



PPA-HYBRID

The PPA-HYBRID is a lightweight, compact Ku/Ka-band SATCOM-On-The-Move (SOTM) solution designed for mission-critical users. Supporting both legacy wide-beam and HTS GEO satellites, it combines portability with powerful performance to ensure secure, reliable connectivity wherever operations take you.

With its rugged all-in-one design, ultra-low power consumption, and effortless installation, the PPA-HYBRID keeps you connected while on the move. Its fully electronic, no-moving-parts array antennas are modem-agnostic, enabling seamless access to GEO, MEO, and LEO networks through a single antenna. Advanced electronic steering delivers exceptional beam agility, making it especially effective for LEO tracking and ideal for mobile platforms.

Each antenna integrates its own radome, eliminating the added cost, drag, and performance loss of traditional external radomes. Built on our innovative subarray antenna architecture, the PPA-HYBRID offers unmatched scalability—allowing transmit and receive antennas to be optimized independently, rapidly assembled in volume, and produced cost-effectively.

Delivering agility, resilience, and scalability, the PPA-HYBRID redefines satellite connectivity for users who cannot compromise on performance.

Key Features

- ▶ **Optimised Performance** – Designed to deliver maximum efficiency and reliability in every mission.
- ▶ **Seamless Connectivity** – Ensures uninterrupted communication across networks and platforms.
- ▶ **Rugged Reliability** – Engineered to perform even in the harshest environments.
- ▶ **Simplified Installation** – Quick, hassle-free setup with minimal effort.
- ▶ **Flexible Network Integration** – Easily connects with customer networks for smooth data exchange.
- ▶ **Rapid Deployment** – Lightweight and portable, ready for use within minutes.
- ▶ **SAR System Compatibility** – Fully compatible with GNSS, including Galileo, Glonass, and GPS.
- ▶ **Enhanced Accuracy** – Boosts throughput and improves localisation precision.
- ▶ **Low Maintenance** – Reliable design requiring no recalibration and minimal servicing.



GENERAL SPECIFICATIONS

Antenna type	Enhanced Electromechanical Phased Array Antenna
Tracking	Azimuth: 0°~360°; Elevation: 20°~90°
Tracking method	IMU and GNSS enhanced tracking
Locking time	≤120s
Tracking accuracy	≤0.2° RMS
Weight	≤4kg
ACU	Internal ACU
Modem	Integrated modem
Power supply	220V AC/24V DC
Power consumption	≤50W
Dimensions	Φ400mm×70mm (without radome)
Data Interfaces	Ethernet port

RF CHARACTERISTIC

Frequency (GHz)	Tx	13.75~14GHz
	Rx	10.7~12.75GHz
Pol		Linear
G/T		≥2dB/K@12.5GHz
EIRP		≥29dBW@14.5GHz

ENVIRONMENTAL SPECIFICATION

Temperature	-40°C~60°C
Protection	IP66 (Antenna)

Compliances / Certificates



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