

INNOVATIVE LOW COST SURVEILLANCE SOLUTIONS

PlaneTrack, **DroneTrack**, and **VesselTrack** are part of a family of professional 1U/2U 10/19-inch rack-mounted ground station kits designed for cost-effective industrial and defense (naval) surveillance applications.

These systems integrate advanced signal reception and processing technology, offering exceptional long-range RF sensitivity, rapid decoding, and versatile data output formats via a unified network interface.

Featuring an open software architecture, the kits can be easily customized to meet specific client requirements.

PlaneTrack Type RDM1U is a cost-efficient, professional Dual Redundant 2U 19-inch ADS-B ground station tailored for monitoring ADS-B-equipped aircraft.

APPLICATION EXAMPLES

- Surveillance of industrial complexes, such as power stations, offshore wind farms, critical infrastructure
- Enhancement of AIS surveillance systems on vessels and land based
- Support for mobile and stationary defense systems
- Redundant systems for back-to-back installations from towers

PLUG-AND-PLAY KIT

PlaneTrack Type RDM1U is supplied as a complete ready-to-install system kit. It comes with rugged ADS-B and GPS antenna/clamp by AMPHENOL PROCOM for harsh environment, and antenna line surge protectors by CITEL.



KEY FEATURES

- **Industry grade 1090 MHz ADS-B receiver, processor and decoder**
- **Standard 19 inch enclosure (dual 1U)**
- **9-72VDC or 115-230VAC Power Supply**
- **Full network connectivity (Ethernet)**
- **Variety of data output formats**
- **Open software architecture for tailored solutions**
- **Accessories from well-known manufacturers**

UNIFIED DATA FORMATS

PlaneTrack, **DroneTrack** and **VesselTrack** systems provide standardized data output formats, enabling seamless integration into shared downstream processing and visualization systems. For example aircraft data can be transmitted to vessel systems in NMEA/IEC format, while vessel data to aircraft systems in ASTERIX format.

RELATED PRODUCTS

- PlaneTrack B** - 2U 19" rack insert supply
- PlaneTrack BDM** - redundant power supply
- PlaneTrack B10** - compact 10" 2U rack insert
- PlaneTrack R1U** - set of redundant units
- DroneTrack** - Ground station for UAV&small aircraft signal reception
- VesselTrack** - AIS Rx Ground Station

ADS-B RECEIVERS/DECODERS

RF input	N(f) conn., 50 Ohms, max. 0 dBm
RF filter	Cavity type 0.1 MHz @ -0.5 dB, 4 MHz @ -3 dB, 35 MHz @ -30 dB
Frontend stage	Sensitivity >-93 dBm, dyn. range 75 dB, SAW filters
Data Processor	Linux/Debian LTS OS, 32-bit CORTEX A8, 1 GHZ clock, 512 MB RAM, 1 GB Flash
Data Decoder	ICAO Annex 10 Vol IV, DO260/A/B, DOC 9871, ED-129, ED-102/A; ADS-B, Mode-S, ACAS

MECHANICAL AND ENVIRONMENTAL

Enclosure	H:89 mm, W:436/483 mm, D: 266/300 mm
Weight	5.5 kgs incl. accessories
Temperature	indoor components: -10°..+60°C; outdoor components: -30°..+70°C
Classification	indoor components: IP30; outdoor components: IP66
Cooling	natural convection

INTERFACES

Network	Ethernet RJ45 with Surge Protector IEC 61643-21,
GPS	N(f) 5V DC
Data protocols	Push: UDP; Pull: TCP, HTTP; Time: NTP
Data formats	Raw, JSON, Asterix CAT021, 023, 247, CSV, NMEA/IEC, REST API
Power	12VDC or option 24VDC, 48VDC, ca. 1.1 W, Amphenol plug
Maintenance	USB Type A PC maintenance port
Earth	Bolt M5

SERVICE AND COMPLIANCE

Warranty	6 months or option 24/36/48 months
MTBF	> 60.000 h
Markings	CE, FCC, ACMA, RoHS, WEEE

SUPPLIED OUTDOOR ACCESSORIES

ADS-B antennas	N(f) conn., 50 Ohms, 2.2 dBi, length 0.55m, rugged for maritime environment, Amphenol Procom
GPS antennas	N(f) conn., 5V DC, length 0.25 m, rugged for maritime environment, Amphenol Procom
ADS-B line surge protectors	2xN(f) conn., IEC 61342-21, 7.5V / 70V, 10 kA (8/20 µs), 100 A (10/1000 µs), CITEL

OPTIONS

F, G	24VDC, 48VDC ext. operating voltage
H	Extended temp. range -30°..+70°C for indoor components
KK	External PSUs 115/230VAC for DC supply
Q	Active ADS-B antenna >17 dB gain
R	ASD-VIEW radar software client by Cambridge Pixels
S	SNMP client V2c, V3
W, X, Y	Extended warranty 24, 36, 48 months

