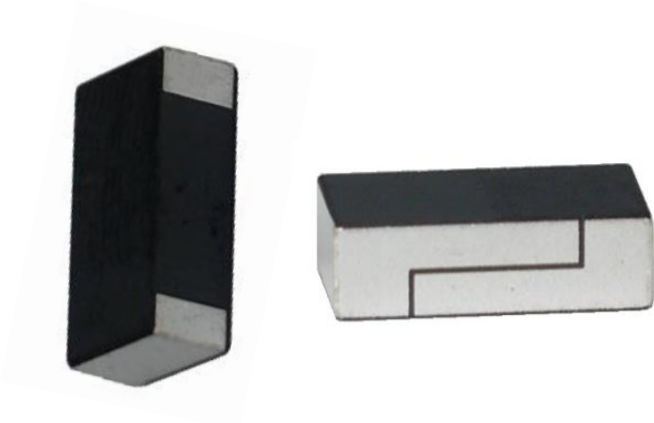


Description: 902-928MHz Ceramic On Ground Antenna**Series: Chip Antenna****PART NUMBER: W3211****Features:**

- 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.

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Pulse (Suzhou) Wireless Products Co, Inc.
99 Huo Ju Road(#29 Bldg,4th Phase
Suzhou New District
Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998



Description: 902-928MHz Ceramic On Ground Antenna**Series: Chip Antenna****PART NUMBER: W3211****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

