

S/X/Ka band ANTENNA SYSTEM

Antenna	9.3 m S/X/Ka band Antenna System		
	Rx		Tx
Antenna Diameter	9.3 m		
Antenna Type	Ring Focus		
Surface Accuracy	RMS \leq 0.4mm Main reflector; \leq 0.3mm Sub reflector		
Frequency (GHz)* S/X/Ka Monopulse capabilities	S band: 2.2 – 2.3 X band: 7.9 – 8.5 Ka band: 25.5 - 27		S band: 2.025 – 2.120
Feed	S band: 4 ports (2 Rx and 2 Tx) RHCP/LHCP X band: 2 port Rx (RHCP/LHCP) Ka band 2 port Rx (RHCP/LHCP)		
VSWR	\leq 1.3:1		
G/T S-band @5° El (dB/K)	\geq 20.6		
G/T X-band @5° El (dB/K)	\geq 34.0		
G/T Ka-band @5° El (dB/K)	\geq 40.5		
EIRP @2120Mhz (dBW)	\geq 62.8		
Power Handling	==		200W per port
Feed interface	S band: Coax X band: WR-112 Ka band: WR-34		S band: Coax
Feed Insertion Loss	Better than 0.7 dB for all bandwidth		
Cross Pol Isolation @ 1 dB contour (dB)	25		25
Isolation (dB)	S/X/Ka-band: Tx/Tx or Rx/Rx \geq 18; S-band: Tx/Rx \geq 120		
Radiation Pattern	ITU-R S.465-6		
Mechanical			
Mount Type	Elevation over Azimuth and TILT		
Antenna Travel	Azimuth: $\pm 270^\circ$	Elevation: -5° to 100°	TILT: 0° to 180° Inclination: 6° max
Drive Mode	Motorized with brushless motors		
Speed	AZ: $10^\circ/s$ max.	EL: $5^\circ/s$ max.	TILT: $5^\circ/s$ max.
Acceleration	AZ: $7.25^\circ/s^2$ max.	EL: $2.5^\circ/s^2$ max.	TILT: $1^\circ/s^2$ max.
Environmental			
Wind Speed	75 km/h operational, 100 km/h gusting 200 km/h survival (stow position)		
Ambient Temperature	-40° C to $+60^\circ$ C		
Relative humidity	0 to 100% with condensation		
Rain fall	100 mm/hour continuous		
Solar Radiation	1135 Kcal/h/mq		

* Available for different frequencies



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