

## 1.8 METER KA BAND EARTH STATION ANTENNA

### 1. General Description

Probecom 1.8M 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.



## 2. Two ports Circular antenna specification

RF Specification	Receive	Transmit
Operating Frequency, GHz	17.7-20.2	27.5-30.0
Gain, Mid-band, dBi	$48.5+20\log(F/20)$	$52.0+20\log(F/30)$
Polarization	LHCP/RHCP	
VSWR	1.30: 1	
Antenna Noise temperature,K	110(Elevation 20° )	
Feed Insertion Loss, dB	0.4	
Axial Ratio, dB	2.5	2.5
3dB bandwidth	0.61°	0.41°
Isolation,Tx to Rx,dB	>85	
G/T (dB/K)	$>24.7+20\lg(f/20)$ dB/K	
Side lobe	First lobe: $\leq -14$ dB ITU-RS 580	
Power handle		100W
Feed interface	WR42F (BJ-220)	WR28F (BJ-320)
Mechanical Specification		
Antenna Diameter	1.8m	
Reflector Material	Aluminum	
Antenna Optics	Dual modified Ring focus	
Antenna Adjusting Range	AZ	0° to 90° ,Continuous Fine Adjustment
	EL	$\pm 10^\circ$ Fine Adjustment, 360° continuous
Drive	Manual	
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%	