



## PMAR-60

The PMAR-60 is specially designed for maritime applications and features a 3-axis stabilization structure. It includes high-precision angle sensors, magnetoresistive 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-60 supports both Ku and Ka band 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 satellite acquisition technology, the PMAR-60 accurately identifies the target satellite by analyzing the C/N value of the desired satellite carrier signal.

## Key Features

- Available in Ku and Ka Bands
- Highly reliable Direct Drive System
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions
- 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	0.6m
Stabilization Platform	3-Axis (Plus Auto Skew)
Tracking Mode	Carrier Tracking, SNR Direct Tracking
Modem Interface	Ethernet, OpenAMIP
Modem Support	iDirect, Newtec, Gilat, Datum, Comtech, etc.
Power Input	85V - 264V AC

#### RF CHARACTERISTICS

		X-Band	Ku-Band	Ka-Band
Frequency (GHz)	Tx	7.9 - 8.4	13.75 - 14.50	27.5 - 31.00
	Rx	7.25 - 7.75	10.70 - 12.75	17.7 - 21.20
Antenna Gain ( $\pm 0.2$ dBi)	Tx	$32.1 + 20\lg(f/8.15)$	37.30	43.30
	Rx	$31.3 + 20\lg(f/7.5)$	35.20	39.80
Tx / Rx Isolation (dB)		85	85	85
Rx / Tx Isolation (dB)		40	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)		$\leq -16$	$\leq -16$	$\leq -16$
Pointing Accuracy		$\leq 0.2^\circ$ (R.M.S)		
Initial Acquisition Time		$\leq 2$ min		
Blockage Recovery Time		$\leq 5$ s (blockage 20min)		

#### MECHANICAL / POWER SPECIFICATIONS

	Azimuth	Elevation	Roll
Antenna Speed	$90^\circ/\text{S}$	$90^\circ/\text{S}$	$90^\circ/\text{S}$
Antenna Travels	$360^\circ$ continuous	$-20^\circ \sim +120^\circ$	$\pm 35^\circ$
Acceleration	$200^\circ/\text{S}^2$	$200^\circ/\text{S}^2$	$200^\circ/\text{S}^2$
Weight	$< 40$ Kg		
Radom Size	D: 800mm H: 850mm		
System Power Supply	100-230VAC 50-60Hz		

#### ENVIRONMENTAL SPECIFICATION

Operation Temperature	$-30 \sim +55^\circ\text{C}$
Survival Temperature	$-55 \sim +85^\circ\text{C}$
Protection	IP67
Operational Wind Load	80 Knot
Survival Wind Load	110 Knot
Humidity	0 to 100%

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