

# R9028-LP

American Made UHF RFID Antennas  
Part of our Patriot Series Antennas

Made in  
the USA



# RFMAX

The R9028-LP Series Antennas from RFMAX Patriot Series are the newest low-profile, flush or VESA mounted, circularly polarized panel antennas for UHF RFID. The mounting profile of these antennas are smaller and more aesthetically pleasing than any other RFID antenna on the market today. These antennas were specifically designed by RFID professionals - for RFID professionals. The RFMAX engineers worked to design-in the very best UHF RFID performance in the smallest possible package. We are proud to announce that all R9028 antennas are manufactured in the USA.

## Features:

- High Impact, IP67 Rated construction to withstand industrial applications and outdoor environments
- Low-profile, aesthetically pleasing for use in any professional/office environment
- Superior RF performance with excellent coverage area, both indoor and outdoor
- Flush or articulating mounting models
- Fully compliant for US government contracts
- Industry's best warranty – 5 years
- Designed and built in the USA!



**R9028-LPV-SSF** with  
100mm VESA pattern



**R9028-LPF-SSF** with four  
mounting corners

SKU	Frequency	Connector Type	Mount	Connectors
<b>R9028-LPV-SSF</b>	902-928 MHz	Fixed Connector	4-Stud 100mm VESA	SMA-Female
<b>R9028-LPF-SSF</b>	902-928 MHz	Fixed Connector	Flush Four Corner Holes	SMA-Female

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## Electrical Specifications

Frequency [MHz]	902-928 MHz	
Gain	8.5 dBic	
Axial Ratio	1.4 Typical / 2.0 Max	
VSWR	< 1.2:1	
Input Impedance	50 Ohm	
Polarization	RHCP - Circular	
Beamwidth	Vertical/Elevation	68 °
	Horizontal/Azimuth	68 °

## Environmental Specifications

Operating Temperature [°C]	-20 to +55
Storage Temperature [°C]	-30 to +65
Relative Humidity MIL-STD810G, method [°C]	85
Environmental Rating	IP67

## Mechanical Specifications

Color	White
Weight [lbs/g]	1.6 / 750
Length and Width [in/mm]	9.85 x 9.85 / 250 x 250
Thickness [in/mm]	0.55 / 14
Mounting	Flush or 100mm VESA
Connector Type and Position	SMA-Female Side Connector
Radome Material	UV-Resistant ABS

SMA-Female

Low Profile  
R9028



## Recommended Accessories:

SKU	Descriptions
HDMNT-100MM	Heavy Duty 100mm VESA mount
EZ-M6-Combo	Easy to position bracket with 100mm VESA pattern
PT240-xxx-RTM-SSM	High quality, low loss cable

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SKU	Pictures	Information
R9028-LPV-SSF (600031)		FCC. IP67 RHCP RFID Antenna. 902-928 MHz / FCC. 8.5 dBic gain. BW= 68 deg. H&V. Size: 9.85 x 9.85 x .55 in. with side entry SMA-F
R9028-LPF-SSF (600011)		FCC. IP67 RHCP RFID Antenna. 902-928 MHz / FCC. 8.5 dBic gain. BW= 68 deg. H&V. Size: 9.85 x 9.85 x .55 in. with side entry SMA-F
HDMNT-100MM		RFMAX - Die Cast Heavy Duty Wall/Mast Mount For RFMAX 12 X 12 In. Antennas Or Any Device With 100mm VESA
EZ-M6-Combo		Articulating Wall/Mast Combo Mounting Kit. Black Metallic E-Z Mount Kit. 6 Inch Arm 2 Or 4 Stud Antennas
PT240-XXX-RTM-SSM		Pigtail: 50 Ohm (Black) LMR240 Type Coaxial Cable. With Reverse Polarity TNC Male And Standard SMA Male Connectors

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## Environmental Tests

Test	Standard	Duration	Temperature	Notes
Low Temperature	IEC 68-2-1	72 Hours	-55° C	
Thermal Shock		1 Hour	-45 / 70° C	3 Cycles
Humidity		72 Hours	85° C RH	
Dust Resistance	IEC 60529	8 Hours		With vacuum
Solar Radiation		4 Days		340 nm
Impact Resistance				1 lb ball drop at 24"
Salt Fog	Mil-Std-810G	24 Hours in-24 Hours out		2 cycles
Vibration Vehicle	Mil-Std-810G	1 Hour X 3 axes		10-500Hz, 1.04 Grms
Shock-Half Sine	Mil-Std-810G			10G/11ms, 5 shocks X 6 directions
Shock-Drop	Mil-Std-810G			26 drops at 48"
High Temp Storage		24 Hours each temp		60C, 65C, 70C, 80C, 85C, 90C & 95C