

### 7.3 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 7.3 Meter ring-focus antenna can deliver superior performance for sat communication applications such as Broadcasters, Service Providers, GSM operator, Satellite operator, Military and Government Agencies, FreeLands or Rescue Organizations.

Probecom 7.3 Meter ring focus antenna adopts all aluminum re-enforced reflectors, consisting of precisely formed panels with matched radials and hub assemblies ensure the ease of installation. 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 for C-Band Tx/Rx and Ku-Band Tx/Rx operations.

#### 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*
- \*Ka band antenna with rotary pedestal is available*
- \* 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*
- \*Full motion antenna*
- \*Feed blower or deicing with automatic controls*
- \*Two or four Tx/Rx port in linear or circular polarized feeds*

#### Antenna Accessory

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

<b>Electrical Specification</b>				
Type	C73T		K73T	
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	47.85	51.42	57.14	58.45
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	2/4 Port Feed		2/4 Port Feed	
10° Elevation	35K/49K		60K/87K	
30° Elevation	26K/43K		50K/73K	
50° Elevation	24K/35K		48K/61K	
-3 dB Beam Width, Mid-band	0.66°	0.44°	0.23°	0.19°
Typical G/T ( EL>10° , 2-port )	30.2dB/K (30° LNA)		36.1dB/K (70° LNA)	
Tx. Power Capability, KW		5		2
Feed Interface	CPR—229F	CPR—137F	WR-75	WR-75
Feed Insertion Loss, dB	0.2/0.25	0.2/0.25	0.25/0.35	0.25/0.4
Isolation, Tx to Rx, dB		85		85
Tx/Tx ,Rx /Rx, Linear , dB		30		30
Tx/Tx ,Rx /Rx, Circular , dB		20		20
Side lobe	CCIR 580-4			
<b>Mechanical Specification</b>				
Antenna Diameter		7.3m		
Antenna Type		Ring Focus		
Surface Accuracy(RMS)		≤0.35mm		
Antenna Pointing Range	Azimuth	±85°		
	Elevation	0°~90°(Continuous)		
	Polarization	±90°(Continuous)		
Drive Mode		Manual or Motorized		
Motor Drive System	Azimuth or Elevation Travel Rate	0.02°/S-0.04°/S		
	Polarization Travel Rate	1°/S		
<b>Environmental Specification</b>				
Operational Wind		79km/h gusting to 126km/h		
Survival Wind		198km/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; 30mm Survival		

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