



PMAR-105

The PALS PMAR-105 is specially designed for maritime applications, featuring a 3-axes stabilization structure. Equipped with built-in high-precision angle sensors, magnetic resistance sensors, a gyro sensor, and a GPS antenna, the PMAR-105 continuously monitors external environmental changes in real time. This ensures that the antenna adjusts dynamically, automatically searching for and tracking satellites, and maintaining open communication even in challenging sea conditions.

The supporting operation and management platform can collect antenna location information, installation information, working condition, running log, etc., when the equipment is used in the process of the equipment, can be analyzed by the state data of the automatic collection of the management platform, can greatly improve the analysis efficiency, shorten the fault checking time.

Leveraging digital finding technology, the PMAR-105 accurately identifies the target satellite by analyzing the C/N value of the desired satellite carrier signal, ensuring reliable and precise satellite acquisition.

Key Features

- Ku and Ka band 4-port feed system
- Initial finding time is short and can lock the satellite in 90s
- Tracking satellite precision is high, using the advanced conical scan algorithm, can control the antenna accurately locking the satellite direction, pointing to the precision control in the 0.2° rms
- Multi-satellite switching speed is fast, receiving the tangent satellite directive, can adjust the antenna angle quickly, and switch the target satellite in a circle
- Using digital finding technology, the target satellite can be accurately identified by the C/N value of the demand satellite carrier signal
- Optional External ACU with display screen
- Seamless communication in all terrains and weather conditions
- Reliable high data rate



GENERAL SPECIFICATIONS

Reflector Diameter	1.05m
Stabilization Platform	3-Axes (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

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	40.9 @ 14.25	46.80
	Rx	40 @ 11.75	43.40
Integrated Buc		Up to 40W	10W
Feed		Ku Linear, Ka Circular, Ku & Ka Band Simultaneous	
First Sidelobe (dB)		<-14	
Tracking Accuracy		0.2° RMS	

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	190 Kg			

ENVIRONMENTAL SPECIFICATION

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

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