

# MT-1021/D

2-30 MHz DF Antenna



Wireless Edge

Antenna Solutions

An MTI Company

## Electrical

Frequency	2 - 30 MHz				
Gain monopole antenna					
Frequency MHz	2	5	10	20	30
Gain dBi	-36	-24	-12	-4	-1
Gain Loop antenna					
Frequency MHz	2	5	10	20	30
Gain dBi	-41	-25	-13	-7	-6
Phase tracking monopole	$\pm 2^\circ$ typ $\pm 3^\circ$ max @ 2 - 12 MHz $\pm 4^\circ$ typ $\pm 7^\circ$ max @ 12 - 30 MHz $\pm 8^\circ$ max @ 18.5-19.5 MHz				
Azimuth Beam Width	$\pm 3^\circ$ max @ 2-15 MHz $\pm 5^\circ$ max @ 15-30 MHz				
Polarization	I. Vertical Linear				
Selectable via control	II. Right Hand Circular				
voltage: $\pm 12$ VDC	III. Left Hand Circular				
Nemp	IEC 1000-2-9 E=50KV/m Tr=2.5 nsec rise time T=23 nsec – 50% time duration				

## Mechanical

Dimensions: Height	4.6 m max
Diameter	9.2 m max
Maximum weight including switching components	14 Kg
Connector	N-TYPE Female
Color	Polyurethane topcoat per MIL-C-83286 color 24064 PER FED-STD-595
Operating Service Life	20 Years

## Environmental

Test	Standard	Duration	Temperature	Notes
Low Temperature	MIL-STD-810		-35°C	
High Temperature	MIL-STD-810		+71°C	
Humidity	MIL-STD-810E	Method 507.3 Procedure I		95% Fig. 507.3-1 Cycle 2
Water Tightness	IEC 529			IP67
Solar Radiation	MIL-STD-810E	1210 W/m <sup>2</sup>		
Salt Spray	MIL-STD-810E	48 h		
Ice And Snow				5mm Radial
Wind Speed Operation				130 Km/h
Sand and Dust		The antenna shall be able to withstand exposure to sand and dust		
Fungus		The unit shall withstand fungus growth		
Rain	MIL-STD 810 E	Method 506.3, procedure I		10 cm/hr

- Note: system performance is dependent on atmospheric noise, hence, the actual gain is not critical.

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