Trimble has introduced the Trimble R12i GNSS receiver, the latest addition to its Global Navigation Satellite System (GNSS) portfolio. The Trimble R12i incorporates Inertial Measurement Unit (IMU)-based tilt compensation using Trimble TIP technology, which enables points to be measured or staked out while the survey rod is tilted. This empowers land surveyors to focus on the job at hand and complete work faster and more accurately.

The IMU-based tilt compensation capability of the Trimble R12i builds on Trimble’s highly regarded ProPoint GNSS positioning engine which, according to the company, delivers more than 30% better performance in challenging environments compared to the Trimble R10-2 receiver across a variety of factors, including time to achieve survey precision levels, position accuracy and measurement reliability. The Trimble ProPoint is designed with flexible signal management that enables the use of all available GNSS constellations and signals, providing new levels of reliability and productivity. In addition, the ProPoint engine is a key enabler of the new TIP technology. Surveyors can continue to use the R12i’s tilt compensation functionality even in challenging environments when other solutions struggle to maintain GNSS and inertial positioning.

**Previously inaccessible areas**

The Trimble TIP technology allows users to accurately mark and measure points in areas previously inaccessible for GNSS rovers such as building corners, or in hazardous situations; for example, the edge of an open excavation. The receiver operates calibration-free out of the box and is resistant to magnetic interference from sources such as cars or electrical utility boxes. The R12i also features real time automatic Inertial Navigation System (INS) integrity monitoring. This system allows users to detect and correct for IMU biases introduced by use over time, temperature or physical shocks, helping ensure measurement quality and integrity for the life of the receiver.

“The R12i represents Trimble’s dedication to perfecting the user experience with the industry's best GNSS engine and now robust tilt compensation,” said Ron Bisio, senior vice president of Trimble Geospatial. “Trimble has been the leader in GNSS technology for more than 30 years and the R12i demonstrates our continued commitment to providing surveyors with the world’s most advanced and trusted GNSS systems.”

Trimble R12i GNSS receiver.