of revenue of SK hynix and each of its Subsidiaries attributable to the Sale of [***] for the calendar year [***] as reported by iSuppli (USD [***]) (such agreement or such series of agreements, the "[***] Triggering Agreement"; such (w/x) ratio the "[***] Ratio" ([***]%)); **or**,

(b) in the event that [***] **has**, as of the date of the later authorized signature of Rambus or [***] to such agreement or such series of agreements, [***], the actual average (mean) annual payments due under such agreement or such series of agreements from [***] (or if such payments are based on a running per unit royalty or percentage of total sales, the projected annual average (mean) amount that [***] will pay to Rambus) during the first [***] years of such agreement or such series of agreements immediately following the date of the later authorized signature of Rambus or [***] to such agreement or such series of agreements, irrespective of the term of such agreement or such series of agreements (such average, the "[***] Annual Average Payment") is less than the multiple of [***] (USD [***]) and (y/z), where "y" is the total amount of revenue of [***] and each of its Subsidiaries attributable to the Sale of [***] for (i) a half of calendar year [***] (as determined by halving the total such revenue for such calendar year as reported by Gartner) and (ii) calendar years [***] through [***] (as reported by iSuppli) (USD [***]) and "z" is the total amount of revenue of SK hynix and each of its Subsidiaries attributable to the [***] for (i) a half of calendar year [***] (as determined by halving the total such revenue for such calendar year as reported by Gartner) and (ii) calendar years [***] through [***] (as reported by iSuppli) (USD [***]) (such agreement or such series of agreements, the "[***] Triggering Agreement"; such (x/z) ratio, the "[***] Ratio" ([***]%)).

If Rambus enters into a Triggering Agreement at any time between the Effective Date of this Agreement and the earlier of the expiration or the termination of the Term Product License contained herein, Rambus shall, within [***] days after the full execution of the Triggering Agreement, deliver to SK hynix a draft of an agreement that Rambus believes reasonably and in good faith, includes all terms and conditions of such Triggering Agreement that are applicable to the Sales of [***] ("Substitute Agreement"), provided that:

(a) the term of such Substitute Agreement shall extend until the expiration date of the Term Product License contained herein; and,

(b) the Substitute Agreement will contain adjusted quarterly payment obligations as calculated by dividing the [***] Annual Average Payment by the [***] Ratio (if the Triggering Agreement is a [***] Triggering Agreement) or the [***] Annual Average Payment by the [***] Ratio (if the Triggering Agreement is a [***] Triggering Agreement).

If the Triggering Agreement contains any [***] agreed to by [***] in connection with the Sale of [***] by [***] during the term of the Triggering Agreement, and Rambus believes, reasonably and in good faith, that such [***] cannot be

fulfilled by SK hynix, Rambus may provide substitute terms for such [***] [***] for such [***] that Rambus believes, reasonably and in good faith, are [***] in the Triggering Agreement and/or [***] in the Triggering Agreement.

SK hynix shall have [***] days after receipt of such Substitute Agreement to (i) accept, in writing, such Substitute Agreement and request, in writing, the signature of the same, in which case the parties shall exchange originally executed signature pages of the Substitute Agreement within [***] days of such request, or (ii) reject in writing such Substitute Agreement, in which case this Agreement shall remain in full force and effect in accordance with its terms. Upon SK hynix's acceptance or rejection of the Substitute Agreement, SK hynix shall no longer have any right to have its payments restructured (including under most favored customer or similar clauses), even if such restructure provision exists in the Triggering Agreement on which such Substitute Agreement is based.

Upon the first day of the calendar quarter in which the Substitute Agreement is fully executed, the Substitute Agreement shall become effective and this Agreement shall automatically and immediately terminate and, except as set forth in Section 6.5, shall be of no further force or effect, provided that any payments made by SK hynix in accordance with the terms and conditions of this Agreement in such quarter (e.g., the scheduled Quarterly License Payment), less any amounts owed or paid by SK hynix in accordance with the terms and conditions of the Substitute Agreement in such quarter, shall be credited against future amounts due under the Substitute Agreement.

SK hynix agrees that the existence of, and the terms and condition contained in, such Substitute Agreement shall be deemed Rambus Confidential Information subject to Section 7.2.

[***]

**Exhibit 10.15**

**CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [***] INDICATES THAT INFORMATION HAS BEEN REDACTED.**

# SETTLEMENT AGREEMENT

**THIS SETTLEMENT AGREEMENT** (the "Agreement") is made and entered into as of the 9th day of December, 2013 (the "Effective Date") by and among Rambus Inc., a Delaware corporation ("Rambus"), on the one hand, and Micron Technology, Inc., a Delaware corporation, together with its Subsidiaries (as defined in Article 1), Micron Semiconductors Products, Inc., an Idaho corporation, Micron Semiconductor (Deutschland) GmbH, a corporation organized under the laws of Germany, and Micron Technology Italia Srl, a corporation organized under the laws of Italy (collectively, "Micron"), on the other hand. Rambus and Micron may hereinafter be referred to collectively as the "Parties" and individually as a "Party."

**WHEREAS**, Micron and its Subsidiaries and Rambus and its Subsidiaries are currently parties to a number of Disputes (as defined in Article 1) relating to certain products of Micron and certain Rambus Patents (as defined in Article 1), including but not limited to disputes as to whether claims of such Rambus Patents are infringed by Micron's products, and disputes relating to the validity, enforceability and scope of such Rambus Patents, and the Antitrust Litigation (as defined in Article 1);

**WHEREAS**, the Parties desire to eliminate the risks associated with such litigation and to enter into a comprehensive resolution to compromise, settle and release the Disputes, and to compromise, resolve and avoid other disputes that may arise after the Effective Date with respect to Micron's products and the Rambus Patents;

**WHEREAS,** the Parties acknowledge that in resolving the Disputes, and other disputes that may arise after the Effective Date, the promises and covenants each will receive under this Agreement and the Patent License Agreement (as defined in Article 1) represent a package, and are not intended to be severable from each other; in particular (a) Micron is receiving a full and final release of the claims asserted or that could be or could have been asserted against it in the Disputes and securing a license to certain claims of the Rambus Patents, in exchange for the Initial Payment and other payments set forth in the Patent License Agreement, and (b) Rambus is receiving the Initial Payment and other payments set forth in the Patent License Agreement, in exchange for granting such releases and licenses, as well as other benefits provided for in this Agreement and the Patent License Agreement;

**WHEREAS,** the Parties acknowledge that it is therefore essential that their respective obligations under this Agreement be certain and not subject to collateral attack, or otherwise subject to change or modification except on the terms expressly set forth therein;

**WHEREAS**, this Agreement is entered into for the purpose of settlement and compromise only,

**NOW, THEREFORE**, in consideration of the mutual covenants and promises contained herein, and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the Parties, the Parties agree as follows:

**Article 1**

**Definitions**

In addition to the terms defined in other parts of this Agreement, the following terms used herein with initial capital letters shall have the respective meanings specified in this Article 1.

1.1 Affiliate. The term "Affiliate" means, for an identified entity, any other entity that (a) is a Subsidiary of such identified entity; or (b) Controls or is under common Control of such identified entity, but only so long as such Control exists.

1.2 Agreement. The term "Agreement" has the meaning set forth in the introductory paragraph.

1.3 Antitrust Litigation. The term "Antitrust Litigation" means the matter entitled *Rambus Inc. v. Micron Technology Inc. et al.*, No. 04-431105 (Supr. Ct. Cal., San Fran. Filed May 5, 2004) and any appeals therefrom and related proceedings, including specifically the appeal in *Rambus Inc. v Micron Technology, Inc., et al*., in the Court of Appeal of the State of California, First Appellate District, Division Two, Case No. A135150.

1.4 Change of Control. The term "Change of Control" has the meaning set forth in the Patent License Agreement.

1.5 Comprehensive Resolution Agreements. The term "Comprehensive Resolution Agreements" means this Agreement and the Patent License Agreement.

1.6 Control. The term "Control" has the meaning set forth in the Patent License Agreement.

1.7 Design. The term "Design" has the meaning set forth in the Patent License Agreement.

1.8 Disputes. The term "Disputes" means any and every litigation, lawsuit, or similar proceeding pending between the Parties as of the Effective Date in any court, governmental body, or agency in any jurisdiction, including the Patent Litigation, the German Patent Litigation, the Italian Patent Litigation, the Antitrust Litigation, and the Patent Actions, and any and all disputes related thereto.

1.9 Effective Date. The term "Effective Date" has the meaning set forth in the introductory paragraph.

1.10 Excluded Entity. The term "Excluded Entity" means Broadcom Corporation, LSI Corporation, MediaTek Inc., SK hynix Inc., SK hynix America Inc., Hynix Semiconductor Manufacturing America Inc., SK hynix U.K. Ltd., SK hynix Deutschland, GmbH, Nanya Technology Corporation, Nanya Technology Corporation U.S.A., NVIDIA Corporation, Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Semiconductor, Inc., Samsung Austin Semiconductor, L.P., STMicroelectronics N.V., STMicroelectronics Inc. and any other Third Party (including the Affiliates of such Third Party) that is an adverse party to Rambus or its Subsidiaries in any lawsuit, litigation or other similar proceedings pending as of the Effective Date.

1.11 German Patent Litigation. The term "German Patent Litigation" means (a) the infringement action based on the German part of EP 0 525 068 and based on the German utility model DE 19 17 296.9 filed by Rambus Inc. against Micron Semiconductor (Germany) GmbH at the District Court Mannheim/Germany (Court docket 7 O 451/00) on August 31, 2000, which claim has been withdrawn on June 18, 2004 and April 28, 2006, respectively, (b) the infringement action based on the German part of EP 1 022 642, filed by Rambus Inc. against Micron Semiconductor (Deutschland) GmbH at the District Court Mannheim/Deutschland (Court docket 7 O 452/01) on August 9, 2001, which proceedings are stayed (decision dated July 29, 2002), and (c) the infringement suit based on the German part of EP 1 022 642 filed by Rambus Inc. against Micron Technology at the Administrative Court Karlsruhe/Deutschland (Court docket 6 K 2021/01), which proceedings have been continued with the District Court Mannheim/Germany (Court docket 7 O 131/02) and stayed (decision dated July 26, 2002) (the "value in dispute" for such decision has preliminarily been fixed to EUR 2.500.000 (decision dated March 3, 2003)).

1.12 Initial Payment. The term "Initial Payment" has the meaning set forth in the Patent License Agreement.

1.13 Italian Patent Litigation. The term "Italian Patent Litigation" means the matters entitled (a) *Micron Technology Inc. and Micron Technology Italia Srl v. Rambus Inc.*, Docket nos. 33560/01 and 61500/09, District Court of Milan (J. Bichi), and (b) *Micron Technology Inc. and Micron Technology Italia Srl v. Rambus Inc.*, Docket no. 18700/2011, Supreme Court.

1.14 Licensed Product. The term "Licensed Product" has the meaning set forth in the Patent License Agreement.

1.15 Micron. The term "Micron" has the meaning set forth in the introductory paragraph.

1.16 Micron Patents. The term "Micron Patents" has the meaning set forth in the Patent License Agreement.

1.17 Micron Product. The term "Micron Product" has the meaning set forth in the Patent License Agreement.

1.18 Party. The terms "Party" and "Parties" have the meanings set forth in the introductory paragraph.

1.19 Patent Actions. The term "Patent Actions" means all United States Patent and Trademark Office, all European Patent Office and all other governmental reexamination proceedings, oppositions, actions or challenges filed, requested or supported by Micron with respect to any Rambus Patents, and any appeals thereof, as of the Effective Date, including without limitation all such reexaminations and/or oppositions of U.S. Patent, European Patent and or other governmental Patent numbers.

1.20 Patent License Agreement. The term "Patent License Agreement" has the meaning set forth in Article 2.

1.21 Patent Litigation. The term "Patent Litigation" means the matters entitled *Micron Technology, Inc. v. Rambus Inc.*, No. 00-792 (D. Del. Filed Aug. 28, 2000) and *Rambus Inc.*

*v. Micron Technology, Inc., et al.*, No. C-06-00244 (N.D. Cal. Filed Jan. 13, 2006), and any appeals therefrom and related proceedings, including specifically the appeal in Micron Technology, Inc. v. Rambus, Inc., Federal Circuit No. 131294 ("Delaware Appeal").

1.22 Patents. The term "Patents" has the meaning set forth in the Patent License Agreement.

1.23 Rambus. The term "Rambus" has the meaning set forth in the introductory paragraph.

1.24 Rambus Patents. The term "Rambus Patents" has the meaning set forth in the Patent License Agreement.

1.25 Rambus Leadership Products. The term "Rambus Leadership Products" has the meaning set forth in the Patent License Agreement.

1.26 [***]

1.27 Subsidiary. The term "Subsidiary" has the meaning set forth in the Patent License Agreement.

1.28 Third Party. The term "Third Party" means with respect to a specified Party, or any Subsidiary of such specified Party, any entity that is not the specified Party or an Affiliate or Subsidiary of such specified Party.

**Article 2**

**Patent License Agreement**

Concurrent with the execution and delivery of this Agreement, and as an integral part of the overall consideration received by the Parties in respect of their respective releases, covenants not to sue, and other obligations under this Agreement, Rambus and Micron shall enter into the Patent License Agreement in the form attached hereto as Exhibit A (the "Patent License Agreement").

**Article 3**

**Releases**

Subject to the delivery of the Initial Payment in accordance with the Patent License Agreement, and the execution and delivery of the Patent License Agreement in accordance with Article 2 (for the avoidance of doubt, none of the Parties' releases, covenants not to sue, or other obligations under this Article 3 shall be effective until Rambus has received the full amount of the Initial Payment in accordance with the Patent License Agreement and the execution and delivery of the Patent License Agreement in accordance with Article 2):

3.1 Release by Rambus.

Effective upon Rambus' receipt of the Initial Payment as set forth in the Patent License Agreement, Rambus, on behalf of itself and its Subsidiaries, and its and their respective former and current agents, representatives, directors, officers, employees, predecessors,

successors, and attorneys (collectively, "Rambus Group") hereby irrevocably releases, acquits, and forever discharges Micron, its Subsidiaries, its and their respective former and current agents, representatives, directors, officers, employees, predecessors, successors, and attorneys (collectively, "Micron Group") from any and all claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind, [***], including but not limited to (i) any and all claims of any kind for infringement of the Rambus Patents arising from the manufacture, use, importation, exportation, sale or offer for sale of any products up until the Effective Date and (ii) any and all claims that were alleged or could have been alleged by Rambus Group in any Disputes.

3.2 Release by Micron.

Effective upon Rambus' receipt of the Initial Payment as set forth in the Patent License Agreement, Micron, on behalf of Micron Group, hereby irrevocably releases, acquits, and forever discharges Rambus Group from any and all claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action of any kind, known or unknown, suspected or unsuspected, that arise or arose from or relate in any way to any act of Rambus Group prior to the Effective Date, where such act gives or gave rise to a cause of action that Micron Group had standing to assert against Rambus Group, or against any other Person as to whom Rambus Group was then obliged by written agreement to indemnify, including but not limited to (i) any and all claims of any kind for infringement of the Micron Patents arising from the manufacture, use, importation, exportation, sale or offer for sale of any Design up until the Effective Date and (ii) any and all claims that were alleged or could have been alleged by Micron Group in any Disputes.

3.3 Releases Shall Remain Effective. Each of Rambus and Micron acknowledges that, after entering into this Agreement, they may discover facts different from, or in addition to, those they now believe to be true with respect to the conduct of the other Party. Each of Rambus and Micron intends that the releases and discharges set forth in this Article 3 shall be, and shall remain, in effect in all respects as written, notwithstanding the discovery of any different or additional facts.

3.4 Waiver of California Civil Code § 1542. In connection with the releases and discharges described in this Article 3, each of Rambus and Micron acknowledges that it is aware of the provisions of section 1542 of the Civil Code of the State of California, and hereby expressly waives and relinquishes all rights and benefits that it has or may have had under that section (or any equivalent law or rule of any other jurisdiction), which reads as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

3.5 [***]

Rambus, on behalf of itself and its Subsidiaries, hereby covenants not to assert any claims of infringement of the Rambus Patents against Micron's distributors and customers or against Micron's Subsidiaries' distributors and customers solely arising from the use,

importation, sale or offer for sale up until the Effective Date of any Micron Products.

3.6 Certain Exclusions. For the avoidance of doubt:

(a) The releases and covenants not to sue contained in this Article 3 shall apply solely to (i) the activities occurring prior to the Effective Date of each of the Parties, (ii) the activities occurring prior to the Effective Date of each of the Parties' respective Subsidiaries existing on or prior to the Effective Date [***]. In no event shall the releases and covenants not to sue contained in this Article 3 apply to the activities, whether occurring prior to or after the Effective Date, of (1) any Third Party with or into which a Party merges or combines, whether or not such Party remains the surviving entity, or (2) any Third Party and/or portion of the assets of any business of a Third Party that may be acquired by a Party, through merger (including reverse triangular merger), acquisition of stock, acquisition of assets or otherwise, in each case, after the Effective Date.

(b) The releases and covenants not to sue contained in this Article 3 are not intended to and do not extend to any Excluded Entity.

3.7 Dismissals and Other Provisions Terminating the Disputes.

(a) [***], Micron and Rambus, through their respective counsel, shall take all necessary and permissible actions to obtain dismissal with prejudice of all claims, counterclaims, cross-claims and cross-complaints asserted against one another and/or one another's Subsidiaries in the Patent Litigation and the Antitrust Litigation and the withdrawal or dismissal with prejudice of all appeals therefrom. Such dismissals are final and not appealable.

(b) [***]. Both Parties shall, [***], withdraw or discontinue any formal or informal complaints, requests, petitions, actions, or other proceedings they may have pending against the other Party or its Subsidiaries before any court or regulatory body anywhere in the world related to the claims, counterclaims, demands, damages,
debts, liabilities, accounts, actions and causes of action released by this Agreement or that relate in any way to the Rambus Patents or the Micron Patents. For the avoidance of doubt, this provision (i) requires Micron to withdraw and discontinue the German Patent Litigation, (ii) requires the Parties, through their respective counsel, to withdraw the Italian Patent Litigation by executing, delivering and submitting such documents as may be necessary to dismiss those cases, and (iii) does not require Rambus to withdraw any complaint or other proceeding as against parties other than Micron or its Subsidiaries.

(c) [***], Micron shall, to the full extent permitted by applicable law, withdraw, cease to prosecute or pursue and notify the U.S. Patent and Trademark Office, the European Patent Office, and/or other applicable governmental agency, that it no longer intends to participate in, the Patent Actions.

(d) The Parties and their counsel shall cooperate in good faith to effect the dismissals and withdrawals required by Sections 3.7(a), (b), and (c) herein.

3.8 Costs and Attorneys' Fees. For any and all cases, lawsuits, proceedings, Disputes and Patent Actions, including but not limited to the Patent Litigation, German Patent Litigation, the Italian Patent Litigation and the Antitrust Litigation, the Parties agree that each will pay its own costs and attorneys' fees and that neither will file requests for costs or fees or otherwise seek to recover its fees and/or costs. Without limiting the foregoing, Micron shall not seek to recover any costs previously awarded to it in the Antitrust Litigation. Any bills of costs, judgments or other requests previously filed or awarded in such cases that have not yet been paid including without limitation the judgment for costs awarded to Micron in the Antitrust Litigation shall be withdrawn or vacated.

3.9 No Admission. Nothing contained in any of the Comprehensive Resolution Agreements, or done or omitted in connection with any of the Comprehensive Resolution Agreements, is intended as, or shall be construed as, an admission by any Party of any fault, liability or wrongdoing.

