

3.7 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 3.7Meter ringfocus antenna providing Tx/Rx 2-port feed or Tx/Rx 4-port in switchable linear & circular polarization for C-band, 3.7m Ku band antenna only for linear polarization, can deliver exceptionally high performance for transmit/receive applications.

Probecom 3.7 M antenna RF specification can adhere to FCC Regulation 25.209, IESS and ITU-RS.580-5, INMARSAT, ASIASAT, INTELSAT, APT and CHINASAT, etc.

Probecom 3.7M 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 required for Ku-band operation.

Highlighted Features

- *Meets CCIR 580 and INTELSAT Requirements*
- *CP/LP switchable feed*
- *High RF performance*
- *Galvanized Stainless steel hardware*
- *Different frequency ranges from many feed configurations*
- * Antenna reflector be pre-assembly in works, special designed taper-pin easy instllation and ensure on site assembly accuracy, no theodolite required*

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*

Electrical Specification				
Type	C37T		K37T	
Operating Frequency, GHz	C-Band		Ku-Band	
	Receive	Transmit	Receive	Transmit
	3.4~4.2	5.85~6.725	10.95~12.75	13.75~14.5
Gain, Mid-band, dBi	41.94	45.52	51.24	52.55
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	
	4-Port Feed	1.06	1.06	
VSWR	1.25	1.25	1.25	1.25
Antenna Noise Temperature 2-port feed				
10° Elevation	35K		49K	
30° Elevation	29K		39K	
50° Elevation	25K		35K	
-3 dB Beam Width, Mid-band	1.31°	0.87°	0.43°	0.38°
Typical G/T (EL>10°)	24dB/K (30° LNA)		30.6dB/K (70° LNA)	
Tx. Power Capability, KW		5		2
Feed Interface	CPR—229F	CPR—137F	WR-75	WR-75
Feed Insertion Loss,dB	0.2	0.2	0.25	0.25
Isolation, Tx to Rx, dB	85		85	
First Side lobe	-14		-14	
90% Peaks under Following Envelop	29-25log θ (1° $\leq\theta$ < 20°)		29-25log θ (1° $\leq\theta$ < 20°)	
Mechanical Specification				
Antenna Diameter	3.7m			
Antenna Type	Ring Focus			
Surface Accuracy(RMS)	$\leq 0.35\text{mm}$			
Antenna Pointing Range	Azimuth	$\pm 85^\circ$		
	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)			

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