

Septentrio launches new GNSS/INS receiver for drones

The AsteRx-i D UAS multi-frequency receiver combines reliable centimeter-level positioning with 3D orientation.

Provider of high-precision GNSS positioning solutions Septentrio has announced its new [AsteRx-i D UAS GNSS/INS](#) receiver. This multi-frequency receiver combines reliable centimeter-level positioning with 3D orientation, enabling automated navigation of aerial drones and robots.

Compact and lightweight

With a high-performance IMU (Inertial Measurement Unit) from Analog Devices integrated directly into the board, AsteRx-i D UAS is compact and lightweight. Aboard the drone, its small form-factor combined with low power consumption results in extended battery life and longer flight times, says [Septentrio](#).

“With this product we introduce into our inertial-GNSS portfolio an IMU which allows us to reduce the weight and power consumption of our UAS boards while making them easier to integrate. These are all key elements for a successful UAV platform,” says the company.

Text continues underneath image



The AsteRx-i D UAS is a new high-performance compact GPS/GNSS receiver with an on-board IMU sensor, tailored to the needs of UAV applications. - Photo: Septentrio

Single and dual antenna

AsteRx-i D UAS is the first commercial product resulting from Septentrio's collaboration with Analog Devices. Both single antenna and dual antenna versions are available. The single antenna version provides a lightweight solution optimising the system SWaP (size, weight and power). The dual antenna version is ideal for machines that need reliable heading directly from the start.

Advanced Interference Mitigation (AIM+) technology

AsteRx-i D UAS comes with Advanced Interference Mitigation (AIM+) technology. According to Septentrio, in aerial drones, where many electronics are crammed into a small space, neighboring devices can emit electromagnetic radiation, interfering with GNSS signals. AIM+ offers protection against such interference resulting in faster set-up times and robust continuous operation.

The company says the on-board IMU from Analog Devices is exceptionally robust against mechanical vibrations. This IMU combined with Septentrio's anti-shock LOCK+ technology is to make AsteRx-i D UAS resilient against impact during takeoff and landing.



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