



STANDARD
MIL-STD
810

STANDARD
MIL-STD
461

STANDARD
MIL-STD
188-164A

Size:

0.35m, 0.45m

PMAR SERIES

Compact, Rugged Maritime Connectivity

As a leading antenna manufacturer, we proudly unveil the PMAR-35 and PMAR-45 as our latest innovation for demanding maritime environments. This compact, dual-band antenna delivers reliable, high-quality satellite communication for vessels of all sizes, ensuring you stay connected from coastal waters to the open ocean. Engineered with advanced Direct-Drive technology, it eliminates mechanical backlash and reduces moving parts, maximizing operational uptime while maintaining a highly streamlined, space-saving form factor.

Engineered for Reliability

Its efficient stabilization system provides stable satellite tracking, delivering consistent data rates for essential communications, navigation, and operational updates. The precision of the Direct-Drive system ensures ultra-fast, pinpoint satellite acquisition, minimizing signal drops even during intense vessel motion and rough waves.

Proven Versatility & Performance

Supporting both Ku and Ka bands, the PMAR antennas offer operational flexibility to meet diverse needs. It is the ideal, cost-effective solution for manned, unmanned surface vessels, kamikazes, autonomous vessels, swarms, and navy/coast guard platforms.

Key Features

- Ku, Ka Band available
- 3-Axes Stabilization System
- 4-Axes Tracking System
- High Dynamic Response by Direct Drive Technology
- Wear-Free Architecture & Minimal Maintenance
- Supports LEO/MEO/GEO Tracking
- Near-silent performance and vibration-free operation
- Optional 4G/5G/LTE supported modem for load balancing and bonding solutions
- Quick and precise automatic satellite acquisition
- High Data Rate Transmission
- Optional Military Ka-Band Feed





GENERAL SPECIFICATIONS

Reflector Diameter
Stabilization Platform
Modem Interface
Power Input

PMAR-35

0.35m
3-Axes for stability, 4-axes for tracking
Ethernet, OpenAMIP
DC 18~36V

PMAR-45

0.45m
3-Axes for stability, 4-axes for tracking
Ethernet, OpenAMIP
DC 18~36V

RF CHARACTERISTIC

PMAR-35

Frequency (GHz) Tx
Frequency (GHz) Rx
Antenna Gain @ Midband (±0.2 dBi)Tx
Antenna Gain @ Midband (±0.2 dBi)Rx
G/T (dB/K)
Antenna Pattern Compliance
Pointing Accuracy
Initial Acquisition Time

Ku-Band

13.75~14.50
10.70~12.75
32.40
31.20
9
Compliant with MIL-STD-188-164C, ITU-R S.580-6 & ITU-R S.465-6
≤0.2° (R.M.S)
≤2min

Ka-Band

27.50~31.00 GHz
17.70~21.20 GHz
37.50
34.00
10
Compliant with MIL-STD-188-164C, ITU-R S.580-6 & ITU-R S.465-6
≤0.2° (R.M.S)
≤2min

RF CHARACTERISTIC

PMAR-45

Frequency (GHz) Tx
Frequency (GHz) Rx
Antenna Gain @ Midband (dBi) Tx
Antenna Gain @ Midband (dBi) Rx
G/T (dB/K)
Antenna Pattern Compliance
Pointing Accuracy
Initial Acquisition Time

Ku-Band

13.75-14.50
10.70 -12.75
34.6
33.0
11
Compliant with MIL-STD-188-164C, ITU-R S.580-6 & ITU-R S.465-6
≤0.2° (R.M.S)
≤2min

Ka-Band

27.50 - 31.00
17.70 - 21.70
40.8
37.4
13.8
Compliant with MIL-STD-188-164C, ITU-R S.580-6 & ITU-R S.465-6
≤0.2° (R.M.S)
≤2min

MECHANICAL SPECIFICATIONS

Motion Range
Antenna Speed
Antenna Acceleration
Signal Tracking Accuracy
Blockage recovery time

Azimuth

360° continuous
200°/s
500°/s²
<0.2° (R.M.S)
≤5s (blockage 20min)

Elevation

-15° - 110°
200°/s
500°/s²

Roll

± 30°
200°/s
500°/s²

Polarization

± 110°(Ku) ± 90° (Ka)

ENVIRONMENTAL SPECIFICATIONS

Temperature Range Operational
Temperature Range Survival
Protection
Wind Speed Operational
Wind Speed Survival

PMAR SERIES

-20 ~ +60°C
-30 ~ +70°C
IP65
80 Knot
110 Knot

Specifications are subject to change.