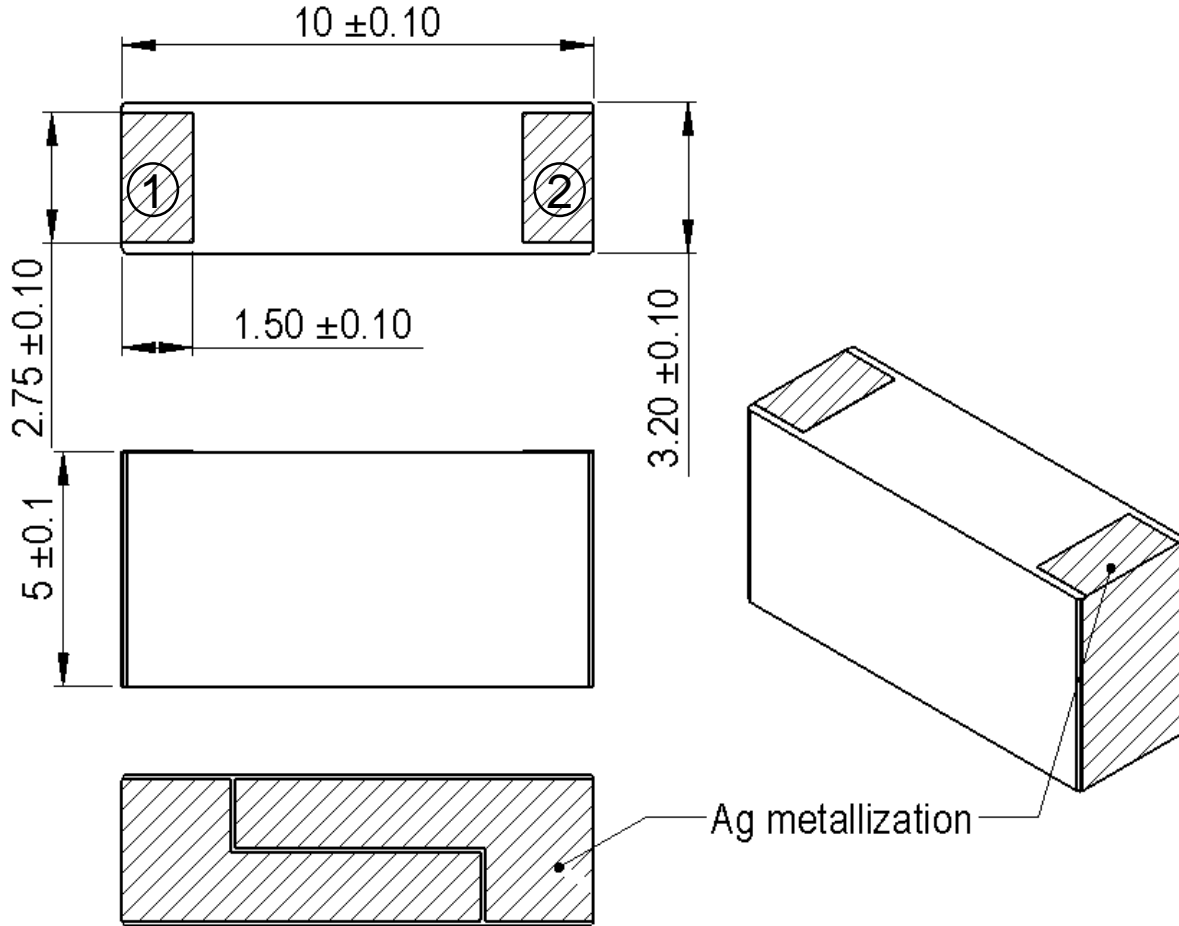
MECHANICAL SPECIFICATIONS

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

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		

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)

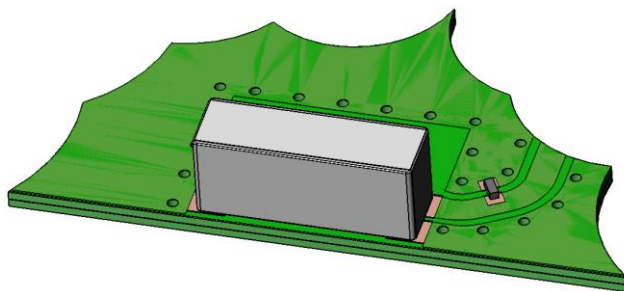
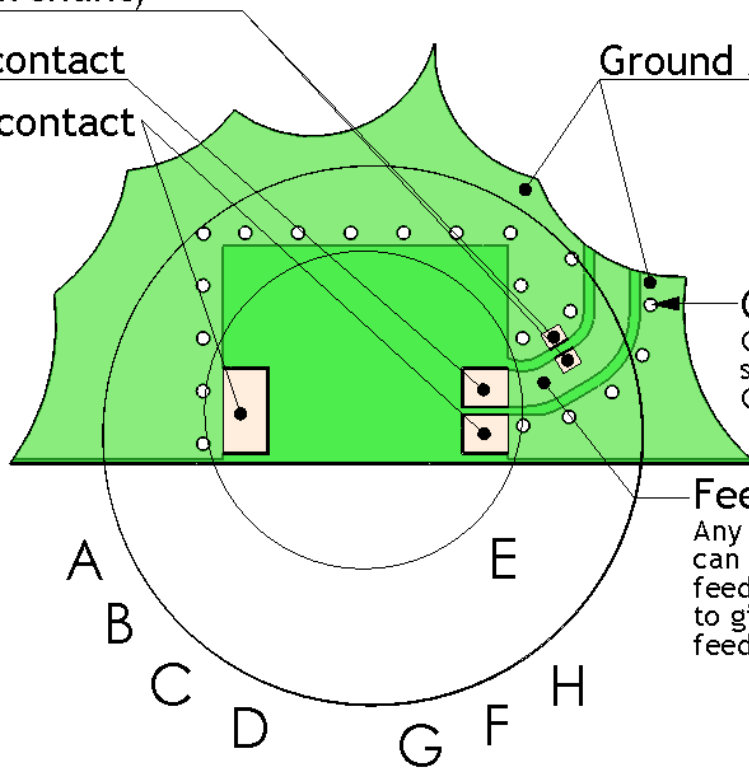
Matching Component
(optional shunt)

