

Trimble Launches AP15 GNSS-Inertial Board



Trimble has introduced the Trimble AP15, the latest member of the AP series of OEM GNSS-Inertial board sets. The AP15 uses a custom Microelectromechanical Systems (MEMS)-based Inertial Measurement Unit (IMU). It is the first product to take advantage of Applanix's proprietary calibration process – Applanix SmartCal, a new software compensation technology that allows Trimble to achieve excellent performance from IMUs manufactured specifically for mobile mapping applications.

The announcement was made at the AUVSI 2013 Conference and Exhibition.

The AP15 combines high-precision Global Navigation Satellite System (GNSS) positioning with Applanix IN-Fusion GNSS-Inertial integration technology, all running on a powerful, dedicated Inertial Engine (IE) board. AP products provide the performance and functionality of Applanix's POS systems in an embedded form-factor that is specifically designed for third-party manufacturers and systems integrators. The AP Series is developed for a variety of commercial mobile positioning and orientation applications including airborne, terrestrial and marine mapping and guidance for unmanned vehicles.

Combined with a wheel-mounted Distance Measurement Instrument (DMI), the AP15 provides a full 6-degrees-of-freedom navigation solution for land vehicles that is capable of providing robust position and orientation information regardless of obstructions to GNSS-only positioning such as multipath or complete signal loss. Applanix IN-Fusion technology produces uninterrupted position, roll, pitch and true heading measurements of moving platforms by combining IMU data with raw GNSS observables and DMI velocity.

GNSS functionality is provided by a Trimble GNSS module, a dual-antenna, 440 channel, multi-frequency survey-grade GNSS receiver that supports a wide range of satellite signals, including GPS L1/L2/L2C/L5 and GLONASS L1/L2 signals. The module also supports Satellite-Based Augmentation Service (SBAS) corrections, including the U.S. Wide Area Augmentation System (WAAS), European Geostationary Overlay Service (EGNOS), Japan's Multi-functional Satellite Augmentation System (MSAS) and the OmniStar VBS, HP and XP/G2 corrections.

The Trimble AP15 is expected to be available in October of 2013 through Applanix's sales channel. For more information, visit: www.trimble.com/GNSS-Inertial or applanix.com/products/land/trimble-ap-gnss-inertial.