



R9028/R8658

RFID Antenna



The RFMax industry leading ultra-low profile design is in a compact 250 mm / approx.10 in. square footprint. IP67 rated for permanent outdoor use and built to RFMAX's high standard for quality and robustness, the circularly polarized antenna creates a new benchmark for multi-purpose UHF RFID antennas

- Up to 8m / 29 ft. read range
- Just 14mm / 0.55 in. thick
- High performance & rugged design
- IP67 rating for permanent outdoor use and industrial applications

This antenna can be utilized in various industries including:

- Medical and Pharmaceutical
- Retail Stores
- Warehousing

Part#	Frequency	Mounting
R9028-LPF-SSF	FCC	Flush
R9028-LPV-SSF	FCC	VESA
R8658-LPF-SSF	ETSI	Flush
R8658-LPV-SSF	ETSI	VESA

PHYSICAL DATA

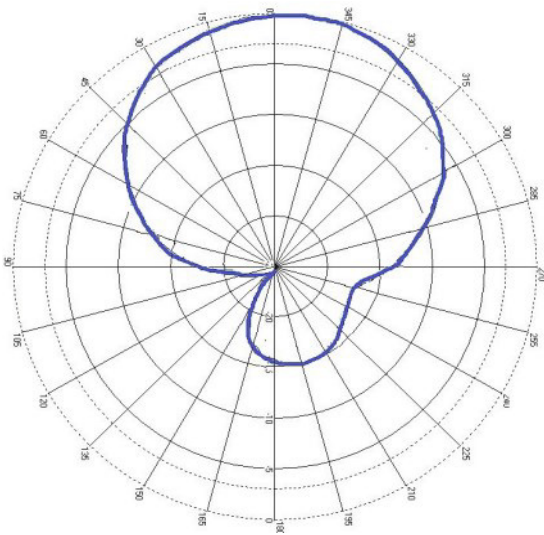
Dimensions L x W x D	200 mm x 250 mm x 14 mm 9.85" x 9.85" x 0.55"
Boxed Unit Dimensions	Flush: 280 mm x 255 mm x 20 mm 11.02" x 10.03" x 0.78" Stud: 310 mm x 280 mm x 40 mm 14.96" x 11.02" x 1.57"
Weight	Net: 0.575 kg / 1.26 lbs. Gross Stud: 0.695Kg / 1.53 lbs. Gross Flush: 0.728Kg / 1.60 lbs.
Radome Material:	UV-Resistant ABS
Environmental Rating:	IP67
Operating / Storage Temperature:	0° to +65°C / 0° to +65°C -4° to +131°F / -22° to +149°F
Mounting	Flush or VESA mount
Connector type / position:	SMA female side connector
Flush screw	Screw #8x1" s/s phillips white pan head

ELECTRICAL DATA

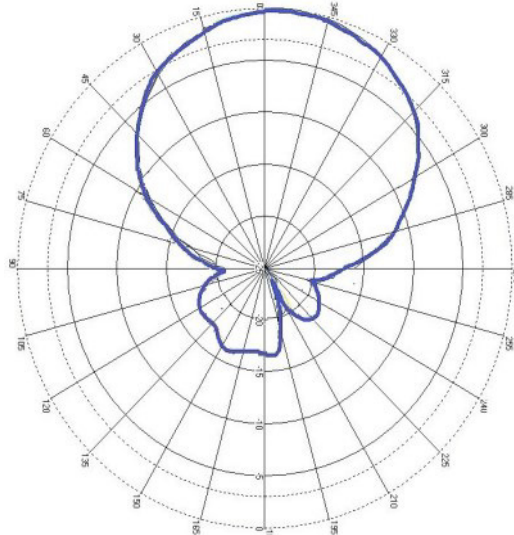
Frequency Range:	865-868 MHz / 902-928 MHz
Polarization:	RHCP (Right Hand Circular Polarized)
Far-field Gain:	8.5 dBiC typical
Far-field 3 dB beamwidth:	68° in both planes
VSWR:	1.3 typical
Front to back ratio:	-20 dB
Axial ratio:	1 dB typical
Nominal impedance:	50 ohms
Anti-static protection:	Yes, DC grounded
Antenna detection	Antenna detection 10 K ohm resistance
Maximum Input Power:	3 W