Feed contact
Ground contact

Ground Area

Ground Via Hole
Ground area should be surrounded with Ground Via Holes

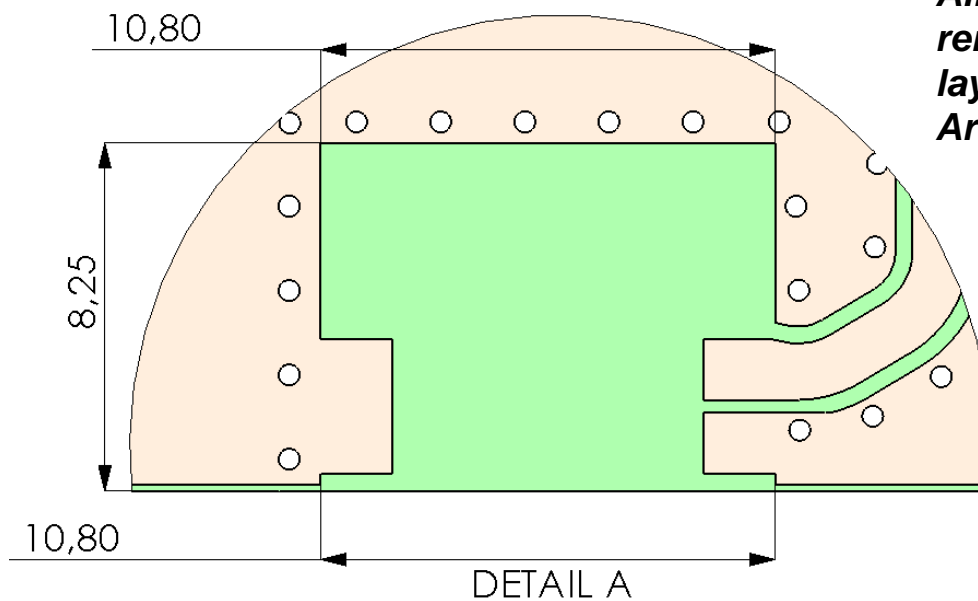
Feed line 50 Ohm
Any type of 50 Ohm feed line can be used. Inner layers on feed line area need to be designed to give 50 Ohm characteristics to feed line.



Description: 902-928MHz Ceramic On Ground Antenna**Series: Chip Antenna****PART NUMBER: W3211****MECHANICAL DRAWING AND TERMINAL CONFIGURATION**

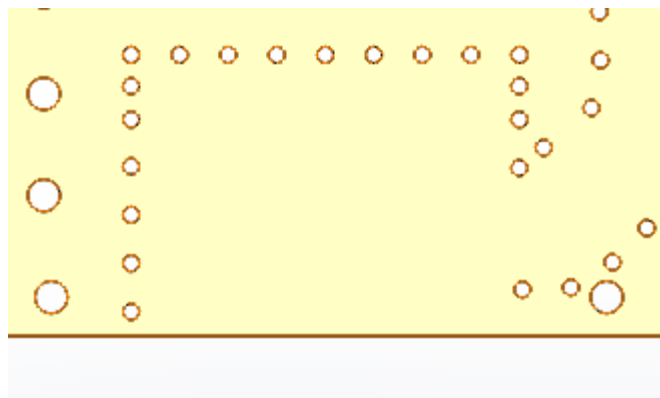
Recommended Antenna Pad Dimensions on PCB Layout (top surface)
Ground cleared under antenna on top and inner layers,
clearance area 10.8 mm x 8.25 mm

Ground clearance area (10.80 x 8.25 mm)



All metallization must be removed from top and inner layers, clearance Area (10.8 x 8.25 mm)

