

R9029WHPRTF

Circularly Polarized RFID Antenna



The R9029-WHP-RTF Circularly Polarized outdoor RFID Antenna from RFMAX measures in at 12x12 inches. This unit operates at 9 dBic gain, covers 63 x 63 degrees beamwidth, and is THE BEST choice for passive UHF RFID applications that are OUTDOORS and using the FCC band of 902-928 Mhz. The unit carries a full IP67 rating, and is well suited for outdoor installations such as livestock tracking, tolling, parking gates, overhead race timing trusses, and distribution dock doors. It comes with a fixed RPTNC-Female Connector on the back plate, and has 4 threaded mounting studs in the 100mm VESA pattern.

ELECTRICAL DATA

Regulatory Compliance	RoHS, CE 0682
Frequency Range	902 - 928 MHz
Gain	9dBic (min) , 9dBil (max)
VSWR	1.3:1 (max)
POLARIZATION	RHCP
3dB ELEVATION BEAMWIDTH	63° (typ)
3dB AZIMUTH BEAMWIDTH	63° (typ)
SIDELOBES LEVEL @ 3 90°	-16 dB (max)
F/B RATIO	-18 dB (max) -20 dB (typ)
POWER	6W (max)
INPUT IMPEDANCE	50 (ohm)
AXIAL RATIO AT BORESIGHT	4 dB (max)
LIGHTNING PROTECTION	DC Grounded

MECHANICAL DATA

DIMENSIONS (LxWxD)	305x305x25mm (max)
CONNECTOR	Reverse Polarity TNC Female
WEIGHT	1.2 kg (max)
MOUNTING KIT	SEE RD41191800C
RADOME MATERIAL	Plastic UV Resistant per ETSI 300
BASE PLATE MATERIAL	Aluminum with chemical conversion coating
OUTLINE DRAWING	RD41880300C
ORIENTATION	Rectangular

ENVIRONMENTAL DATA

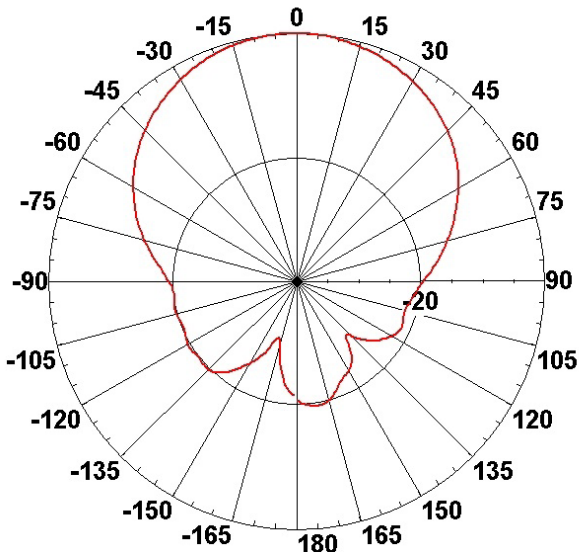
TEST	STANDARD	DURATION	TEMP.	NOTES
LOW TEMPERATURE	IEC 68-2-1	72 h	-55°C	
HIGH TEMPERATURE	IEC 68-2-2	72 h	+71°C	
TEMP. CYCLING	IEC 68-2-14	1 h	-45°C +70°C	3 Cycles
THERMAL SHOCK NONO-OPERATING			-30°C to+70°C	Ramp 30°C/min
HUMIDITY	ETSI EN300-2-4 T4.1E	144 h		95%
WATER TIGHTNESS	IEC 529			IP67 (*please see comment below)
DUST RESISTANCE				IP67
SOLAR RADIATION	ASTM G53	1000h		
OZONE RESISTANCE	ETSI 300			
FLAMMABILITY	UL 94			Class HB
SALT SPRAY	IEC 68-2-1 Ka	500 h		
ICE AND SNOW				25 mm Radial
WIND SPEED SURVIVAL				220 Kh/m 160 Kh/m

ENVIRONMENTAL DATA (CON'T)

TEST	STANDARD	DURATION	TEMP.	NOTES
WIND LOAD (SURVIVAL) :				
FRONT THRUST				28.6 Km
SIDE THRUST				2.2 Km
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			

AZIMUTH RADIATION PATTERN MIDBAND. FREQ. 0.915 GHZ

MT_262006TRHAK_AZ_PLANE Freq: .915 GHz



ELEVATION RADIATION PATTERN MIDBAND FREQ. 0.915 GHZ

MT_262006TRHAK_EL_PLANE Freq: .915 GHz

