

R902-11-x-F-SSF Circularly Polarized RFID Antenna

The RFMAX R9029-11-x-F-SSF iis a high-performance, circularly polarized RFID antenna designed for superior read accuracy in demanding environments. Operating within the FCC 902-928 MHz frequency range, this antenna delivers a powerful 10.5 dBiC gain, ensuring extended read ranges of up to 10 meters (33 feet). Its multi-element array minimizes signal distortion, making it ideal for industrial portals, warehouse tracking, and other high-density RFID applications.

- UHF RFID: 902-928 MHz
- 25° Beamwidth in XZ plane, 60° in YZ plane
- 10.5 dBic Gain
- Easy installation, Integrated Flush Mounting Holes
- 10.5" Flying Lead with SMA Female Connector
 Available in Black and White o R902-11-B-F-SSF - Black Radome
 - o R902-11-W-F-SSF White Radome

B uilt for for versatility, the R902-11-x-F-SSF features a sleek, low-profile design measuring $604 \times 304 \times 8.6$ mm (23.78 x 11.97 x 0.34"), allowing seamless integration into various installations.

It can be flush-mounted using six pre-drilled holes or attached via a VESA-compatible mounting plate for additional flexibility. Its rugged, flame-retardant ABS radome construction and IP54 environmental rating ensure reliable performance in harsh conditions.

With its right-hand circular polarization (RHCP) and narrow 25° x 60° beamwidth, the R902-11-x-F-SSF enhances tag visibility while reducing stray reads.. Engineered for precision tracking in logistics, access control, tool tracking, and even laundry applications, this antenna is the perfect solution for businesses seeking robust and efficient RFID performance.





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MECHANICAL DATA

Unboxed Dimensions *Length (x) X Width (y) X Depth (z)	604 x 304 x 8.6mm 23.78 X 11.97 X 0.34"
Boxed Unit Dimensions (LxWxD)	650 x 360 x 30mm 25.59 X 14.17 X 1.18"
Weight	Net: 1.48kg / 3.31bs. Gross: 1.79kg / 3.91bs.
Radome Material	Flame retardant ABS
Environmental Rating	IP54
Operating / Storage Temperature	-20° to +55°C t -30° to +60°c -4° to +131 °F / -22° to +140°F
Mounting	Integrated flush mounting holes or VESA mount
Connector Type	SMA female fly lead
Cable Type Length	RG316 / 270mm / 10.6"

ELECTRICAL DATA

Frequency Range:	902-928 MHz (FCC)
Polarization:	Right hand circularly polarized (RHCP)
Far-Field Gain:	10.5dBiC typical
*Far-Field 3dB Beamwidth:	25° in XZ plane, 60° in YZ plane
VSWR:	1.4 typical
Front-To-Back Ratio:	-25dB
Axial Ratio:	2dB typical
Nominal Impedance:	50Ω
Anti-Static Protection:	Yes, DC grounded
Antenna Detection:	10kΩ
Maximum Input Power:	3W







MOUNTING INSTRUCTIONS

Flush Mount:

- The R902-11-x-F-SSF antenna has 6 pre-drilled mounting holes on the rear side, which can be drilled completely through without damaging the antenna.
- Ensure that only finger tightness is used for the SMA connector. Use of tools to tighten the connector will apply excessive force and will damage the connector.
- Avoid any excessive pulling force on the cable and be mindful of its bend radius to prevent damage and ensure proper functioning.



MECHANICAL DRAWING





