



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 | 0.65m |
| Stabilization Platform | 3-Axis for stability, 4-axis for tracking |
| Antenna Form | Circle against symmetrical reflector and cap feed |
| Antenna Material | Carbon-fiber |
| Power Input | DC18-36V |
| Power Consumption | ≤85W (Ku 16W BUC) ≤90W (Ka 10W BUC) |

RF CHARACTERISTICS

| | | X-Band | Ku-Band | Ka-Band |
|----------------------------|----|-----------------------------|--------------------|-------------------|
| Frequency (GHz) | Tx | 7.9 - 8.4 | 13.75 - 14.50 | 29.0- 30.00 |
| | Rx | 7.25 - 7.75 | 10.70 - 12.75 | 18.7 - 20.20 |
| Antenna Gain (dBi) | Tx | 32.1+20lg(f/8.15) | 38.1+20lg(f/14.25) | 44.9+20lg(f/30) |
| | Rx | 31.3 +20lg(f/7.5) | 37.1+20lg(f/12.75) | 41.5+20lg(f/19.6) |
| Tx / Rx Isolation (dB) | | 85 | 85 | 85 |
| Rx / Tx Isolation (dB) | | 40 | 40 | 40 |
| Cross Polarization (dB) | | | 35 (Axis) | |
| G/T | | | 13.3 | 15.1 |
| EIRP (dBw) | | | 48 (16W BUC) | 54.5(10W BUC) |
| Antenna Pattern Compliancy | | ITU-RS-580 and ITU-RS-465-6 | | |
| Pointing Accuracy | | ≤0.2° (R.M.S) | | |
| Initial Acquisition Time | | ≤2min | | |
| Blockage Recovery Time | | ≤5s (Cover for 5min) | | |

MECHANICAL / POWER SPECIFICATIONS

| | Azimuth | Elevation | Pol | Roll |
|----------------------------|--|---------------------|----------------------|---------------------|
| Motion Range | 360° continuous | -10°- 100° | ±110° (Ku), 90° (Ka) | -30°-30° |
| Antenna Revolution | 100°/S | 100°/S | | 100°/S |
| Acceleration | 200°/S ² | 200°/S ² | | 200°/S ² |
| Weight | ≤17Kg(including antenna system&Transceiver,excluding Radome) | | | |
| Antenna Profile Dimensions | ≤φ725*H675mm (D*H) | | | |
| Positining Mode | GPS | | | |

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% |

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

