



PMAR-100

The PMAR-100 is specifically designed for maritime applications, featuring 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 to automatically search and tracks satellites, maintaining communication even in challenging sea conditions.

The PMAR-100 supports both Ku and Ka band operations with high-precision satellite tracking. Using an advanced conical scan algorithm, it accurately locks onto the satellite with a pointing precision of 0.2° RMS. The antenna provides fast multi-satellite switching, allowing quick adjustments and seamless transitions between target satellites.

With digital finding technology, the PMAR-100 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
- Optional 4G / 5G / LTE supported modem for load balancing and bonding solutions
- Seamless communication in all terrains and weather conditions
- LEO, MEO, GEO tracking supported
- Easy to install and refit
- Compact dimensions and weight
- Electronically switchable between cross-polarized (X-pol) and co-polarized (Co-pol) operation
- Compatible with a wide range of modems



GENERAL SPECIFICATIONS

Reflector Diameter	1.0m
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, THISS etc.
Power Input	85V - 264V AC

RF CHARACTERISTICS

KU-BAND

KA-BAND

Frequency (GHz)	Tx	13.75 - 14.50	27.50 - 31.00
	Rx	10.70 - 12.75	17.70 - 20.20
Gain (dBi)	Tx	41.50	47.60
	Rx	40.20	44.30
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 Sidelobe (dB)		<-16	<-16
Pointing Accuracy		<0.2°	

MECHANICAL SPECIFICATIONS

Motion Range	EL -20°~ +110°	AZ: ∞	Cross-Level Range: ± 45°	Skew: -120°~ +120°
Motion Support	Roll: ± 20° @8~12 sec,	Pitch: ± 10° @6~12 sec,	Yaw:±8°@15~20sec	
Dimensions	1385mm X 1350mm			
Weight	≤95Kg			

ENVIRONMENTAL SPECIFICATION

Operation Temperature	-30 ~ +55°C
Survival Temperature	-55 ~ +85°C
Protection	IP65
Operational Wind Load	150 Knot
Survival Wind Load	110 Knot
Humidity	0 to 100% @ 40°C

TURKEY

P : +90 216 540 72 57
M : sales@pals.com.tr
W : www.pals.com.tr

NETHERLANDS

P : +31 6 85 52 63 16
M : sales@pals-comsat.com
W : www.pals-comsat.com

