



PPA-SOTM

The PPA-SOTM is a high-performance Ku/Ka-band SATCOM-on-the-Move (SOTM) solution built for mission-critical users who demand exceptional bandwidth and unwavering reliability. With its compact, rugged design, low power consumption, and effortless installation, it ensures a seamless satellite connectivity experience wherever the mission goes.

Our advanced electronically steered array (ESA) antennas are fully electronic with no moving parts, delivering unmatched durability and long-term reliability. Modem-agnostic by design, they provide universal access to GEO, MEO, and LEO networks with a single antenna. Rapid electronic beam steering enables superior speed and agility, making the RS8U/RS8A ideal for LEO tracking and mobile platforms. Integrated radomes eliminate extra cost, aerodynamic drag, and RF performance loss, further enhancing efficiency.

Powered by our innovative subarray architecture, the antennas are built on modular building blocks that allow transmit and receive sizes to be optimized independently. This scalable design not only maximizes performance but also enables high-volume production, economies of scale, and fast deployment—ensuring operational readiness without compromise.

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

Weight	≤48kg
ACU	External ACU
Modem	External Modem
Power supply	220V AC/24V DC
Power consumption	Ku: ≤380W Ka: ≤400W
Dimensions	990×960×130mm (L×W×H)
Port	Composite aviation connector for IF, power and control

RF CHARACTERISTIC

		Ku-Band	Ka-Band
Frequency (GHz)	Tx	13.75~14.50	27.50~31.00
	Rx	10.70~12.75	17.70~21.20
Antenna Type		Metamaterial Lens Phased Array Antenna	
Pol		Linear (H/V)	RHCP/LHCP (Co-pol/cross-pol)
G/T		≥10dB/K@12.5GHz	≥10dB/K@20GHz
EIRP		≥47dBW@14.5GHz	≥47dBW@29.5GHz

MECHANICAL SPECIFICATIONS

Tracking	Azimuth: 0°~360°; Elevation: 25°~85°
Locking time	≤120s
Tracking accuracy	≤0.2° RMS

ENVIRONMENTAL SPECIFICATION

Temperature	-40°C~60°C
Protection	IP65

Compliances / Certificates



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