3.10 No Further Actions. During the Initial Term-Product License Period (as defined in the Patent License Agreement) and each Term-Product License Renewal Period (as defined in the Patent License Agreement) , if any, and as part of the settlement of claims and releases contemplated by this Agreement, during the term of the Patent License Agreement, and in each case unless and to the extent required by court order, summons, subpoena or judicial or regulatory agency order or rule:

(a) Micron covenants not to bring, or aid, assist or participate in, any action or proceeding challenging or contesting the assertion, enforcement, validity or enforceability of, or any use or infringement by any Third Party of, the Rambus Patents, including but not limited to filing, requesting, participating or assisting in any of the Patent Actions, provided that, notwithstanding the foregoing, Micron may assist (e.g., provide prior art and/or non-infringement analyses to) each Third Party to whom Micron has distributed or sold a Micron Product before the Effective Date or a Licensed Product during the term of the license associated with such Licensed Product as set forth in the Patent License Agreement, in its defense of any claim of a Rambus Patent asserted against such Third Party by Rambus to the extent that Micron is obligated to provide such Third Party with such assistance pursuant to an indemnification provision;

(b) [***]; and

(c) Each Party covenants not to (i) file or bring a complaint against, or formally or informally request or urge investigation of, the other Party or any of its Subsidiaries before any regulatory body, or (ii) support, cooperate with or otherwise assist any Third Party in any dispute against the other Party or any of its Subsidiaries, or any regulatory body in any proceeding involving the other Party or any of its Subsidiaries, in each case in any matter related to the claims, counterclaims, defenses, demands, damages, debts, liabilities, accounts, actions and causes of action released by this Agreement, including but not limited to filing, requesting, participating or assisting in any United States, European, or other patent office reexamination proceedings, actions, challenges, oppositions or interferences with respect to Patents of the other Party or any of its Subsidiaries, and filing *amicus curiae* briefs in the Patent Litigation, the Antitrust Litigation, or any other Dispute.

**Article 4**

**Warranties**

Each Party represents, warrants and covenants, on behalf of itself and its Subsidiaries, to the other Party during the term of this Agreement:

4.1 Due Incorporation. Such Party is duly incorporated, validly existing and in good standing under the laws of its jurisdiction of formation with the requisite corporate authority to own and use its properties and assets and to carry on its business as currently conducted.

4.2 Due Authorization; Enforceability. Such Party has the requisite corporate or other authority to enter into, and to grant the releases and discharges, make the covenants, and consummate the transactions contemplated by, this Agreement, on behalf of itself and its Subsidiaries, and otherwise to carry out its and its Subsidiaries' obligations hereunder. The execution, delivery and performance of this Agreement by such Party and its Subsidiaries has been duly authorized by all necessary action of such Party and its Subsidiaries, and no other act or proceeding on the part of or on behalf of such Party and its Subsidiaries is necessary to approve the execution and delivery of this Agreement, the performance by such Party and its Subsidiaries of their obligations hereunder and the consummation of the transactions contemplated hereby. This Agreement has been duly executed and delivered by such Party and constitutes a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium and similar laws relating to or affecting creditors generally, by general equity principles or by limitations on indemnification pursuant to public policy.

4.3 No Conflicts; No Consents. The execution, delivery and performance of this Agreement by such Party and its Subsidiaries, including but not limited to the granting of the releases and discharges contemplated hereby, will not infringe any law, regulation, judgment or order applicable to such Party and its Subsidiaries and is not and will not be contrary to the provisions of the constitutional documents of such Party and its Subsidiaries and will not (with or without notice, lapse of time or both) result in any breach of the terms of, or constitute a default under, any instrument or agreement to which such Party and its Subsidiaries is a party or by which it or its property is bound. All consents and approvals of any court, government agencies or other regulatory body required by such Party and its Subsidiaries for the execution, delivery and performance of the terms of this Agreement have been obtained and are in full force and effect.

4.4 No Assignment of Claims. Each Party represents and warrants that it has not assigned, transferred or granted to any Third Party any rights or interests with respect to any claim or cause of action, or any right(s) underlying any claim or cause of action, it had, has, or may have against the other or its Subsidiaries as of, or prior to, the Effective Date of this Agreement.

4.5 Micron Electronics, Inc. Micron represents and warrants that Micron Electronics, Inc. is not a Subsidiary of Micron.

**Article 5**

**Notices and other Communications**

5.1 All notices or other communication required or permitted hereunder shall be in writing and shall be (a) mailed by first class air mail (registered or certified if available), postage prepaid, or otherwise delivered by hand, by messenger, addressed to the addresses set forth below, or (b) delivered by facsimile to the facsimile number set forth below. Each Party may change its address or facsimile number for notices by providing a notice to the other Party in the manner set forth herein. Such notices shall be deemed to have been effective when delivered or, if delivery is not accomplished by reason of some fault or refusal of the addressee, when tendered (which tender, in the case of mail, shall be deemed to have occurred upon posting, and in the case of facsimile, shall be deemed to have occurred upon transmission). All notices shall be in English.

If to Micron:

Micron Technology, Inc.
8000 S. Federal Way
Boise, Idaho 83716-9632
Telephone: 208-368-4500
Facsimile: 208-368-4540 Attention: General Counsel

If to Rambus:

Rambus Inc.
1050 Enterprise Way, Suite 700
Sunnyvale, CA 94089
Telephone: 408-462-8000
Facsimile: 408-462-8001
Attention: General Counsel

(with a copy, which shall not constitute notice, to the following:) Satish Rishi
Chief Financial Officer
Rambus Inc.
4440 El Camino Real Los Altos, CA 94022
Telephone: 408-462-8000
Facsimile: 408-462-8001

**Article 6**

**Successors and Assigns**

6.1 Subject to the limitation in Section 3.6 and 8.5, this Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective heirs, successors and assigns, and upon any corporation, limited liability partnership, limited liability company, or other entity into or with which any Party hereto may merge, combine or consolidate. For the avoidance of doubt, this provision does not govern the rights or obligations of successors or assigns of the Parties under the Patent License Agreement. The releases, dismissals and covenants granted by each Party and its Subsidiaries under this Agreement (but not any benefits received by such Party or its Subsidiaries under this Agreement) shall run with (a) in the case of Micron, the Micron Patents or (b) in the case of Rambus, the Rambus Patents, and remain in full force and effect regardless of any subsequent assignment, sale or other transfer of any such Micron Patents or Rambus Patents or any rights or interests therein. Any such assignment, sale, or transfer of rights in contravention of the foregoing shall be null and void *ab initio* and of no force or effect.

**Article 7**

**Dispute Resolution**

7.1 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to any choice-of-law or conflict-of-law provision or rule (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

7.2 English Language. This Agreement is executed in the English language and no translation shall have any legal effect.

7.3 Jurisdiction and Venue. Any legal action, suit or proceeding arising under, or relating to, this Agreement, shall be brought in State or Federal Courts located in the State of Delaware, and each Party agrees that any such action, suit or proceeding may be brought only in such courts. Each Party further waives any objection to the laying of jurisdiction and venue for any such suit, action or proceeding in such courts.

**Article 8**

**Miscellaneous**

8.1 Entire Agreement. This Agreement and the Patent License Agreement embody the entire understanding of the Parties with respect to the subject matter hereof, and merges all prior oral or written communications between them, and neither of the Parties shall be bound by any conditions, definitions, warranties, understandings, or representations with respect to the

subject matter hereof other than as expressly provided herein.

8.2 Relationship of the Parties. Nothing contained in this Agreement or the Patent License Agreement shall be construed as creating any association, partnership, joint venture or the relation of principal and agent between Rambus and Micron. Each Party is acting as an independent contractor, and no Party shall have the authority to bind any other Party or its representatives in any way.

8.3 Headings and Recitals. The headings of the several articles and sections are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement. The recitals to this Agreement are intended to be a part of and affect the meaning and interpretation of this Agreement.

8.4 Modification; Waiver. No modification or amendment to this Agreement, nor any waiver of any rights, will be effective unless assented to in writing by the Party to be charged, and the waiver of any breach or default will not constitute a waiver of any other right hereunder or any subsequent breach or default.

8.5 No Assignment. This Agreement is personal to the Parties, and the Agreement and/or any right or obligation hereunder is not assignable, whether in conjunction with a change in ownership, merger, acquisition, the sale or transfer of all, or substantially all or any part of either Party's or any of their respective Subsidiaries' business or assets or otherwise, voluntarily, by operation of law, reverse triangular merger or otherwise, without the prior written consent of the other Party, which consent may be withheld at the sole discretion of such other Party. Each Party understands that, as a condition to such consent, the other Party may require it to convey, assign or otherwise transfer its rights and obligations under the other Comprehensive Resolution Agreements to the entity assuming such Party's rights and obligations under this Agreement. Any such purported or attempted assignment or transfer in violation of the foregoing shall be deemed a breach of this Agreement and shall be null and void. Notwithstanding the foregoing, either Party shall be entitled to, and each Party hereby agrees to, assign this Agreement to a successor to all or substantially all of a Party's assets in a transaction entered into solely to change a Party's place of incorporation.

8.6 Interpretation. Each Party confirms that it and its respective counsel have reviewed, negotiated and adopted this Agreement as the agreement and understanding of the Parties hereto and the language used in this Agreement shall be deemed to be the language chosen by the Parties hereto to express their mutual intent. Regardless of which Party may have drafted this Agreement or any part thereof, no rule of strict construction shall be applied against either Party. For the avoidance of doubt "includes", "including", "included", and other variations of such terms shall be deemed to be followed by the phrase "without limitation".

8.7 No Third Party Beneficiaries. Unless otherwise expressly stated herein, nothing in this Agreement, express or implied, is intended to confer upon any person other than the Parties hereto or their respective permitted assignees, successors in interest, and Subsidiaries any rights or remedies under or by reason of this Agreement. The former and current agents, representatives, directors, officers, employees, and attorneys of the Parties and their Subsidiaries are intended beneficiaries of Sections 0, 0, 0, 3.4, and 3.5.

8.8 Severability. If any provision of any Comprehensive Resolution Agreement is held to be invalid or unenforceable, the meaning of such provision shall be construed, to the extent feasible, so as to render the provision enforceable and to effectuate the intent and purpose of the Parties with respect to such invalid or unenforceable provision, and if no feasible interpretation shall save such provision, (a) a suitable and equitable provision shall be substituted therefor in order to effectuate, so far as may be valid and enforceable, the intent and purpose of the Parties with respect to such invalid or unenforceable provision, and (b) the remainder of such Comprehensive Resolution Agreement shall remain in full force and effect.

8.9 Counterparts; Facsimile Transmission. This Agreement may be executed in two (2) or more counterparts, all of which, taken together, shall be regarded as one and the same instrument. Each Party may rely on facsimile or .pdf signature pages as if such facsimile or .pdf pages were originals.

8.10 Bankruptcy Code. All rights, licenses, privileges, releases, and immunities granted under this Agreement shall be deemed to be, for the purposes of Section 365(n) of the U.S. Bankruptcy Code, as amended (the "Bankruptcy Code"), licenses of rights to "intellectual property" as defined under Section 101(35A) of the Bankruptcy Code. The Parties agree that each of the Parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code. [***].

8.11 Further Actions. Each of the Parties hereto agrees to take and cause its Subsidiaries to take any and all actions reasonably necessary in order to effectuate the intent, and to carry out the provisions, of this Agreement.

8.12 Public Disclosures and Confidentiality. The Parties shall issue a press release with respect to the Comprehensive Resolution Agreement in a mutually acceptable form. Each Party agrees that, after the issuance of such press release, each Party shall be entitled to disclose the general scope and nature of this Agreement, but that the terms and conditions of this Agreement, to the extent not already disclosed pursuant to such press release, shall be treated as confidential information and that neither Party will disclose such terms or conditions to any Third Party without the prior written consent of the other Party, provided, however, that each Party may disclose the terms and conditions of this Agreement:

(a) as required by any court or other governmental body;

(b) as otherwise required by law;

(c) as otherwise may be required by applicable securities and other law and regulation, including to legal and financial advisors in their capacity of advising a party in such matters, so long as the disclosing Party shall seek confidential treatment of such terms and conditions to the extent reasonably possible;

(d) to legal counsel, accountants, and other professional advisors of the Parties;

(e) in confidence, to banks, investors and other financing sources and their advisors;

(f) in connection with the enforcement of this Agreement or rights under this Agreement;

(g) during the course of litigation so long as the disclosure of such terms and conditions are restricted in the same manner as is the confidential information of other litigating parties and so long as (i) the restrictions are embodied in a court-entered protective order limiting disclosure to outside counsel and (ii) the disclosing party informs the other party in writing at least ten (10) business days in advance of the disclosure and discusses the nature and contents of the disclosure, in good faith, with the other party (for purposes of this provision, the Protective Order entered in the Antitrust Litigation is acceptable, as long as the disclosure is designated as both "Highly Confidential-BP and Highly Confidential-IP");

(h) in confidence, in connection with an actual or prospective merger or acquisition or similar transaction; or

(i) in confidence, in connection with a Party's obligation(s) under any most favored nation, or similar clause, whereby such Party is contractually obligated to disclose and offer terms given to Third Parties.

In addition, upon execution of this Agreement, or thereafter, Rambus, in its discretion, shall be entitled to file a copy of this Agreement with the U.S. Securities and Exchange Commission, so long as Rambus seeks confidential treatment of such agreement to the extent reasonably possible. In addition, [***].

IN WITNESS WHEREOF, this Agreement has been duly and executed and delivered by the duly authorized officers of the Parties hereto as of the date first written above.

RAMBUS INC.

By: /s/ Kevin Donnelly
Name: Kevin Donnelly

MICRON TECHNOLOGY, INC.

By: /s/ Brian M. Shirley
Name: Brian M. Shirley

MICRON SEMICONDUCTOR PRODUCTS, INC.

By: /s/ Thomas L. Laws Jr.
Name: Thomas L. Laws Jr.

MICRON TECHNOLOGY ITALIA, SRL

By: /s/ Thomas L. Laws Jr.
Name: Thomas L. Laws Jr.

MICRON SEMICONDUCTOR (DEUTSCHLAND) GMBH

By: /s/ Thomas L. Laws Jr.
Name: Thomas L. Laws Jr.

**EXHIBIT A**

**PATENT LICENSE AGREEMENT**

*SEMICONDUCTOR PATENT LICENSE AGREEMENT*

Incorporated by reference to Exhibit 10.16 to the Annual Report on Form 10-K for the fiscal year ended December 31, 2013

**Exhibit 10.16**

**CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [***] INDICATES THAT INFORMATION HAS BEEN REDACTED.**

# SEMICONDUCTOR PATENT LICENSE AGREEMENT

This SEMICONDUCTOR PATENT LICENSE AGREEMENT ("Agreement") is effective as of December 1, 2013 ("Effective Date") by and between Rambus Inc., a corporation duly organized and existing under the laws of Delaware, U.S.A., having its principal place of business at 1050 Enterprise Way, Suite #700, Sunnyvale, California 94089, U.S.A., (hereinafter "Rambus") and Micron Technology, Inc., a corporation duly organized and existing under the laws of Delaware, U.S.A., having its principal place of business at 8000 S. Federal Way, Boise, Idaho 83716, U.S.A., (hereinafter "Micron"). Micron and Rambus shall be referred to herein individually as a Party, and collectively as the Parties.

**WHEREAS,** Rambus and Micron are currently parties to a number of disputes, including, but not limited to, the Antitrust Litigation and disputes relating to Rambus Patents;

**WHEREAS**, the Parties recognize that litigation of such disputes is inherently uncertain, and is subject to certain risks and to various possible outcomes, some of which may be more favorable to Rambus, and some of which may be more favorable to Micron;

**WHEREAS**, concurrent with the execution and delivery of this Agreement, the Parties have entered into a Settlement Agreement (the "Settlement Agreement") to eliminate the risks associated with such litigation and to enter into a comprehensive resolution to compromise, settle and release certain existing claims and disputes between them, and to resolve and avoid other disputes that may arise after the Effective Date;

**WHEREAS**, as part of such comprehensive resolution, the Parties have agreed to enter into this Agreement; and,

**WHEREAS**, because this Agreement is part of such comprehensive resolution, the Parties acknowledge that it is essential that their respective obligations under this Agreement be certain and not subject to collateral attack, or otherwise subject to change or modification except on the terms expressly set forth herein.

**NOW, THEREFORE**, in consideration of the mutual covenants and premises contained herein, and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the Parties, the Parties, on behalf of themselves and of each of their respective Subsidiaries, agree as follows:

**1. Definitions**

1.1 "Acquired Business" means (a) a Third Party, (b) substantially all of the business or assets of a Third Party, (c) any business unit and/or product line of a Third Party, or (d) substantially all of the business and assets used by a Third Party in connection with a Qualified Product Line, that either Party or any of its Subsidiaries acquires in an Acquisition.

1.2 "Acquisition" means, as to a Party, a transaction or a series of related transactions in which such Party acquires, through merger (including reverse triangular merger), acquisition of stock, acquisition of assets or otherwise, (i) the Control of a Third Party, (ii) ownership of substantially all of the assets or business of a Third Party, (iii) ownership of any business unit and/or product line of a Third Party, or (iv) ownership of substantially all of the business and assets used by a Third Party in connection with a Qualified Product Line.

1.3 "Acquisition Date" means the closing date of any Acquisition.

1.4 "Acquisition Products" means DRAMs, DRAM Controllers, SerDes ICs, Resistive RAMs, and RAM Flash Memories.

1.5 "Affiliate" means, for an identified entity, any other entity that (a) is a Subsidiary of such identified entity or (b) Controls or is under common Control with such identified entity, but only for so long as such Control exists.

1.6 "Antitrust Litigation" means the matter entitled *Rambus Inc. v. Micron Technology Inc.* , No. 04-431105 (Sup. Ct. Cal., San Fran. Filed May 5, 2004).

1.7 "Change of Control" as applied to any specified entity means a transaction or a series of related transactions in

which (a) a Third Party or Related Parties who did not previously Control such entity obtain(s) Control of such entity, or (b) such entity merges with or transfers substantially all of its assets to a Third Party and the shareholders of such entity immediately before the transaction or series of related transactions own less than a fifty percent (50%) interest in the acquiring or surviving entity immediately after the transaction or series of related transactions.

1.8 "Component" means any product comprised of one or more Integrated Circuits physically connected, stacked, or attached to a unitary substrate, directly, or through supporting material such as silicon interposers, or the like, or other Integrated Circuit where all other elements of such product operate primarily to provide physical support, packaging and/or connectivity with respect to such Integrated Circuits. Examples of Components include DIMMs, SIMMs and other modules, and cards, multi-chip packages (MCP), system-on-chip, system-in-package, system-on-insulator, solid state storage devices, and other form factors.

1.9 "Control" (including "Controlled" and other forms) of an entity means (a) beneficial ownership (whether directly or indirectly through entities or other means) of more than fifty percent (50%) of the outstanding voting securities of that entity or (b) in the case of an entity that has no outstanding voting securities, having (whether directly or indirectly) more than fifty percent (50%) of the power to direct the management and control of such entity.

1.10 "CRI" means Cryptography Research, Inc., a Subsidiary of Rambus.

1.11 "CRI Patents" means Patents of CRI or its Subsidiaries.

1.12 "Custom Memory IC" means each Memory IC that substantially implements the minimum set of features, parameters, and protocols defined in a Technical Specification developed by Micron for a specific customer, by such specific customer, or jointly by Micron and such specific customer, in each case where such Memory IC is Sold by Micron or a Subsidiary of Micron as a Micron Product solely to such customer.

1.13 "DDR DRAM" means each double data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for DDR DRAM, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x4, x8, x16, and/or x32.

1.14 "DDR Mobile RAM" means each lowpower DDR DRAM.

1.15 "DDR2 DRAM" means each double data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for DDR2 DRAM, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x4, x8, x16 and/or x32.

1.16 "DDR2 Mobile RAM" means each lowpower DDR2 DRAM.

1.17 "DDR3 DRAM" means each double data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for DDR3 DRAM, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x4, x8, x16 and/or x32.

1.18 "DDR4 DRAM" means each double data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for DDR4 DRAM, (b) is solely capable of communicating with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x4, x8, x16 and/or x32.

