RLPA-902-10-NF

Linear Polarized RFID Antenna

The RLPA-902-10-NF Linear Polarized outdoor RFID Antenna is designed for robust performance in demanding outdoor environments. With dimensions of 12 x 12 inches, this compact unit operates at 10 dBiL gain, offering a 60-degree vertical beamwidth and a 50-degree horizontal beamwidth. It is an ideal choice for passive UHF RFID applications in the FCC band of 902-928 MHz.

- UHF RFID: 902-928 MHz
- 60° Vertical Beamwidth x 50° Horizontal Beamwidth
- 10 dBiL Gain
- Compact Radome; 12 x 12”
- Fixed N-Female Connector
- Rugged IP67 Housing

Rated IP67 for full protection against dust and water ingress, the RLPA-902-10-NF is perfect for installations such as livestock tracking, tolling systems, parking gates, overhead race timing trusses, and distribution dock doors. The antenna features a fixed N-Female Connector on the back plate and includes four threaded mounting studs in the 100mm VESA pattern for easy installation.

ELECTRICAL DATA

Regulatory Compliance	RoHS, CE 0682
Frequency Range	902 - 928 MHz
Gain	10 dBiL
VSWR	1.5:1 (max)
Polarization	Linear
3db Beamwidth	50° (typ)
Sidelobes Level	-17 dB (max) @ ±80°
F/B Ratio	-27 dB (max)
Power	6W (max)
Input Impedance	50 (ohm)
Cross Polarization	-25 dB (max)
Lightning Protection	DC Grounded

MECHANICAL DATA

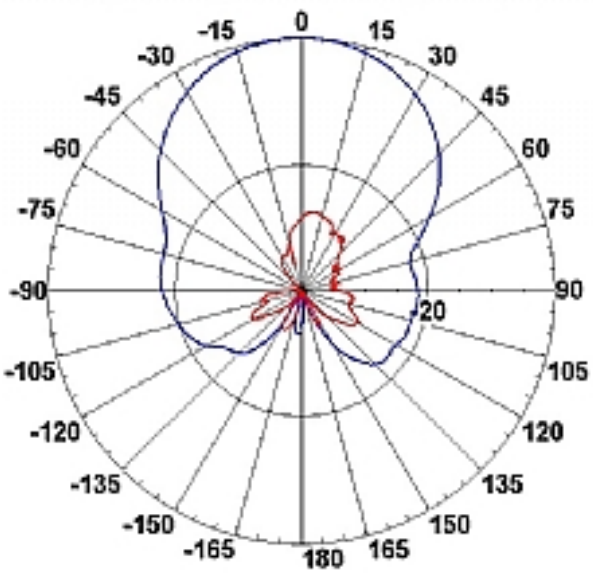
Dimensions (LxWxD)	305 x 305 x 25mm (max)
Connector	N-Type Female
Weight	1.5 kg (max)
Mounting kit	SEE HDMNT-100MM
Radome material	Plastic
Base plate material	Aluminum with chemical conversion coating

ENVIRONMENTAL DATA

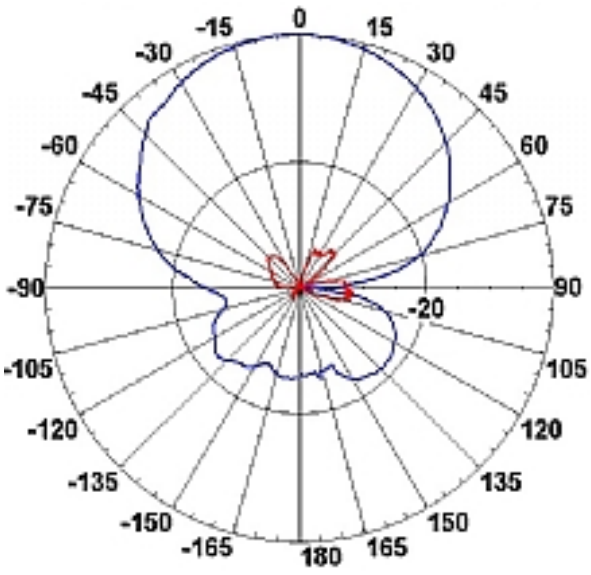
TEST	STANDARD	DURATION	TEMP.	NOTES
Low Temperature	IEC 68-2-1	72 h	-55°C	
High Temperature	IEC 68-2-2	72 h	+71°C	
Temp. Cycling	IEC 68-2-14	1 h	-45°C +70°C	3 Cycles
Vibration	IEC 60721-3-4	30 min/axis		Random 4M5
Humidity	ETSI EN300-2-4 T4.1E	144 h		95%
Water Tightness	IEC 529			IP67
Shock Mechanical	IEC 60721-3-4			4M5
Solar Radiation	ASTM G53	1000 h		
Flammability	UL 94			Class HB
Salt Spray	IEC 68-2-11 Ka	500 h		
Ice & Snow				25mm Radial
Wind Speed Survival				220Km/h 160Km/h
Wind Load (Survival) Front Thrust Side Thrust				 10 kg 1.6 kg

RADIATION PATTERNS

AZIMUTH RADIATION PATTERN MIDBAND.
FREQ. 0.915 GHZ



ELEVATION RADIATION PATTERN MIDBAND
FREQ. 0.915 GHZ



MECHANICAL DRAWING