Bottom solid ground layer



Issue: 2049

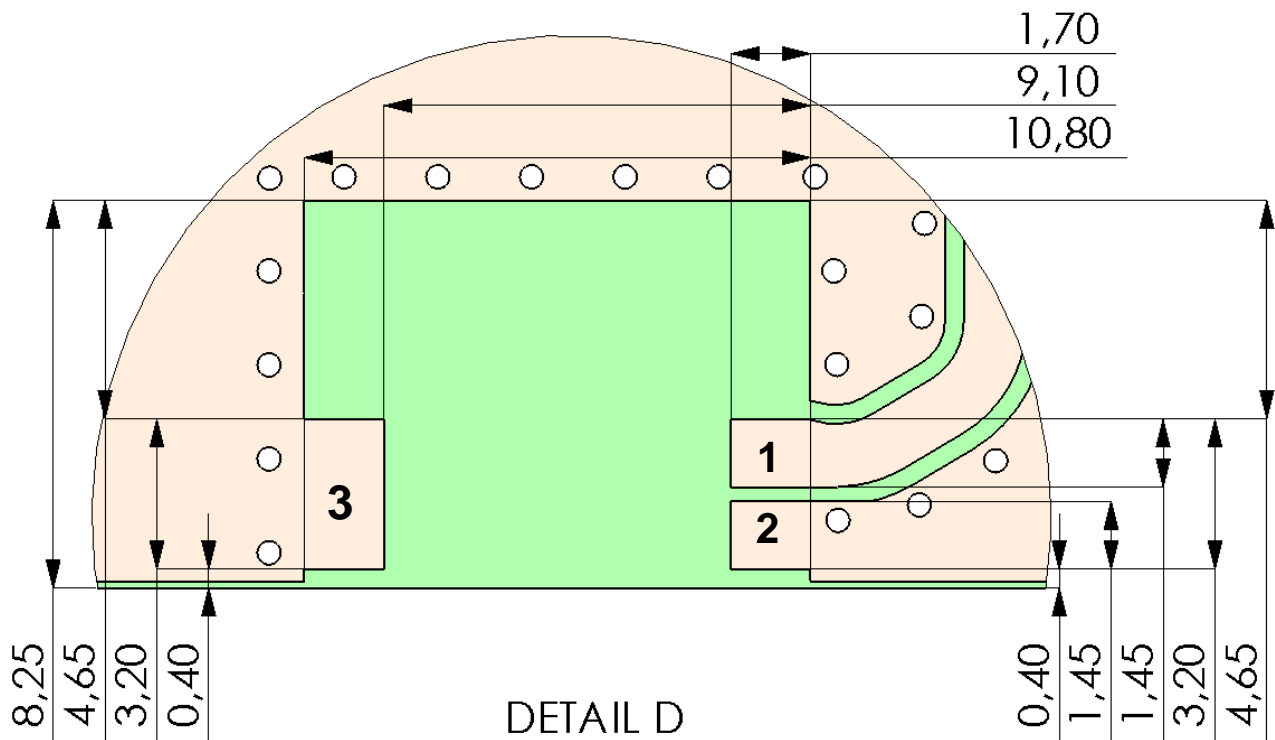
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MECHANICAL DRAWING AND TERMINAL CONFIGURATION

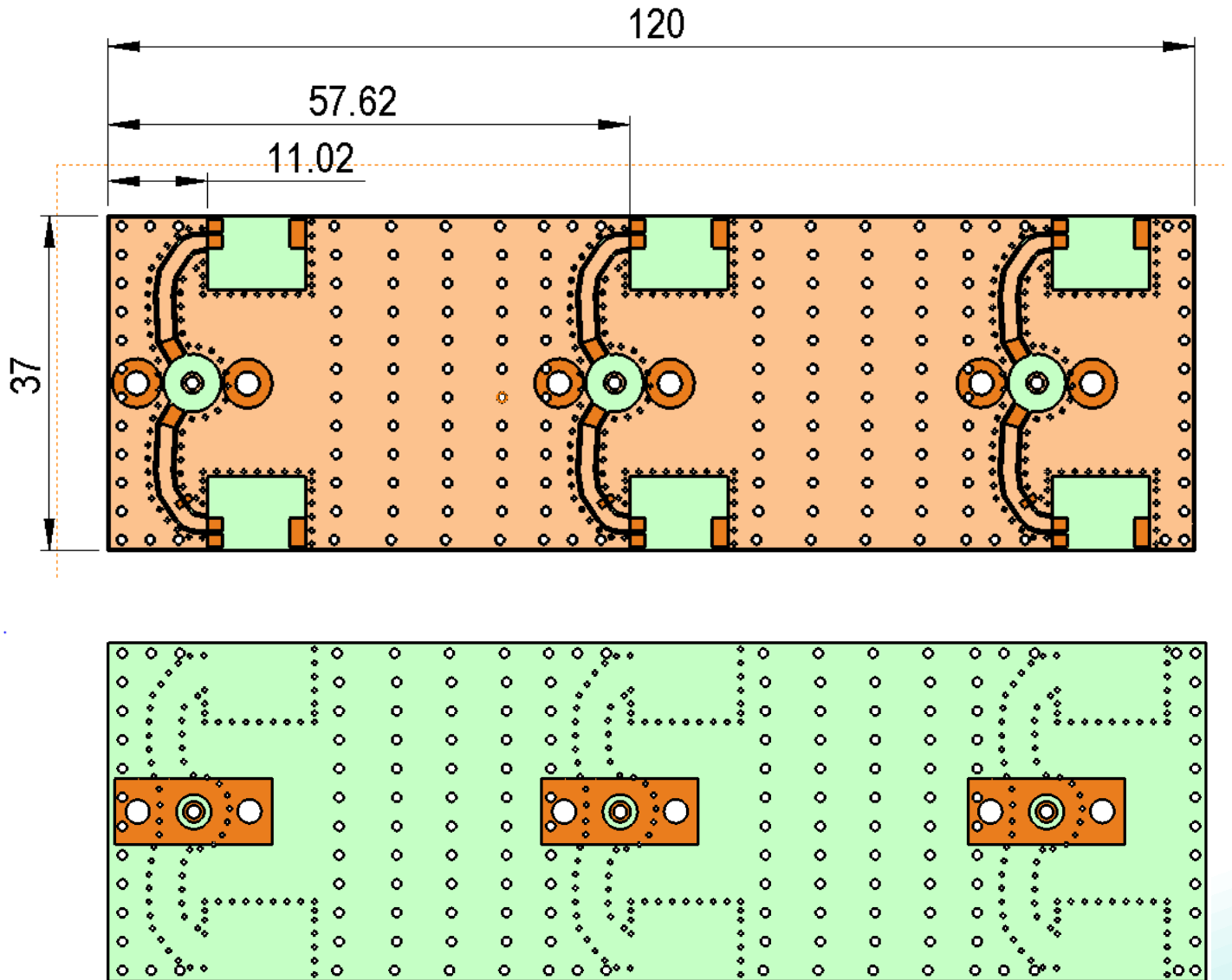
Recommended Antenna Pad Dimensions on PWB Layout (top surface)



