

2.4M EARTH STATION ANTENNA

Electrical Specification

Type	C-Band		Ku-Band	
	Receive	Transmit	Receive	Transmit
Operating Frequency In Ghz	3.625-4.20	5.85-6.425	10.95-12.75	13.75-14.50
Gain - Mid Band dBi	38.18	41.76	47.48	48.49
Polarization	Linear/Circular		Linear	
XPD (on axis) dB	35	35	35	35
XPD across 1dB B/W	33	33	33	33
Axial Ratio 2 port (CP) 4 port	1.30	1.90		
VSWR	1.25	1.25	1.25	1.25
Antenna Noise Temp 2-Port Feed 10 deg. Elevation 30 deg. Elevation 50 deg. Elevation	32k 24k 20k		52k 38k 34k	
-3dB Beam Width. Mid Band	2.03	1.34	0.69	0.59
Typical G/T (El>10 deg)	20dB/k**		27.1dB/k**	
TX Power Capability		5Kw		1Kw
Feed Interface	CPR-229F	CPR-137F	WR-75	WR-75
Feed Insertion loss dB	0.2	0.2	0.25	0.25
Isolation TX to RX dB	85		85	
First Side Lobe 90% Peak under Following envelope	-14 29-25log theta		-14 29.25log theta	

Mechanical Specification 2.4M Earth Station Antenna

Antenna Diameter	2.4m
Antenna Type	Ring Focus
Surface Accuracy	<0.35mm
Antenna Pointing Range Azimuth Elevation Polarization	0 to 360 deg (continuous) 0 to 90 deg (continuous) +/- 90 deg (continuous)
Driver Mode	Manual or Motorised
Motor Drive System Azimuth Travel Rate Elevation Travel Rate	0.30 deg/sec (0.06deg/sec) 0.20 deg/sec (0.04deg/sec)

Environmental Specification

Operational Wind Speed	72km/h gusting to 97km/h
Survival Wind	200km/h
Temperature	-40 deg c to +60deg c
Relative Humidity	100%
Solar Radiation	1135Kcal/h/m2
Seismic (Survival)	0.3g(h) 0.15g (v)
Ice Loading	13mm operational; 25mm Survival