1.19 "Design" means any human or machine readable representation of a design, such as a circuit layout in a drawing or a register transfer level description (RTL) file, for any product.

1.20 "DRAM" means a randomaccess Memory IC which requires periodic refresh for the maintenance of the bits stored within its memory cells at least every ten (10) seconds, and which does not guarantee said bits to be retained within the memory cells when they cease to receive electrical power. The term "DRAM" shall not include RAM Flash Memory or Resistive RAM.

1.21 "DRAM Controller" means any Integrated Circuit having circuitry integrated thereon or contained therein that is capable through an Interface of transmitting and/or receiving data from a DRAM.

1.22 "Effective Date" has the meaning assigned in the first paragraph of this Agreement.

1.23 "Elpida" means Elpida Memory, Inc., a Subsidiary of Micron, and also known as Micron Memory Japan, Inc.

1.24 "Elpida Patent License Agreement" means that certain Memory Products Patent License Agreement entered into by and between Rambus and Elpida as of January 1, 2010, as amended by that certain Amendment No. 1 to Memory Products Patent License Agreement dated August 12, 2012 and that certain Amendment No. 2 to Memory Products Patent License Agreement dated September 14, 2013.

1.25 "Elpida Technology License Agreement" means that certain Direct Rambus DRAM Semiconductor Technology License Agreement entered into by and between Rambus and Elpida as of the later of (a) May 26, 2006 or (b) the date upon which Elpida became an Ultimate Parent Entity (as such term is defined in such agreement) and provided Rambus with written notice thereof in accordance with Section 9.3 of such agreement.

1.26 "Elpida XDR License Agreement" means that certain Yellowstone DRAM Semiconductor Technology License Agreement entered into by and between Rambus and Elpida effective as of March 18, 2003.

1.27 "Existing Rambus Agreement" has the meaning assigned in Section 5.2(b).

1.28 "Expiration Date" means the seventh (7th) anniversary of the Effective Date.

1.29 "Former Subsidiary" has the meaning assigned to it in Section 4.2.

1.30 "GDDR DRAM" means each graphics double date rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for GDDR DRAM, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x16 and x32.

1.31 "GDDR2 DRAM" means each graphics double date rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for GDDR2 DRAM, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x16 and x32.

1.32 "GDDR3 DRAM" means each graphics double date rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for GDDR3 DRAM, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x16 and x32.

1.33 "GDDR4 DRAM" means each graphics double data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for GDDR4 DRAM, (b) is solely capable of communicating with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer

rate exceeding [***] or (ii) with data bit width other than x16 and x32.

1.34 "GDDR5 DRAM" means each graphics double data rate DRAM that (a) substantially implements those interface features, parameters, and protocols in the same manner in all material respects as the DRAM Sold by Micron or its Subsidiaries on or before the Effective Date as "GDDR5 DRAM" or implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for GDDR5 DRAM, (b) contains features enabling communication with any other Integrated Circuit either, prior to the publication of such Technical Specification, through the protocol contained in such DRAM Sold by Micron or its Subsidiaries on or before the Effective Date as "GDDR5 DRAM" or, after the publication of such Technical Specification, in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with a data bit width other than x16 and x32.

1.35 "Hybrid Memory Cube 1.X DRAM" means each DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by the Hybrid Memory Cube Consortium as HMC Specification 1.X, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating at a data transfer rate exceeding [***].

1.36 "Hybrid Memory Cube 2.X DRAM" means each DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined or recommended in any Technical Specification published by the Hybrid Memory Cube Consortium as HMC Specification 2.X, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating at a data transfer rate exceeding [***].

1.37 "IMFT" means IM Flash Technologies, LLC, a Micron Joint Venture that is jointly owned by Micron and Intel Corporation.

1.38 "Indirect Infringement" means any form of patent infringement where the accused infringer is not directly infringing the subject patent right(s), but who contributes to or induces the direct infringement of the subject patent right(s) by a Third Party by, for example (without limitation), and with knowledge of the subject patent right(s) alleged to be infringed, supplying designs, parts or instructions to the Third Party that enable such Third Party to infringe directly the subject patent right(s).

1.39 "Industry Standards Setting Body" means any industry standards setting organization (e.g., a collection of companies that cooperate, under contract or applicable law, in the drafting and publication of a Technical Specification that is intended, if implemented, to increase the compatibility between various products), including, but not limited to, JEDEC and the Hybrid Memory Cube Consortium, that publishes for industry adoption one or more Technical Specifications that define a minimum set of features, parameters and protocols for one or more Interfaces for Memory ICs.

1.40 "Initial PaidUp Product" means each Micron Product that is an SDR DRAM, DDR DRAM, DDR2 DRAM, DDR3 DRAM, GDDR DRAM, GDDR2 DRAM, GDDR3 DRAM, GDDR4 DRAM, GDDR5 DRAM, LPSDR DRAM, LPDDR DRAM, LPDDR2 DRAM, LPDDR3 DRAM, RLDRAM, DDR Mobile RAM, DDR2 Mobile RAM, Wide I/O Mobile DRAM, and Hybrid Memory Cube 1.X DRAM. Notwithstanding the foregoing sentence, any product that constitutes a Rambus Leadership Product shall be deemed not to be an Initial Paid-Up Product.

1.41 "Initial PaidUp Product License" means the rights and licenses granted pursuant to Section 2.1(b).

1.42 "Initial Payment" has the meaning assigned to it in Section 5.1(a).

1.43 "Initial TermProduct License Period" means the period of time that starts on the Effective Date and ends on the earlier of (a) the Expiration Date or (b) the date, if any, on which the Term-Product License is terminated.

1.44 "Initial TermProduct License Renewal Period" has the meaning assigned to it in Section 7.1(d).

1.45 "Inotera" means Inotera Memories, Inc. (華亞科技股份有限公司), a company incorporated under the laws of the Republic of China.

1.46 "Integrated Circuit" means a single, discrete integrated circuit chip, whether in wafer, singulated die or packaged die form. For clarity, the term "Integrated Circuit" specifically excludes any substrate on which or to which such integrated circuit chip in packaged form may be physically attached.

1.47 "Interface" means an electrical, optical, RF, mechanical, or software data path that is capable of conveying information between two or more (a) Integrated Circuits or (b) portions of an Integrated Circuit, in each case together with the set of protocols defining the electrical, physical, timing and/or functional characteristics, sequences and/or control procedures of such data path.

1.48 "JEDEC" means the JEDEC Solid State Technology Association, originally known as the Joint Electron Device Engineering Council, a nonstock corporation organized and existing under the laws of the Commonwealth of Virginia. The term "JEDEC" shall include any Industry Standards Setting Body that displaces or replaces JEDEC as the entity primarily responsible for the publication of Technical Specifications formerly published by JEDEC with respect to any Memory IC or any other product.

1.49 "JEDEC Minor Update" means a Technical Specification published by JEDEC that (a) updates or revises any Technical Specification that was published by JEDEC as of the Effective Date, (b) corrects, clarifies, or enhances such previously published Technical Specification without adding any significant new features or functionality to such Technical Specification, and (c) in no way reduces interoperability between and among any versions of such Technical Specification (e.g., JEDEC's LPDDR3E Technical Specification is a JEDEC Minor Update to JEDEC's LPDDR3 Technical Specification.)

1.50 "[***] Acquisition Products" has the meaning assigned to it in Section 5.2(b).

1.51 "Licensed Product" means, individually, a given Term Product, a given Initial PaidUp Product, or a given Subsequent PaidUp Product; "Licensed Products" means, collectively, each Term Product, each Initial PaidUp Product, and each Subsequent Paid Up Product.

1.52 "LPDDR DRAM" means each lowpower double data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for LPDDR DRAM, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x8, x16 and/or x32.

1.53 "LPDDR2 DRAM" means each lowpower double data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for LPDDR2 DRAM, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x8, x16 and/or x32.

1.54 "LPDDR3 DRAM" means each lowpower double data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for LPDDR3 DRAM, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x8, x16 and/or x32.

1.55 "LPDDR4 DRAM" means each lowpower double data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for LPDDR4 DRAM, (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x8, x16 and/or x32.

1.56 "LPSDR DRAM" means each lowpower SDR DRAM.

1.57 "Memory IC" means any Integrated Circuit that is configured to store bits of data in memory cells within a memory array and that has as its primary purpose the storage and retrieval of such electronic data. For clarity, a Memory IC shall include any logic functions on such Integrated Circuit necessary for such storage and retrieval.

1.58 "Memory Module" means a Component that has as its primary purpose the storage and retrieval of electronic data.

1.59 "Micron Applicable Patent Claims" are defined and determined separately for each specific product. For each such product, a Micron Applicable Patent Claim means each claim of a Micron Patent that, absent a license, is [***] infringed by the making (including having made), use, Sale, offer for Sale or importation of such product, in each case, on a stand-alone basis and not in combination with any other circuits, products or components.

1.60 "Micron JV Partner" means any Third Party(ies) with whom Micron or a Micron Subsidiary owns a joint venture entity that is directly or indirectly at least twenty-five percent (25%) owned by Micron or by a Micron Subsidiary, and whereby such joint venture entity is subject to one or more joint venture agreements by and among the joint venture entity, Micron, and at least one of the other such Third Party(ies) setting forth the ongoing governance and operating relationships regarding such joint venture entity.

1.61 "Micron Joint Venture" means any entity owned by Micron or by a Subsidiary of Micron, in combination with one or more Micron JV Partners.

1.62 "Micron Patents" means Patents of Micron and Patents of its Subsidiaries.

1.63 "Micron Product" means any product Sold by Micron or by a Micron Subsidiary under a Micron Trademark, and for which Micron or any of its Subsidiaries either:

(a) owns or co-owns the entire design of such product and are free to set the price and other terms with respect to such product and not subject to limitation on how it may use and exploit such design except for field of use limitations agreed at arms-length with one or more JV Partners; or,

(b) owns, or co-owns, only a portion of the entire design of such product with no limitations on how it may use and exploit such portion and where, with respect to the remaining portion(s) of such design, (i) Micron or any of its Subsidiaries has a license from the entity or entities that own(s) such remaining portion(s) of the design to (A) make (and/or have made) such remaining portion(s) as embodied in such product and (B) Sell such made (or have made) remaining portion(s) as embodied in such product without restriction as to whom Micron and/or its Subsidiaries may Sell such remaining portion(s) as embodied in such product and (ii) Micron and/or its Subsidiaries are free to set the price and other terms with respect to such remaining portion(s) as embodied in such product; or,

(c) has a license from the entity or entities that own(s) the entire design of such product to (i) make (and/or have made) such product and (ii) Sell such made (or have made) product without restriction as to whom Micron and/or its Subsidiaries may Sell such product and Micron and/or its Subsidiaries are free to set the price and other terms with respect to such product.

[***]

1.64 "Micron Trademark" means a trademark, trade name, logo or other indicia of origin of Micron or Micron Subsidiaries.

1.65 "Net Sales" means, for a given Quarter and for one or more given products, the gross amount received in such Quarter from Third Parties by Micron and/or by one or more of its Subsidiaries for the Sale of such products anywhere in the world by Micron and/or its Subsidiaries, less (a) amounts credited in such Quarter for returns of such products by Third Parties to Micron and (b) insurance, handling, duty, freight and taxes where such items are separately invoiced to and paid for by a Third Party. Where a product is transferred by Micron through one or more Subsidiaries for Sale to a Third Party, Net Sales shall be calculated only on the Sale to such Third Party, except as otherwise provided herein.

1.66 "New Subsidiaries" has the meaning assigned to it in Section 4.1.

1.67 "Patents" means, with respect to an identified entity, patents and utility models and applications therefor, including,

without limitation, all continuations, continuations-in-part and divisionals thereof, in all countries of the world that now or hereafter are (a) owned or controlled by such entity and/or one or more of its Subsidiaries and/or (b) otherwise licensable by such entity and/or one or more of its Subsidiaries, in each case of (a) and (b) where such entity and/or one or more of its Subsidiaries have the right to grant the licenses, sublicenses or other rights and covenants of the scope granted herein.

1.68 "Qualified Product Line" means a portion of a business transferred by a Third Party to a Party in an Acquisition**, [***]**

1.69 "Quarter" shall mean each successive period of three consecutive calendar months (the first of which begins on the Effective Date).

1.70 "Quarterly Payment" has the meaning ascribed to such term in Section 5.1(b).

1.71 "Quarterly Payment Cap" has the meaning assigned to it in Section 5.1(b).

1.72 "Quarterly Payment Cap Increase" has the meaning assigned to it in Section 5.2(a).

1.73 "RAM Flash Memory" means a Memory IC that (a) stores bits of data in memory cells by storing charges within a transistor, (b) is capable of retaining, for more than 10 seconds, data stored in such memory cells when they cease to receive electrical power, (c) has an Interface which is capable of transferring data in a synchronous fashion relative to both the rising and falling edges of a timing signal, such as a clock or strobe, and (d) has an Interface over which commands, operation codes, and addresses are transferred primarily by one or more buses that are separate from the data bus.

1.74 "Rambus Applicable Patent Claims" are defined and determined separately for each specific product. For each such product, a Rambus Applicable Patent Claim means each claim of a Rambus Patent that, absent a license, is [***] infringed by the making (including having made), use, Sale, offer for Sale or importation of such product, in each case, on a stand-alone basis and not in combination with any other circuits, products or components.

1.75 "Rambus Leadership Product" means (a) any Design of RDRAM®, XDRTM, XDRTM2 and/or Mobile XDRTM, (b) any other Design that implements a Rambus Proprietary Specification, and (c) any Rambus Proprietary Specification, including, without limitation, the Technical Specifications for RDRAM®, XDRTM, XDRTM2 and/or Mobile XDRTM. For clarity, the term "Rambus Leadership Product" specifically excludes any physical embodiment of such Design, including any Integrated Circuit or device.

1.76 "Rambus Patents" means Patents of Rambus and its Subsidiaries, in each case other than the CRI Patents.

1.77 "Rambus Proprietary Specification" means any Technical Specification that is first designed and developed (as demonstrated by customary means, including, but not limited to, engineering notebooks) by, or on behalf of, Rambus or any of its Subsidiaries, over which Rambus and/or any of its Subsidiaries has exclusive control and that neither Rambus nor any of its Subsidiaries has voluntarily (a) disclosed except under a confidentiality or non-disclosure agreement or (b) proposed or disclosed to any standards setting organization. In addition to the foregoing sentence, Rambus Proprietary Specification also includes any Technical Specification exclusively acquired by Rambus from a Third Party where such Technical Specification would otherwise meet the definition of a Rambus Proprietary Specification had Rambus, and not the relevant Third Party, been the original developer and owner of such Technical Specification. Notwithstanding the above, a Technical Specification developed independently of Rambus by or on behalf of Micron, by an Industry Standards Setting Body, or by one or more Third Parties, shall not be deemed to be a Rambus Proprietary Specification, even if it describes similar or identical functions. A Technical Specification shall not be deemed to be developed independently of Rambus for purposes of the preceding sentence to the extent such Technical Specification, or any portion thereof, was developed or derived based on information (i) which Micron, such Industry Standards Setting Body, or such one or more Third Parties received in confidence from Rambus and with respect to which Micron, any of its Subsidiaries, such Industry Standards Setting Body, or such one or more Third Parties, is bound by an obligation of confidentiality or non-use to Rambus; (ii) obtained from any other Third Party in violation of such Third Party's obligation of confidentiality or nonuse to Rambus; or (iii) obtained by Micron, any of its Subsidiaries or any other Third Party based on reverse engineering of any product that instantiates a Rambus Proprietary Specification.

1.78 "Related Parties" means two or more entities (a) who are Affiliates of one another or (b) who, through contract, arrangement or agreement, are bound or have otherwise agreed to exercise their aggregate beneficial ownership, rights and/or contractual power under any of the circumstances as described under Section 1.7 with respect to any subject entity in order to Control such subject entity.

1.79 "Released Design" means each Design subject to the releases as provided for under Section 3.2 of the Settlement Agreement.

1.80 "Released Product" means each product subject to the releases as provided for under Section 3.1 of the Settlement Agreement.

1.81 "Resistive RAM" means a Memory IC that is capable of storing bits of data in memory cells by changing the resistance of a storage element, other than a transistor, and is capable of retaining, for more than 10 seconds, data stored in such memory cells when they cease to receive electrical power. Resistive RAM shall not include RAM Flash Memory or DRAM.

1.82 "RLDRAM" means each reducedlatency DRAM that is incapable of communicating with any DDR4 DRAM, LPDDR3 DRAM, LPDDR4 DRAM, Wide I/O 2.X DRAM, Wide I/O Mobile DRAM, Hybrid Memory Cube 1.X DRAM, Hybrid Memory Cube 2.X DRAM, and/or any other DRAM and that (a) is configured to support a read/write addressing mode that does not distinguish row and column addresses, (b) is configured to use a simplified command set that omits activate/precharge commands, and (c) is not Sold or specified as being capable of operating at a data transfer rate exceeding [***].

1.83 "SDR DRAM" means each single data rate DRAM that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for SDR DRAM, (b) is solely capable of communicating with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating (i) at a data transfer rate exceeding [***] or (ii) with data bit width other than x4, x8, x16 and/or x32.

1.84 "Sell" (including "Sale" and "Sold" and other forms) means to sell, lease, or otherwise transfer or dispose of a product, by a Party to a Third Party or by a Subsidiary of a Party to a Third Party.

1.85 "SerDes IC" means any Integrated Circuit having circuitry integrated thereon or contained therein that is configured to (a) de serialize data received by such Integrated Circuit from a different Integrated Circuit and/or (b) serialize data originating on such Integrated Circuit prior to transmitting such data to a different Integrated Circuit. Notwithstanding the foregoing, any Memory IC shall be deemed not to be a SerDes IC.

1.86 "Settlement Agreement" has the meaning assigned in the recitals to this Agreement.

1.87 "Subsequent PaidUp Product" means:

(a) for the Initial Term-Product License Period, [***]; and,

(b) for each Term-Product License Renewal Period, [***].

Notwithstanding the foregoing, any product that constitutes a Rambus Leadership Product shall be deemed not to be a Subsequent Paid-Up Product.

1.88 "Subsequent PaidUp Product License" means the rights and licenses granted pursuant to Section 2.1(c).

1.89 "Subsequent TermProduct License Renewal Period" has the meaning assigned to it in Section 7.1(d).

1.90 "Subsidiary" means, with respect to an identified entity, any entity Controlled by such identified entity, but only for so long as such Control exists.

1.91 "Technical Specification" means a final specification for an optical, RF, electrical, mechanical or software product that describes substantially all of the characteristics of such product necessary for such product to operate. As an example, the written description of an electrical interface (including timing and signaling parameters and characteristics) for a data bus connecting two (2) Integrated Circuits would meet the definition of a Technical Specification, provided that such interface specified all of the signals necessary for such data bus to function.

1.92 "Term Product" means each Micron Product that is either an Integrated Circuit (including each Micron Product that is a Memory IC) or a Component (including each Micron Product that is a Memory Module), but that is neither an Initial Paid-Up Product nor a Subsequent Paid-Up Product. Notwithstanding the foregoing sentence, any product that constitutes a Rambus Leadership Product shall be deemed not to be a Term Product.

1.93 "TermProduct License" means the rights and licenses granted under Section 2.1(a).

1.94 "TermProduct License Renewal Period" means, generically, the Initial TermProduct License Renewal Period and each Subsequent Term-Product License Renewal Period.

1.95 "Third Party" means with respect to a specified Party, or any Subsidiary of such specified Party, any entity that is not the specified Party or a Subsidiary of such specified Party.

1.96 "Ultimate Parent" means with respect to an identified entity, any entity that Controls such identified entity and where such Controlling entity is not under the Control of any other entity.

1.97 "[***] Acquisition Products" has the meaning assigned to it in Section 5.2(a)(ii).

