

MT-959572

0.5 – 40 GHz DF Antenna

Electrical

Frequency	0.5 – 2 GHz	2 - 6	8 - 18	18 – 40
Peak Gain dBi min	0 @ 0.5 GHz 4 @ 0.7 GHz 7.5 @ 1 GHz 9.5 @ 2 GHz	7 @ 2 GHz 11 @ 3 GHz 12 @ 6 GHz	7 @ 6 GHz 11 @ 12GHz 11.5 @ 18 GHz	7.5 @18GHz 11 @30GHz 10 @ 40 GHz
VSWR typ	3.5:1 @ 0.5–0.7 GHz 3:1 @ 0.7 - 2 GHz	2.0 : 1	2.0 : 1	2.0 : 1
Azimuth Beam width	60° typ	30° typ	30° typ	30° typ
Elevation Coverage	40° - 80°	32° - 60°	32° - 65°	30° - 55°
Polarization	45°			
Input Impedance	50 ohm			
No of Elements	3	6	6	6

Mechanical

Dimensions Diameter	1.6 m max
Height	1.35 m max
Depth	1.0 m max
Weight	90 Kg max without the RF system
Paint	Polyurethane Per MIL-C - 83286, color gray

Environmental

Test	Standard	Duration	Value	Notes
Low Temperature	MIL – STD – 810E Method 503.3 Proc.II	24 h	-40 °C	
Temperature Shock	MIL – STD – 810E Method 503.3	2 h	-40°C to + 70° C	3 Cycles
Vibration	MIL – STD –167 – 1	3 x 1 hours/axis		Max freq. 33 Hz
Shock	MIL – STD – 810D Method 516.4 Proc .IV, V, Vi	25 msec/axis	3 x 50 g/axis	
Humidity	MIL – STD – 810E Method 507.3 Proc .I 95% RH at 45° C	240 h		95% 10 Cycles of 24 hours
Corrosion Salt Spray	MIL – STD – 810E Method 509.3 Proc. I	48 h	5% NaCl	
Internal Pressure			0.1 At	
Sand	MIL – STD – 810E Method 510.3 Proc. II			
Dust	MIL – STD – 810E Method 510.3 Proc. I			
Solar Radiation	MIL – STD – 810E Method 505.3 Proc. I			7 Cycles of 24 hours
Fungus	MIL – STD – 810E Method 508.3			
Ship Motion	DOD – STD – 1399, Section 301		±20°	
Sea State			Sea State 6	
Wind Exposure			100 knots steady wind 175 knots gusting	

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