RADIATION PATTERN

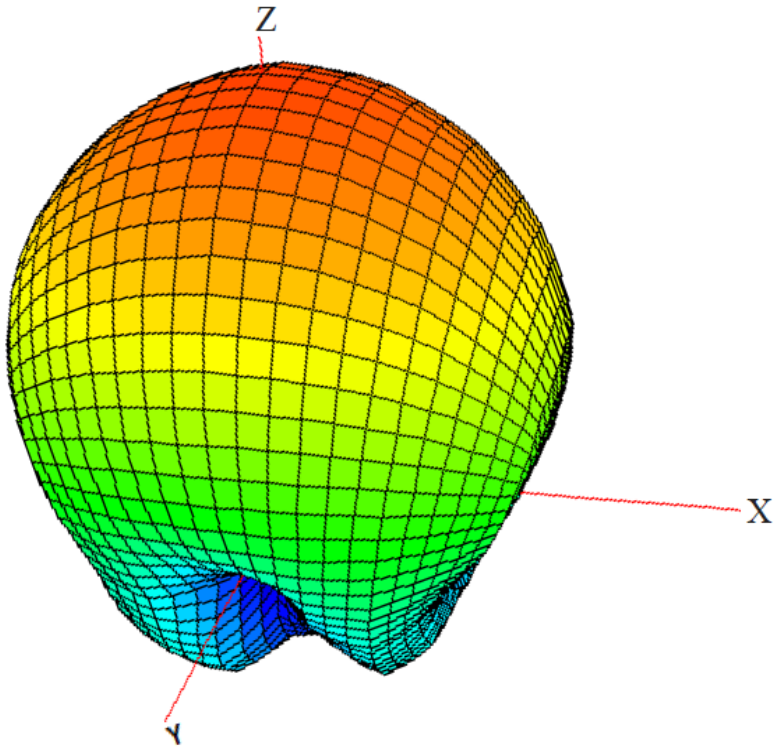
A5010 XZ PLANE



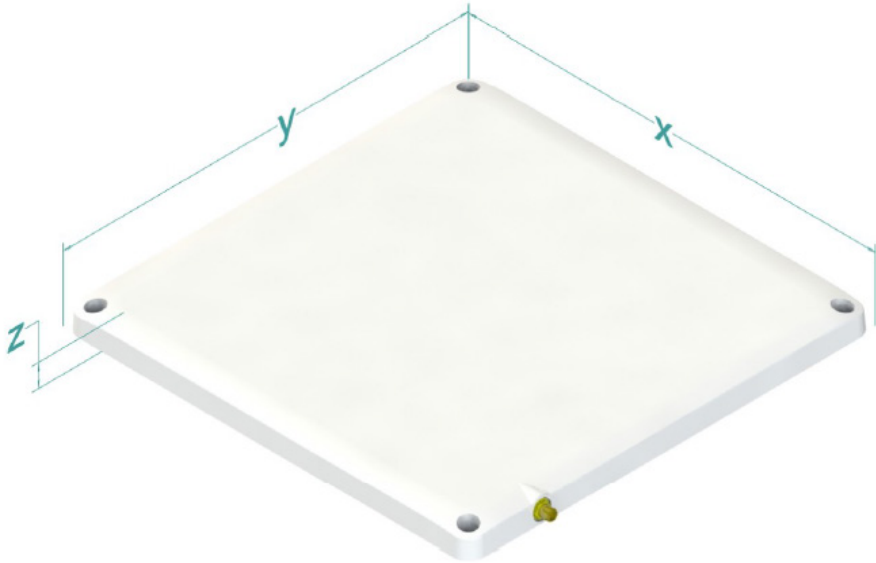
A5010 YZ PLANE



3D E-field radiation



Azimuth Planes



ENVIRONMENTAL TEST

Test	Standard	Duration	Temperature	Notes
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" x 6 (top/bottom/sides)
Salt Fog	Mil-Std-810G	24 Hours In & 24 Hours Out		2 cycles
Vibration Vehicle	Mil-Std-810G	1 Hour x 3 Axes		10-500 Hz, 1.04 Grms
Shock-Half Sine	Mil-Std-810G			10 G / 11 ms, 5 shocks x 6 directions
Shock Drop	Mil-Std-810G			26 drops @ 48"
High Temp Storage		24 Hours Each Temp		60C, 65C, 70C, 80C, 85C, 90C & 95C