1.98 "Wide I/O Mobile DRAM" means each single data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for WIDE I/O SINGLE DATA RATE (WIDE I/O SDR), (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating at a data transfer rate exceeding [***].

1.99 "Wide I/O 2.X DRAM" means each single data rate DRAM that (a) substantially implements the minimum set of features, parameters, and protocols defined in any Technical Specification published by JEDEC as of the Effective Date, as well as any JEDEC Minor Updates thereto, for WIDE I/O DOUBLE DATA RATE (WIDE I/O DDR-TBC), (b) contains features enabling communication with any other Integrated Circuit in accordance with substantially all of the mandatory requirements in such Technical Specification, and (c) is not Sold or specified as being capable of operating at a data transfer rate exceeding [***].

**2. Grant of Rights**

2.1 License to Micron.

(a) Term-Product License. Subject to the terms and conditions of this Agreement, Rambus, on behalf of itself and its Subsidiaries, hereby grants to Micron and, subject to Section 5.2 below, its Subsidiaries, for each product that falls within the definition of a Term Product, a non-exclusive, non-transferable, worldwide license, without the right to sublicense, solely under the Rambus Applicable Patent Claims applicable to such Term Product, to make (including have made), use, Sell, offer for Sale, transfer from Micron and its Subsidiaries to their Affiliates, and import such Term Product until the expiration or termination of this license pursuant to Section 7.1(a) below, provided that such license:

(i) is expressly conditioned upon Rambus' receipt of the Initial Payment in accordance with Section 6.2 below or during the cure period set forth in Section 7.2 below; and,

(ii) shall be renewable in accordance with Section 7.1(d) below.

(b) Initial Paid-Up Product License. Subject to the terms and conditions of this Agreement, Rambus, on behalf of itself and its Subsidiaries, hereby grants to Micron and, subject to Section 5.2 below, its Subsidiaries, for each product that falls within the definition of an Initial Paid-Up Product, a non-exclusive, non-transferable, worldwide license, without the right to sublicense, solely under the Rambus Applicable Patent Claims applicable to such Initial Paid-Up Product, to make (including have made), use, Sell, offer for Sale, transfer from Micron and its Subsidiaries to their Affiliates, and import such Initial Paid-Up Product until the termination of this license pursuant to Section 7.1(b) below, provided that such license, is expressly conditioned upon Rambus' receipt, in accordance with Section 6.2 below or during the cure period set forth in Section 7.2 below, of (i) the Initial Payment and (ii) each Quarterly Payment that becomes due on or before the Expiration Date.

(c) Subsequent Paid-Up Product License. Subject to the terms and conditions of this Agreement, Rambus, on behalf

of itself and its Subsidiaries, hereby grants to Micron and, subject to Section 5.2 below, its Subsidiaries, for each product that falls within the definition of a Subsequent Paid-Up Product, a non-exclusive, non-transferable, worldwide license, without the right to sublicense, solely under the Rambus Applicable Patent Claims applicable to such Subsequent Paid-Up Product, to make (including have made), use, Sell, offer for Sale, transfer from Micron and its Subsidiaries to their Affiliates, and import such Subsequent Paid-Up Product until the expiration or termination of this license pursuant to Section 7.1(c), provided that such license, in its entirety and with respect to such Subsequent PaidUp Product, is expressly conditioned upon Rambus' receipt, in accordance with Section 6.2 below or during the cure period set forth in Section 7.2 below, of (i) the Initial Payment and (ii) each Quarterly Payment that becomes due on or before the date of the expiration of the Term-Product License Renewal Period that immediately follows the Qualifying Term-Product License Renewal Period for such Subsequent Paid-Up Product.

2.2 License to Rambus. Subject to the terms and conditions of this Agreement, Micron, on behalf of itself and its Subsidiaries, hereby grants to Rambus and its Subsidiaries a non-exclusive, non-transferable, worldwide license, without the right to sublicense, solely under the associated Micron Applicable Patent Claims to make (including have made), use, Sell, offer for Sale and import Rambus Leadership Products during the Initial Term-Product License Period and each Term-Product License Renewal Period (if any).

2.3 Obligations When Transferring Patents. Each Party agrees that it shall take all actions reasonably necessary to ensure that any Third Party to whom any Patents containing one or more claims that are licensed hereunder are transferred, assigned or exclusively licensed or any right to enforce is granted (including any successor or assignee in interest thereto) is bound in writing to all covenants, licenses and other rights granted hereunder with respect to such transferred, assigned or exclusively licensed Patents.

2.4 Previously Divested Rambus Patents].

(a) Rambus, on behalf of itself and its Subsidiaries, represents and warrants that Exhibit A sets forth all patents and patent applications that have been assigned, between [***] and the Effective Date, to one or more Third Parties by Rambus and its Subsidiaries.

(b) Rambus, on behalf of itself and its Subsidiaries, represents and warrants that: (i) [***]; and,

(ii) such assignment is subject to the following covenant:

(A) [***]; and,

(B)[***]

[***]

2.5 CRI Representation [***]. Rambus represents and warrants that, to the best of its knowledge, Micron does not currently infringe or otherwise need a license under those Patents of CRI that have an effective filing date earlier than the Effective Date. [***]

2.6 No Implied or Other Rights and Licenses.

(a) The rights and licenses granted herein apply solely to those products and activities expressly provided for under this Agreement. Nothing in this Agreement shall be deemed to, and shall not be construed to, constitute any release, forbearance, forfeiture or other waiver of any rights of either Party or their respective Subsidiaries to enforce any of their respective intellectual property rights with respect to any activities undertaken by the other Party, its Subsidiaries, and/or any other Third Party to the extent not expressly granted or made hereunder.

(b) Except as expressly provided for under this Agreement, no authorization, release, license, covenant or other right is granted or made, by implication, estoppel, acquiescence or otherwise under this Agreement, to either Party, its respective Subsidiaries, and/or any other Third Party under any patents, utility models, patent or utility model claims, or other intellectual property rights now or hereafter owned or controlled by either Party or their respective Subsidiaries.

(c) Except as expressly provided for under this Agreement, none of the terms of this Agreement shall be deemed to, and shall not be construed to, constitute, whether by implication, estoppel, acquiescence or otherwise, (i) an authorization by either Party, its Subsidiaries, and/or any Third Party to Sell, offer for Sale and/or import any product (A) in or for combination with any other element (including, but not limited to any function or feature), product or instrumentality; or (B) unconditionally for use in or for combination with any other element (including, but not limited to any function or feature), product or instrumentality or (ii) a waiver by either Party or its Subsidiaries of any liability for infringement based on the other Party's, its respective Subsidiaries, and/or any other Third Party's making, use, Sale, offer for Sale and/or import of any product in combination with any other element (including, but not limited to, any function or feature), product or instrumentality.

**3. [***] and Covenants**

3.1 Rambus [***] and Covenants.

(a) [***]. Provided that and for so long as Micron and its Subsidiaries are not in breach of either this Agreement or the Settlement Agreement, and subject to Sections 3.4, 3.5, and 3.6 below, Rambus, for itself and on behalf of its Subsidiaries, agrees that [***].

(b) [***]. Provided that and for so long as Micron and its Subsidiaries are not in breach of either this Agreement or the Settlement Agreement, and subject to Sections 3.4, 3.5, and 3.6 below, Rambus, for itself and on behalf of its Subsidiaries, agrees that, [***].

(c) Covenants [***].

(i) Components. Provided that and for so long as Micron and its Subsidiaries are not in breach of either this Agreement or the Settlement Agreement and subject to subsection (iii) below and Sections 3.4, 3.5, and 3.6 below, Rambus, on behalf of itself and its Subsidiaries, covenants, that [***].

(ii) [***]. Provided that and for so long as Micron and its Subsidiaries are not in breach of either this Agreement or the Settlement Agreement and subject to subsection (iii) below and Sections 3.4, 3.5, and 3.6 below, Rambus, on behalf of itself and its Subsidiaries, covenants that [***].

(iii) Conditions on Covenants. The foregoing covenants are personal and cannot be assigned, transferred or delegated to any Third Party (except as otherwise set forth in Section 9.5 below). For the avoidance of doubt, the foregoing covenants are not and shall not be construed to be (A) an authorization by Rambus for any Third Party, including any Third Party customers of Micron or of any of its Subsidiaries, [***] (B) a covenant by Rambus that [***].

(d) Benefits Not Transferable. The benefits under Sections 3.1(a), 3.1(b), and 3.1(b) above are personal and cannot be assigned, transferred, or delegated by Micron to any Third Party.

3.2 Micron [***].

(a) Designs and Released Designs. Provided that Rambus and its Subsidiaries are not in breach of either this Agreement or the Settlement Agreement, and subject to Sections 3.4, 3.5, and 3.6 below, Micron, for itself and on behalf of its Subsidiaries, agrees that [***].

(b) Other Rambus Designs. Provided that Rambus and its Subsidiaries are not in breach of either this Agreement or the Settlement Agreement, and subject to Sections 3.4, 3.5, and 3.6 below, Micron, for itself and on behalf of its Subsidiaries, agrees that, [***].

(c) Benefits Not Transferable. The benefits under Sections 3.2(a) and 3.2(b) above are personal and cannot be assigned, transferred, or delegated by Rambus to any Third Party.

3.3 No Waiver of Liability. Rambus and Micron each agrees that Sections 3.1 and 3.2 above do not grant, and shall not be construed, argued, or relied upon as granting (a) any license, covenant [***] or the like under any Patent of the other Party (by implication, estoppel or otherwise) or (b) any release or waiver with respect to any liability, damages or claims for infringement of any Patent of the other Party. Furthermore, each Party, on behalf of itself and its Subsidiaries, hereby irrevocably [***], all applicable statutes of limitations shall be tolled upon the Effective Date and shall remain tolled until the expiration or termination of the Term-Product License. Nothing in this Section 3.3

shall operate to impact or limit the application of 35 U.S.C. § 287.

3.4 Notice of [***]. Notwithstanding the [***] as described above, either Party shall be free during the Initial Term-Product License Period and each Term-Product License Renewal Period (if any) to put the other Party on notice or otherwise engage in discussions regarding any [***].

3.5 Patent [***]. A Party (and its Subsidiaries) is [***].

3.6 [***]. Nothing in this Agreement or in the Settlement Agreement shall preclude either Party, during the Initial Term-Product License Period and each Term-Product License Renewal Period (if any), [***].

**4. Subsidiaries**

4.1 Subsidiaries. Subject to the terms and conditions of this Agreement (including Sections 4.3 and 5.2 below), the Parties intend that this Agreement, and the licenses and benefits granted herein, shall extend to all of each Party's Subsidiaries. The Parties agree that, to the extent they are not already bound, each Party shall ensure that all of its Subsidiaries (including, without limitation, all entities that become Subsidiaries after the Effective Date ("New Subsidiaries")) are bound by the terms of this Agreement. Without limiting the foregoing:

(a) Each Party shall ensure that the Patents of each New Subsidiary are included within the definition of the applicable Party's Patents; and,

(b) Each Party shall ensure that each New Subsidiary is bound as applicable, by this Agreement.

4.2 Former Subsidiaries. All rights and licenses granted and covenants made to any Subsidiary of either Party shall immediately and automatically terminate upon a Party ceasing to Control such entity ("Former Subsidiary"). However, if a Subsidiary of a Party that holds any Patent that is subject to the rights, licenses and covenants granted hereunder becomes a Former Subsidiary, such rights, licenses and covenants granted by such Former Subsidiary (including every successor entity in interest to any such Patents) shall continue in accordance with the terms of this Agreement after such entity becomes a Former Subsidiary.

4.3 No Release. The releases granted and covenants made under the Settlement Agreement shall not apply to any Acquired Business of Micron.

4.4 Prior Agreements.

(a) Rambus agrees that the Elpida Technology License Agreement and the Elpida XDR License Agreement are each hereby amended such that, from and after the Effective Date, Elpida will be licensed (i) to sell Direct Rambus DRAMs and Direct Rambus Multichip Modules to Micron, as a Semiconductor Company, for resale as an integrated circuit, in the case of Direct Rambus DRAMs, or Direct Rambus Multichip Module, and (ii) to make, use and sell Yellowstone Rambus DRAMs, alone or incorporated into Yellowstone Rambus Multichip Modules, Yellowstone Rambus Boards, and Yellowstone Rambus Systems to Micron as a Semiconductor Company, for resale by Micron to Third Parties, where the meaning of each of the foregoing capitalized terms has the meaning ascribed to in the Elpida Technology License Agreement or the Elpida XDR License Agreement, as the case may be.

(b) The Elpida Patent License Agreement shall be deemed to have terminated on September 30, 2013 and, for the avoidance of doubt, Elpida shall be licensed hereunder as a Subsidiary of Micron. Notwithstanding Section 7.6 (Survival) of the Elpida Patent License Agreement, the following provisions of the Elpida Patent License Agreement are hereby terminated and shall not survive this termination: Section 5.2 (Quarterly License Payment), Section 6 (Payments), and Section 9.1 (DRAM Revenue).

(c) The Semiconductor Technology License Agreement entered into by and between Rambus and Micron, effective March 24, 1997 shall be deemed to have terminated on the Effective Date, if and to the extent such agreement is still in place and effective as of the Effective Date.

**5. Consideration**

5.1 Payments.

(a) Initial and Fixed 28th Quarterly Payments.

(i) Micron shall pay to Rambus five-million five-hundred and thirty-three thousand and three-hundred and thirty-four United States Dollars (US $5,533,334.00; the "Initial Payment").

(ii) In lieu of a Quarterly Payment based on Net Sales that occur within the twenty-eighth (28th) Quarter of the Initial Term- Product License Period, Micron shall pay to Rambus for such Quarter the fixed amount of four-million four-hundred and sixtysix thousand and sixhundred and sixtysix United States Dollars (US $4,466,666.00; the "Fixed 28th Quarterly Payment").

(b) Quarterly Payments. Subject to Section 5.3 below, Micron shall pay to Rambus:

(i) an amount equal to six-tenths of a percent (0.6%) of the Net Sales that Micron and each of its Subsidiaries received during the first twenty-seven (27) Quarters that occur within the Initial Term-Product License Period for the Sale worldwide of (A) DRAMs, (B) DRAM Controllers, (C) SerDes ICs, (D) Resistive RAMs, and (E) RAM Flash Memories;

(ii) an amount equal to six-tenths of a percent (0.6%) of the Net Sales that Micron and each of its Subsidiaries received during each Quarter that occurs within the Initial Term-Product License Renewal Period (if any) for the Sale worldwide of (A) DRAMs, (B) DRAM Controllers, (C) SerDes ICs, (D) Resistive RAMs, and (E) RAM Flash Memories, in each case of (A) through (E), excluding the Sale of each Initial Paid-Up Product; and,

(iii) an amount equal to six-tenths of a percent (0.6%) of the Net Sales that Micron and each of its Subsidiaries received during each Quarter that occurs within each Subsequent Term-Product License Renewal Period (if any) for the Sale worldwide of (A) DRAMs, (B) DRAM Controllers, (C) SerDes ICs, (D) Resistive RAMs, and (E) RAM Flash Memories, in each case of (A) through (E), excluding the Sale of (I) each Initial Paid-Up Product and (II) each Subsequent Paid-Up Product for which the Qualifying Term-Product License Renewal Period preceded such Subsequent Term-Product License Renewal Period (each such amount associated with the Sales for a given Quarter set forth in (i) through (iii), a "Quarterly Payment");

provided that:

(A) each given Quarterly Payment shall not exceed an amount of ten-million United States Dollars (US $10,000,000), as such ten-million dollar amount may be increased by one or more Quarterly Payment Cap Increases in accordance with Section 5.2(a) below (such ten-million dollar amount limit, as it may be increased by one or more Quarterly Payment Cap Increases in accordance with Section 5.2(a) below, the "Quarterly Payment Cap"); and,

(B) the cumulative amount of any four consecutive Quarterly Payments shall not exceed the greater of (I) forty-million United States Dollars (US $40,000,000) or (II) the sum of the four Quarterly Payment Caps (as one or more may have been increased by one or more Quarterly Payment Cap Increases in accordance with Section 5.2(a) below) associated with each Quarter of such four consecutive Quarterly Payments, provided that if any Quarterly Payment would have, absent the Quarterly Payment Cap, exceeded the Quarterly Payment Cap, the amount in excess of the Quarterly Payment Cap that would have otherwise been due shall be added to each subsequent Quarterly Payment that is less than the Quarterly Payment Cap (as if such excess was attributable to Sales that had occurred in the Quarter associated with such subsequent Quarterly Payment).

5.2 Acquired Businesses.

(a) Acquisition of Business with [***] Products. If (i) Micron or any of its Subsidiaries completes an Acquisition for which:

(A) [***]; and,

(B) [***]; and,

(ii) [***];

[***] For the avoidance of doubt, [***].

(b) Acquisition of Business with [***] Products [***] . If Micron or any of its Subsidiaries completes an Acquisition

for which [***], then:

(i) [***];

(ii)[***]; and,

(iii)[***].

For absence of doubt, [***].

(c) Acquisition Report and Audit Rights. Within thirty (30) days after the end of each Quarter (until all Quarterly Payments payable hereunder have been reported and paid) in which one or more Acquisition Dates occurred, Micron shall notify Rambus in writing of such event and Micron's determination of the associated Quarterly Payment Cap Increase, if any, and provide Rambus with a written detailed statement (in suitable form) containing all information necessary to calculate such Quarterly Payment Cap Increase. Each Quarterly Payment Cap Increase will become effective in the Quarter following the Quarter in which the associated Acquisition Date occurred. If, for any reason, Rambus disagrees with Micron's determination of the associated Quarterly Payment Cap Increase, Rambus may conduct an audit pursuant to subsection (e) below. If the Parties cannot reach agreement on the determination of the associated Quarterly Payment Cap Increase within thirty (30) days following the conclusion of such audit, either Party may, as its sole and exclusive remedy to resolve such dispute, submit such dispute to binding arbitration pursuant to the terms of Section 9.1. Unless and until the Parties resolve such disagreement, none of the rights, licenses and covenants granted under Section 2.1 shall apply to any activity of any such Acquired Business ("Audited Acquired Business").

(d) [***]

(e) [***]

(f) [***]

5.3 Revenue Attributable [***].

5.4 Rates and Collateral Attack.

(a) Given the worldwide scope of this Agreement, the impracticality of monitoring by Micron of the movement of Licensed Products through international markets, and that Rambus will be issued new patents and/or utility models continually in various countries throughout the Initial Term-Product License Period and the Term-Product License Renewal Periods (if any) that will be licensed hereunder, it is agreed and recognized that paying Quarterly Payments based on the worldwide Sales of certain DRAMs, DRAM Controllers, SerDes ICs, Resistive RAMs, and RAM Flash Memories at the rates set forth in this Agreement, is fair and reasonable, representing a balance between the concerns and interests of both Parties and resulting in a convenience for both Parties.

(b) The Parties acknowledge that it is essential that their respective obligations under this Agreement be certain and not subject to collateral attack. Accordingly, each Party agrees that it will not seek, through litigation or otherwise, to adjust the amount of payments required under this Agreement, or to avoid, defer or modify their respective obligations hereunder, and that Micron shall make the full amount of such payments regardless of whether any of the Rambus Patents is determined not to be infringed by any particular Licensed Product, or whether any court, patent office or other governmental agency determines any Rambus Patent to be invalid or unenforceable in any reexamination, action or other proceeding, provided that the foregoing shall not prevent the Parties from seeking enforcement of the terms or conditions of the this Agreement or taking any action expressly contemplated by this Agreement.

