

S/X band 7.5m ANTENNA SYSTEM

Antenna	S/X band 7.5m Antenna System		
	Rx		Tx
Antenna Diameter	7.5 m		
Antenna Type	Ring Focus		
Surface Accuracy	RMS \leq 0.4mm Main reflector; \leq 0.3mm Sub reflector		
Frequency (GHz)	S band: 2.2 – 2.3 X band: 7.8 – 8.5 S/X Monopulse capabilities		S band: 2.025 – 2.120
Gain (dBi)	S band: 42 @ 2.250 GHz X band: 52 @ 8.200 GHz		S band: 41 @ 2.070 GHz
Feed	S band: 4 ports (2 Rx and 2 Tx) RHCP/LHCP X band: 2 port Rx (RHCP/LHCP)		
VSWR	\leq 1.3:1		
G/T @ 5° El (S band)	Better than 19.8 dB/K		
G/T @ 5° El (X band)	Better than 32.1 dB/K		
EIRP @2025Mhz (S-band)	Better than 62 dBW		
Power Handling	==	2 KW per port	
Feed interface	S band: Coax X band: WR-112		S band: Coax
Feed Insertion Loss	S band: \leq 0.7 dB		S band: \leq 0.7 dB
Cross Pol Isolation @ 1 dB contour (dB)	25		25
Isolation (dB)	S/X-band: Tx/Tx or Rx/Rx \geq 20; S-band: Tx/Rx \geq 70		
Radiation Pattern	ITU-R SA.2488, ITU-R S.465-6		
Mechanical			
Mount Type	Elevation over Azimuth and TILT		
Antenna Travel	Azimuth: $\pm 180^\circ$	Elevation: 0° to 90°	TILT: 0° to 180° Inclination: 6° max
Drive Mode	Motorized with brushless motors		
Speed	AZ: 10°/s max.	EL: 10°/s max.	TILT: 5°/s max.
Acceleration	AZ: 5°/s ² max.	EL: 5°/s ² max.	TILT: 1°/s ² max.
Environmental			
Wind Speed	75 km/h operational, 100 km/h gusting 200 km/h survival (stow position)		
Ambient Temperature	-40° C to +60° C		
Relative humidity	0 to 100% with condensation		
Rain fall	100 mm/hour continuous		
Solar Radiation	1135 Kcal/h/mq		
Atmopheric Condition	Salt, pollutants, and corrosive contaminants as conditions found in coastal and industrial area		



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