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

MECHANICAL DRAWING AND TERMINAL CONFIGURATION

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



Description: 902-928MHz Ceramic On Ground Antenna

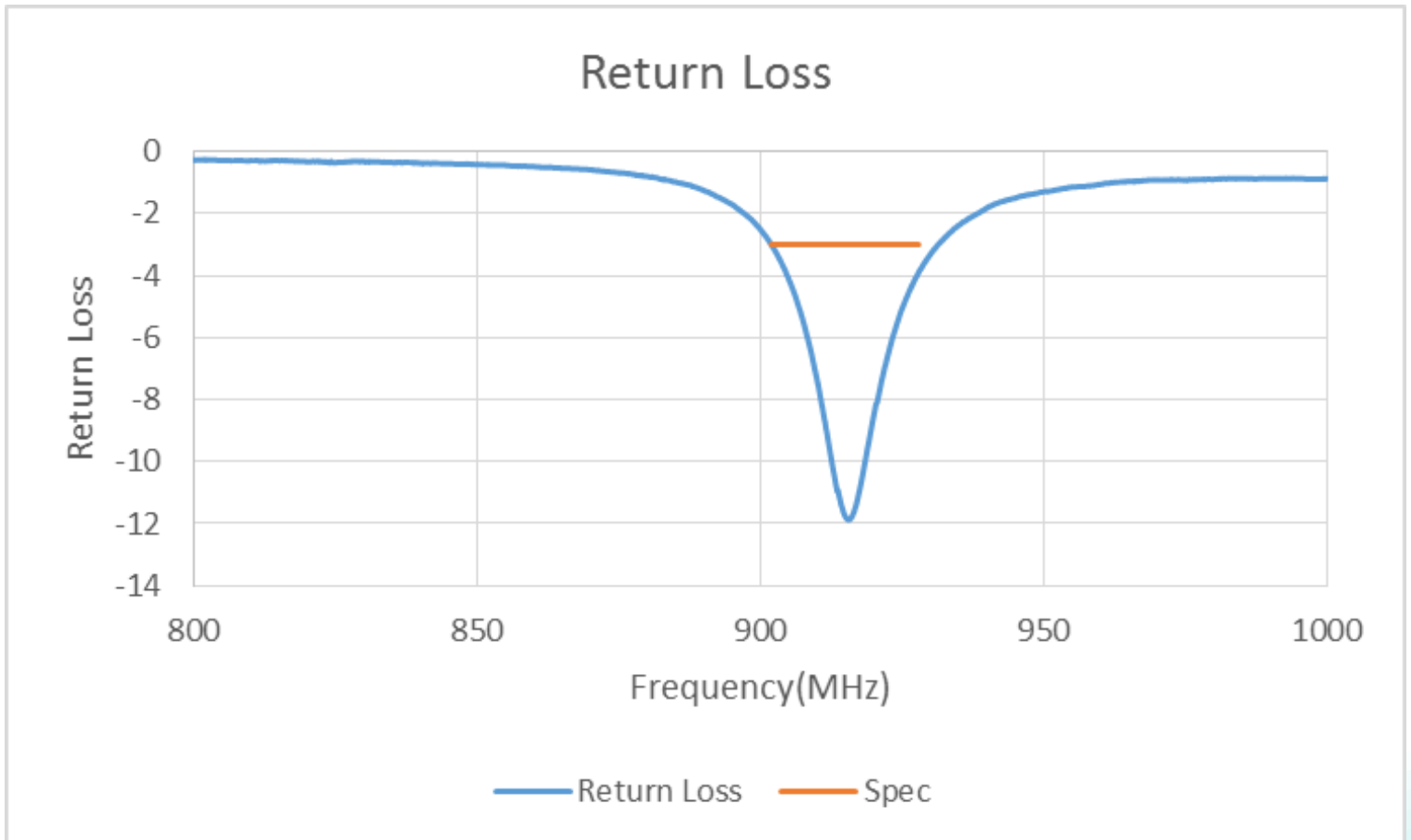
Series: Chip Antenna