**6. Reports; Payments; Records and Audits**

6.1 Reports. Within thirty (30) days after the end of each Quarter and until all Quarterly Payments payable hereunder have been reported and paid, Micron shall furnish to Rambus a statement, in a form acceptable to Rambus, that shows:

(a) the total revenue and Net Sales, each in United States Dollars, that Micron and each of its Subsidiaries invoiced or otherwise charged during such Quarter for the Sale worldwide of DRAMs, DRAM Controllers, SerDes ICs,

Resistive RAMs, and RAM Flash Memories (excluding Initial Paid-Up Products and Subsequent Paid-Up Products to the extent that they are so excluded under Section 5.1(b) above), provided that if no such revenue and/or Net Sales were invoiced or otherwise charged during such Quarter, that fact shall be shown on such statement;

(b) an itemized accounting of the number of DRAMs, DRAM Controllers, SerDes ICs, Resistive RAMs, and RAM Flash Memories (excluding Initial Paid-Up Products and Subsequent Paid-Up Products to the extent that they are so excluded under Section 5.1(b) above) Sold worldwide during such Quarter by Micron and each of its Subsidiaries; and,

(c) an itemized accounting (by associated customer and associated Technical Specification) of the number of Custom Memory ICs Sold worldwide during such Quarter by Micron and each of its Subsidiaries and the total revenue and Net Sales, each itemized (by associated customer and associated Technical Specification) and in United States Dollars, that Micron and each of its Subsidiaries invoiced or otherwise charged during such Quarter for the Sale worldwide of each such Custom Memory IC (excluding Initial Paid-Up Products and Subsequent Paid-Up Products to the extent that they are so excluded under Section 5.1(b) above), provided that if no such revenue and/or Net Sales were invoiced or otherwise charged during such Quarter, that fact shall be shown on such statement;

(d) the associated Quarterly Payment payable thereon (each such itemized statement, a "Quarterly Itemized Sales Report").

6.2 Payments.

(a) Micron shall, by electronic transfer, pay to Rambus the Initial Payment by the earlier of (i) the tenth (10th) day immediately following the date of the later signature below or (ii) December 31, 2013. The Initial Payment paid under this Agreement shall not be, in whole or part, refundable, cancellable or subject to any credit against any amounts, including future Quarterly Payments, that are owed under this Agreement, provided that, in the case of a material breach of this Agreement by Rambus, Micron may seek monetary compensation for damages arising from such breach.

(b) Within thirty (30) days after the end of each Quarter, Micron shall pay to Rambus by electronic transfer, as applicable, the Quarterly Payment or the Fixed 28th Quarterly Payment payable hereunder for such Quarter. No Quarterly Payment, in whole or part, paid under this Agreement shall be refundable, cancellable or subject to any credit against any amounts, including future Quarterly Payments, that are owed under this Agreement, provided that, in the case of a material breach of this Agreement by Rambus, Micron may seek monetary compensation for damages arising from such breach.

(c) Each such electronic transfer shall be made in United States Dollars either directly to or via the Federal Reserve Bank of San Francisco for credit to the following account or another designated in writing by Rambus:

Rambus Inc. [***]

6.3 Records and Audits. With respect to the Quarterly Payments set forth herein, Micron shall keep complete and accurate records. These records shall be retained for a period of at least five (5) years following the date of each corresponding payment, notwithstanding the termination of this Agreement. Except with respect to Quarters in which Micron's Quarterly Payment equaled or exceeded the Quarterly Payment Cap, Rambus, through its designated independent accounting or licensing audit firm, shall have the right, upon thirty (30) days' prior written notice, to initiate an examination and audit, not more than [***], and during normal business hours, of all such records and such other records and accounts as may contain, under recognized accounting practices, information bearing upon the amount of Quarterly Payments payable to Rambus under this Agreement. In addition to the results of any such audit, the auditor shall be permitted to disclose to Rambus the progress of the audit and may identify to Rambus any materials required, but not furnished, to complete the audit. Micron shall provide all reasonable access to such applicable information in both electronic and tangible form. Micron shall promptly make Rambus whole for any

underpayments of the Quarterly Payments that are disclosed by such examination or audit. To the extent that any underpayments revealed by such audit exceed [***] percent ([***]%) of the total Quarterly Payments due for the period under audit, then Micron shall also **[***]**.

6.4 Currency and Late Payments. All payments to Rambus hereunder shall be in United States Dollars. Late payments hereunder shall be subject to interest at the one-year United States Government Treasury Constant Maturity Rate, as published by the Federal Reserve (www.federalreserve.gov) on the date the amount payable was due, plus five percent (5%) (or the maximum interest rate allowed by applicable law, if lower).The amount of interest shall be calculated from the payment due date to the date of electronic transfer.

6.5 No Escrow. Payment of amounts due under this Agreement to any person, firm or entity, other than Rambus, including, without limitation, any escrow fund or escrow agent, unless agreed to by Rambus or ordered by any court or government agency of competent jurisdiction or arbitration panel, shall constitute a material breach of this Agreement. Any payment once made by Micron to Rambus shall not be refunded or refundable to Micron for any reason, provided that, in the case of a material breach of this Agreement by Rambus, Micron may seek monetary compensation for damages arising from such breach.

**7. Term and Termination of Licenses and Agreement**

7.1 Term and Renewal of Licenses.

(a) Term-Product License. The Term-Product License shall, unless earlier terminated in accordance with Section 7.1(e) below, continue in full force and effect until:

(i) the Expiration Date if Micron fails to renew the Term-Product License for the Initial Term-Product License Renewal Period in accordance with Section 7.1(d) below; or,

(ii) the expiration of any Term-Product License Renewal Period (if any) in which Micron fails to further renew the Term- Product License in accordance with Section 7.1(d) below.

For avoidance of doubt, the Term-Product License shall automatically be rendered null, void, and without effect as if never granted if Micron breaches this Agreement by failing to pay Rambus the Initial Payment in a timely manner and fails to cure such failure in accordance with Section 7.2 below.

(b) Initial Paid-Up Product License. The Initial Paid-Up Product License shall, continue in full force and effect unless and until terminated in accordance with Section 7.1(e). For avoidance of doubt, the Initial Paid-Up Product License shall automatically be rendered null, void, and without effect as if never granted if Micron breaches this Agreement by failing to pay Rambus (A) the Initial Payment in a timely manner and (B) each Quarterly Payment that becomes due on or before the Expiration Date in a timely manner and fails to cure such failure in accordance with Section 7.2 below.

(c) Subsequent Paid-Up Product License. The Subsequent Paid-Up Product License shall, with respect to each given Subsequent Paid-Up Product qualifying as such under Section 1.87(a), unless earlier terminated in accordance with Section 7.1(e) below, continue in full force and effect until the date of the expiration of the Initial Term-Product License Period, if Micron fails to renew the Term-Product License for the Initial Term-Product License Renewal Period in accordance with Section 7.1(d) below, and in perpetuity following the date of the expiration of the Initial Term-Product License Renewal Period, if Micron renews the Term-Product License for the Initial Term-Product License Renewal Period in accordance with Section 7.1(d) and Micron has satisfied all of its payment obligations set forth in this Agreement during such Initial Term-Product License Renewal Period. The Subsequent Paid-Up Product License shall, with respect to each given Subsequent Paid-Up Product qualifying as such under Section 1.87(b), unless earlier terminated in accordance with Section 7.1(e), below, continue in full force and effect until:

(i) the date of the expiration of the Qualifying Term-Product License Renewal Period for such Subsequent Paid-Up Product, if Micron fails to renew the Term-Product License for an immediately following Term-Product License Renewal Period in accordance with Section 7.1(d) below; or,

(ii) in perpetuity, following the date of the expiration of the Term-Product License Renewal Period immediately

following the Qualifying Term-Product License Renewal Period for such Subsequent Paid-Up Product, if Micron renews the Term-Product License for such an immediately following Term-Product License Renewal Period in accordance with Section 7.1(d) below.

For avoidance of doubt, the Subsequent Paid-Up Product License for Subsequent Paid-Up Products shall automatically be rendered null, void, and without effect as if never granted if Micron breaches this Agreement by failing to pay Rambus the Initial Payment in accordance with Section 6.2 below and fails to cure such failure in accordance with Section 7.2 below, and each Quarterly Payment that becomes due on or before the date of the expiration of the Initial Term-Product License Renewal Period (if any) in accordance with Section 6.2 and fails to cure such failure in accordance with Section 7.2 below.

(d) Term-Product License Renewal. Micron shall have the option to:

(i) renew the Term-Product License for a single three-year renewal term upon the expiration of the Initial Term-Product License Period, in accordance with its terms, on the Expiration Date (such renewal term, the "Initial TermProduct License Renewal Period"); and,

(ii) upon the expiration of the Initial Term-Product License Renewal Period in accordance with its terms, successively renew the Term-Product License for additional five-year terms (each such five-year period in which the Term-Product License has been renewed by Micron in accordance with this subsection (ii), a "Subsequent TermProduct License Renewal Period"),

provided that, in each case of (i) and (ii), Micron delivers to Rambus, no later than ninety (90) days prior to, as applicable, the Expiration Date, the expiration date of the Initial Term-Product License Renewal Period (if any), or the then-current Subsequent TermProduct License Renewal Period (if any), a written notice of Micron's election to exercise such option to renew the Term-Product License for an additional, as applicable, three-year or five-year term.

(e) Effect of Termination of Agreement.

(i) Upon any termination of this Agreement that occurs between the Effective Date and the Expiration Date (inclusive of both dates), the Term-Product License, the Initial Paid-Up License, and the Subsequent Paid-Up License for Subsequent Paid- Up Products will each immediately terminate.

(ii) Upon any termination of this Agreement that occurs during the Initial Term-Product License Renewal Period (if any), the Term-Product License and the Subsequent Paid-Up License for Subsequent Paid-Up Products will each immediately terminate.

(ii) Upon any termination of this Agreement that occurs during any Subsequent Term-Product License Renewal Period (if any), the Term-Product License and the Subsequent Paid-Up Product License for any Subsequent Paid-Up Product for which such Subsequent Term-Product License Renewal Period is the Qualifying Term-Product License Renewal Period will each immediately terminate.

7.2 Material Breach. Rambus may terminate this Agreement upon notice if Micron materially breaches its payment obligations under this Agreement and does not correct or cure such breach within ninety (90) days after receiving written notice complaining thereof. Failure of Micron to pay any payment due and payable in accordance with the terms of this Agreement shall constitute a material breach of this Agreement. For the avoidance of doubt, any payments tolled in accordance with the terms of this Agreement shall not be due and payable during such tolling period.

7.3 Bankruptcy. Either Party may terminate this Agreement effective upon written notice to the other Party if the other Party is adjudicated insolvent or bankrupt at the conclusion of proceedings initiated by a voluntary or involuntary petition in bankruptcy or any proceeding relating to insolvency, or composition for the benefit of creditors, and such Party undergoes a Change of Control during or following the pendency of such proceedings.

7.4 [***].

7.5 Change of Control.

(a) In General. [***] in the event of [***] Change of Control, Rambus may, in addition to the rights set forth in

Sections 7.2, 7.3, and 7.4 above, terminate this Agreement effective upon written notice thereof to Micron or the relevant successor or assignee in interest. Notwithstanding the foregoing, if Rambus receives written notice of such Change of Control from Micron (or its successor or assignee in interest) no later than ten (10) business days after such Change of Control, Rambus agrees to negotiate in good faith with such successor or assignee in interest, for a period of one hundred and eighty (180) days after receipt of such notice, the application of this Agreement to such successor's or assignee's business activities prior to terminating this Agreement based on such Change of Control. Rambus' failure to terminate this Agreement after a given Change of Control by Micron (or any successor or assignee in interest) shall not in any way limit Rambus' right to exercise these rights for any subsequent Change of Control. Termination of this Agreement based on a Change of Control shall be deemed to be effective immediately prior to the effective date of such Change of Control.

(b) [***]

7.6 Survival. All payment obligations accruing prior to any termination of this Agreement shall survive any such termination. In addition, the following sections shall survive and remain in full force and effect after any termination of this Agreement, but only to extent relevant to rights, obligations, benefits, or liabilities that had accrued under such sections prior to such termination of this Agreement: Section 1 (Definitions), Section 2.6 (No Implied or Other Rights and Licenses), Section 3.3 (No Waiver of Liability), Section 4.1 (Subsidiaries), Section 4.2 (Former Subsidiaries), Section 4.3 (No Release), Section 5 (Consideration), Section 6 (Reports; Payments; Records and Audits), this Section 7.6 (Survival), Section 8.2 (Confidentiality), and Section 9 (Miscellaneous).

**8. Confidentiality**

8.1 Press Release. The Parties intend to issue a press release as set forth in the Settlement Agreement in the form and as agreed by the Parties.

8.2 Confidentiality. Each Party agrees that only after the announcement referenced in Section 8.1 above, each Party shall be entitled to disclose the general nature of this Agreement but that the terms and conditions of this Agreement, to the extent not already disclosed pursuant to Section 8.1 above, shall be treated as Confidential Information and that neither Party will disclose such terms or conditions to any Third Party without the prior written consent of the other Party, provided, however, that each Party may disclose the terms and conditions of this Agreement:

(a) as required by any court or other governmental body;

(b) as otherwise required by law;

(c) as otherwise may be required by applicable securities and other law and regulation, including to legal and financial advisors in their capacity of advising a Party in such matters so long as the disclosing Party shall seek confidential treatment of such terms and conditions to the extent reasonably possible;

(d) in confidence to legal counsel, accountants, and other professional advisors of the Parties;

(e) in confidence, to banks, investors and other financing sources and their advisors;

(f) during the course of litigation so long as the disclosure of such terms and conditions are restricted in the same manner as is the confidential information of other litigating entities and so long as (A) the restrictions are embodied in a court-entered protective order limiting disclosure to outside counsel and (B) the disclosing Party informs the other Party in writing at least ten (10) business days in advance of the disclosure and discusses the nature and contents of the disclosure, in good faith, with the other Party;

(g) in confidence, to a Third Party to whom either Party assigns one or more of its Patents, but solely to the extent necessary to inform such Third Party of the encumbrances contained herein on such Patents;

(h) in confidence, in connection with an actual or prospective merger or acquisition or similar transaction,

(i) in confidence, by Rambus to [***]; or,

(j) in confidence, in connection with a Party's obligation(s) under any most favored nation, or similar clause, whereby such Party is contractually obligated to disclose and offer terms given to Third Parties.

Upon execution of this Agreement, or thereafter, Rambus, in its discretion, shall be entitled to file a copy of this Agreement with the United States Securities and Exchange Commission, so long as Rambus seeks confidential treatment of such agreement to the extent reasonably possible.

**9. Miscellaneous**

9.1 Dispute Resolution. Any dispute submitted to binding arbitration pursuant to the terms of this Agreement shall take place in New York City, NY before one arbitrator, and shall be administered by Judicial Arbitration and Mediation Services, Inc. pursuant to its Streamlined Arbitration Rules and Procedures. Judgment on the award may be entered in any court having jurisdiction.

9.2 Disclaimers. Nothing contained in this Agreement shall be construed as:

(a) a warranty or representation by either Party as to the validity, enforceability, and/or scope of any intellectual property rights;

(b) imposing upon either Party any obligation to institute any suit or action for infringement of any intellectual property right, or to defend any suit or action brought by a Third Party which challenges or concerns the validity, enforceability or scope of any intellectual property rights;

(c) imposing on either Party any obligation to file any application or registration with respect to any intellectual property rights or to secure or maintain in force any intellectual property rights;

(d) imposing on either Party any obligation to furnish any technical information or know-how; or,

(e) imposing or requiring, whether by implication or otherwise, any support, maintenance or any technology deliverable obligations on either Party's or their respective Subsidiaries' part under this Agreement (and neither Party nor any of their respective Subsidiaries are providing any support, maintenance or technology deliverables under this Agreement).

9.3 Notices. All notices and other communications required or permitted hereunder shall be in writing and shall be (a) mailed by first class air mail (registered or certified if available), postage prepaid, or otherwise delivered by hand, by messenger, addressed to the addresses set forth below, or (b) delivered by facsimile to the facsimile number set forth below. Each Party may change its address or facsimile number for notices by providing a notice to the other Party in the manner set forth herein. Such notices shall be deemed to have been effective when delivered or, if delivery is not accomplished by reason of some fault or refusal of the addressee, when tendered (which tender, in the case of mail, shall be deemed to have occurred upon posting, and in the case of facsimile, shall be deemed to have occurred upon transmission). All notices shall be in English.

If to Rambus:

Rambus Inc.
1050 Enterprise Way, Suite 700
Sunnyvale, California 94089
U.S.A.
Telephone: +1-408-462-8000
Facsimile: +1-408-462-8001 Attention: SVP, Licensing
With copy to: General Counsel

If to Micron:

Micron Technology, Inc.
8000 S. Federal Way
Boise, Idaho 83716-9632
Telephone: 208-368-4500
Facsimile: 208-368-4540 Attention: General Counsel

9.4 Governing Law & Venue.

(a) This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to any choice-of-law or conflict-of-law provision or rule (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(b) This Agreement is executed in the English language and no translation shall have any legal effect.

(c) Any legal action, suit or proceeding arising under, or relating to, this Agreement, shall be brought in the State or Federal Courts located in the State of Delaware, and each Party agrees that any such action, suit or proceeding may be brought only in such courts. Each Party further waives any objection to the laying of jurisdiction and venue for any such suit, action or proceeding in such courts.

9.5 No Assignment. Subject to Section 7.5, this Agreement is personal to the Parties, and the Agreement and/or any right or obligation hereunder is not transferable, assignable, and/or delegatable whether in conjunction with a change in ownership, merger, acquisition, the sale or transfer of all, or substantially all or any part of either Party's or any of their respective Subsidiaries business or assets or otherwise, voluntarily, by operation of law, reverse triangular merger or otherwise, without the prior written consent of the other Party, which consent may be withheld at the sole discretion of such other Party. Any such purported or attempted assignment or transfer in violation of the foregoing shall be deemed a breach of this Agreement and shall be null and void. Subject to the foregoing, this Agreement shall be binding upon and inure to the benefit of the Parties and their permitted successors and assigns. Notwithstanding the foregoing, either Party shall be entitled to, and each Party hereby agrees to, assign this Agreement to a successor to all or substantially all of a Party's assets in a transaction entered into solely to change a Party's place of incorporation.

9.6 No Rule of Strict Construction. Regardless of which Party may have drafted this Agreement or any part thereof, no rule of strict construction shall be applied against either Party. For the avoidance of doubt "includes", "including", "included", and other variations of such terms shall be deemed to be followed by the phrase "without limitation".

9.7 Severability. If any provision of this Agreement is held to be invalid or unenforceable, the meaning of such provision shall be construed, to the extent feasible, so as to render the provision enforceable, and if no feasible interpretation shall save such provision, (a) a suitable and equitable provision shall be substituted therefore in order to carry out, so far as may be valid and enforceable, the intent and purpose of such invalid or unenforceable provision, and (b) the remainder of this Agreement shall remain in full force and effect.

9.8 Entire Agreement. This Agreement and the Settlement Agreement embodies the entire understanding of the Parties with respect to the subject matter hereof, and merges all prior oral or written communications between them, and neither of the Parties shall be bound by any conditions, definitions, warranties, understandings, or representations with respect to the subject matter hereof other than as expressly provided herein. No oral explanation or oral information by either Party hereto shall alter the meaning or interpretation of this Agreement.

9.9 Modification; Waiver. No modification or amendment to this Agreement, nor any waiver of any rights, will be effective unless assented to in writing by the Party to be charged, and the waiver of any breach or default will not constitute a waiver of any other right hereunder or any subsequent breach or default.

9.10 Counterparts. This Agreement may be executed in two (2) or more counterparts, all of which, taken together, shall be regarded as one and the same instrument.

9.11 Bankruptcy Code. All rights, licenses, privileges, releases, and immunities granted under this Agreement shall be deemed to be, for the purposes of Section 365(n) of the United States Bankruptcy Code, as amended (the "Bankruptcy Code"), licenses of rights to "intellectual property" as defined under Section 101(35A) of the Bankruptcy Code. The Parties agree that each of the Parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code. The Parties further agree that, in the event that any proceeding shall be instituted by or against a Party seeking to adjudicate it as bankrupt or insolvent, or seeking liquidation, winding up, reorganization, arrangement, adjustment, protection, relief or composition of that Party or that Party's debts under any law relating to bankruptcy, insolvency, or reorganization or relief of debtors, or seeking an entry of an order for relief or the appointment of a receiver, trustee or other similar official for that Party or any substantial part of its property or if

a Party hereto shall take any action to authorize any of the foregoing actions, the other Party shall have the right to retain and enforce their respective rights under this Agreement.

