

TECHNICAL DATA SHEET

Description: 902-928MHz Ceramic On Ground

Antenna

PART NUMBER: W3211

Features:

Frequency: 902-928MHz

• Size: 10 x 3.2 x 5 mm

• Gain: 1.35 dBi

Type: On Ground

SMD Compatible

RoHS Compliant

MSL level 1

Applications:

- ISM 915MHz radios
- Sensors
- IoT
- Transportation
- · Industry automation

All dimensions are in mm / inches

Issue: 2049

In the effort to improve our products, we reserve the right to make changes judged to be necessary. CONFIDENTIAL AND PROPRIETARY INFORMATION

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ELECTRICAL SPECIFICATIONS

Frequency	902-928MHz
Nominal Impedance	50 Ω
Return Loss Peak	-10dB
Return Loss Band edges	-3dB
Radiation Pattern	Omni
Peak Gain	1.35dBi
Efficiency	43%
Polarization	Linear
Power Withstanding	5W

MECHANICAL SPECIFICATIONS

Overall Length 10x3.2x5mm
Weight 0.73g
Antenna Color / Material Ceramic

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature -40~+85° C
Storage Temperature -40~+85° C
RoHS Compliant Yes





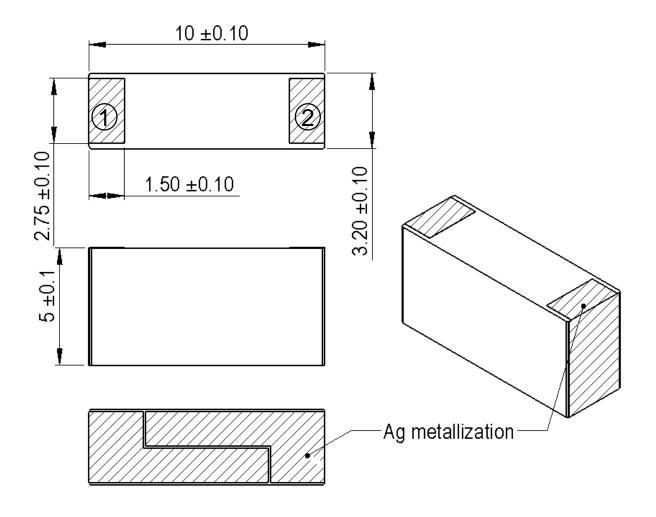
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Series: Chip Antenna

MECHANICAL DRAWING



No.	Terminal Name	Terminal Dimensions
1	Feed / GND	1.5 x 2.75 mm
2	Feed / GND	1.5 x 2.75 mm
Antenna is symmetrical. Either of terminals 1 or 2 can be Feed / GND		

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MECHANICAL DRAWING AND TERMINAL CONFIGURATION

Ground cleared under antenna TOP and MIDDLE layers, clearance area 10.8 mm x 8.25mm (BOTTOM layer solid ground)

Matching Component (optional shunt) Ground Area Feed contact Ground contact Ground Via Hole Ground area should be surrounded with Ground Via Holes Feed line 50 Ohm Any type of 50 Ohm feed line can be used. Inner layers on E feed line area need to designed to give 50 Ohm characteristics to feed line. Н





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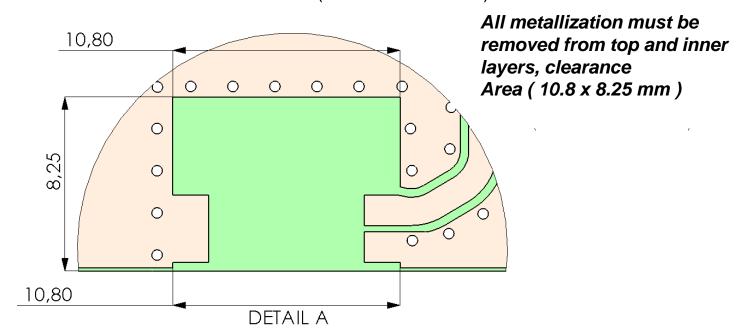
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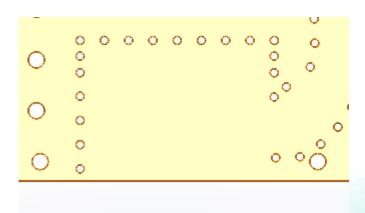
MECHANICAL DRAWING AND TERMINAL CONFIGURATION

