

4.5 METER KA BAND EARTH STATION ANTENNA



1. General Description

Probecom 4.5M Ka band 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 Ka-Band.

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



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2. Highlighted Features

- *High RF performance
- *High gain, low sidelobes, low cross polarization
- *Galvanized stainless steel hardware
- *Different frequency ranges from many feed configurations

3. Options

- *Full motion antenna
- *Feed blower or deicing with automatic controls
- *Two or four Tx/Rx port in linear or circular polarized feeds
- *Installation and maintenance services

4. Antenna Accessory

Motorization Kits
Limit Switches
ODU Support Kits
Factory Feed System Testing and Documentation
Ocean /Air Transport Packing
Foundation Kit
Grounding Kit Cable-Mounting Kit

5. Four ports Circular antenna specification

RF Specifications	Receive	Transmit
Operating Frequency ,GHz	17.7-20.2	27.5-30.0
Gain, Mid-band, dBi	56.8+20Log(F/20)	60.0+20Log(F/30)
Polarization	LHCP/RHCP	
VSWR	1.30 : 1	
Antenna Noise temperature,K	125 (Elevation 20°)	
Feed Insertion Loss, dB	0.6	
Axial Ratio, dB	0.75	0.5
3dB bandwidth	0.24°	0.16°
Isolation, Tx to Rx, dB	>85	
G/T (dB/K)	>32.8+20 lg(f/20) dB/K	
Side lobe	First lobe: ≤-14dB ITU-RS 580	
Power handle		400w
Feed interface	WR42F(BJ-220)	WR28F(BJ-320)
Mechanical Specification		
Antenna Diameter	4.5M	
Reflector Material	Aluminum	
Antenna Optics	Dual Modified Cassegrain	
Antenna Adjusting Range	AZ	±90° Continuous
	EL	5° to 90° Continuous
Drive Speed	0.01° /s - 0.2° /s	
Surface Accuracy	<0.25mm	
Environmental Specification		
Wind Loading	Operational	72km/h
	Survival	200km/h
Temperature	-40° to 60°C	
Rain(operational)	100mm/hr	
Relative Humidity	100%	