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PMAR-45

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The PMAR-45 is specially designed for maritime applications and features a 3-axes stabilization structure. It includes high-precision angle sensors, magnetic resistance sensors, a gyro sensor, and a GPS antenna. These components enable real-time monitoring and adjustments, ensuring the antenna automatically searches for and tracks satellites, maintaining communication even in challenging sea conditions.

The PMAR-45 supports Low Ku, Ku and Ka bands operations with high-precision satellite tracking. Utilizing an advanced conical scan algorithm, it accurately locks onto the satellite with a pointing precision of 0.2° RMS. The antenna offers fast multi-satellite switching, allowing for quick adjustments and seamless transitions between target satellites.

With digital finding technology, the PMAR-45 accurately identifies the target satellite by analyzing the C/N value of the desired satellite carrier signal.

Key Features

- Lower Ku Band, Ku and Ka bands options are available along with Ku/Ka simultaneous option
- Highly reliable Direct Drive System
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions
- Rapid Blockage Recovery Time
- 3-Axes Stability System
- 4-Axes Tracking System
- Consistently high data rate
- Broad modem compatibility
- Easy installation and retrofit

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GENERAL SPECIFICATIONS

Reflector Diameter	0.45m
Stabilization Platform	3-Axis for stability, 4-Axis for tracking
Tracking Mode	Carrier Tracking, SNR Direct Tracking
Modem Interface	Ethernet, OpenAMIP
Modem Support	iDirect, Newtec, Gilat, Datum, Comtech, etc.
Power Input	DC 18-36V
Power Consumption	≤300W (Ku 16W BUC) ≤200W (Ka 10W BUC)

RF CHARACTERISTICS

		Ku-Band	Ka-Band
Frequency (GHz)	Tx	13.75 - 14.50	27.5 - 31.00
	Rx	10.70 - 12.75	17.7 - 21.20
Antenna Gain (±0.2 dBi)	Tx	34.90	41.00
	Rx	33.80	37.70
Tx / Rx Isolation (dB)		85	85
Rx / Tx Isolation (dB)		30	30
Cross Polarization (dB)		35	1.5 (axial ratio)
VSWR	Tx	1.30:1	1.30:1
	Rx	1.50:1	1.50:1
1st Side Lobe (dB)		≤-16	≤-16
Pointing Accurancy		≤0.2° (R.M.S)	
Initial Acquisition Time		≤2min	
Blockage Recovery Time		≤5s (blockage 20min)	

MECHANICAL / POWER SPECIFICATIONS

	Azimuth	Elevation	Roll
Antenna Speed	100°/S	100°/S	90°/S
Antenna Travels	360° continuous	-15°~+105°	-30 + 30°
Acceleration	200°/S²	200°/S²	200°/S²
Radome Size	D: 600mm H: 602mm		
Weight	≤22Kg with 10W Ka Band Transceiver, Modem and Radome ≤25Kg with 16W Ku Band Transceiver, Modem and Radome		

ENVIRONMENTAL SPECIFICATION

Operation Temperature	-40 ~ +60°C
Survival Temperature	-55 ~ +70°C
Protection	IP67
Operational Wind Load	80 Knot
Survival Wind Load	110 Knot
Humidity	0 to 100%

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Specifications are subject to change