Recommended Antenna Pad Dimensions on PCB Layout (top surface) Ground cleared under antenna on top and inner layers, clearance area 10.8 mm x 8.25 mm

Ground clearance area (10.80 x 8.25 mm)



Bottom solid ground layer





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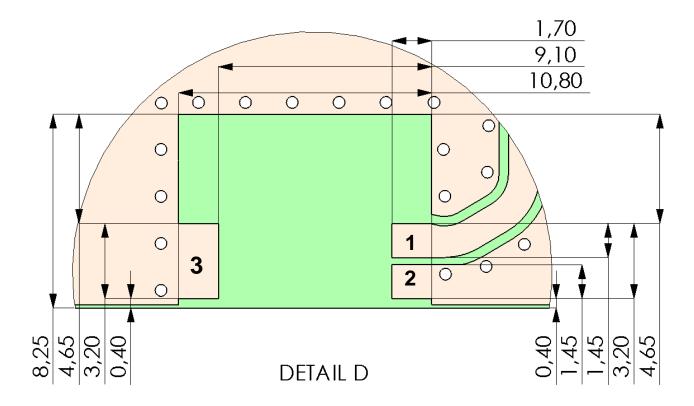
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MECHANICAL DRAWING AND TERMINAL CONFIGURATION

Recommended Antenna Pad Dimensions on PWB Layout (top surface)



PCB contact pads		
No.	Terminal Name	Terminal Dimensions
1	Feed	1.70 x 1.45 mm
2	GND	1.70 x 1.45 mm
3	GND	1.70 x 3.20 mm

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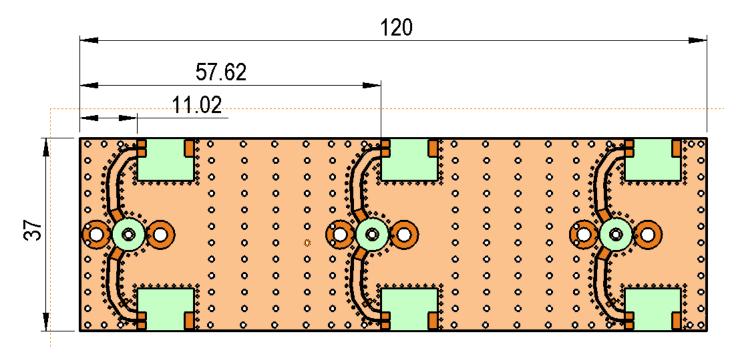
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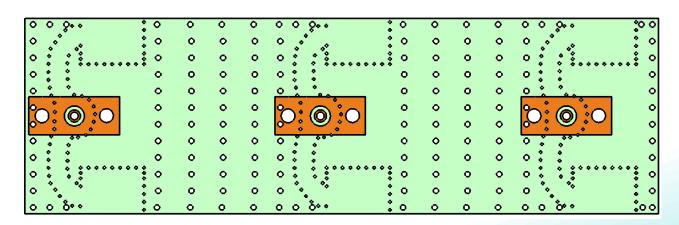
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MECHANICAL DRAWING AND TERMINAL CONFIGURATION

Recommended test board layout for electrical characteristic measurement, test board outline size 120 x 37mm









