

2.4 METER EARTH STATION ANTENNA

Shaanxi Probecom Microwave Technology Co.,Ltd. is a specialized company engaged in the design and manufacture of satellite communication earth station antenna with a selected range from 1.8M to 16M (C-Band, KU-Band, Ka-Band, X-band, S-band, L-band)and relevant servo equipment including antenna control system and beacon receiver. Microwave antenna, TVRO antenna and Flyaway antenna, Microwave components and customerized products is also provided.



Probecom 2.4 Meter Ring focus antenna can provide Tx/Rx 2-port feed in switchable linear & circular polarization for C-band, 2.4m Ku band can only be for linear polarization. Delivering exceptionally high performance for transmit/receive applications.

Probecom 2.4M antenna RF specification can adhere to FCC Regulation 25.209, IESS and ITU-RS.580-5, INMARSAT, ASIASAT, INTELSAT, APT and CHINASAT, etc.

Probecom 2.4M antenna reflector incorporates stretch-formed doubly contoured panels with matched radials and hub for ease of field alignment. The standard designed azimuth over elevation pedestal provides a cost-effective solution for high stiffness and stability, full orbital arc coverage and fine drive performance, and ensures the pointing accuracy.

Highlighted Features

- *Meets CCIR 580 and INTELSAT Requirements*
- *CP/LP switchable feed*
- *High RF performance*
- *Stainless hardware*
- *Different frequency ranges from many feed configurations*

Options

- *L,S,X bands and multi-bands*
- *800MHz bandwidth is available*
- *Feed blower or deicing with automatic controls*
- *Two or four Tx/Rx port in linear polarized feeds*

Antenna Accessory

- Motorization Kits*
- Limit Switches*
- ODU Support Kits*
- Factory Feed System Testing and Documentation*
- Ocean /Air Transport Packing*
- Foundation Kit*
- Lightening Rod Kit*
- Grounding Kit Cable-Mounting Kit*
- Anti-icing and Deicing*

Electrical Specification				
Type	C24T		K24T	
Operating Frequency, GHz	C-Band		Ku-Band	
	Receive	Transmit	Receive	Transmit
	3.625~4.2	5.85~6.425	10.95~12.75	13.75~14.5
Gain, Mid-band, dBi	38.18	41.76	47.48	48.79
Polarization	Linear/Circular		Linear	
XPD(on Axis), dB	35	35	35	35
XPD across 1dB Beam Width, dB	33	33	33	33
Axial Ratio (Circular-Polarized)	2-Port Feed	1.30	1.09	
VSWR		1.25	1.25	1.25
Antenna Noise Temperature 2-port feed 10° Elevation 30° Elevation 50° Elevation		32K 24K 20K		52K 38K 34K
-3 dB Beam Width, Mid-band		2.03°	1.34°	0.69°
Typical G/T (EL>10°)		20dB/K (30° LNA)		27.1dB/K (70° LNA)
Tx. Power Capability, KW			5	1
Feed Interface		CPR—229F	CPR—137F	WR-75
Feed Insertion Loss, dB		0.2	0.2	0.25
Isolation, Tx to Rx, dB		85		85
First Side lobe 90% Peaks under Following Envelop		-14 29-25log θ (1° $\leq\theta < 20^\circ$)		-14 29-25log θ (1° $\leq\theta < 20^\circ$)
Mechanical Specification				
Antenna Diameter	2.4m			
Antenna Type	Ring Focus			
Surface Accuracy (RMS)	$\leq 0.35\text{mm}$			
Antenna Pointing Range	Azimuth	0°~360°(Continuous)		
	Elevation	0°~90°(Continuous)		
	Polarization	$\pm 90^\circ$ (Continuous)		
Drive Mode	Manual or Motorized			
Motor Drive System	Azimuth Travel Rate	0.30°/S(0.06°/S)		
	Elevation Travel Rate	0.20°/S(0.04°/S)		
Environmental Specification				
Operational Wind	72km/h gusting to 97km/h			
Survival Wind	200km/h			
Temperature	-40°~+60°			
Relative Humidity	100%			
Solar Radiation	1135Kcal/h/m ²			
Seismic(Survival)	0.3g(H), 0.15g(V)			
Ice Loading	13mm Operational; 25mm Survival			

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