

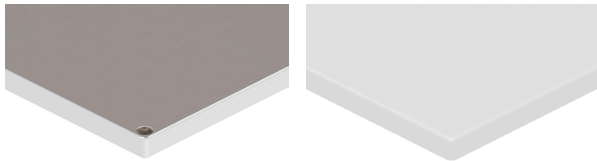


## R902-11-W-V-RTF

### Circularly Polarized RFID Antenna

The RFMAX R902-11-W-V-RTF is a high-gain, circularly polarized RFID antenna designed for demanding industrial and commercial applications. With a powerful 10.5 dBiC gain and an 8-patch array design, it delivers precise and reliable tag detection, even in high-density RFID environments. The antenna operates in the 902-928 MHz frequency range, making it ideal for UHF RFID deployments across logistics, warehousing, and asset tracking applications.

- UHF RFID: 902-928 MHz
- 25° Beamwidth in XZ plane, 60° in YZ plane
- 10.5 dBiC Gain
- Easy installation 100mm VESA Mounting Pattern
- Fixed RP TNC Female Connector
- Rugged IP54, Flame Retardant Housing



RFID

Built for durability, the R902-11-W-V-RTF features a rugged, weather-resistant IP54-rated radome, ensuring reliable performance in both indoor and outdoor settings. Its flame-retardant ABS housing provides protection against harsh environmental factors, while the rear RPTNC connector allows for secure cable attachment. The integrated riveted metal backplate adds structural strength, making it a robust solution for long-term RFID installations.

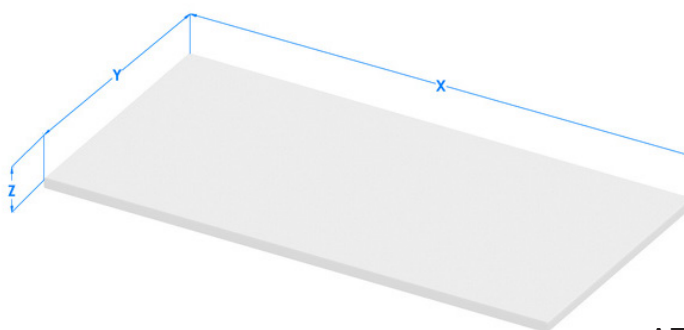
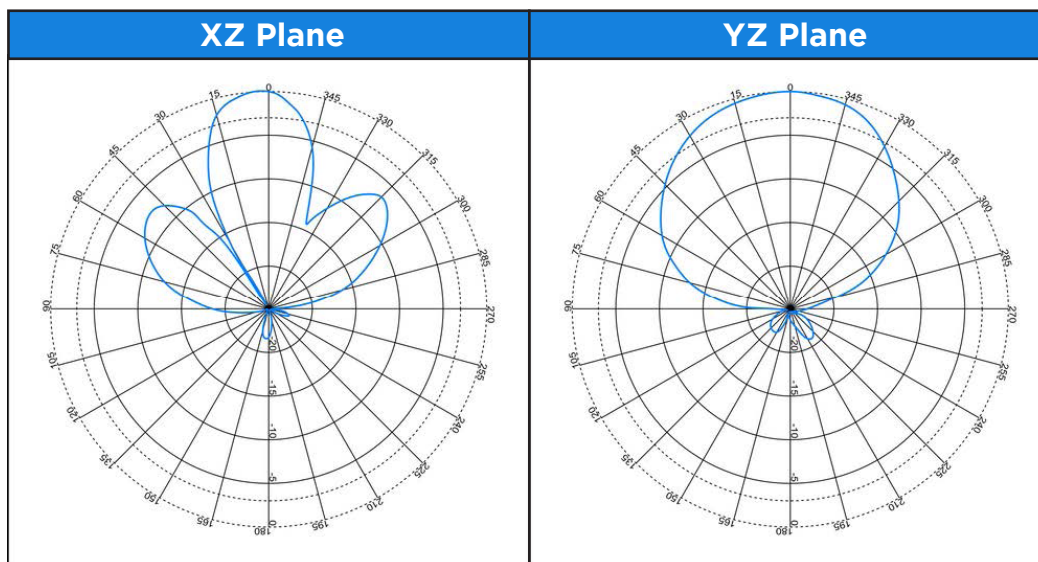
Designed for easy installation, the antenna comes with M6 VESA mounting studs, enabling quick and secure attachment to a variety of mounting systems. Its circular polarization ensures optimal tag readability regardless of orientation, making it an excellent choice for RFID portals, vehicle tolling, and access control applications.