9.12 Ultimate Parent Entity. Each of Micron and Rambus hereby represents and warrants that on the Effective Date it is an Ultimate Parent.

**REMAINDER OF PAGE INTENTIONALLY BLANK; SIGNATURE PAGE FOLLOWS**

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be signed by duly authorized officers or representatives as of the date first above written.

| **RAMBUS INC.** | **MICRON TECHNOLOGY, INC.** |
| --- | --- |
| By: /s/ Kevin Donnelly | By: /s/ Brian M. Shirley |
| Name: Kevin Donnelly | Name: Brian M. Shirley |
| Title: Senior Vice President | Title: Vice President of DRAM Solutions |
| Date: December 9, 2013 | Date: December 9, 2013 |

**EXHIBIT A**

**ASSIGNED RAMBUS PATENTS (BETWEEN [***] AND THE EFFECTIVE DATE) ASSIGNED UNITED STATES PATENTS**

**[***]**

**ASSIGNED FOREIGN PATENTS**

[***]

**Exhibit 10.17**

**CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [***] INDICATES THAT INFORMATION HAS BEEN REDACTED.**

# AMENDMENT TO SEMICONDUCTOR PATENT LICENSE AGREEMENT

This Amendment ("Amendment") to the Semiconductor Patent License Agreement dated January 19, 2010 ("SPLA") is effective as of October 1, 2013 ("Amendment Effective Date") and entered into by and between Rambus Inc., a corporation duly organized and existing under the laws of Delaware, U.S.A., having its principal place of business at 1050 Enterprise Way, Suite 700, Sunnyvale, CA 94089, U.S.A., ("Rambus") on behalf of itself and its subsidiaries, and Samsung Electronics Co., Ltd., a Korean corporation having its principal place of business at San #16, Banwol-Dong, Hwasung-City, Gyeonggi-Do, Korea, 445- 701 ("Samsung") on behalf of itself and its subsidiaries. Rambus and Samsung are each individually a "Party" and collectively the "Parties."

RECITAL

A. Samsung, Rambus (or Rambus' subsidiaries) are parties to various agreements that grant licenses under the patents of Rambus and its subsidiaries. Such agreements include the SPLA and the Tamper Resistance License Agreement dated January 1, 2009 ("TRLA") between Samsung and Cryptography Research, Inc. ("CRI").

B. The Parties wish to (1) extend the grant of license under the SPLA to include additional patents of Rambus and its subsidiaries,(2) extend the scope of the license to cover additional Samsung products, and (3) to extend the duration of the SPLA for a longer term.

The Parties agree as follows:

TERMS

1. The following shall replace Section 1.17 of the SPLA in its entirety:
"1.17 "Expiration Date" means September 30, 2023."

2. The following shall replace Section 1.26 of the SPLA in its entirety:

"1.26 "Integrated Circuit" means a single, discrete integrated circuit chip, in any form factor, including wafer, cingulated die, or packaged die, such as, without limitation, packaged system-on-chips (SOCs), package-on-packages (POPs), package-in- packages (PIPs), memory cards, smart cards, and solid-state drives (SSDs).

3. The following shall replace Section 1.34 of the SPLA in its entirety:

"1.34 "Paidup Product" means each doubledata rate DRAM (including each graphicsbased and lowpower DRAM) that (a) implements the minimum set of features, parameters, and protocols defined or recommended in any JEDEC published specification for such double-data rate DRAM, (b) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in such JEDEC-published specification, and (c) has been sold in arms-length transactions to Third Parties by Samsung and/or one or more of its Subsidiaries prior to [***] in a volume of not

less than [***] units, where such units have been sold for a cumulative amount of not less than [***] United States Dollars (US$[***]). Notwithstanding the foregoing sentence, any product that constitutes a Rambus Leadership Product, and each physical instantiation thereof, shall be deemed not to be a Paidup Product."

4. The following shall replace Section 1.49 of the SPLA in its entirety:

"1.49 "Rambus Patents" means all Patents owned or controlled by Rambus and/or its Subsidiaries, including without limitation (a) all Patents owned or controlled by CRI (as set forth in Section 1.63), and (b) any and all Patents acquired by Rambus or its Subsidiaries during the Term; in either case, excluding Patents that are or become licensed by Samsung in any way in separate agreements ("Encumbered Patents"). For avoidance of doubt, Samsung shall continue to enjoy all rights and be subject to all obligations, including payment obligations with respect to any such Encumbered Patents, including without limitation the rights to (a) terminate the license (if applicable) under such separate agreements, or (b) obtain a license in perpetuity due to change of control (if applicable) under such separate agreements."

5. The following new sentence shall be added at the end of Section 1.63 of the SPLA:

"For avoidance of doubt, Cryptography Research, Inc. ("CRI") duly organized and existing under the laws of Delaware, U.S.A., having its principal place of business at 425 Market Street, 11th Floor, San Francisco, CA 94105 is a Subsidiary of Rambus."

6. The following new paragraph shall be added at the end of Section 2.3 of the SPLA:

"Any Rambus Patents transferred, assigned, or exclusively licensed to a Third Party shall be subject to Samsung's right to purchase or take a fully paidup license for the lives of any such Patents ("Transferred Patents"). The parties shall negotiate in good faith regarding the process by which Rambus Patents shall be offered to Samsung and/or any Third Party in advance of any proposed transfer. For avoidance of doubt, unless Rambus grants to Samsung a [***] to any Transferred Patents for the life of such patents, Rambus may not reject a Samsung offer of consideration either for purchase or for license under such Transferred Patents that is greater in value than any offer by a Third Party for the same Transferred Patents."

7. The following shall replace Section 4.1 of the SPLA in its entirety:

"4.1 In consideration of the extended terms herein, Samsung shall pay Rambus: (a) twenty two million U.S. dollars ($22,000,000) by no later than December 31, 2013; (b) subject to timely invoices by Rambus pursuant to Section 5.1(a), by the end of each of the following nineteen (19) quarters starting on January 1, 2014, [***] fifteen million U.S. dollars ($15,000,000) [***]; and (c) further, subject to timely invoices by Rambus pursuant to Section 5.1(a), by the end of each of the subsequent twenty (20) quarters starting on October 1, 2018, the [***] Quarterly as set forth in Section 1.72. For the avoidance of doubt, payments under Section 4.1(b) and (c) shall be subject to any applicable adjustment under Section 3.3 of the SPLA, and payments under Section 4.1(c) shall be further subject to [***]."

8. The following shall be added as new Sections 1.72 through 1.77:

"1.72 "[***] Quarterly", as determined at any time during the Term, shall mean, either: [***] For purposes herein, (i) "[***]Quarterly" means the average quarterly payment [***] under a Qualified License, which shall be deemed to have become effective [***], (ii) "Qualified License" means an agreement under which Rambus and/or one or more of its Subsidiaries grants [***] a license covering at least [***], and such agreement is primarily in the nature of a [***] as opposed to being primarily in the nature of a [***], and (iii) "[***]" means either (x) [***] million U.S. dollars ($[***], or (y) [***] million U.S. dollars ($[***] as
of the then-applicable quarter.

[***]

"1.73 [***]

"1.74 "Set Products" means all products that are not Integrated Circuit made by or for Samsung including without limitation consumer products such as mobile handsets and high definition televisions; provided that such products (a) are sold under a Samsung brand; and (b) would have qualified as Samsung Products if they had been Integrated Circuits."

"1.75 "CRI Patents" means all Patents owned or controlled by CRI."

"1.76 [***] and "Qualified License" shall take the meaning set forth in Section 1.72."

"1.77 "Initial Quarterly" means the amount determined in either Subsection 4.1(b)(i) or (ii) herein."

9. The following shall be added as new Section 2.1(e) of the SPLA:

"2.1(e) Set Product License. Rambus grants Samsung and its Subsidiaries a non-exclusive, non-transferable, worldwide license, without the right to sublicense, solely under the CRI Patents, other than Encumbered Patents, to make (including have made), use, Sell, offer for Sale, and/or import the Set Products during the term of the SPLA."

10. The following shall be added as new Section 2.7 of the SPLA:

"2.7 [***]

11. The following shall be added as new Section 3.3(e) of the SPLA:

"Notwithstanding anything to the contrary, if Samsung or its Subsidiaries acquires an entity or business: (a) making, using, selling or importing DRAMs that were not licensed under all necessary rights to the Rambus Patents prior to the acquisition, then nothing in the SPLA or the TRLA shall operate to license such DRAMs after the acquisition, and Samsung shall promptly notify Rambus of such acquisition, and the Parties shall cooperate in good faith to amend the SPLA to expand the license therein to cover such DRAMs, taking into consideration, among other factors, [***]; or (b) making, using, selling or importing products that were not licensed under all necessary rights to the CRI Patents, then nothing in the SPLA or the TRLA shall operate to license such products after the acquisition, but the Parties shall negotiate in good faith to extend any of the existing licenses or granting a new license to cover such products, taking into consideration, any additional payment and any other relevant terms and conditions to account for such acquisition."

12. The following shall be added as new Section 3.5 of the SPLA:

"3.5 [***]

13. The following shall replace Section 5.1(a) of the SPLA in its entirety:

"5.1(a) Samsung shall pay Rambus each payment set forth in Section 4.1 within ten (10) business days (as determined for notices under Section 9.2 of this Agreement) of Samsung's receipt of Rambus' invoice therefor. Rambus, during the Term, shall invoice Samsung by no later than twenty (20) days prior to the end of each quarter for each of the payments set forth in Section 4.1(b) and (c)."

14. The following shall be added as new Section 7.3:

"7.3 [***] Audit. Notwithstanding any of the provisions in this Section 7, Samsung shall have the right to audit Rambus' Qualified Licenses with [***] through a mutually acceptable third-party accounting or law firm only with respect to those provisions in such agreements relevant to determining compliance of [***] provisions herein including without limitation [***] Quarterly terms; provided however, that with respect to any preexisting agreements containing confidentiality obligations restricting disclosure by Rambus, the foregoing shall not require Rambus to disclose such agreements, but Rambus shall provide Samsung with a representation and warranty that Rambus' [***] Quarterly calculation pursuant to Section 1.72 is accurate in relation to such preexisting agreements. Rambus shall, in good faith, provide Samsung with timely notices of any future executed Qualified Licenses [***]."

15. Amendment Press Release. The Parties shall issue a mutually acceptable press release upon signing this Amendment.

16. TRLA. The Parties hereby agree that, during the Term, all terms of the TRLA shall remain full force and effect except that: (a) on account of Section 3.3(e) of the SPLA, Section 2.3.5(c) of the TRLA is deemed

inapplicable during the Term; and (b) on account of Section 4.1 of the SPLA, all payment and payment-related obligations of Samsung under the TRLA are deemed fully satisfied (including without limitation all such obligations under Sections 2.3.2, 2.3.3,2.3.4 and 3.1). For avoidance of doubt, Samsung retains its right to terminate the TRLA pursuant to Section 6.2 of the TRLA upon termination of the SPLA. Samsung represents that neither it nor its Subsidiaries have made, had made, used, sold, offered for sale, or imported any products covered by Licensed DPA Patents (as defined in the TRLA), other than Licensed DPA Products (as defined in the TRLA), prior to the Amendment Effective Date.

Agreed on behalf of Rambus:

/s/ Kevin Donnelly

Name: Kevin Donnelly Title: Senior Vice President

Date: December 30, 2013

Agreed on behalf of Samsung:

/s/ Jay Shim

Name: Jay Shim

Title: Senior Vice President of IP Date: December 23, 2013

**Exhibit 10.18**

**CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [***] INDICATES THAT INFORMATION HAS BEEN REDACTED.**

# AMENDMENT 1 TO
# SEMICONDUCTOR PATENT LICENSE AGREEMENT

This AMENDMENT 1 TO SEMICONDUCTOR PATENT LICENSE AGREEMENT ("Amendment"), effective as of the date of the later signature below (the "Amendment Effective Date"), is made by and between Rambus Inc., a corporation duly organized and existing under the laws of Delaware, U.S.A., having its principal place of business at 1050 Enterprise Way, Suite #700, Sunnyvale, California 94089, U.S.A., (hereinafter "Rambus") and SK hynix Inc., a corporation duly organized and existing under the laws of Korea., having its principal place of business at 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do, Korea (hereinafter "SK hynix") and amends that certain Semiconductor Patent License Agreement between the parties with an effective date of July 1, 2013 (such agreement, the "Agreement").

**WHEREAS,** in light of unforeseen circumstances, the parties desire to amend and supplement the Agreement in accordance with the terms and conditions contained herein.

**NOW, THEREFORE**, in consideration of the mutual covenants and premises contained herein, and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties, the parties agree as follows:

1. **Expiration Date.** As of the Amendment Effective Date, Section 1.18 of the Agreement is replaced in its entirety with the following:
"1.18 "Expiration Date" means either:
   (a) July 1, 2024 (at 12:00 a.m., Pacific Daylight Time); or
   (b) July 1, 2027 (at 12:00 a.m., Pacific Daylight Time) if SK hynix elects to exercise its option to make such later date the Expiration Date by providing Rambus with a written notice of such election by no later than the earlier of:
      (i) [***]; and
      (ii) March 31, 2024."

2. **Integrated Circuit.** As of the Amendment Effective Date, Section 1.27 of the Agreement is replaced in its entirety with the following:
"1.27 "Integrated Circuit" means a single, discrete integrated circuit chip, in any form factor, including wafer, cingulated die, or packaged die, such as, without limitation, packaged system-on-chips (SOCs), package-on-packages (POPs), package-in-packages (PIPs), memory cards, smart cards, and solid-state drives (SSDs)."

3. **Paid-Up Product.** As of the Amendment Effective Date, Section 1.37 of the Agreement is replaced in its entirety with the following:
"1.37 "Paid-up Product" means (a) each SK hynix Product that is an SDR DRAM or LPSDR DRAM, and (b) each double-data rate DRAM (including each graphics-based and low-power DRAM) that (i) implements the minimum set of features, parameters, and protocols defined or recommended in any JEDEC published specification for such double-data rate DRAM, (ii) is solely capable of communicating with any other Integrated Circuit through the protocol defined or recommended in such JEDEC-published specification, and (iii) has been sold in arms-length transactions to Third Parties by SK hynix and/or one or more of its Subsidiaries prior to September 30, 2019 (if SK hynix fails to provide Rambus with a written notice of its election to exercise its option to make July 1, 2027 the Expiration Date in accordance with Section 1.18 above) or September 30, 2022 (if SK hynix has provided Rambus with a written notice of its election to exercise its option to make July 1, 2027 the Expiration Date in accordance with Section 1.18 above) [***]. Notwithstanding the foregoing sentence, any product that constitutes a Rambus Leadership Product, and each physical instantiation thereof, shall be deemed not to be a Paid-up Product."

4. **SK hynix Product.** As of the Amendment Effective Date, Section 1.59 of the Agreement is replaced in its entirety with the following:
"1.59 "SK hynix Product" means, an Integrated Circuit or Component, for which SK hynix or any of its Subsidiaries either:

(a) owns the entire design of such Integrated Circuit or Component with no limitations on how it may use such design; and/or,

(b) has a license from the party or parties that created or otherwise owns the design of such Integrated Circuit or Component, under which license SK hynix and/or its Subsidiaries (i) can make (and/or have made) such Integrated Circuit or Component; (ii) is free to Sell such made (or have made) Integrated Circuit or Component without restriction as to whom SK hynix and/or its Subsidiaries may Sell such Integrated Circuit or Component; and (iii) is not required or bound to discriminate in price or other terms with respect to such Integrated Circuit."

**5. Term Product.** As of the Amendment Effective Date, Section 1.66 of the Agreement is replaced in its entirety with the following: "1.66 "Term Product" means each SK hynix Product that is an (a) Other DRAM; (b) DRAM Controller; (c) Synchronous Flash Memory; (d) Synchronous Flash Controller; (e) SerDes IC; and (f) any other Integrated Circuit or Component other than a Paid-Up Product. Notwithstanding the foregoing sentence, any product that constitutes a Rambus Leadership Product shall be deemed not to be a Term Product."

**6. Quarterly License Payments.**

(a) As of the Amendment Effective Date, Section 4.1 of the Agreement is replaced in its entirety with the following:

"4.1 Quarterly License Payment. For each calendar quarter that occurs between the Effective Date and the Expiration Date, SK hynix will pay to Rambus a quarterly license payment of twelve million United States Dollars (US$12,000,000; each such payment, a "Quarterly License Payment"), provided that:

(a) for each of the six (6) full calendar quarters immediately following July 1, 2015, SK hynix will pay to Rambus (in lieu of an unadjusted Quarterly License Payment) an adjusted Quarterly License Payment of sixteen million United States Dollars (US$16,000,000); and

(b) in addition, SK hynix shall have the option to make six (6) adjusted Quarterly License Payments (each, an "Adjusted Quarterly License Payment") by providing to Rambus written notice of its election to exercise such option, provided that such notice shall be made no earlier than December 1, 2017, in which case for each of the first six (6) consecutive full calendar quarters following the six (6) month anniversary of Rambus' receipt of such notice, SK hynix will pay to Rambus (in lieu of an unadjusted Quarterly License Payment) an Adjusted Quarterly License Payment of eight-million United States Dollars (US$8,000,000), provided that SK hynix may retract such election a single time (thus preserving it for a later date) by providing to Rambus written notice of such retraction by no later than thirty (30) days before the first day of the quarter in which, absent such retraction, the first associated Adjusted Quarterly License Payment would have come due."

(b) As of the Amendment Effective Date, Section 5.1(a)(ii) of the Agreement is replaced in its entirety with the following: "Starting with the Quarterly License Payment associated with the fourth calendar quarter of 2013, SK hynix shall pay Rambus each subsequent Quarterly License Payments within ten (10) United States business days of its receipt (as determined for notices under Section 9.2) of Rambus' invoice therefor. Rambus shall invoice SK hynix for each of the subsequent Quarterly License Payments no earlier than thirty (30) days after the first day of the quarter to which each such Quarterly License Payment relates."

**7. Taxes.** As of the Amendment Effective Date, the following new sentence shall be added to the end of Section 5.3 of the Agreement:

"5.3 Taxes. Upon Rambus' written request and at Rambus' expenses, SK hynix shall reasonably assist Rambus in a dispute between Rambus and the Korea National Tax Authority with respect to refund of the withholding tax remitted in relation to this section."

**8. Future Contingencies.**

(a) As of the Amendment Effective Date, the Agreement is supplemented with the following Section 6.6:

"[***]"

(b) As of the Amendment Effective Date, the Agreement is supplemented with the following Section 7.3:

"[***]"

(c) As of the Amendment Effective Date, Section 9.4 of the Agreement is supplemented with the following:

"Notwithstanding the foregoing, SK hynix shall be entitled to, and Rambus hereby agrees to, assign this Agreement to a successor to all or substantially all of SK hynix's DRAM assets, provided that (a) SK hynix is not in breach of, and has not breached, this Agreement as of the date of such assignment and (b) such successor agrees in writing with Rambus to be bound, as if it were SK hynix, by this Agreement as so assigned."

9. **Press Release.** The parties shall issue a press release with respect to the Agreement as amended and supplemented by this Amendment in a mutually acceptable form. Each party agrees that, after the issuance of such press release, each party shall be entitled to disclose the general nature of this Agreement as so amended and supplemented, but that the terms and conditions of this Agreement as so amended and supplemented, to the extent not already disclosed pursuant to such press release, shall be treated as Confidential Information in accordance with Section 7 of the Agreement.

