

19" 2U UAV & Small Aircraft Rx Ground Station

INNOVATIVE LOW COST SURVEILLANCE SOLUTIONS

PlaneTRack, DroneTRack, and **VesselTRack** are part of a family of professional 2U, 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.

DroneTRack is a cost-efficient, professional receiver ground station tailored for monitoring position and other data from UAVs and small aircraft.

APPLICATION EXAMPLES

- Surveillance of industrial complexes, such as power stations, offshore wind farms, critical infrastructure
- Enhancement of ADS-B and AIS surveillance systems
- Support for mobile and stationary defense systems

PLUG-AND-PLAY KIT

DroneTRack is supplied as a complete ready-to-install system kit. It comes with 6 independant receivers, integrated bias-tees for active antennas (integrated preamps). DroneTRack can feed into the same display software by CAMBRIDGE PIXEL (option).









KEY FEATURES

- Receives and decodes: DRI (mandatory FAA/EASA Drone Remote ID), ADS-L (EASA), FANET, FLARM, OGN, PILOTAWARE
- Four 470/863/915 MHz and two 2.4
 GHz/5 GHz* independent data receivers,
 a processor and decoder *2026
- Standard 19 inch 2U enclosure
- 9-72VDC or 115-230VAC Power Supply
- Full network connectivity (Ethernet)
- Variety of data output formats
- Active antennas with integrated pre-amplifier. Bias tee integrated in case.
- Open software architecture for tailored solutions

UNIFIED DATA FORMATS

PlaneTRack, DroneTRack and VesselTRack systems provide standardized data output formats, enabling seamless integration into shared downstream processing and visualization system. 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 - ADS-B Rx Ground StationVesselTRack - AIS Rx Ground StationWe offer UAV mountable AIS and VHF audio miniature receivers with digital data and VoIP output.

868/915 MHZ/2.4/5* GHz RECEIVER/DECODER		
RF tuners	UHF: 430-490 MHz, 860-960 MHz SHF: 2.4-2.5 GHz, 5.1-5.5 GHz* *2026	
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 >-102 dBm without antenna pre-amplifier	
Data Processor	Linux/Debian LTS OS, 32-bit CORTEX A8, 1 GHZ clock, 512 MB RAM, 1 GB Flash	
Data Decoder	according to FAA/EASA standards (ASTM3411-22a) and OEM publications	

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
Main- tenance	USB Type A PC maintenance port
Earth	Bolt M5

OPTIONS	
F, G	24VDC, 48VDC ext. operating voltage
Н	Extended temp. range -30°+70°C for indoor components
K	External PSU 115/230VAC for DC supply
R	ASD-VIEW radar software client by <i>Cambridge Pixels</i>
S	SNMP client V2c, V3
W, X, Y	Extended warranty 24, 36, 48 months

MECHANICAL AND ENVIRONMENTAL		
Enclosure	H:87 mm, W:439/467 mm, D: 265/310 mm	
Weight	5.5 kgs incl. accessories	
Tempe-	indoor components: -10°+60°C;	
rature	outdoor components: -40°+70°C	
Classi-	indoor components: IP30;	
fication	outdoor components: IP66/IP67	
Cooling	natural convection	

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	
868/915 MHz antenna	N(f) conn., 50 Ohms, integrated preamp/bias-tee, 4 dBi + 17dB gain, length 0.46m
2.4 GHz antenna	N(f) conn., 50 Ohms, 15 dBi, ca. length 1.49m
5 GHz antenna*	N(f) conn., 50 Ohms, 12 dBi, ca. length 0.46m *2026
GPS antenna	N(f) conn., 5V DC, length 0.25 m, rugged for maritime environment, <i>Amphenol Procom</i>
Surge protector	2xN(f) conn., IEC 61342-21, 7.5V / 70V, 10 kA (8/20 μs), 100 A (10/1000 μs), CITEL