## MECHANICAL DRAWING

Dimensions:(L x W x D)	604 x 304 x 11mm* / 27.5mm** 23.78 x 11.97 x 0.43" / 1.1"(*panel only, **including full stud length)
Boxed Unit Dimensions:(L x W x D):	650 x 360 x 30mm 25.59 x 14.17 x 1.18"
Weight:	Net: 2.38kg / 5.25lbs. Gross: 2.69kg / 5.93lbs.
Radome Material:	White Flame-Retardant ABS
Environmental Rating:	IP54
Operating / Storage Temperature	-20° to +55°C / -30° to +60°C -4° to +131°F / -22° to +140°F
Mounting:	Integrated 100 x 100mm VESA Mounting Studs
Connector Type:	RP-TNC Straight Jack

## ELECTRICAL DATA

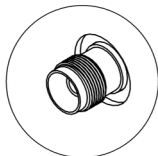
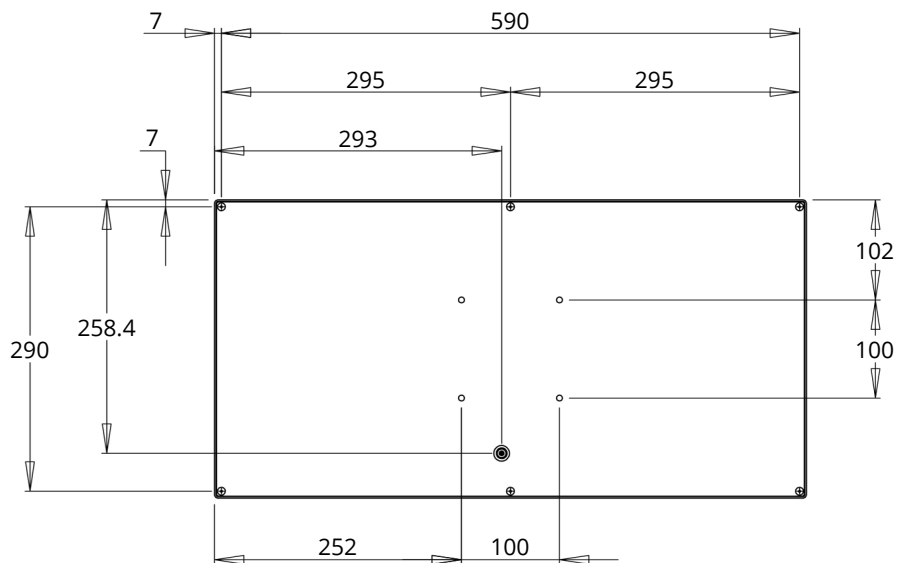
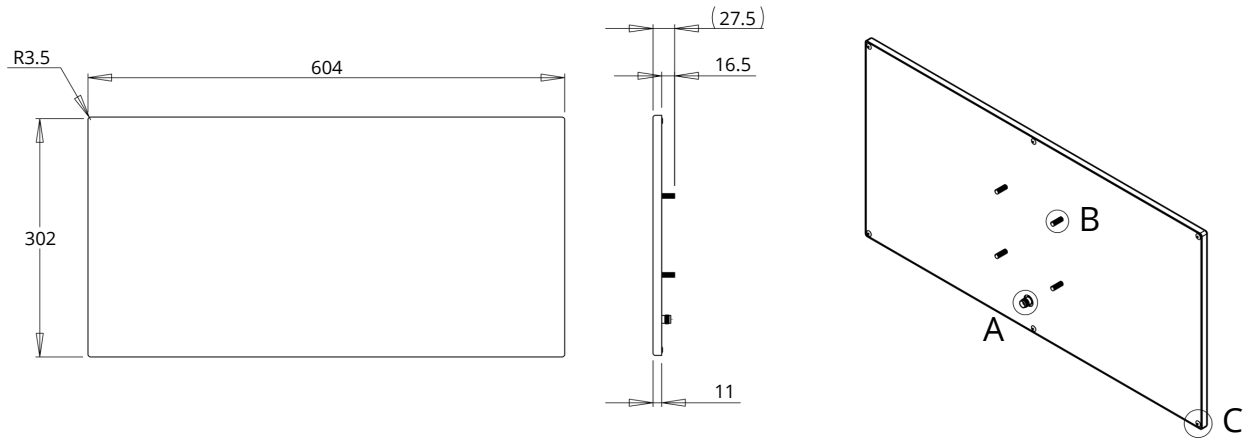
Frequency Range:	902-928 MHz (FCC)
Polarization:	Circularly Polarized, Right-Handed
Far-Field Gain:	10.5dBiC typical
*Far-Field 3dB Beamwidth:	25° in XZ plane, 60° in YZ plane
VSWR:	1.4 typical
Front-To-Back Ratio:	-25dB
Axial Ratio:	2dB typical
Nominal Impedance:	50Ω
Anti-Static Protection:	Yes, DC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



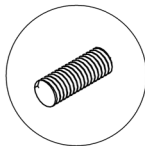
AZIMUTH PLANES

## MOUNTING INSTRUCTIONS

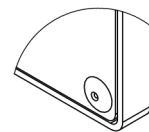
- The R902-11-W-V-RTF has an integrated M6 studded backplate that support VESA-100 mounting.
- Using the provided mounting hardware (M6 Nuts, flat and spring washers) fix the antenna to a selected appropriate mount. It is recommended you do not exceed an individual mounting torque of 5Nm.
- Ensure that the cable is tightened to the rear RP-TNC connector to finger-tightness only. Allow the cable to be attached straight and without strain to the back of the antenna before routing. The R902-11-W-V-RTF may be rotated 180 degrees to position the connector in a favorable location.
- Avoid any excessive pulling force on the cable/connector and be mindful of maintaining its rated bend radius to prevent damage to the connector or cable and ensure proper function



DETAIL A  
RP-TNC Connector  
SCALE 1 : 1



DETAIL B  
M6 Studs (4x)  
SCALE 1 : 1



DETAIL C  
Aluminium Rivets (6x)  
SCALE 1 : 1