



## **Trimble Introduces New Series of GNSS-Inertial OEM Modules for High-Precision Positioning and Orientation**

### **Embedded GNSS-Inertial Provides Continuous Mobile Positioning for Maximum Performance**

WASHINGTON, Aug 11, 2009 /PRNewswire-FirstCall via COMTEX News Network/ -- Trimble (Nasdaq: TRMB) today introduced the Trimble(R) AP Series of embedded GNSS-Inertial OEM boards plus an Inertial Measurement Unit (IMU) in a compact form factor. The combined technology allows system integrators to add precise multi-frequency GNSS positioning and inertial data capabilities to their systems to provide continuous mobile positioning and high-accuracy orientation in poor signal environments. The AP Series is ideal for a variety of mobile positioning applications including airborne, terrestrial and marine mapping and guidance for unmanned vehicles.

The announcement was made at AUVSI's Unmanned Systems 2009, the world's largest unmanned systems conference and exhibition.

The Trimble AP Series features high-performance precision GNSS receivers with advanced Maxwell(TM) technology and Applanix IN-Fusion(TM) GNSS-Inertial integration technology running on a powerful, dedicated Inertial Engine (IE) board. The advanced inertial technology provides uninterrupted position, roll, pitch and true heading measurements of moving platforms. In obstructed GNSS environments, the IMU data are used to continuously compute position and retain memory of the GNSS phase ambiguities with low drift, enabling ultrafast re-establishment of RTK accuracy when the GNSS signals are re-acquired. In terrestrial applications, Distance Measurement Instrument (DMI)-aiding provides additional suppression of position error drift during the outages. As a result, the Applanix IN-Fusion technology significantly reduces limitations associated with standard GNSS and GNSS-Aided Inertial technology. The technology enables high-accuracy mobile mapping and positioning to be performed in demanding environments, such as in dense urban areas, under bridges, through tunnels, and during high banked turns of a survey aircraft.

The AP Series supports a wide range of satellite signals, including GPS L1/L2/L2C/L5 and GLONASS L1/L2 signals. With four additional channels, the modules also support Satellite-Based Augmentation Service (SBAS) corrections, including the U.S. Wide Area Augmentation System (WAAS), European Geostationary Overlay Service (EGNOS) and Japan's Multi-functional Satellite Augmentation System (MSAS). The AP Series can also access OmniStar VBS, HP and XP corrections.

The Trimble AP series includes three modules: the AP20 for close range direct georeferencing and Geographic Information System (GIS)-level continuous positioning over shorter outages; the AP40 for low altitude direct georeferencing and Real Time Kinematic (RTK)-level continuous positioning over short outages and GIS positioning over long outages; and the AP50 for high altitude direct georeferencing and RTK positioning over the longest outages.

More information about Precision GNSS-Inertial can be found at: [www.trimble.com/GNSS-Inertial](http://www.trimble.com/GNSS-Inertial).

The Trimble AP Series GNSS-Inertial OEM modules are available worldwide through the Trimble Precision GNSS-Inertial sales channel.

#### About Trimble

Trimble applies technology to make field and mobile workers in businesses and governments 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, inertial 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 Trimble's Web site at [www.trimble.com](http://www.trimble.com).

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