PART NUMBER: W3211

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 mm x 8.25 mm top and middle layers.



Issue: 2049

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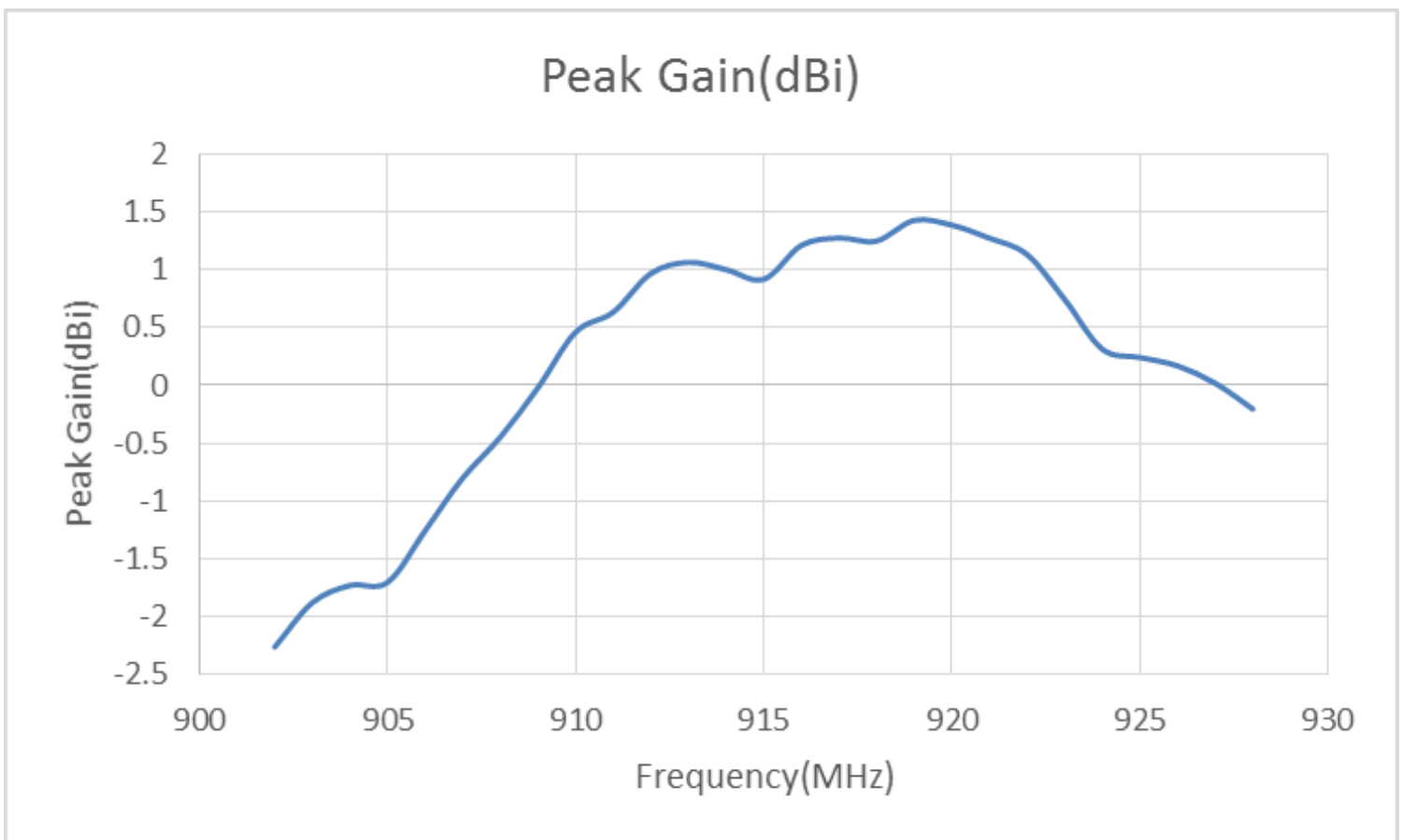
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Issue: 2049