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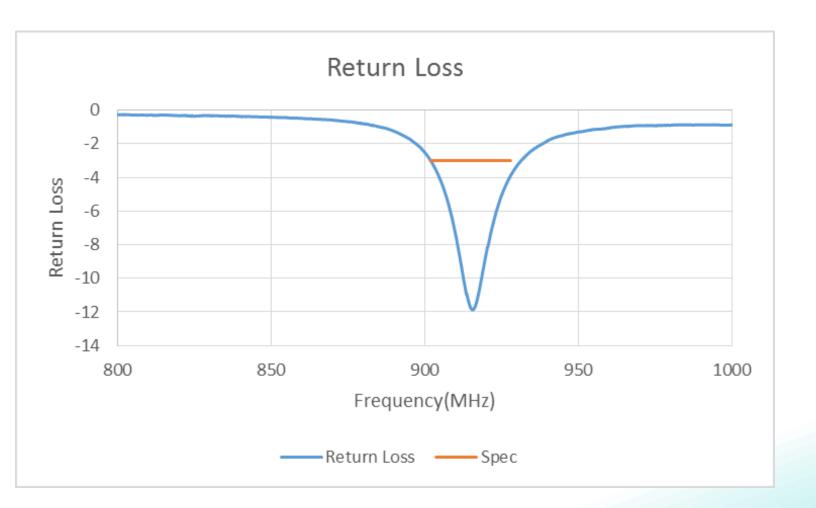
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CHARTS

Measured on the 120x37mm test board with matching circuit, 10pF shunt capacitor, position center location of test board edge.

Ground cleared under antenna, clearance area $10.80 \ \text{mm} \times 8.25 \ \text{mm}$ top and middle layers.







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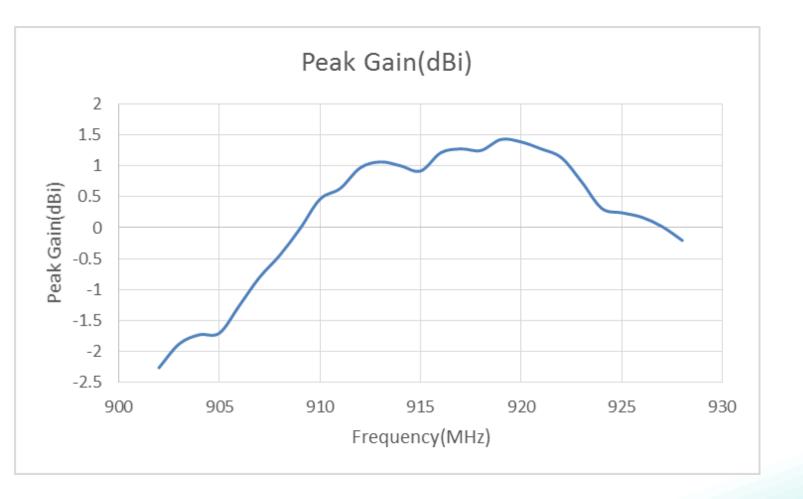
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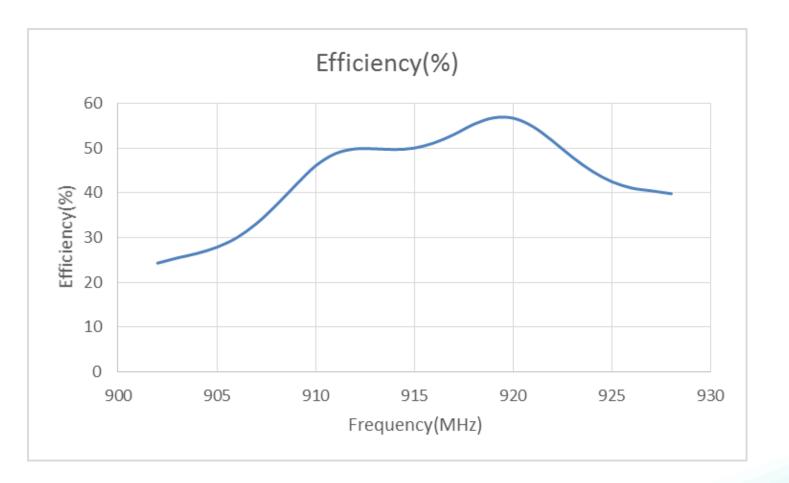
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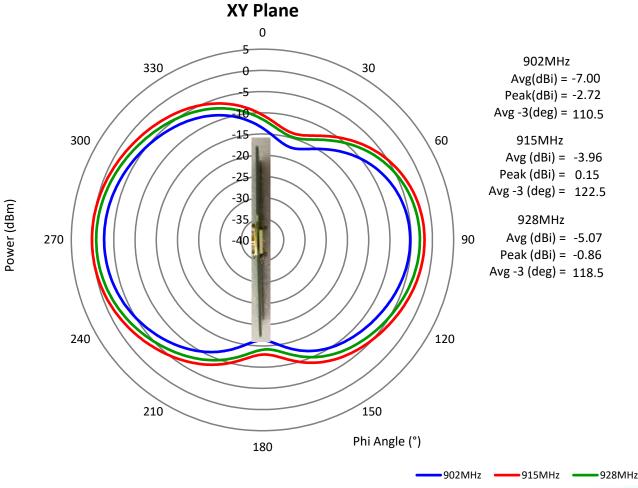
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Radiation Pattern





