DroneTRack

19" 2U UAV & Small Aircraft Rx Ground Station

INNOVATIVE LOW COST SURVEILLANCE SOLUTIONS

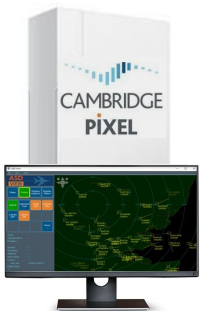
PlaneTRack, DroneTRack, and ***VesselTRack*** *are part* of a family of professional 1/2U, 10/19-inch rack-mounted ground station kits designed for cost-effective industrial and defense (naval) surveillance applications.
These systems integrate advanced signal reception and processing technology, offering 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.
DroneTRack is a cost-efficient, 2U 19-inch professional receiver ground station tailored for monitoring position and other flight 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 flight data***
- ***Four 470/863/915 MHz and two 2.4 GHz/5 GHz* independant tuners/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 Station
VesselTRack - AIS Rx Ground Station
We 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
H	Extended temp. range -30°..+70°C for indoor components
K	External PSU 115/230VAC for DC supply
R	ASD-VIEW radar software client by ***Cambridge Pixels***
S	SNMP client V2c, V3
W, X, Y	Extended warranty 24, 36, 48 months

MECHANICAL AND ENVIRONMENTAL	
Enclosure	H:88 mm, W:436/483 mm, D: 265/300 mm
Weight	5.5 kgs incl. accessories
Tempe-rature	indoor components: -10°..+60°C; outdoor components: -40°..+70°C
Classi-fication	indoor components: IP30; 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, ***Amphenol Procom***
Surge protector	2xN(f) conn., IEC 61342-21, 7.5V / 70V, 10 kA (8/20 µs), 100 A (10/1000 µs), ***CITEL***

in mm