10. **Miscellaneous**. Except as specifically amended hereby, the Agreement shall remain in full force and effect. This Amendment may be executed in two (2) or more counterparts, all of which, taken together, shall be regarded as one and the same instrument.

**IN WITNESS WHEREOF,** the parties hereto have caused this Agreement to be signed by duly authorized officers or representatives as of the date first above written.

**RAMBUS INC.** **SK HYNIX INC.**

By: /s/ Kevin Donnelly By: /s/ Kyung-hyun Min

Name: Kevin Donnelly Name: Kyung-hyun Min

Title: Senior Vice President Title: Vice President, General Counsel

Date: June 15, 2015 Date: June 17, 2015

**Exhibit 10.29**

**CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [***] INDICATES THAT INFORMATION HAS BEEN REDACTED.**

# AMENDMENT NUMBER 3

# TO SEMICONDUCTOR PATENT LICENSE AGREEMENT

This Amendment Number 3 ("Amendment 3") amends that certain Semiconductor Patent License Agreement between Rambus Inc., and Micron Technology, Inc., effective December 1, 2013, as amended on September 2, 2020, and December 1, 2020 (collectively, the "Patent License Agreement"), and is effective as of September 1, 2024 (the "Amendment 3 Effective Date").

Rambus Inc., on behalf of itself and all of its subsidiaries (collectively, "Rambus") and Micron Technology, Inc., on behalf of itself and all of its subsidiaries (collectively, "Micron") (Rambus and Micron together, the "Parties"), and in consideration of the covenants set forth below, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, hereby agree as follows:

## TERMS AND CONDITIONS

1. Capitalized terms in this Amendment 3 shall have the meaning assigned to them in the Patent License Agreement. Notwithstanding the foregoing, for all purposes hereunder:

   a. "Amendment 3 Expiration Date" means 11:59pm on November 30, 2029.

   **[***]**"Transferred Patents" shall have the meaning set forth in Section 1.76(b), added below in Paragraph 2 of this Amendment No. 3.

2. Section 1.76 of the Patent License Agreement is hereby stricken and replaced in its entirety with the following:

   "1.76 Patents.

   (a) "Rambus Patents" means: Patents of Rambus and/or of its Subsidiaries, in each case other than the CRI Patents, and

   (b) "Transferred Patents" means Patents owned by Rambus or by any Subsidiary of Rambus at any time prior to the expiration or termination of any Term Product License Renewal Period, which are sold, assigned, or transferred to a Third Party prior to the expiration or termination of such Term Product License Renewal Period**[***]**.

Notwithstanding the foregoing, Transferred Patents shall not include Rambus Patents sold, assigned, or otherwise transferred in connection with: (i) the acquisition by a Third Party of all or substantially all assets of Rambus and its Subsidiaries, taken as a whole, or any Change of Control of Rambus and its Subsidiaries, taken as a whole, and (ii) any transfer of patents in connection with the sale, merger or similar transaction of an operating business that, in the twelve (12) months prior to such sale, merger, or similar transaction, such operating business had commercial sales of products to a Third Party exceeding **[***]**

4. Section 2.1 of the Patent License Agreement shall be amended by adding a new subsection (d) following Section 2.1(c), as follows:

"(d) **[***].** With respect to any Transferred Patent coming within the scope of Section 1.76(b), subject to all of the other applicable terms and provisions of this Agreement (as amended from time to time), and conditioned upon Micron's payment of all amounts due under this Agreement for any then active Subsequent Term Product License Renewal Period (without regard to this Section 2.1(d))**[***]**. Notwithstanding anything to the contrary, in the event that the Transferred Patents are sold, assigned, or otherwise transferred in connection with any transaction whereby Rambus or any of its Subsidiaries sells, assigns or otherwise transfers a substantial majority of the Rambus Patent portfolio **[***]**

7. Sections 7.1(d)(i) of the Patent License Agreement is hereby stricken and replaced in its entirety with the following:

"(d) Term-Product License Renewal. Micron shall have the option to:

(i) renew the Term-Product License upon the expiration of the Initial Term-Product License Period, in accordance with its terms, on the Expiration Date for a renewal term that shall last until the Amendment 3 Effective Date (such renewal term, the "Initial Term-Product License Renewal Period")."

8. Election of Renewal. Hereby with the execution of this Amendment 3, Micron elects to successively renew the Term-Product License for an additional five-year term, beginning from the Amendment 3 Effective Date and that shall last until the Amendment 3 Expiration Date. The Parties agree that the notice provisions of Section 7.1(d) have been satisfied and Rambus hereby waives any claim arising under the prior version of Section 7.1(d) that this election to renew is untimely.

9. Sections 7.1(e) of the Patent License Agreement is hereby stricken and replaced in its entirety with the following:

**[***]**

10. A new Section 9.13 of the Patent License Agreement is hereby inserted as follows:

"Representation and Warranty. The Parties hereby agree that the royalties and other payment amounts (if any) as set forth under the Patent License Agreement qualify as fair, reasonable and non-discriminatory as that phrase or other phrases similar to it are used in Industry Standards Setting Body policies and/or agreements ("FRAND Terms"). **[***]**"

11. Excuse from Performance by Reason of Force Majeure Event. Each Party will be excused from a failure or delay in performing an obligation under this Agreement that is due to the occurrence of a Force Majeure Event, to the extent beyond its control, and to the extent such causes are material and result in significant disruption to such Party's performance hereunder, provided, however, that any Party excused from performance under this Section shall (i) immediately notify the other Party in writing as soon as such Force Majeure Event occurs, (ii) immediately use commercially reasonable efforts to resume performance in full, and (iii) continue at all times to perform to the extent possible**[***]**.

12. Except as set forth in this Amendment 3, all other terms and provisions of the Patent License Agreement shall remain in full force and effect in accordance with its terms.

*[SIGNATURES ON THE FOLLOWING PAGE]*

IN WITNESS WHEREOF, the undersigned Parties have executed this Amendment effective as of the date set forth above.

| **Micron Technology, Inc.** | **Rambus Inc.** |
| --- | --- |
| By: /s/ Ben Tessone | By: /s/ John Shinn |
| Name: Ben Tessone | Name: John Shinn |
| Title: SVP, Chief Procurement Officer | Title: Senior Vice President and General Counsel |
| Date: December 9, 2024 | Date: December 8, 2024 |

**Exhibit 19.1**

RAMBUS INC.
Revised November 7, 2024

# INSIDER TRADING POLICY

Document Number: 00613

## I. PURPOSE

This policy sets forth the restrictions on Insiders with respect to transactions in Rambus Inc. securities, Rambus Inc. and its subsidiaries hereinafter the "Company" or "Rambus".

## II. OVERVIEW

It is your responsibility to understand and follow this policy. Insider trading is illegal and a violation of this policy. In addition to your own liability for insider trading, Rambus, as well as individual directors, officers and other supervisory personnel, could face liability. Even the appearance of insider trading can lead to government investigations or lawsuits that are time-consuming, expensive and can lead to criminal and civil liability, including damages and fines, imprisonment and bars on serving as an officer or director of a public company, not to mention irreparable damage to both your and the Company's reputation.

## III. SCOPE

This policy applies to all Rambus board members, full and part time employees, contractors, consultants and advisors (collectively "Rambus Personnel"). Third parties may also be subject to this policy as directed by their Rambus supervisor.

This policy applies to non-public Material Information related to Rambus and relating to other companies, including the Company's customers, vendors or suppliers ("business partners"), when

that information is obtained in the course of employment with, or other services performed on behalf of, the Company.

## IV. DEFINITIONS

Insider: Includes all Rambus Personnel and immediate family members, individuals living in such persons' households, persons who are your economic dependents or whose security transactions are directed or influenced by such persons (collectively, "Insiders" and individually, an "Insider"). The Insider is responsible for making sure that these other individuals and entities comply with this policy.

Material Information: Information is considered "material" if a reasonable investor would be substantially likely to consider it important in making a decision to buy, sell or hold securities or would view the information as significantly altering the total mix of information in the marketplace about the issuer of the security. Information that is likely to affect the price of securities is almost always "material." Either positive or negative information may be "material."

Information is considered "non-public" if it has not been broadly and publicly disseminated for a sufficient period to be reflected in the security's price. Information remains "non-public" until two trading days after such information has been "publicly disclosed," meaning that it has been broadly distributed to the public in a non-exclusionary manner, such as via a press release or the inclusion of such information in a Form 8-K, 10-Q, or 10-K filed with the Securities and Exchange Commission ("SEC").

### A. RESPONSIBILITY

Rambus Personnel: All Rambus Personnel are responsible for complying with this policy, regardless of whether or not they are subject to the Company's blackout periods or trading windows.

Insider Trading Compliance Officer: The Company's General Counsel is the Company's Insider Trading Compliance Officer. The Insider Trading Compliance Officer oversees compliance with this policy and pre-clearance of trade requirements for Section 16 and other identified individuals.

Rambus Legal Department: The Company's Legal Department maintains this policy and the list of individuals who must pre-clear all of their transactions in Company securities.

## B. POLICY

1. Restrictions

Trading on non-public Material Information:

- Insiders may not engage or offer to engage in any type of transactions, including any purchase, sale, loan or other transfer or disposition of any equity securities (including common stock, options, restricted stock units, warrants and preferred stock) and debt securities (including debentures, bonds and notes), any disposition in the form of a gift, any distribution to holders of interests in an entity if the entity is subject to this Policy, of:
  - Rambus securities or derivatives while in possession of non-public Material Information about the Company.
  - Securities or derivatives of another public company while in possession of non-public Material Information about that company gained through the course of his or her employment at Rambus.

2. Tipping

Insiders may not:

- Disclose ("tip") non-public Material Information about the Company or about another public company while in possession of non-public Material Information about that company gained through the course of his or her employment at Rambus to another person (including family/household members) where such information may be used to trade in the securities of Rambus or such other company.
- Disclose non-public Material Information about the Company or about another public company while in possession of non-public Material Information about that company gained through the course of his or her employment at Rambus to other Rambus Personnel whose roles do not require them to have the information.
- Make recommendations, or express opinions, on the basis of non-public Material Information to another person regarding the Company's securities.

3. Prohibition Against Short Sales and Derivative Securities Trading

Insiders are prohibited from:

- Short-selling Company securities (i.e., selling Company securities prior to owning them).
- Trading in 'put' or 'call' options or other derivative forms of Rambus securities.

**C. Certain Insiders and Pre-clearance Procedure**

1. The Company's Legal Department maintains a list of executive officers who are subject to the rules and provisions of Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

2. The Company's Legal Department maintains a list of certain individuals who are also subject to pre-clearance procedures. The Company may identify other persons who should be subject to the pre-clearance requirements set forth, and the Insider Trading Compliance Officer may update and revise such list as appropriate.

3. The individuals described in C.1. and C.2. above, along with all members of the Board of Directors, (collectively, the "Specified Insiders") must obtain "pre-clearance" from the Insider Trading Compliance Officer prior to any transaction in Company securities. This pre-clearance requirement is designed to help minimize the risks of trading on non-public Material Information.

4. All trades must be executed within 10 business days of any pre-clearance. Even after preclearance, a person may not trade the Company's securities if they become subject to a blackout period or aware of non-public Material Information prior to the trade being executed.

**D. Trading Windows and Blackout Periods**

1. Quarterly Blackout Periods

All Specified Insiders must refrain from conducting transactions involving the Company's securities during the period in any fiscal quarter commencing on the fifteenth (15th) calendar day of the third fiscal month of the fiscal quarter and ending on the close of business on the second trading day following the date of the public disclosure of the financial results for the prior fiscal quarter or year. The prohibition against trading during the blackout period also means that brokers cannot fulfill open orders on the Insider's behalf or on behalf of the Insider's immediate family members, persons with whom the Insider shares a household, persons who are the Insider's economic dependents, or any entity whose transactions in securities the Insider influences, directs or controls, during the blackout period, including "limit orders" to buy or sell stock at a specific price or better and "stop orders" to buy or sell stock once the price of the stock reaches a specified price. If the Insider is subject to blackout periods or pre-clearance requirements, the Insider should so inform any broker with whom such an open order is placed at the time it is placed.

2. Special Blackout Periods

In order to further minimize the potential of insider trading, the Company may announce other recommended or prohibited time frames for conducting trades in the Company's securities. The Insider Trading Compliance Officer will notify the Insider if the Insider is subject to a special blackout period by providing to the Insider a notice. If the Insider is notified that the Insider is subject to a special blackout period, the Insider may not engage in any transaction of the Company's securities until the special blackout period has ended other than the transactions that are covered by the exceptions below. The Insider also may not disclose to anyone else that the Company has imposed a special blackout period. To the extent applicable to the Insider, special blackout periods also cover the Insider's immediate family members, persons with whom the Insider shares a household, persons who are the Insider's economic dependents, and any entity whose transactions in securities the Insider influences, directs or controls.

3. Regulation BTR Blackout Periods

In order to comply with Regulation Blackout Trading Restriction ("Reg. BTR") under U.S. federal securities laws, the Company may also institute blackout periods with respect to directors and officers preventing such directors and officers from trading in Company securities during periods, if applicable, when employees are prevented from trading Company securities in the Company's 401(k) Plan. Any profits realized from a transaction that violates Regulation BTR are recoverable by the Company, regardless of the intentions of the director or officer effecting the transaction. In addition, individuals who engage in such transactions are subject to sanction by the SEC as well as potential criminal liability.

4. It is important to note that whether or not an Insider is subject to blackout periods, all Insiders remain subject to the prohibitions on trading on the basis of non-public Material Information and any other applicable restrictions in this policy and under the law.

**E. Additional Restrictions and Guidelines**

1. Holding Company Securities in Margin Accounts and Using Company Securities as Collateral for Loans

Specified Insiders may not hold Company securities in margin accounts or pledge Company securities as collateral for loans. Under typical margin arrangements, if a person fails to meet a margin call, the broker may be entitled to sell securities held in the margin account without that person's consent. Under typical collateralized loan arrangements, if a person defaults on a loan, the lender may sell the pledged securities as collateral in a foreclosure sale. These sales, even though not initiated at the person's request, are still considered a sale for that person's benefit and, if made at a time when the person is aware of non-public Material Information or is

otherwise not permitted to trade, may result in inadvertent insider trading violations, Section 16 and Reg. BTR violations (for officers and directors), violations of this policy, and unfavorable publicity for the Specified Insider and the Company. For these same reasons, all Insiders, even if not prohibited from holding Company securities in margin accounts or from pledging Company securities as collateral for loans, should exercise caution when doing so.

## V. EXCEPTIONS

### A. Stock Option and Purchase Plans

The exercise of stock options for cash with no other associated market activity under the Company's stock option plans or the purchase of shares under the Company's employee stock purchase plan (but not the sale of any such shares) is exempt from this policy, since the other party to the transaction is the Company itself and the price does not vary with the market but is fixed by the terms of the option agreement or the plan.

### B. Restricted Stock Units (RSUs)

The vesting of restricted stock units ("RSUs"), but not the sale of any such vested shares under the Company's equity incentive plan is exempt from this policy, including, if applicable by its terms, a net share settlement whereby an employee may elect to have shares withheld upon the vesting of RSUs for the purpose of satisfying a tax withholding obligation since the other party to the transaction is the Company itself and the price does not vary with the market but is fixed by the terms of the equity incentive plan. In a net share settlement, the Company effectively repurchases that number of shares with an aggregate value equal to the amount of the employee-stockholder's withholding tax obligation and then pays that amount in cash to the appropriate tax authorities consistent with the Company's normal withholding procedures.

### C. Change in Form of Ownership

The trading restrictions under this policy do not apply to transfers by will or the laws of descent or distribution and, provided that prior written notice is provided to the Trading Compliance Officer, distributions or transfers (such as certain tax planning or estate planning transfers) that effect only a change in the form of beneficial interest without changing your pecuniary interest in the Company's securities.

### D. Rule 10b5-1 Trading Plans

Trades of the Company's securities made pursuant to a plan adopted in strict compliance with Rule 10b5-1 promulgated under the Securities Exchange Act of 1934, as amended (a "10b5-1 Plan") are exempt from this policy; provided, however, that such a plan (which is subject to certain requirements set forth in the Guidelines for Rule 10b5-1 Trading Plans)

must be approved in advance by the Company's Insider Trading Compliance Officer. If the Trading Compliance Officer is the requester, then the Company's Chief Executive Officer, Chief Financial Officer, or their delegate, must approve the written 10b5-1 trading plan.

## VI. SECTION 16 COMPLIANCE

All of the Company's executive officers and directors and certain other individuals are required to comply with Section 16 of the Exchange Act and related rules and regulations which set forth reporting obligations, limitations on "short swing" transactions, which are certain matching purchases and sales of the Company's securities within a six-month period, and limitations on short sales.

To ensure transactions subject to Section 16 requirements are reported on time, each person subject to these requirements must provide the Company with detailed information (for example, trade date, number of shares, exact price, etc.) about his or her transactions involving the Company's securities.

The Company is available to assist in filing Section 16 reports, but the obligation to comply with Section 16 is personal. If you have any questions, you should check with the Trading Compliance Officer.

## VII. ENFORCEMENT

Violation of this policy is subject to disciplinary action, up to and including termination of employment and may also be subject to government imposed civil and criminal penalties, including incarceration, for trading on the basis of insider information.

Any Insider should consult with personal legal and financial advisors as needed. Note that the Company's legal counsel, both internal and external, represent the Company and not an Insider personally. There may be instances where an Insider suffers financial harm or other hardship or is otherwise required to forego a planned transaction because of the restrictions imposed by this policy or under securities laws. If the Insider were aware of the non-public Material Information at the time of the trade, it is not a defense that the Insider did not "use" the information for the trade. Personal financial emergency or other personal circumstances are not mitigating factors under securities laws and will not excuse an Insider's failure to comply with this policy. In addition, a blackout or trading-restricted period will not extend the term of an Insider's options. As a consequence, an Insider may be prevented from exercising options by this policy or as a result of a blackout or other restriction on trading, and as a result options may expire by their term. It is the Insider's responsibility to manage economic interests and to consider potential trading restrictions when determining whether to exercise options. In such instances, the Company cannot extend the term of the options and has no obligation or liability to replace the economic value or lost benefit.

## VIII. APPLICABILITY OF THIS POLICY AFTER DEPARTURE

An Insider is expected to comply with this policy until such time as the Insider is no longer affiliated with the Company and no longer possesses any non-public Material Information subject to this policy. In addition, if the Insider is subject to a trading blackout under this policy at the time such Insider cease to be affiliated with the Company, the Insider is expected to abide by the applicable trading restrictions until at least the end of the relevant blackout period.

## IX. PROTECTED ACTIVITY NOT PROHIBITED

Nothing in this policy, or any related guidelines or other documents or information provided in connection with this policy, shall in any way limit or prohibit an Insider from engaging in any of the protected activities set forth in the Company's Open Door Reporting Policy, as amended from time to time.

## X. REPORTING

If an Insider believes someone is violating this policy or otherwise using non-public Material Information that they learned through their position at the Company to trade securities, the Insider should report it to the Insider Trading Compliance Officer.

## XI. AMENDMENTS

The Company reserves the right to amend this policy at any time, for any reason, subject to applicable laws, rules and regulations, and with or without notice, although it will attempt to provide notice in advance of any change. Unless otherwise permitted by this policy, any amendments must be approved by the Board of Directors.

## Guidelines for Rule 10b5-1 Trading Plans

For purposes of Rambus' Insider Trading Policy (the "Policy"), the Company considers that trades of the Company's securities made pursuant to a plan adopted in strict compliance with Rule 10b5-1 promulgated under the Securities Exchange Act of 1934, as amended (a "10b5-1 Plan" or a "Plan") are exempt from the Policy; provided, however, that such a Plan must be approved in advance by the Company's Insider Trading Compliance Officer. All capitalized terms used but not defined herein shall have the meanings ascribed to them in the Policy. The Insider Trading Compliance Officer shall not approve a 10b5-1 Plan or any modification thereof unless the following requirements have been satisfied:

1. The adoption date of a 10b5-1 Plan (i.e., the date the Insider executes the Plan) or the adoption date of a modification to such a Plan shall not occur during a quarterly or other blackout period in effect with respect to the Insider adopting the Plan.