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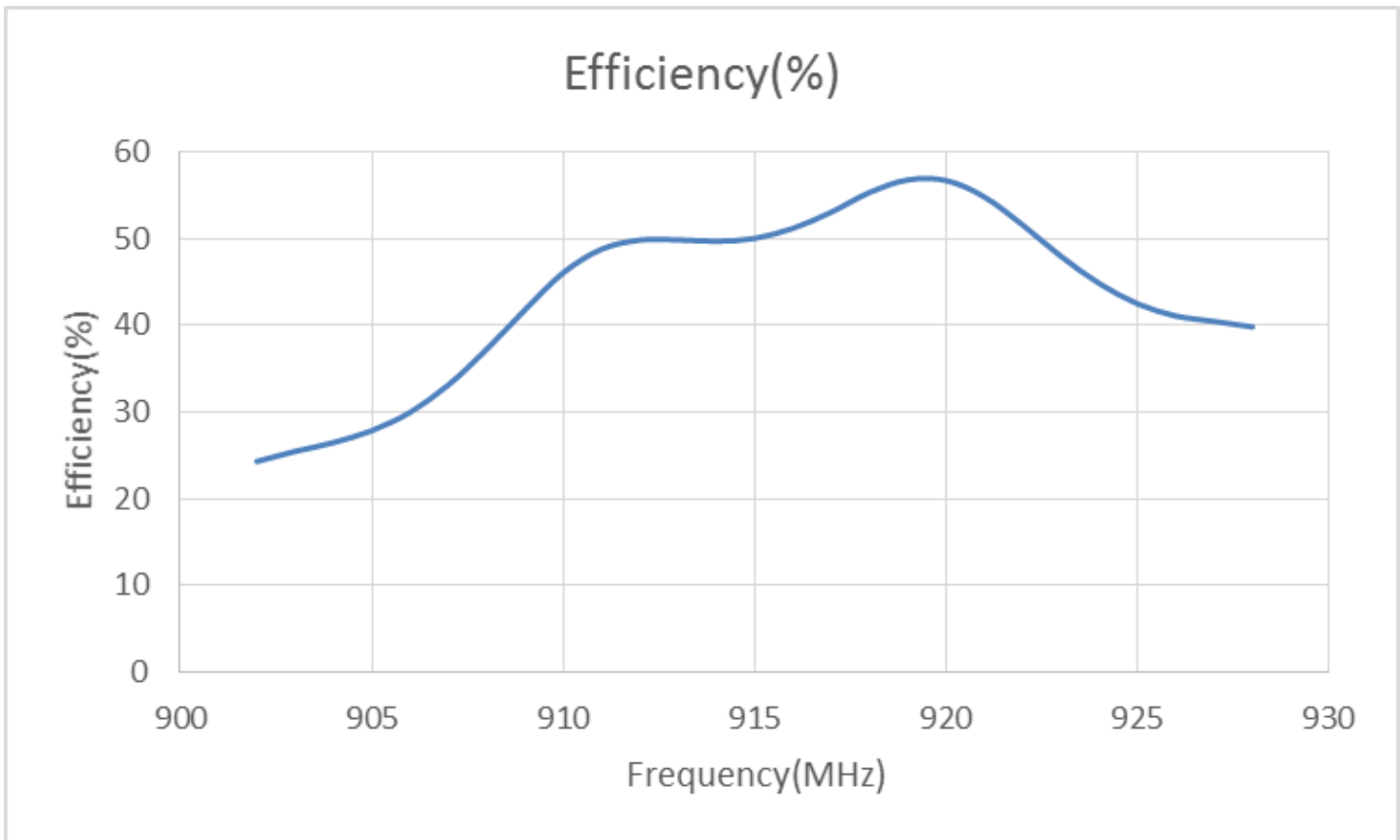
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