# A-PNT – When GPS is not available and the mission is critical

Introducing the first packaged A-PNT solution consisting of a software-defined outdoor receiver that is engineered to enhance connectivity resilience. By processing positioning, navigation and timing (PNT) signals from GNSS and multiple alternate sources and frequency bands, the A-PNT solution ensures connectivity and situational performance without disruption.



**EUTELSAT AMERICA CORP**

**+**

**OneWeb Technologies**

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The A-PNT receiver monitors the quality and fidelity of the GNSS signal, identifies the best source of PNT, and produces an output signal compatible with the standard GPS L1 interface.

Battlefield-tested and available now, OneWeb Technologies' A-PNT solution provides users the PNT resilience necessary to operate in GNSS-challenged environments.

## IDEAL FOR:

| Intelligence Gathering | PACE Communications Planning | Supporting Combat Operations | Critical Connectivity |
|---|---|---|---|
| Avoids operational failures and continues high-bandwidth information sharing when in proximity to GPS jammers and in remote and challenging positions. | Ensures SATCOM terminal continuity for military forces as part of their Primary, Alternate, Contingency, Emergency (PACE) plan. | Enables military forces to stay connected in GNSS-challenged environments and pass orders effectively. | Enables connectivity when battlefield commanders must communicate across all echelons. |

GPS

GALILEO

GLONASS

PNT BROADCAST SERVICE

## HOW IT WORKS

Monitors the quality and fidelity of GNSS and alternate signals and identifies the best source of PNT

# Designed to perform

## PERFORMANCE

- Stability within +/- 7 ppb in the GPS locked state
- +/- 200ns timing precision on alternate source
- ~50m location precision (improves over time down to ~25m)
- 4-hour holdover (when no source signal is available)
- Velocity accuracy of ±0.15 m/s at ≤ 30 m/s (only on GNSS)
- LPI/LPD: Passive - receive only
- Ability to remotely remove device in the event of compromise
- RF Input Specifications (with the appropriate antenna)
- GPS & Galileo L1, L2 and L5 frequency bands
- GLONASS G1 frequency band
- A-PNT Broadcast Service

## OPERATION

- Detects spoofing and jamming; logic to auto-switch source
- Auto source: Selects GNSS as default PNT source, STL backup, holdover tertiary
- Manual Source: User defines priority order of source (GNSS/STL)
- Force position: Uses source of Position regardless of source of Timing
- External: Receives NMEA via serial port; uses in the list of options
- Smooth transition (no loss of timing) when switching across PNT sources

## FEATURES

- Configuration via USB-Type A
- Operational status via LEDs, with blackout ability
- Serial ports open (RS232 and RS422) allow a daisy chain with external NMEA-183 sources (inertial, gyro, etc.)
- Provides output of 1PPS to synchronize external devices

## About Eutelsat America Corp. and OneWeb Technologies

Eutelsat America Corp. and OneWeb Technologies Inc are a commercial satellite communications (SATCOM) services provider, offering resilient fixed and mobile solutions to the U.S. government and its allies. We operate in combination as a wholly owned independent U.S. proxy company and subsidiary of Eutelsat Group. Eutelsat America Corp. and OneWeb Technologies Inc provide consultative and customer-first solutions with access to a low Earth orbit (LEO) constellation of 600+ satellites and a global fleet of 35 geostationary (GEO) satellites. The company has a long-standing record of meeting the mission requirements of U.S. government customers through our technical achievement, operational excellence and service commitment.



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