Unmanned Systems Overview

Proven, reliable Resilient PNT solutions are available today to protect unmanned systems. Orolia offers a layered, custom approach to accommodate the many technologies that Unmanned Systems operators require to deploy the solution that best fits mission requirements.
Resilient PNT for Unmanned Systems

UAV Resilient Environment

GSG-6 Essential GNSS Simulator

SecureSync SAASM Time and Frequency Reference

Sarbe G2R-ELT Evo Emergency Locator Transmitter

LPFRS/AV1 Airborne Rubidium Oscillator


GPSdome Anti-Jammer

Resilient PNT for Unmanned Systems

GSG-8 Advanced GNSS Simulator

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GSG-6 Essential GNSS Simulator
The Orolia PNT Advantage

Proven, reliable Resilient PNT solutions are available today to protect unmanned systems. A layered, custom approach to accommodate the many different types of technologies that Unmanned Systems operators to deploy the solution that best fits mission requirements.

**Scalable, Modular, Cost-Effective PNT for Every Mission Requirement**

**Mission Capabilities**

**Sensor Synchronization**

GNSS signal interference can impact the timing synchronization of embedded sensors, therefore data collection on the navigation computer could be compromised. By using an atomic clock as holdover oscillator, sensor data will be synchronized even in GNSS-denied environment.

**Continuous Communication**

Accurate time and frequency information, even in GNSS denied environment, is a key enabler of high speed and secure datalink between UAV and ground segment. By using a time server equipped with an anti-jamming detection software, this continuous transmission will be maintained.

**Accurate Navigation Data**

In case of a spoofing attack, embedded sensors might receive compromised data to make the unmanned vehicle drift from its initial trajectory. By protecting embedded time servers with integrated anti-jammer, PNT data will be secured and reliable.

**Battlefield Readiness**

In case of a spoofing attack, embedded sensors might receive compromised data to make the unmanned vehicle drift from its initial trajectory. By testing unmanned vehicles before sending them on the field, you will be able to configure them properly to react to jamming and spoofing attacks.

**About Orolia**

Orolia is the world leader in resilient positioning, navigation and timing (PNT) solutions that improve the reliability, performance and safety of critical, remote or high-risk operations, even in GPS denied environments. With locations in more than 100 countries, Orolia provides virtually fail-safe GPS/GNSS and PNT solutions to support military and commercial applications worldwide. Orolia is proud to be a trusted partner to NATO and allied forces.

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