



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)	Rx	28.9	32.3	43.9	48.7	54.4
(Mid Band)	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
Antenna Pattern Compliancy		MIL-STD-188-164A, ITU-R S.580-6 and ITU-R S.465-6				
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/m ²
Humidity		98%
Ice Loading		50mm
Survial Rainfall		20 cm/h

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