



Size:

4.50m

PFMA-450

Advanced Capabilities & Multiband Performance

The PFMA-450, integrated with the PAC-700 Antenna Controller, delivers an advanced solution for demanding applications requiring precise tracking and complex geometries. This powerful combination ensures reliable operation in dynamic environments, making it ideal for missions where accurate positioning and robust performance are essential.

Robust Construction & Signal Integrity

Featuring precision-formed reflector panels, contoured radials, and a machined hub assembly, its robust construction ensures high gain. This premium engineering delivers tightly controlled radiation patterns for superior signal integrity and total operational reliability worldwide.

Tracking Flexibility & Broad Coverage

The system provides unmatched pointing flexibility with an impressive 360 degrees of azimuth coverage and 85 degrees of elevation range. This features seamless, horizon-to-horizon tracking of geostationary satellites from any global field location.

Key Features

- C, X, Ku and Ka Bands available,
- Servo Motor System (AZ, EL, POL Axes)
- Entirely zero-backlash mechanical drive system
- Structure type: A+E type, A+E-T type, X-Y type
- Ethernet interface and supports SNMP ver. 2.0c for M&C
- Inclined orbit tracking
- Optional Feed Stabilization Kit
- Optional Beacon Tracking
- Optional De-Ice system



TECHNICAL SPECIFICATIONS / PFMA-450

Scan the QR code for more information.

GENERAL SPECIFICATIONS

Reflector Diameter
Antenna Structure
Pedestal Structure
Drive Mode

PFMA-450

4.5m
Ring Focus, Center-Feed
Limited Motion/Full Motion
Manual/ Motorized

RF CHARACTERISTIC

Frequency (GHz) Tx
Frequency (GHz) Rx
Antenna Gain (±0.2 dBi) Tx
Antenna Gain (±0.2 dBi) Rx
Axial Ratio (2 Port)
Cross Pol (On Axis)
Polarization
VSWR Tx
VSWR Rx
Rx to Tx Isolation
Feed Insertion Loss Tx
Feed Insertion Loss Rx
Power Capability Tx
Feed Interface Tx
Feed Interface Rx
Surface accuracy(R.M.S)

X-Band

5.850 ~ 6.425
3.625 ~ 4.200
47.09 dBi@6.2GHz
43.17dBi@3.95GHz
≤1.3 dB
<30dB
Circular/Linear
1.25:1
1.25:1
90dB
≤0.2dB
≤0.2dB
5kW
CPR-229G
CPR-137G
≤0.5mm

X-Band

7900-8.400
7.250-7.750
49.57
48.74
≤1.3dB
-
Circular/Linear
1.3:1
1.3:1
85dB
≤0.3dB
≤0.3dB
2kW
WR-112
WR-112
≤0.5mm

Ku-Band

13.750 ~14.500
10.700 ~ 12.750
54.16dBi@14.0GHz
53.0dBi@12.25GHz
≤1.3 dB
<30dB
Linear
1.25:1
1.25:1
85dB
≤0.2dB
≤0.2dB
2kW
WR-75
WR-75
≤0.5mm

Ka-Band

27.500 ~ 31.00
17.700 ~ 21.20
61.16
57.49
≤1.5 dB
-
Circular
1.35:1
1.35:1
85dB
≤0.5dB
≤0.6dB
2kW
WR28
WR42
≤0.3mm

MECHANICAL SPECIFICATIONS

Antenna Motion Range
Antenna Structure

Azimuth

LMC: 100°contin. /FMC: 5°~355°con. 5°~90°
EL over AZ

Elevation

Polarization

±90°

ENVIRONMENTAL SPECIFICATIONS

Temperature
Wind Speed Operational
Wind Speed Survival
Humidity
Ice Load
Seismic Capacity Horizontal
Seismic Capacity Vertical

PFMA-450

-20 ~ +50°C
72 km/h
216 km/h
100%
Icing 13mm: normal work / Icing 25mm, no damage
0.3G
0.1G

Specifications are subject to change.

