



PPA-UAV

Built for Airborne Agility

Designed for payload-sensitive UAV platforms, the PPA-UAV combines ultra-slim profile with minimal weight. Its low power consumption reduces onboard burden while maintaining rock-solid performance. Ideal for cargo drones and inspection missions, it installs quickly and operates effortlessly in the most demanding flight conditions.

Seamless Integration, Superior Control

The antenna mounts directly above the fuselage—no modifications required. A streamlined indoor unit houses the ACU, modem, and power supply together, saving space and simplifying system management. This all-in-one architecture delivers unmatched operational simplicity for unmanned missions.

Smart Beam Technology

Fully electronic ESA with no moving parts ensures long-lasting durability. Modem-agnostic design provides instant access to GEO, MEO, and LEO networks through a single aperture. Advanced beam steering enables fast, reliable LEO satellite tracking, while the integrated radome cuts drag, cost, and RF loss—boosting overall efficiency in the air.

Key Features

- Available in Ku and Ka Bands
- Optimised Performance
- Seamless Connectivity
- Rugged Reliability
- Simplified Installation
- Flexible Network Integration
- Rapid Deployment
- SAR System Compatibility; fully compatible with GNSS, including Galileo, Glonass, and GPS
- Enhanced Accuracy
- Low Maintenance





GENERAL & MECHANICAL SPEC.

	Ku-Band	Ka-Band
Tracking Travel Range	Azimuth: 0°~360° Elevation: 30°~90°	Azimuth: 0°~360° Elevation: 30°~90°
Weight	≤6kg	≤4.5kg
Power Consumption	≤120W 24VDC	≤70W 24VDC
Dimensions	500mm×330mm×30mm (LxWxH)	250mm×350mm×30mm (LxWxH)

RF CHARACTERISTIC

	Ku-Band	Ka-Band
Frequency (GHz) Tx	13.75 ~ 14.50	27.50 ~31.00
Frequency (GHz) Rx	10.70 ~ 12.75	17.00 ~ 21.50
Pol	Linear / Circular	LHCP/RHCP Circular
G/T (dB/K)	≥4 @ 12.5GHz	>2
EIRP (dBW)	>35dBW@14.25GHz	≥25dBW
Tracking Accuracy	≤0.2° RMS	≤0.2° RMS
Locking time	≤120s	≤120s

IDU SPECIFICATION

	PPA-UAV
Components	Antenna control, Spread Spectrum (DSSS) Modem, Power supply
Ports	DC power port, ethernet port, serial port
Power Consumption	≤20w 24VDC
Weight	≤1.4kg
Dimensions	237mmx160mmx41mm (LxW×H)

ENVIRONMENTAL SPECIFICATIONS

	PPA-UAV
Temperature Range Operational	-40°C~55°C
Protection Grade	IP66 (Antenna)

Specifications are subject to change.