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Trimble Introduces a New Portfolio of Timing Products for the 4G LTE Small Cell Market

SUNNYVALE, Calif., Dec. 12, 2014 /PRNewswire/ -- Trimble (NASDAQ:TRMB) introduced today a new portfolio of time and frequency products to address the synchronization needs of the fast growing 4G LTE small cell market.

Regardless of whether a network is using 3G, 4G LTE, LTE-Advanced wireless technologies or a combination, synchronization and syntonization are essential for mobile networks. The new LTE-Advanced features—such as Enhanced Inter-Cell Interference Coordination (eICIC), Coordinated Multipoint Transmission (CoMP), Carrier Aggregation (CA) and Multi-Media Broadcast over a Single Frequency Network (MBSFN)—require an even higher degree of precision. Carriers are making significant investments in small cells, LTE-A and Heterogeneous networks to increase capacity and coverage. Network synchronization is a must to achieve both objectives.

Trimble offers new timing products that are ideal for a wide range of small cell synchronization applications. The solutions provide increased holdover capabilities and more robust signals with multi-constellation GNSS technology to sync wireless networks more efficiently.

The Mini-T™ GG Disciplined Clock is a multi-GNSS (GPS and GLONASS) embedded module, optimized to generate precise 10MHz output and pulse per second. It utilizes the latest in GNSS technology, combined with a precision ovenized oscillator for near atomic clock precision timing. The Mini-T GG provides 24-hour holdover capability and is suitable for pico and microcells.

The Trimble 360™ multi-GNSS receiver is designed to cover the full spectrum of small cells—residential femtocell to rural microcell. The Trimble 360 timing products support GPS, GLONASS and BeiDou systems, and are Galileo-ready. In addition to full constellations, the 360 products support Satellite Based Augmentation Systems (SBAS) and the Asian Pacific Quasi-Zenith Satellite System (QZSS).

The compact, surface mount ICM SMT 360 timing module, measuring only 19 x 19 mm generates a precise 10MHz reference clock for synchronization of residential and enterprise femtocell networks. It provides holdover capability, which allows the module to extend the availability of reference timing outputs.

The Resolution SMT 360 is available in the same 19 x 19 mm form factor, and provides a pulse per second that provides nanosecond accuracy to any application requiring precision time reference such as wireless networks, utilities and digital broadcasting.

The Trimble Mini-T GG disciplined clock, ICM-SMT 360 module and Resolution SMT 360 timing module and starter kit are available now. The Trimble 360 multi-GNSS receiver is expected to be available in January 2015.

About Trimble GNSS Time & Frequency

Communication systems, financial networks, utilities, and other critical infrastructure sectors rely on precision timing for synchronization and operational efficiency. Trimble GNSS receivers provide the precision time and frequency for some of the world's largest communications and computer networking companies. Trimble offers precision time and frequency products to 3G/4G wireless, broadband and digital broadcast networks. More than 30 years of experience allow Trimble to take GNSS receivers and disciplined clocks to higher levels of integration and performance, providing superior technology, quality and cost benefit to customers.

For more information, visit: www.trimble.com/timing.

About Trimble

Trimble applies technology to make field and mobile workers in businesses and government significantly more productive. Solutions are focused on applications requiring position or location—including surveying, construction, agriculture, fleet and asset management, public safety and mapping. In addition to utilizing positioning technologies, such as GPS, lasers and optics, Trimble solutions may include software content specific to the needs of the user. Wireless technologies are utilized to deliver the solution to the user and to ensure a tight coupling of the field and the back office. Founded in 1978, Trimble is headquartered in Sunnyvale, Calif.

For more information, visit: www.trimble.com.

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