

## Decode ADS-B Transmissions

## Features



- Supports 978 MHz UAT and 1090 MHz ADS-B
- Front panel GPS, RF antenna input connections
- 1U rack mountable or table-top design
- 10/100/1000 Ethernet
- Optional DC Powered unit

**Sunhillo's Margate II ADS-B Receiver** integrates technology from the Longport ADS-B Receiver and packages it into the Margate II's robust, small form factor, and versatile design. The Margate II ADS-B Receiver accepts and decodes 978 MHz UAT and 1090ES ADS-B. Sunhillo's ADS-B Receiver accepts the transmission directly into the module from a front panel TNC connector for the RF antenna feed. Additionally, the unit features a fully integrated GPS receiver with a front panel SMA Connector for the GPS input.

Outputs include a variety of destinations and formats including ASTERIX CAT021 and FAA CAT033 over ethernet.

**The Margate II ADS-B Receiver** is positioned as a stand alone compact unit or optioned to fit in our new slim 1U rack mountable chassis. The new chassis is designed to fit single or dual

ADS-B Receivers or a combination of a RIC1 and a Margate II ADS-B Receiver in a single 1U solution.

When paired with the RIC1 in a single 1U chassis 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 formats.

**The Margate II ADS-B Receiver** is built upon FAA approved and deployed Sunhillo SureLine® Software providing sensor interfacing capabilities for the FAA STARS, TAMR, ASR11, as well as the military DASR program.

**An optional DC powered Margate II ADS-B Receiver** is now available. This is ideally suited for

military operations like mounting to the back of a Humvee or other mobile vehicle.

**Sunhillo's Margate II ADS-B Receiver** is currently deployed to the US Air Force, US National Guard, US Army, US Marines, the National Aviation Research and Technical Park (NARTP), and the Mid Atlantic Aviation Partnership (MAAP) FAA UAS Test Site.

# Rear Panels



DC Power Rear



AC Power Rear

## Technical Specifications

### Ethernet

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

### ADS-B Input

- Front Panel TNC Connector for ADS-B Antenna
- 978 MHz UAT and 1090 MHz ADS-B
- DF17, DF18 1090ES ADS-B

### ADS-B Output Format

- ASTERIX CAT021 (v.23,v.26, v2.1, v2.4)
- ASTERIX CAT023/033 (FAA v3)
- XML SDO

### Virtual Radar Output Format

- ASTERIX CAT048 (v1.18, v1.21, 1.23)
- ASTERIX CAT001 (v1.2, v1.4)
- FAA CD2/ASR9/MAR/TPS70/ARSR4/ASR11
- RDIF, CAA, AIRCAT500, CSV

### ASTERIX CAT062 Output Format

- ASTERIX CAT062 (v1.16, v1.17, v1.18)

### Front Panel LED Indicators

- ADS-B, UAT, GPS, Link, Power, Active

### Power

- Power usage: 10.5W per unit
- 100-240 VAC, 2.0A Max, 50-60Hz
- Optional DC Version: 22-34VDC, 1.0A Max

### Processor

- Internal ARM Cortex-A8 processor

### USB

- Maintenance Console Connection

### GPS

- Front Panel SMA Connector
- Fully Integrated GPS Receiver

### MTBF

- 631,520 Hours at 30°C

### Optional Rackmount Sleeve Kit (P/N 010-U-RMS)

- 1U rackmount for standard 19-inch racks
- Captive fasteners allow for fast removal and replacement
- Rackmount sleeve has space for up to two ADS-B Receivers or a combination of an ADS-B Receiver and a RIC1 5000

### Dimensions

Single Margate II ADS-B Receiver:

- Height: 1.61 in / 41 mm
- Width: 7.31 in / 185.68 mm
- Depth: 9.17 in / 233 mm

Populated 1U Sleeve:

- Height: 1.75 in / 44.45 mm
- Width: 17 in / 431.8 mm
- Depth: 9.25 in / 234.95 mm

### Weight (unpackaged)

- Single Margate II ADS-B Receiver: 3 lbs / 1.36 kg
- Empty Sleeve: 3 lbs / 1.36 kg
- Fully Populated Sleeve: 9 lbs / 4.08 kg

### 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%, noncondensing
- Operating Altitude: -300 ft to 10,000 ft

### Certifications and Compliance

- FCC Part 15, Class B
- UL/CSA/IEC/EN 62368-1
- FAA-G-2100H: Power

