7.5 M Earth Station Antenna SPECIFICATIONS

ELECTRICAL		
Antenna size	7.5Mtr	
Antenna Optics	Shaped Parabolic Cassegrain system	
Feed Type	Composite, Conical Horn Feed & Sub – Reflector	
Feed options	Feed - 2 Port / 4 Port Linear / Circular Feed in C / Ext - C / Ku Band. Composite C / Ku Band Rx only.	
Frequency of operation	**Rx (Ghz)**	**Tx (Ghz)**
C – Band	3.625 – 4.2	5.85 – 6.425
Ext – C Band	4.5 – 4.8	6.725 – 7.025
Ku - Band	10.700 – 12.750	14 – 14.5
Antenna Gain dBi (Mid Band)	**Rx (dBi)**	**Tx (dBi)**
C – Band	47.8	51.3
Ext – C Band	48.5	52.0
Ku - Band	57.0	58.5
G / T (Typical)		
C – Band	28.0 dB / °K with 35°K LNA	
Ext – C Band	30.5 dB / °K with 35°K LNA	
Ku - Band	35.0 dB / °K with 70°K LNA	
Cross pol Descrimination	30dB Min	
VSWR	1.30 : 1	
Tx to Rx Isolation	90 dB with TRF	
Insertion Loss	**Rx port**	**Tx port**
	0.2dB	0.15dB
Feed Rotation	Motorised Drive	
Output wave guide flange	**Rx**	**Tx**
C – Band	CPR 229G	CPR 137G
Ext – C Band	CPR 229G	CPR 137G
Ku – Band	WR 75 flat	WR 75 flat
Power Handling Capacity		
C – Band	3KW	
Ext – C Band	3KW	
Ku – Band	2KW	
Radiation Pattern	As per ITU – R.S.580 – 6	
MECHANICAL		
Coverage		
Azimuth Travel (Optional)	110˚ Continuous, and 180˚in 2 positions, 330˚ Continuous with Slewing Ring Bearing	
Elevation Travel	5˚ - 90˚	
Az & EL Travel Rate	4˚/Min	
Polarisation Travel	190˚ Minimum	
Feed Rotation	± 190˚ Min	
Weight of Reflector	2000Kgs	
Weight of Pedestal	2500Kgs	
Reflector Structure	Aluminium Alloy	
Mount Structure	Steel (Galvanised)	
Foundation Size	Varies as per pedestal Design	
ENVIRONMENTAL		
Operational Winds	70 Kmph gusting to 100 Kmph	
Survival Winds	200 Kmph	
Ambient Temperature	- 15˚ to + 50˚ C	
Rain	Upto 100 mm/hr	
Humidity	100%	
Atmospheric Conditions	As encountered in Marine / Industrial	