

## L/S band 13m ANTENNA SYSTEM

Antenna	L/S band 13m Low PIM Antenna System	
	Rx	Tx
Antenna Diameter	13 m	
Antenna Type	Ring Focus	
Surface Accuracy	RMS $\leq$ 0.40 mm Main reflector; $\leq$ 0.25 mm Sub reflector	
Frequency (GHz)	L band: 1.67 – 1.70 S band: 2.2 – 2.3	S band: 2.025 – 2.120
Gain (dBi) at Feed Interface	L band: $\geq$ 46.6 S band: $\geq$ 48.5	S band: $\geq$ 47.7
Feed	L/S-dual band low PIM Feed System: L-Rx: LHCP & RHCP S-Rx: LHCP & RHCP - S-Tx: LHCP & RHCP	
VSWR	$\leq$ 1.3:1	
G/T @ 20° El, clear sky (L band)	$\geq$ 24.5 dB/K	
G/T @ 20° El, clear sky (S band)	$\geq$ 25.3 dB/K	
PIM	Compliant to STANAG AComp-5648 at 3 dB Output Backoff	
Tx Power Handling	2000 W per port in S band	
Feed interface	WR430	WR430
Feed Insertion Loss	L band: $\leq$ 0.5 dB S band: $\leq$ 0.5 dB	S band: $\leq$ 0.5 dB
Axial Ratio on axis	$\leq$ 1.0 dB	$\leq$ 1.0 dB
Isolation (dB)	L/S band: Tx/Tx or Rx/Rx $\geq$ 40 S band: Tx/Rx $\geq$ 120 L/S 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	1031 Kcal/h/sqm	
Atmospheric Condition	Salt, pollutants, and corrosive contaminants as conditions found in coastal and industrial area	



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