

Centimetre-accurate GNSS Solution for UAVs

Septentrio has announced the launch of AsteRx-m UAS, an RTK-accurate GNSS receiver solution specially designed for the drone market. The AsteRx-m UAS provides high-accuracy GNSS positioning with low power consumption. The launch of the AsteRx-m UAS board is complemented by the release of the GeoTagZ software suite, which works together with the UAS camera and image processing solution to provide centimetre-accurate position tagging of the images without the need for a real-time data link.

Despite being Septentrio's smallest receiver, the AsteRx-m UAS provides users with consistent, robust and accurate positioning thanks to Septentrio's in-house GNSS+ algorithm technology. The receiver delivers centimetre-level accuracy at less than 600mW with GPS and less than 700mW with GLONASS. LOCK+ technology guarantees tracking under heavy usage and IONO+ guarantees no interference in challenging ionospheric conditions.

UAS integration

One of the key characteristics of AsteRx-m UAS and GeoTagZ is the seamless integration into any UAS. AsteRx-m UAS features standard connection functionality that directly connects to an autopilot, such as Pixhawk and Ardupilot. The power comes directly from a number of power sources including micro USB, a 9-30V external power supply or the vehicle power bus. GeoTagZ is available as a library of software to integrate into an UAS image processing tool chain.

Jan Leyssens, commercial product manager at Septentrio, said that the aim was to make UAS-based data collection and processing extremely simple. AsteRx-m UAS and GeoTagZ do just that. The GNSS board connects seamlessly to standard hardware and cameras used on a drone. Together with its own software, Septentrio provides a data collection solution that provides centimetre-level accuracy without the need for ground control points or real-time data links, and that integrates effortlessly with any existing UAS image processing software solutions.