Trimble and Qualcomm Establish Alliance to Produce High-Accuracy Positioning Solutions for Connected Vehicles

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Companies Aim to Provide Sub Lane-Level Accuracy to Automotive OEMs and Tier 1 Suppliers

SUNNYVALE, Calif. and SAN DIEGO, Sept. 25, 2019 /PRNewswire/ -- Trimble (NASDAQ: TRMB) and Qualcomm Technologies, a subsidiary of Qualcomm Incorporated, announced today plans to work together to produce precise-positioning solutions for select automotive applications. Trimble will work with Qualcomm Technologies to integrate Trimble's RTX® technology with select Qualcomm® Snapdragon™ Automotive 4G and 5G platforms to deliver a highly accurate positioning solution essential for maintaining absolute in-lane positioning. This new solution will accelerate the adoption of road-level navigation and emergency services applications, as well as satisfy requirements for developing Advanced Driver-Assistance Systems (ADAS) and autonomous driving solutions.

Qualcomm Technologies' Snapdragon 4G and 5G Automotive platforms feature integrated multi-frequency and multi-constellation high-precision GNSS technology. The Snapdragon 4G and 5G platforms also support all major global and regional GNSS satellite constellations such as GPS, GLONASS, Galileo, BeiDou, and QZSS, operating concurrently on the L1, L2, and L5 frequency bands, including a Precise Positioning Framework. This framework ensures consistency in access and use of precise positioning information and incorporates the use of GNSS corrections technology. Tight integration of GNSS functionality in conjunction with the modem reception of the corrections allows for minimum latencies and optimal performance of the precise-positioning solution from the telematics system and provides automakers with a global location platform to meet the requirements of next-generation vehicles.

Trimble RTX technology provides real-time, multi-constellation GNSS corrections and positioning capable of achieving 2-centimeter horizontal accuracy worldwide, compared to uncorrected GNSS positioning that can be accurate to several meters. The combined solution will provide reliable, consistent, high-accuracy positioning, in a broadcast format, to serve even the most precise requirements of the automotive and transportation industries.

"Trimble's relationship with Qualcomm Technologies establishes a unique alliance between industry leaders, in which both companies are committed to advancing the development of safer, more capable ADAS," said John Sprivulis, director of autonomous navigation solutions for Trimble's Advanced Positioning Division. "Together we will offer a solution to the automotive industry that can help accelerate the adoption of precise GNSS positioning in the connected car and transform the way the world drives."

"Highly accurate positioning is quickly becoming an important element of connected vehicle solutions to support Vehicle-to-Everything (V2X) and other autonomy applications," said Lars Boeryd, senior director, product marketing, Qualcomm Technologies. "For this very reason, we are working with Trimble to host the RTX precise positioning software library on our Snapdragon Automotive 4G and 5G platforms to offer a robust end-to-end highly accurate position solution for the automotive industry."

Availability

An RTX-enabled Snapdragon evaluation kit (EVK) is expected to be available by early 2020, for use by automotive OEMs, Tier 1 suppliers or other stakeholders considering absolute positioning as part of their autonomy solution.

Trimble has also made Trimble RTX Auto an ASIL and ASPICE compliant RTX software library, available to any OEM or supplier who requires a functional safety certified solution.

To learn more about Trimble RTX for autonomous vehicle applications, visit: https://positioningservices.trimble.com/industries/automotive or contact Trimble's Advanced Positioning Automotive team at: trimblertx_auto@trimble.com.

About Qualcomm

Qualcomm has a rich legacy of GNSS breakthroughs over the last 20 years starting with the integration of GPS into the CDMA modems as a core feature to support E911 emergency services. Consequently, Qualcomm has expanded the GNSS capabilities to support all of the major global and regional GNSS constellations such as GPS, GLONASS, Galileo, BeiDou, and QZSS, and most recently has added support for the L1, L2, and L5 bands on the Snapdragon 4G and 5G Automotive platforms. Qualcomm also offers technologies to extend accurate 3D positioning into areas where GNSS reception is compromised or completely blocked, including Qualcomm Dead Reckoning (QDR) and Vision Enhanced Precise Position (VEPP), which fuses GNSS, inertial and vehicle sensor inputs, as well an optional camera feed to provide highly accurate absolute positioning in all environments.

About Trimble

Trimble is transforming the way the world works by delivering products and services that connect the physical and digital worlds. Core technologies in positioning, modeling, connectivity and data analytics enable customers to improve productivity, quality, safety and sustainability. From purpose built products to enterprise lifecycle solutions, Trimble software, hardware and services are transforming industries such as agriculture, automotive, construction, geospatial and transportation and logistics. For more information about Trimble (NASDAQ: TRMB), visit: www.trimble.com.

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