

## 4.5 Meter Earth Station Antenna

Probecom 4.5 Meter ringfocus antenna providing Tx/Rx 2-port feed or Tx/Rx 4-port in linear polarization for C&Ku band antenna, it can deliver exceptionally high performance for transmit/receive applications.

Probecom 4.5 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.

It is widely and ideally used for Broadcasters, Service Providers, GSM operator, Satellite operator, Military and Government Agencies, FreeLands or Rescue Organizations.

### Highlighted Features

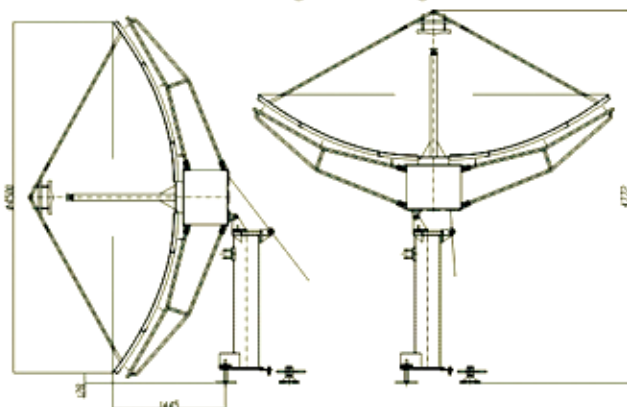
- Meets CCIR 580 and INTELSAT Requirements
- CP/LP switchable feed
- High RF performance
- Stainless hardware
- Different frequency ranges from many feed configurations
- Ka band antenna with rotary pedestal is available
- Antenna reflector be pre-assembly in works, special designed taper-pin easy installation and ensure on site assembly accuracy, no theodolite required

### Antenna Accessory

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

### 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



### Electrical Specification

Type	C45T		K45T	
	C-Band		Ku-Band	
Operating Frequency, GHz	Receive	Transmit	Receive	Transmit
		3.625~4.2	5.85~6.425	10.95~12.75
Gain, Mid-band, dBi	43.64	47.22	52.94	54.25
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	34°K	52°K	
	30° Elevation	24°K	41°K	
	50° Elevation	21°K	37°K	
-3 dB Beam Width, Mid-band	1.08°	0.72°	0.37°	0.32°
Typical G/T (EL>10°)	25.9dB/K		32.3dB/K	
	(30° LNA)		(70° LNA)	
Tx. Power Capability, KW		5		2
Feed Interface	CPR-229F	CPR-137G	WR-75	WR-75
Feed Insertion Loss, dB	0.2	0.2	0.25	0.25
Isolation, Tx to Rx, dB	85		85	
First Sidelobe	-14		-14	
90% Peaks under Following Envelop	29-25logθ (1°≤θ<20°)		29-25logθ (1°≤θ<20°)	

### Mechanical Specification

Antenna Diameter	4.5m	
Antenna Type	Dual Reflector Modified Gregorian	
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 Travel Rate	0.11°/S(0.06°/S)
	Elevation Travel Rate	0.17°/S(0.08°/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 <sup>2</sup>
Seismic(Survival)	0.3g(H), 0.15g(V)
Ice Loading	13mm Operational; 25mm Survival