



## PMAR-45N

The PMAR-45N, designed for maritime use, features a 3-axis stabilization structure equipped with high-precision angle sensors, magnetic resistance sensors, a gyro sensor, and a GPS antenna. These technologies enable real-time monitoring and adjustments to external environmental changes, ensuring that the antenna automatically searches for and tracks satellites even in challenging sea conditions.

The PMAR-45N supports both Ku and Ka band operations with high-precision satellite tracking. Utilizing an advanced conical scan algorithm, it locks onto satellites with 0.2° RMS accuracy. Its rapid multi-satellite switching capability allows for quick adjustments to the antenna angle and seamless transitions between target satellites.

With digital finding technology, the PMAR-45N can accurately identify the target satellite by analyzing the C/N value of the desired satellite carrier signal, ensuring reliable and precise satellite acquisition.

## Key Features

- Available in Ku and Ka Band
- Highly reliable Direct Drive System
- Exceptional tracking accuracy
- Rapid Blockage Recovery Time
- 3-Axes Stability System
- 4-Axes Tracking System
- Consistently high data rate
- Broad modem compatibility
- Easy installation and retrofit



**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	≤95W (Ku 16W BUC) ≤100W (Ka 10W BUC)

**RF CHARACTERISTIC**

		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 Accuracy		≤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	-20°~+120°	± 35°
Acceleration	200°/S <sup>2</sup>	200°/S <sup>2</sup>	200°/S <sup>2</sup>
Radom Size	D: 558mm H: 520mm		
Weight	≤10.6Kg with 10W Ka Band Transceiver, Modem and Radom ≤11.9Kg with 16W Ku Band Transceiver, Modem and Radom		

**ENVIRONMENTAL SPECIFICATION**

Operation Temperature	-30 ~ +55°C
Survival Temperature	-55 ~ +85°C
Protection	IP67
Operational Wind Load	80 Knot
Survival Wind Load	110 Knot
Humidity	0 to 100%

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