

Low-power Embedded GNSS for Autonomous Reference Receiver

Septentrio's low-power [AsteRx-m OEM GNSS board](#) has been selected by Xeos Technologies for use in their RESOLUTE reference receivers. Designed for high-precision monitoring in low-power applications, the RESOLUTE systems are aimed at structural monitoring and geodetic research in remote and hostile locations. Smaller than a standard credit card, the AsteRx-m board provides centimetre-level dual-frequency L1/L2 GNSS positioning while consuming less than 0.6W.

It incorporates Septentrio's proprietary tracking and positioning algorithms, providing high accuracy and robust performance in difficult environments.

The Xeos RESOLUTE GNSS receiver is designed for applications such as critical infrastructure monitoring, subsidence monitoring and GPS geodesy in extreme polar environments. The small, lightweight and low-power monitoring station is suitable for solar-powered remote autonomous installations. In addition to the Septentrio AsteRx-m GNSS board, the RESOLUTE system features dual SD card storage of GNSS data and multiple telemetry options such as Iridium, cellular, Wi-Fi and wireless mesh networks for monitoring, control and data transmission. The Xeos RESOLUTE also features multiple interfaces such as USB, RS-232, RS-485, CANBUS and SDI-12.

Building upon Xeos' polar Iridium telemetry products, the company is teaming with Septentrio to offer a new line of high-performance, low-power GNSS products for remote applications, according to Derek Inglis, president of Xeos Technologies.