

### 3.0 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 3.0 Meter ring focus antenna** can provide Tx/Rx 2-port feed in switchable linear & circular polarization for C-band, 3.0m Ku band can only be for linear polarization. Delivering exceptionally high performance for transmit/receive applications.

**Probecom 3.0 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 3.0 M 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*

#### 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*

<b>Electrical Specification</b>					
Type		C30T		K30T	
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		40.12	43.70	49.42	50.73
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		29K		48K	
10° Elevation		22K		39K	
30° Elevation		19K		35K	
-3 dB Beam Width, Mid-band		1.5°	1.1°	0.56°	0.48°
Typical G/T ( EL>10° )		20.4dB/K (30° LNA)		27dB/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	0.2
Isolation, Tx to Rx, dB		85		85	
First Side lobe		-14		-14	
90% Peaks under Following Envelop		29-25log $\theta$ (1° $\leq\theta < 20^\circ$ )		29-25log $\theta$ (1° $\leq\theta < 20^\circ$ )	
<b>Mechanical Specification</b>					
Antenna Diameter		3m			
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			
<b>Environmental Specification</b>					
Operational Wind		72km/h gusting to 97km/h			
Survival Wind		216km/h			
Temperature		-40°~+60°			
Relative Humidity		100%			
Solar Radiation		1135Kcal/h/m <sup>2</sup>			
Seismic(Survival)		0.3g(H), 0.15g(V)			
Ice Loading		13mm Operational; 25mm Survival			

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