



## PFA-240X/Y

Engineered for versatility, our PFA-240X/Y Tracking Antenna combines rapid deployment with robust pedestal technology, perfect for all LEO satellite tracking needs – whether short-term missions or permanent installations. Built on our proven X/Y precision antenna technology, this deployable solution is commercial-airline transportable and can be rapidly deployed without specialized equipment.

The antenna's operation modes include standby, manual control, pointing, program tracking, auto tracking, and memory tracking.

The dual GPS receiver configuration enables high-precision positioning and directional determination. Utilizing the high-precision resolver enables automatic calculation of altitude data, angle data, and coordinate conversion. Programmatically directing the antenna to the target with precision and accuracy enables precise tracking.

The antenna system's power supply is a wide-range AC 220V, and the power supply mode can be tailored to the customer's specifications.

## Key Features

- L, S, X, Ku and Ka-Band versions are available
- Motorized and manual control modes for the convenience of emergency operation under various environments
- Provides high-speed and automatic tracking for GEO, LEO, MEO satellites and UAVs
- Portable, Compact, Light-Weight, Rugged Construction
- Satellite position storage and modification function for the satellite position parameters of at least 10 satellites
- High Reliability and Accuracy
- High Torque and Zero- Backlash
- Fast Slew Rates





## GENERAL SPECIFICATIONS

|                      |          |                      |
|----------------------|----------|----------------------|
| Reflector Diameter   |          | 2.4m                 |
| Reflector Type       |          | Ring Focus Parabolic |
| Drive Rate           | X/Y Axis | 0.1° - 5° / S        |
| Antenna Motion Range | Y Axis   | ± 90°                |
|                      | X Axis   | ± 90°                |
| Motor                |          | DC Servo             |
| Power Supply         |          | 220V AC 50Hz         |
| Power Consumption    |          | < 2kW                |
| Weight               |          | ≤ 280Kg              |

## RF CHARACTERISTIC

|                                       |    | L-Band        | S-Band        | X-Band      | Ku-Band           | Ka-Band     |
|---------------------------------------|----|---------------|---------------|-------------|-------------------|-------------|
| Frequency (GHz)                       | Rx | 1.4 - 1.7     | 2.2 - 2.4     | 7.9 - 8.4   | 13.7 - 14.5       | 27.5 - 31.0 |
|                                       | Tx | 1.4 - 1.7     | 2.2 - 2.4     | 7.25 - 7.75 | 10.70 - 12.75     | 17.7 - 21.2 |
| Antenna Gain (±0.2 dBi)<br>(Mid Band) | Rx | 28.9          | 32.3          | 43.9        | 48.7              | 54.4        |
|                                       | Tx | 28.9          | 32.3          | 43.8        | 47.1              | 50.6        |
| WSVR                                  |    | ≤ 1.5:1       | ≤ 1.5:1       | ≤ 1.3:1     | ≤ 1.3:1           | ≤ 1.5:1     |
| Polarization                          |    | Dual Circular | Dual Circular | Circular    | Linear            | Circular    |
| 1st Side Lobe                         |    | ≤ -14         | ≤ -14         | ≤ -14       | ≤ -14             | ≤ -14       |
| Axial Ratio (dB)                      |    | ≤ 2.0         | ≤ 2.0         | ≤ 1.5       | ≤ 35 (Cross Pol.) | ≤ 1.4       |
| Interface                             |    | N-50K         | N-50K         | WR112       | WR75              |             |

## ENVIRONMENTAL SPECIFICATIONS

|                   |           |               |
|-------------------|-----------|---------------|
| Temperature       | Operating | -40°C - +55°C |
|                   | Survival  | -40°C - +70°C |
| Wind Speed        | Operating | 50 km/h       |
|                   | Survival  | 72 km/h       |
| Grade             |           | IP65          |
| Solar Radiation   |           | 1135W/m2      |
| Humidity          |           | 98%           |
| Ice Loading       |           | 50mm          |
| Survival Rainfall |           | 20 cm/h       |

## Compliances / Certificates



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