

# LINEAR ANTENNAS

MT-242020/NV/K  
865 - 870 MHZ, 9.5 DBI LINEAR VERTICAL POLARITY READER ANTENNA



## ELECTRICAL

REGULATORY COMPLIANCE	RoHS, CE 0682
FREQUENCY RANGE	865-870 MHz
GAIN	9.0 dBi (min) 10 dBi (max)
VSWR	1.3:1 (max)
POLARIZATION	Linear Vertical
3dB ELEVATION BEAMWIDTH	58°(typ)
3dB AZIMUTH BEAMWIDTH	60°(typ)
AZIMUTH SIDELobe LEVEL	-23dB @ ±110 to±180
ELEVATION SIDELobe LEVEL	-22dB @ ±110 to±180
F/B RATIO	-21 dB (max)
CROSS POLARIZATION ELEVATION	-25 dB (max)
CROSS POLARIZATION AZIMUTH	-17dB max)
POWER	6W (max)
INPUT IMPEDANCE	50 (ohm)
LIGHTNING PROTECTION	DC Grounded

## MECHANICAL

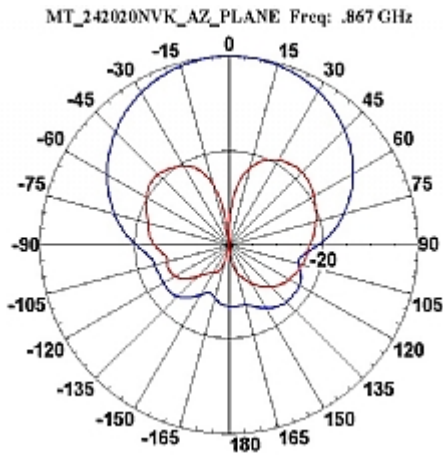
DIMENSIONS (LxWxD)	305x305x25mm (max)
CONNECTOR	SMA right angle female
WEIGHT	1.2kg (max)
MOUNTING KIT	MT-120018
RADOME MATERIAL	Plastic, UV Resistant
BASE PLATE MATERIAL	Aluminum with chemical conversion coating
OUTLINE DRAWING	RD42492100C

**ENVIRONMENTAL**

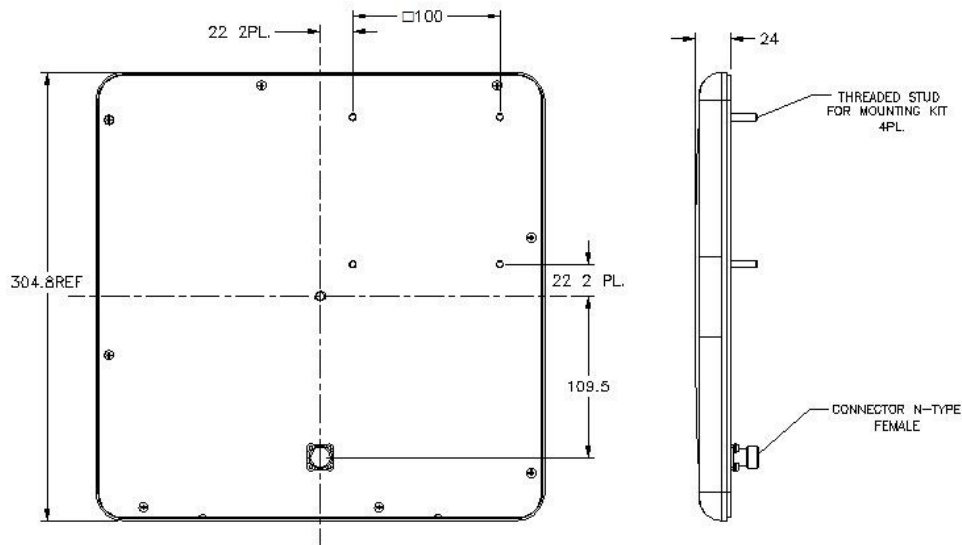
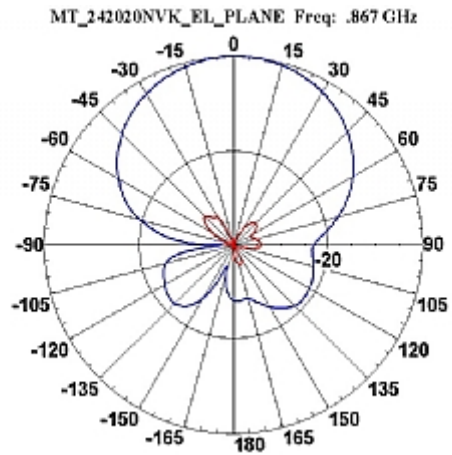
<b>TEST</b>	<b>STANDARD</b>	<b>DURATION</b>	<b>TEMPERTURE</b>	<b>NOTES</b>
LOW TEMPERATURE	IEC 68-2-1	72 h	-55°C	
HIGH TEMPERATURE	IEC 68-2-2	72 h	+71°C	
TEMP. CYCLING	IEC 68-2-14	1 h	-45°C +70°C	3 Cycles
THERMAL SHOCK NONO-OPERATING			-30°C to+70°C	Ramp 30°C/min
HUMIDITY	ETSI EN300-2-4 T4.1E	144 h		95%
WATER TIGHTNESS	IEC 529			IP67 (*please see comment below)
DUST RESISTANCE				IP67
SOLAR RADIATION	ASTM G53	1000h		
OZONE RESISTANCE	ETSI 300			
FLAMMABILITY	UL 94			Class HB
QUASI RANDOM VIBRATION				20g rms for 4 hours
VEHICLE VIBRATION OPERATING	1 grms,10-500 Hz, in 3 axis			6 hours total, 2 hr in each axis. Accelerated wear – an additional 50hrs in worst case axis.
MECHANICAL SHOCK OPERATING	10g,11msec, half sine pulse			

\*For outdoor installations that require mounting the antenna horizontally facing ground, please contact MTI representative for the dedicated P/N

**AZIMUTH RADIATION PATTERN MIDBAND  
FREQ. 0.867 GHZ**



**ELEVATION RADIATION PATTERN MIDBAND  
FREQ. 0.867 GHZ**



**WAIVER!**

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