



PAIR-50

Airborne antenna system with 50 cm dish size has a 3-axis motion system for stability and a 4-axis tracking system.

PAIR Series share a legacy of proven, reliable performance on aircraft, ships, fast boats and a variety of military wheeled and tracked vehicles.

The terminal's modular architecture makes use of a common gimbal with certified RF payloads that can be switched between bands in only five minutes.

PAIR-50 is created especially for extended-duration aerial intelligence, surveillance, and reconnaissance (ISR) operations in which the ability to communicate via satellite beyond line of sight (BLOS) is essential to the mission.

Any SOTM product's capacity to keep the link intact during dynamic platform motion is essential to its functionality. SATCOM-on-the-Move solutions combine high-bandwidth line-of-sight stabilization with integrated tracking receiver to deliver world-class "on satellite" tracking accuracy.

Key Features

- Design for Aircraft, Ships, Fast boats and military vehicles
- Supports Ku and Ka-Band
- Fast initial pointing time to satellite
- High tracking accuracy
- Perfect tracking stability
- Fast blockage recovery time
- Fast satellite switching time < 8s
- Convenient maintenance
- Dynamic Pointing and Dynamic Switching Satellite
- 4-Axis tracking system
- 3-Axis Version Available



GENERAL SPECIFICATIONS

Reflector Diameter	0.50m
POL Mode	Ku Band Linear / Ka Band Circular
Pointing Satellite Mode	Auto
Protection Grade	IP 55
Weight	≤14.0Kg(including antenna system, 10 W Ka band Transceiver) ≤14.5Kg(including antenna system, 16W Ku band Transceiver)
Dimension	≤φ560*H555mm (D*H)
Power Supply	DC 18-36V
Power Consumption	≤110W (Ku 16W BUC) ≤120W (Ka 10W BUC)

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 Gain (±0.2 dBi)	Tx	35.60 @ 14.25 GHz	41.90 @ 29.00 GHz
	Rx	34.00 @ 11.70 GHz	38.40 @ 19.00 GHz
Polarization		2 Port Linear (3 Port Optional)	Circular
Satellite Operator Compliancy		Compliant with most of satellite operator requirements	
VSWR	Tx	1.50:1	1.50:1
	Rx	1.40:1	1.40:1
Cross Polar Isolation		>35 dB within 1 dB beamwidth	
G/T (dB/K)		10.3	14.8
EIRP (dBw)		50.0 with 16W BUC	50.9 with 10W BUC

MECHANICAL SPECIFICATIONS

	Azimuth	Elevation	Polarization	Roller
Antenna Range	360° continuous	-8° - 100°	± 110°	± 20°
Antenna Speed	100°/s	100°/s		
Antenna Acceleration	200°/s²	200°/s²		

CONTROL SPECIFICATION

Pointing accuracy	≤0.2° (R.M.S)
Initial acquisition time	≤ 2min
Blockage recovery time	≤5s (blockage 20min)

ENVIRONMENTAL SPECIFICATION

Operation Temperature	-40 ~ +55°C
Storage Temperature	- 50 ~ +70°C
Humidity	98%

Compliances / Certificates



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