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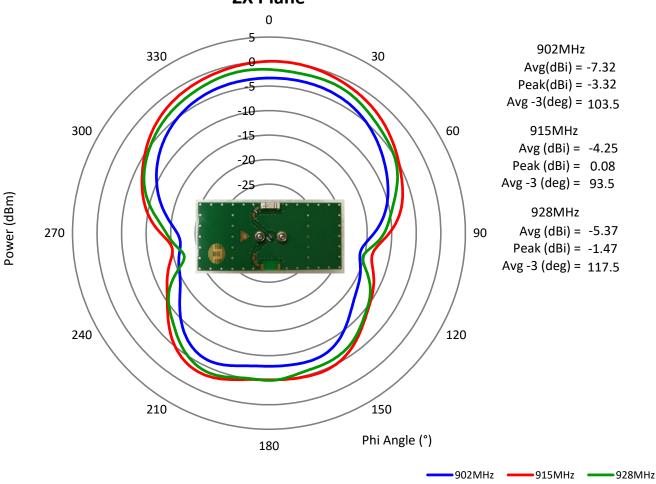
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Radiation Pattern ZX Plane





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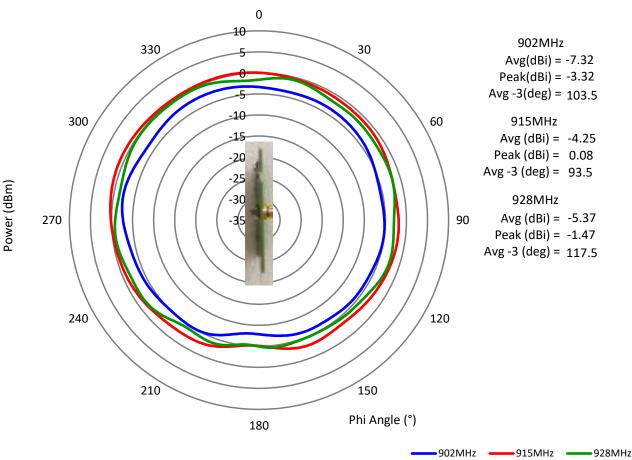
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Radiation Pattern YZ Plane





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PACKAGING

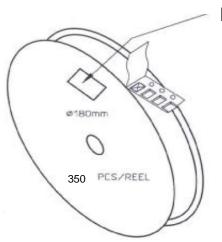
350pcs antennas per 7" reel

3pcs 7" reel per inner package box

2pcs inner box per out box

Total 2100pcs antenna per out box

Out box size: 390mmx215mmx165mm



Label area

