

## X/Ka band 9m ANTENNA SYSTEM

Antenna	X/Ka band 9m Low PIM Antenna System	
	Rx	Tx
Antenna Diameter	9 m	
Antenna Type	Ring Focus	
Surface Accuracy	RMS $\leq$ 0.25 mm Main reflector; $\leq$ 0.15 mm Sub reflector	
Frequency (GHz)*	X band: 7.25 – 7.75 Ka band: 20.2 – 21.2 Ka Monopulse capabilities	X band: 7.9 – 8.4 Ka band: 30 – 31
Gain (dBi) at Feed Interface	X band: $\geq$ 55.9 Ka band: $\geq$ 64.8	X band: $\geq$ 56.7 Ka band: $\geq$ 68.3
Feed	X/Ka-dualband Feed System: X-Rx: LHCP & RHCP - X-Tx: LHCP & RHCP Ka-Rx: LHCP & RHCP - Ka-Tx: LHCP & RHCP Ka-TRK: LHCP & RHCP	
VSWR	$\leq$ 1.3:1	
G/T @ 20° El, clear sky (X band)	$\geq$ 32 dB/K	
G/T @ 20° El, clear sky (Ka band)	$\geq$ 38.8 dB/K	
EIRP at X band (Single Carrier)	$\geq$ 85.4 dBW	
EIRP at Ka band (Single Carrier)	$\geq$ 91 dBW	
Feed interface	WR112 WR42	WR112 WR34
Feed Insertion Loss	X band: $\leq$ 0.6 dB Ka band: $\leq$ 0.6 dB	X band: $\leq$ 0.6 dB Ka band: $\leq$ 0.6 dB
Axial Ratio on axis	$\leq$ 0.5 dB	$\leq$ 0.5 dB
Isolation (dB)	X/Ka band: Tx/Tx or Rx/Rx $\geq$ 20 X band: Tx/Rx $\geq$ 120 Ka band: Tx/Rx $\geq$ 120	
Radiation Pattern	Compliant to ITU-R S.465-6 / ITU-R S.580-6	
<b>Mechanical</b>		
Mount Type	Elevation over Azimuth	
Antenna Travel	Azimuth: $\pm 95^\circ$	Elevation: $-1^\circ$ to $90^\circ$
Drive Mode	Motorized with brushless motors	
Speed	AZ: $1^\circ/s$ max.	EL: $1^\circ/s$ max.
Acceleration	AZ: $1^\circ/s^2$ max.	EL: $1^\circ/s^2$ max.
<b>Environmental</b>		
Wind Speed	72 km/h operational, 97 km/h gusting 200 km/h survival (stow position)	
Ambient Temperature	$-30^\circ$ C to $+50^\circ$ C (operational) $-40^\circ$ C to $+60^\circ$ C (survival)	
Relative humidity	0 to 100% with condensation	
Rain fall	100 mm/h continuous	
Solar Radiation	1200 W/m <sup>2</sup>	
Atmospheric Condition	Salt, pollutants, and corrosive contaminants as conditions found in coastal and industrial area	

\*Available for different frequencies f.e. Ku-/Ka-, C-/Ku- and X-bands



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