2. The 10b5-1 Plan shall not allow the accumulation, or "roll-over," of securities to be sold from one period to another (i.e., 10b5-1 Plans may not specify that securities remaining unsold for any reason in a given period, including failure of the Company's common stock to reach a specified sales price point, "roll over" into the next sales window and be added to the securities to be sold in the following period).

3. The effective date of the 10b5-1 Plan (i.e., the date that trading pursuant to the Plan may begin) may not occur until:

    - with respect to directors and officers (as defined in Rule 16a-1(f) of the Securities Exchange Act of 1934), the expiration of a cooling-off period consisting of the later of (a) 90 calendar days after the adoption of the 10b5-1 Plan and (b) two business days after the filing by the Company of its financial results contained in a Form 10-Q or Form 10-K for the completed fiscal quarter in which the 10b5-1 Plan was adopted (but, in any event, this required cooling-off period is subject to a maximum of 120 days after adoption of the such Plan).

    - with respect to all other persons (other than the Company), the expiration of a cooling-off period that is 30 calendar days after adoption of the 10b5-1 Plan.

4. The 10b5-1 Plan must have a minimum term of six months (starting from the Plan's effective date).

5. The Insider shall have represented in the Plan that (i) as of the 10b5-1 Plan's adoption date (or the date of any modification of the Plan), he or she was or is not in possession of any non-public Material Information; (ii) he or she is entering into the Plan (or any modification of the Plan) in good faith and not as part of a plan or scheme to evade the prohibitions of Rule 10b5-1; (iii) he or she has not entered into

or altered a corresponding or hedging transaction or put option equivalent with respect to the Company's securities, and agrees not to enter into any such transaction while the Plan is in effect; and (iv) he or she does not have authority, influence or control over any trades in the Company's securities made pursuant to the Plan, and will not attempt to exercise any authority, influence or control over such trades.

6. If the Insider terminates an existing 10b5-1 Plan prior to its stated termination date, such Insider may not make any trades in the Company's securities until after the expiration of 30 calendar days following termination, and then only in accordance with the Policy.

7. The person adopting the Plan may not have an outstanding (and may not subsequently enter into any additional) Plan except as permitted by Rule 10b5-1. For example, as contemplated by Rule 10b5-1, a person may adopt a new Plan before the scheduled termination date of an existing Plan, so long as the first scheduled trade under the new Plan does not occur prior to the last scheduled trade(s) of the existing Plan and otherwise complies with these guidelines. Termination of the existing Plan prior to its scheduled termination date may impact the timing of the first trade or the availability of the affirmative defense for the new Plan; therefore, persons adopting a new Plan are advised to exercise caution and consult with the Compliance Officer prior to the early termination of an existing Plan.

8. Any modification or change to the amount, price or timing of transactions under the 10b5-1 Plan is deemed the termination of the Plan, and the adoption of a Plan ("Modification"). Therefore, a Modification is subject to the same conditions as a new Plan as set forth in Sections 1 through 8 herein.

9. Within the six month period preceding the Modification or adoption of a 10b5-1 Plan, an Insider may not have otherwise adopted or done a Modification to a 10b5-1 Plan more than once.

10. A person may adopt a 10b5-1 designed to cover a single trade only once in any consecutive 12-month period except as permitted by Rule 10b5-1.

11. The Company must be promptly notified of any Modification or termination of the 10b5-1 Plan, including any suspension of trading under the Plan.

12. The Insider agrees (either in the Plan or in a separate certification to the Company) to use two brokers, one to execute trades pursuant to the 10b5-1 Plan (the "Plan Broker") and one to execute trades in other non-Company securities (the "Non-Plan Broker"). The Plan Broker must be independent from the Non-Plan Broker (e.g. must not communicate with the Non-Plan Broker" about the Insider's trades). If the Plan Broker and the Non-Plan Broker are employed by the same firm, such firm shall have

represented (either in the Plan or in a separate certification to the Company) that an ethical wall has been implemented between the Plan Broker and the Non-Plan Broker. The person administering the Plan must provide prompt notice to the Company of the execution of a transaction pursuant to the Plan.

13. The 10b5-1 Plan shall provide that the Company reserves the right, in accordance with the provisions of its Insider Trading Policy, to suspend sales of its securities made pursuant to the Plan; provided, however, that trading may resume under the Plan when the suspension has been lifted.

14. The Insider must provide the Plan Broker with pre-signed applicable SEC filings, including Forms 144, Forms 4, and seller representation letter forms. The Insider must grant the stockbroker the authority to complete and submit the forms to the SEC and the Company, as the case may be, on the Insider's behalf.

15. All transactions under the trading plan must be in accordance with applicable law.

16. Any trading plans adopted or modified prior to February 27, 2023 (the "Effective Date") are permitted to continue in place until all trades are executed thereunder or they expire by their terms ("Pre-effective Plans"). If the person undertakes a Modification of a Pre-effective Plan on or after the Effective Date, then the Modification must meet all of the requirements set forth herein.

If an Insider enters into a 10b5-1 Plan, such Plan shall be, while it remains in effect, the exclusive means by which the Insider may trade in Company securities, excluding the "Exceptions" and bona fide gifts as identified in the Policy. Notwithstanding the foregoing, trading outside a 10b5-1 Plan may, in the future, be permitted in compliance with law and under terms and conditions to be determined by the Company's (i) Board of Directors or Compensation Committee, or (ii) Chief Executive Officer, Chief Financial Officer, and General Counsel or, if the General Counsel is not available or has a conflict, outside corporate counsel. Such terms and conditions shall include terms limiting the timing and volume of trading outside the Plan and shall also include additional provisions reasonably designed to ensure that the Insider has no non-public Material Information which would prohibit a proposed trade outside the Plan.

**Exhibit 21.1**

**SUBSIDIARIES OF REGISTRANT**

Rambus Canada Inc.
Rambus Controllers, Inc.
Rambus Ltd. (Grand Cayman Islands, BWI)
Rambus Chip Technologies (India) Private Limited
Rambus Korea, Inc. (South Korea)
Rambus ROTW Holding B.V.
Cryptography Research, Inc.
PLDA Ltd (Bulgaria)
PLDA SAS (France)
Hardent Inc. (Canada)

**Exhibit 23.1**

**Consent of Independent Registered Public Accounting Firm**

We consent to the incorporation by reference in the registration statements (Nos. 333-28597, 333-38855, 333-67457, 333-93427, 333-48730, 333-52158, 333-86140, 333-103789, 333-115015, 333-124513, 333-146770, 333-159516, 333-181072, 333-191432, 333-195656, 333-203708, 333-225186, 333-233533 and 333-238809) on Form S-8 of our report dated February 24, 2025, with respect to the consolidated financial statements of Rambus Inc. and subsidiaries and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

Santa Clara, California
February 24, 2025

**Exhibit 23.2**

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-28597, 333-38855, 333-67457, 333-93427, 333-48730, 333-52158, 333-86140, 333-103789, 333-115015, 333-124513, 333-146770, 333-159516, 333-181072, 333-191432, 333-195656, 333-203708, 333-225186, 333-233533 and 333-238809) of Rambus Inc. of our report dated February 23, 2024, except for the change in the manner in which the Company accounts for segments discussed in Note 3 to the consolidated financial statements, as to which the date is February 24, 2025, relating to the financial statements, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
San Jose, California
February 24, 2025

**Exhibit 31.1**

**CERTIFICATION PURSUANT TO RULE 13A-14(A) AND RULE 15D-14(A)
OF THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Luc Seraphin, certify that:

1. I have reviewed this Annual Report on Form 10-K of Rambus Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 24, 2025

By: /s/ Luc Seraphin
Name: Luc Seraphin
Title: *Chief Executive Officer and President*
*(Principal Executive Officer)*

**Exhibit 31.2**

**CERTIFICATION PURSUANT TO RULE 13A-14(A) AND RULE 15D-14(A)
OF THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Desmond Lynch, certify that:

1. I have reviewed this Annual Report on Form 10-K of Rambus Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 24, 2025

By: /s/ Desmond Lynch
Name: Desmond Lynch
Title: *Senior Vice President, Finance and Chief Financial Officer (Principal Financial Officer)*

**Exhibit 32.1**

**CERTIFICATION PURSUANT TO**
**18 U.S.C. SECTION 1350,**
**AS ADOPTED PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Luc Seraphin, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Rambus Inc. on Form 10-K for the fiscal year ended December 31, 2024, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of Rambus Inc.

Date: February 24, 2025

By: /s/ Luc Seraphin
Name: Luc Seraphin
Title: *Chief Executive Officer and President*
*(Principal Executive Officer)*

**Exhibit 32.2**

**CERTIFICATION PURSUANT TO**
**18 U.S.C. SECTION 1350,**
**AS ADOPTED PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Desmond Lynch, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Rambus Inc. on Form 10-K for the fiscal year ended December 31, 2024, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of Rambus Inc.

Date: February 24, 2025

| | |
|---|---|
| By: | /s/ Desmond Lynch |
| Name: | Desmond Lynch |
| Title: | *Senior Vice President, Finance and Chief Financial Officer (Principal Financial Officer)* |

**Exhibit 97.1**

RAMBUS INC. ("Rambus or the Company")
As adopted on July 27, 2023

# COMPENSATION RECOVERY POLICY

Document Number: CORP15

Rambus Inc. (the "**Company**") is committed to strong corporate governance. As part of this commitment, the Company's Board of Directors (the "**Board**") and the Board's Compensation and Human Resources Committee (the "**Committee**") have adopted this clawback policy called the Compensation Recovery Policy (the "**Policy**"). The Policy is intended to further the Company's pay-for-performance philosophy and to comply with applicable law by providing for the reasonably prompt recovery of certain executive compensation in the event of an Accounting Restatement. Capitalized terms used in the Policy are defined below, and the definitions have substantive impact on its application so reviewing them carefully is important to your understanding.

The Policy, which was approved as set forth above, is intended to comply with Section 10D of the Securities Exchange Act of 1934 (the "**Exchange Act**"), with Exchange Act Rule 10D-1 and with the listing standards of the national securities exchange (the "**Exchange**") on which the securities of the Company are listed. The Policy will be interpreted in a manner that is consistent with the requirements of Section 10D of the Exchange Act, Exchange Act Rule 10D-1 and with the listing standards of the Exchange, including any interpretive guidance provided by the Exchange.

In summary, the Policy provides rules related to the reasonably prompt recovery of certain incentive-based compensation received by Executive Officers (as defined below). The application of the Policy to Executive Officers is not discretionary, except to the limited extent provided below, and applies without regard to whether an Executive Officer was at fault.

**Persons Covered by the Policy**

The Policy is binding and enforceable against all Executive Officers. "**Executive Officer**" means each individual who is or was ever designated as an "officer" by the Board in accordance with Exchange Act Rule 16a-1(f). Each Executive Officer will be required to sign and return to the Company an acknowledgement that such Executive Officer will be bound by the terms and comply with the Policy. The failure to obtain such acknowledgement will have no impact on the applicability or enforceability of the Policy.

**Administration of the Policy**

The Committee has full delegated authority to administer the Policy. The Committee is authorized to interpret and construe the Policy and to make all determinations necessary, appropriate, or advisable for the administration of the Policy. In addition, if determined in the discretion of the Board, the Policy may be administered by the independent members of the Board or another committee of the Board made up of independent members of the Board, in which case all references to the Committee will be deemed to refer to the independent members of the Board or the other Board committee. All determinations of the Committee will be final and binding and will be given the maximum deference permitted by law.

**Events Requiring Application of the Policy**

If the Company is required to prepare an accounting restatement due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period (an "**Accounting Restatement**"), then the Committee must determine what compensation, if any, must be recovered.

**Compensation Covered by the Policy**

The Policy applies to all **Incentive-Based Compensation** (certain terms used in this Section are defined below) that is **Received** on or after October 2, 2023 (the "**Effective Date**"), while the Company has a class of securities listed on a national securities exchange, and during the **Covered Period** by a person who was an Executive Officer during the Covered Period and during the performance period for the Incentive-Based Compensation ("**Clawback Eligible Incentive-Based Compensation**"). The Incentive-Based Compensation that must be recovered is the amount of Clawback Eligible Incentive-Based Compensation that exceeds the amount of Clawback Eligible Incentive-Based Compensation that otherwise would have been Received had such Clawback Eligible Incentive-Based Compensation been determined based on the restated amounts (such compensation, as computed without regard to any taxes paid, the "**Excess Compensation**," is referred to in the listings standards as "erroneously awarded incentive-based compensation").

To determine the amount of Excess Compensation for Incentive-Based Compensation based on stock price or total shareholder return, where it is not subject to mathematical recalculation directly from the information in an Accounting Restatement, the amount must be based on a reasonable estimate of the effect of the Accounting Restatement on the stock price or total shareholder return upon which the Incentive-Based Compensation was received and the Company must maintain documentation of the determination of that reasonable estimate and provide such documentation to the Exchange.

"**Incentive-Based Compensation**" means any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a Financial Reporting Measure. For the avoidance of doubt, no compensation that is potentially subject to recovery under the Policy will be earned until the Company's right to recover under the Policy has lapsed. The following items of compensation are not Incentive-Based Compensation under the Policy: salaries, bonuses paid solely at the discretion of the Compensation and Human Resources Committee or the Board that are not paid from a bonus pool that

is determined by satisfying a Financial Reporting Measure, bonuses paid solely upon satisfying one or more subjective standards and/or completion of a specified employment period, non-equity incentive plan awards earned solely upon satisfying one or more strategic measures or operational measures, and equity awards for which the grant is not contingent upon achieving any Financial Reporting Measure performance goal and vesting is contingent solely upon completion of a specified employment period (e.g., time-based vesting equity awards) and/or attaining one or more non-Financial Reporting Measures.

"**Financial Reporting Measures**" are measures that are determined and presented in accordance with the accounting principles used in preparing the Company's financial statements, and any measures that are derived wholly or in part from such measures. Stock price and total shareholder return are also Financial Reporting Measures. A Financial Reporting Measure need not be presented within the financial statements or included in a filing with the Securities and Exchange Commission.

Incentive-Based Compensation is "**Received**" under the Policy in the Company's fiscal period during which the Financial Reporting Measure specified in the Incentive-Based Compensation award is attained, even if the payment, vesting, settlement or grant of the Incentive-Based Compensation occurs after the end of that period.

"**Covered Period**" means the three completed fiscal years immediately preceding the Accounting Restatement Determination Date. In addition, Covered Period can include certain transition periods resulting from a change in the Company's fiscal year. The Company's obligation to recover Excess Compensation is not dependent on if or when the restated financial statements are filed.

"**Accounting Restatement Determination Date**" means the earliest to occur of: (a) the date the Board, a committee of the Board, or one or more of the officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement; and (b) the date a court, regulator, or other legally authorized body directs the Company to prepare an Accounting Restatement.

**Repayment of Excess Compensation**

The Company must recover such Excess Compensation reasonably promptly and Executive Officers are required to repay Excess Compensation to the Company. Subject to applicable law, the Company may recover such Excess Compensation by requiring the Executive Officer to repay such amount to the Company by direct payment to the Company or such other means or combination of means as the Committee determines to be appropriate (these determinations do not need to be identical as to each Executive Officer). These means may include:

(a) requiring reimbursement of cash Incentive-Based Compensation previously paid;

(b) seeking recovery of any gain realized on the vesting, exercise, settlement, sale, transfer, or other disposition of any equity-based awards;

(c) offsetting the amount to be recovered from any unpaid or future compensation to be paid by the Company or any affiliate of the Company to the Executive Officer;

(d) cancelling outstanding vested or unvested equity awards; and/or

(e) taking any other remedial and recovery action permitted by law, as determined by the Committee.

The repayment of Excess Compensation must be made by an Executive Officer notwithstanding any Executive Officer's belief (whether legitimate or non-legitimate) that the Excess Compensation had been previously earned under applicable law and therefore is not subject to clawback.

In addition to its rights to recovery under the Policy, the Company or any affiliate of the Company may take any legal actions it determines appropriate to enforce an Executive Officer's obligations to the Company or to discipline an Executive Officer, including (without limitation) termination of employment, institution of civil proceedings, reporting of misconduct to appropriate governmental authorities, reduction of future compensation opportunities or change in role. The decision to take any actions described in the preceding sentence will not be subject to the approval of the Committee and can be made by the Board, any committee of the Board, or any duly authorized officer of the Company or of any applicable affiliate of the Company.

**Limited Exceptions to the Policy**

The Company must recover the Excess Compensation in accordance with the Policy except to the limited extent that the conditions set forth below are met, and the Committee determines that recovery of the Excess Compensation would be impracticable:

(a) The direct expense paid to a third party to assist in enforcing the Policy would exceed the amount to be recovered. Before reaching this conclusion, the Company must make a reasonable attempt to recover such Excess Compensation, document such reasonable attempt(s) to recover, and provide that documentation to the Exchange; or

(b) Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the legal requirements as such.

**Other Important Information in the Policy**

The Policy is in addition to the requirements of Section 304 of the Sarbanes-Oxley Act of 2002 that are applicable to the Company's Chief Executive Officer and Chief Financial Officer, as well as any other applicable laws, regulatory requirements, rules, or pursuant to the terms of any existing Company policy or agreement providing for the recovery of compensation.

Notwithstanding the terms of any of the Company's organizational documents (including, but not limited to, the Company's bylaws), any corporate policy or any contract (including, but not limited to, any indemnification agreement), neither the Company nor any affiliate of the Company will indemnify or provide advancement for any Executive Officer against any loss of Excess Compensation. Neither the Company nor any affiliate of the Company will pay for or reimburse insurance premiums for an insurance policy that covers potential recovery obligations. In the event the Company is required to recover Excess Compensation from an Executive Officer who is no longer an employee pursuant to the Policy, the Company will be entitled to seek such recovery in order to comply with applicable law, regardless of the terms of any release of claims or separation agreement such individual may have signed.

The Committee or Board may review and modify the Policy from time to time.

If any provision of the Policy or the application of any such provision to any Executive Officer is adjudicated to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect any other provisions of the Policy or the application of such provision to another Executive Officer, and the invalid, illegal or unenforceable provisions will be deemed amended to the minimum extent necessary to render any such provision or application enforceable.

The Policy will terminate and no longer be enforceable when the Company ceases to be listed issuer within the meaning of Section 10D of the Exchange Act.

**ACKNOWLEDGEMENT**

- I acknowledge that I have received and read the Compensation Recovery Policy (the "**Policy**") of Rambus Inc. (the "**Company**").
- I understand and acknowledge that the Policy applies to me, and all of my beneficiaries, heirs, executors, administrators or other legal representatives and that the Company's right to recovery in order to comply with applicable law will apply, regardless of the terms of any release of claims or separation agreement I have signed or will sign in the future.
- I agree to be bound by and to comply with the Policy and understand that determinations of the Committee (as such term is used in the Policy) will be final and binding and will be given the maximum deference permitted by law.
- I understand and agree that my current indemnification rights, whether in an individual agreement or the Company's organizational documents, exclude the right to be indemnified for amounts required to be recovered under the Policy.
- I understand that my failure to comply in all respects with the Policy is a basis for termination of my employment with the Company and any affiliate of the Company as well as any other appropriate discipline.
- I understand that neither the Policy, nor the application of the Policy to me, gives rise to a resignation for good reason (or similar concept) by me under any applicable employment agreement or arrangement.
- I acknowledge that if I have questions concerning the meaning or application of the Policy, it is my responsibility to seek guidance from Human Resources or my own personal advisers.
- I acknowledge that neither this Acknowledgement nor the Policy is meant to constitute an employment contract.

Please review, sign and return this form to Human Resources.

**Executive**

_____

*(Print name)*

_____

*(Signature)*

_____

*(Date)*