

18.5M EARTH STATION ANTENNA



Features

- 18.5m Tx/Rx antenna adopts shaped high precision ring focus design
- Stiffness performance of antenna mount meets the required pointing accuracy of C band and Ku band
- Feedhorn adopts corrugated design, excellent RF specification such as Tx/Rx (2/4 port) feed line of OMT
- The antenna meets requirement of CCIR 580-4

- High accuracy and Strength reflector
- Zinc spraying treatment for surface of mount and structural components
- Faster and easier Installation

Options

- Extended Az travel 360°
- Integrated LNB, LNA system
- Integrated rain blowing /de-icing
- Superwind Resistance
- Low operating temperature
- Linear/Circular

18.5M EARTH STATION ANTENNA SPECIFICATION

ELECTRICAL SPECIFICATION

Diameter	18.5M	
	C-Band	
Operating Frequency, GHz	Receive	Transmit
	3.625~4.2	5.85~6.425
Gain, Mid-band, dBi	56.23+20lgf/4	59.58+20lgf/6
Polarization	Linear/ Circular	

XPD (on Axis), dB	35		
XPD across 1dB Beam Width, dB	33		
VSWR	CP:1.25:1 LP:1.3:1		
Axial Ratio (dB) for CP 2/4 port	1.06	1.06	
Antenna Noise Temperature, 2/4-port feed 10° Elevation	36°K		
-3dB Beam Width	0.26		0.18
Tx. Power Capability, KW	5		
Feed Interface	CPR-229G		CPR-159G/137G
Feed Insertion Loss, dB	0.3		0.3
Isolation, , dB	Tx to Rx: 85		
	Rx to Rx: CP: 20dB LP: 30dB		
	Tx to Tx(Same Band): CP: 20dB LP: 30dB		
Radiation Pattern:First Sidelobe	CCIR.580-4		

MECHANICAL SPECIFICATION

Antenna Type	Cassegrain antenna
Antenna Pedestal Type	Kingpost Pedestal/Rotation Pedestal
Azimuth	170deg continuous (w.r.t true south)
Elevation	5 to 90deg
Finishes	
Reflector Surface	Aluminum panels with high-diffusing white paint
Pedestal & Back Structure	Hot-dipped Galvanized
Surface Accuracy (RMS)	0.7mm
Antenna Drive	Motorized

ENVIRONMENTAL SPECIFICATION

Operational Wind	72km/h Gusting to 97km/h
Survival Wind	200km/h
Temperature	- 45°C ~ + 60°C
Relative Humidity	100%
Solar Radiation	1135Kcal/ h/ m2
Seismic (Survival)	0.3g (H), 0.15g (V)
Rain	Up to 100mm/h operational and survival
Radial Ice(Survival)	25mm on all surface
Shock and Vibration	As encountered during shipment by commercial air, sea, or truck
Corrosive atmosphere	As encountered in coastal regions and/or heavily industrialized areas