



## PMAR-45

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  $0.2^\circ$  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

- Ku and Ka bands available, Lower Ku and Ku/Ka simultaneous versions are optional
- 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
- Compatible with most of the modems
- Easy installation and retrofit



#### GENERAL SPECIFICATIONS

Reflector Diameter	0.45m
Stabilization Platform	3-Axis for stability, 4-Axis for tracking
Antenna Form	Circle against symmetrical reflector and cap feed
Modem Interface	Ethernet, OpenAMIP
Modem Support	iDirect, Newtec, Gilat, Datum, Comtech, etc.
Power Input	DC 18-32V
Power Consumption	≤250W

#### RF CHARACTERISTICS

		Ku-Band	Ka-Band
Frequency (GHz)	Tx	13.75 - 14.50	29.0 - 30.00
	Rx	10.70 - 12.75	18.7 - 20.2
Antenna Gain (Bi)	Tx	35.2+20lg (f/14.35)	37.5+20lg(f/19.6)
	Rx	33.9+20lg(f/12.25)	38.70+20lg(f/20.4)
Tx / Rx Isolation (dB)		85	85
Rx / Tx Isolation (dB)		35	35
Cross Polarization (dB)		30 (Axis)	-
EIRP (dBw)		46(16W BUC)	50(10W BUC)
G/T (dB/K)		11	13.8
Antenna Pattern Compliancy		ITU-R S.580-6 and ITU-R S.465-6	
Pointing Accuracy		≤0.2° (R.M.S)	
Initial Acquisition Time		≤2min	
Blockage Recovery Time		≤5s (cover for 5 minutes)	

#### MECHANICAL / POWER SPECIFICATIONS

	Azimuth	Elevation	Roll	Pol
Antenna Motion Range	360° continuous	-15°~+105°	± 30°	±110° (Ku) ± 90° (Ka)
Revolutions	100°/S²	100°/S²	100°/S²	
Acceleration	200°/S²	200°/S²	200°/S²	
Radome Size	D: 600mm H: 602mm			
Weight	≤21 Kg (Including Radome)			

#### ENVIRONMENTAL SPECIFICATION

Operation Temperature	-40 ~ +55°C
Survival Temperature	-55 ~ +70°C
Protection	IP65
Operational Wind Load	80 Knot
Survival Wind Load	110 Knot
Humidity	0 to 100%

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