Longport ADS-B Receiver Module

Receive & Decode ADS-B Transmissions

Features

→ **Supports 978 Mhz UAT and 1090 MHZ ADS-B**

→ **Support ADS-B and 5 additional Surveillance Processor Modules**

→ **Front panel GPS, RF antenna input connections**

→ **10/100/1000 Ethernet**

Sunhillo's Longport platform is a robust, versatile, and modular system designed for Surveillance Sensor Data Distribution and message conversions and now with the addition of the ADS-B Receiver module it accepts and decodes 978MHz UAT and 1090MHz ADS-B.

Sunhillo's ADS-B Receiver accepts the transmission directly into the module from a TNC connector for the RF antenna feed. Additionally, the module has an SMA connector for the GPS input. The module also features a fully integrated GPS receiver. Outputs include a variety of destinations and formats including ASTERIX CAT021 and FAA CAT033 over ethernet.

The ADS-B Receiver can also output CD2 (Virtual Radar) for compatibility with legacy systems in an interim transition phase.

The ADS-B Module is inserted directly into Sunhillo's Longport Platform which is FAA approved and deployed, providing sensor interfacing capabilities for the FAA STARS, TAMR, ASR11, as well as the military DASR program.

Combined with surveillance processor modules, a variety of conversions can be performed including TPS75 to SGF-IP, as well as message format transformations between surveillance data in ECGP, CD-2, ASR, various ASTERIX categories, ADS-B, MAR, TPS75, Mode 4, ARTS, SGF, AIRCAT-500, Mode S, sync, Async serial and LAN. The platform has the capability to receive, convert, and distribute radar and ADS-B transmissions which can be sent to a surveillance display like Sunhillo Surveillance Monitoring System (SMS).
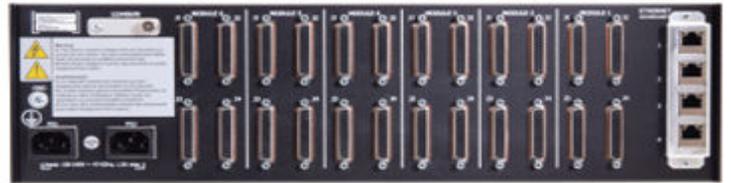
Sunhillo's ADS-B Receiver is currently deployed to the US Military for situational awareness.

FIPS 140-3 Inside (certificate # 5003) The Longport ADS-B Receiver uses Sunhillo's FIPS 140-3 certified cryptographic module to provide validated cryptography for the protection of sensitive information where encryption is used (i.e., https, ssh).

Front and Rear Panels

Technical Specifications

Part Number
- 030-LP-ADSB-S01

Description
Longport ADS-B Receiver Module

Ethernet
- 10BASE-T, 100BASE-T, 1000BASE-T, IEEE-802.3

ADS-B Input
- Front Panel TNC Connector for RF Feed
- 978 MHz UAT ADS-B
- DF17/18 1090 MHz ADS-B and TIS-B

ADS-B Output Format
- ASTERIX CAT021 (v.23,v.26, v2.1, v2.4)
- ASTERIX CAT023/033 (FAA v3)

GPS
- Front Panel SMA Connector
- Fully Integrated GPS Receiver

Power (Longport)
- Single or Dual (load sharing)
- 100-240VAC, 1.5 Amp Max Power Supply

Dimensions (Longport Chassis)
- Height 5.25 in./133.5 mm
- Width 17.5 in./444.5 mm (without mounting brackets)
- Depth 9.5 in./241.3 mm
- Weight 15 lbs./6.8 kg (fully populated chassis)

Environmental (Tested to MIL-STD-810G)
- Storage Temperature: -50°C to +60°C
- Operating Temperature: 0°C to +50°C
- Operating Relative Humidity Range: 10-95%, non-condensing
- Operating Altitude: -300 ft to 10,000 ft

Certifications and Compliance
- CE & UKCA Mark
- RoHS3 Directive EU 2015/863
- REACH
- FCC Part 15, Class B
- UL/CSA/IEC/EN 62368-1
- ETL for Canada and US, 3023031
- FAA-G-2100J: Power
- FIPS 140-3 Level 1 (Certificate 5003)