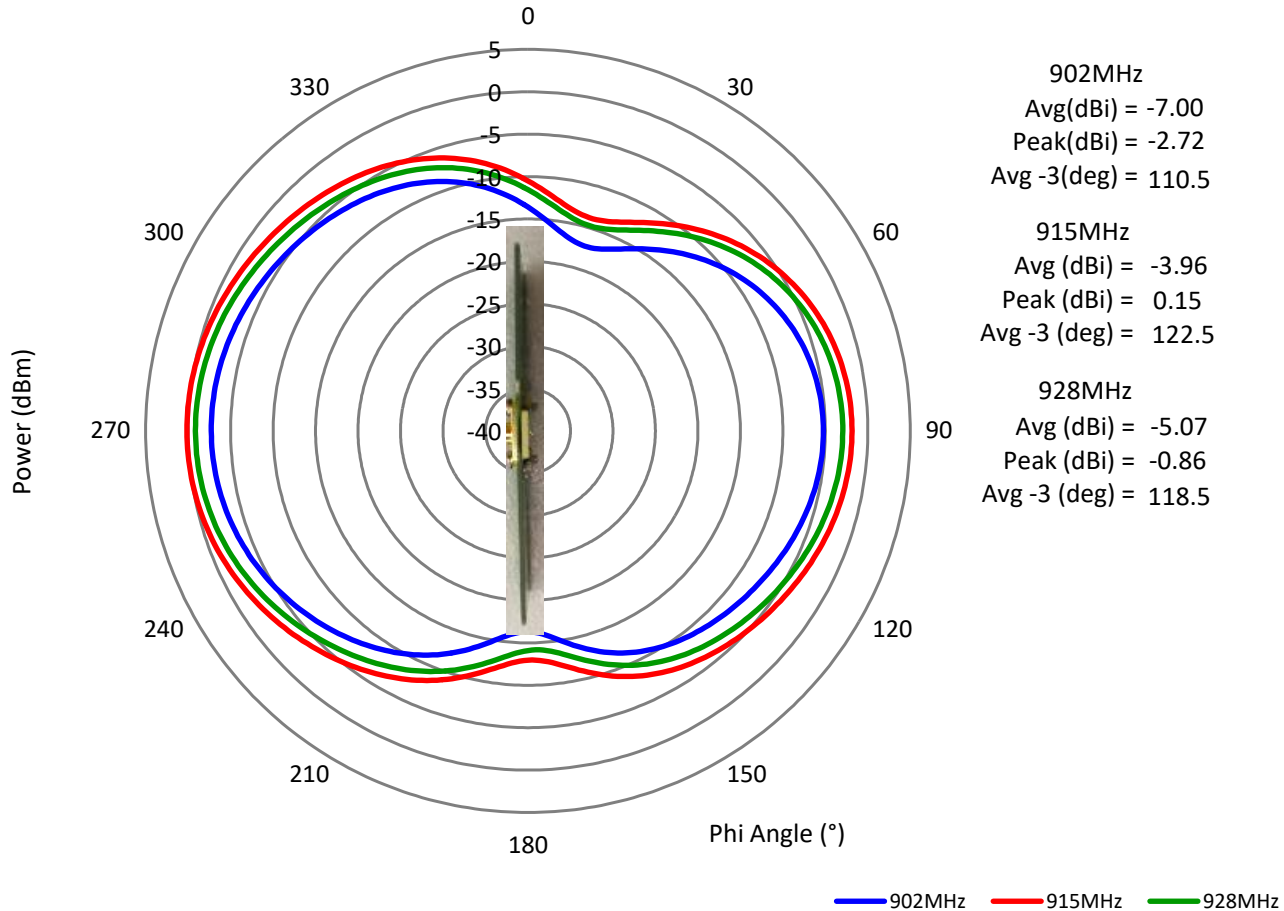
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Radiation Pattern

XY Plane

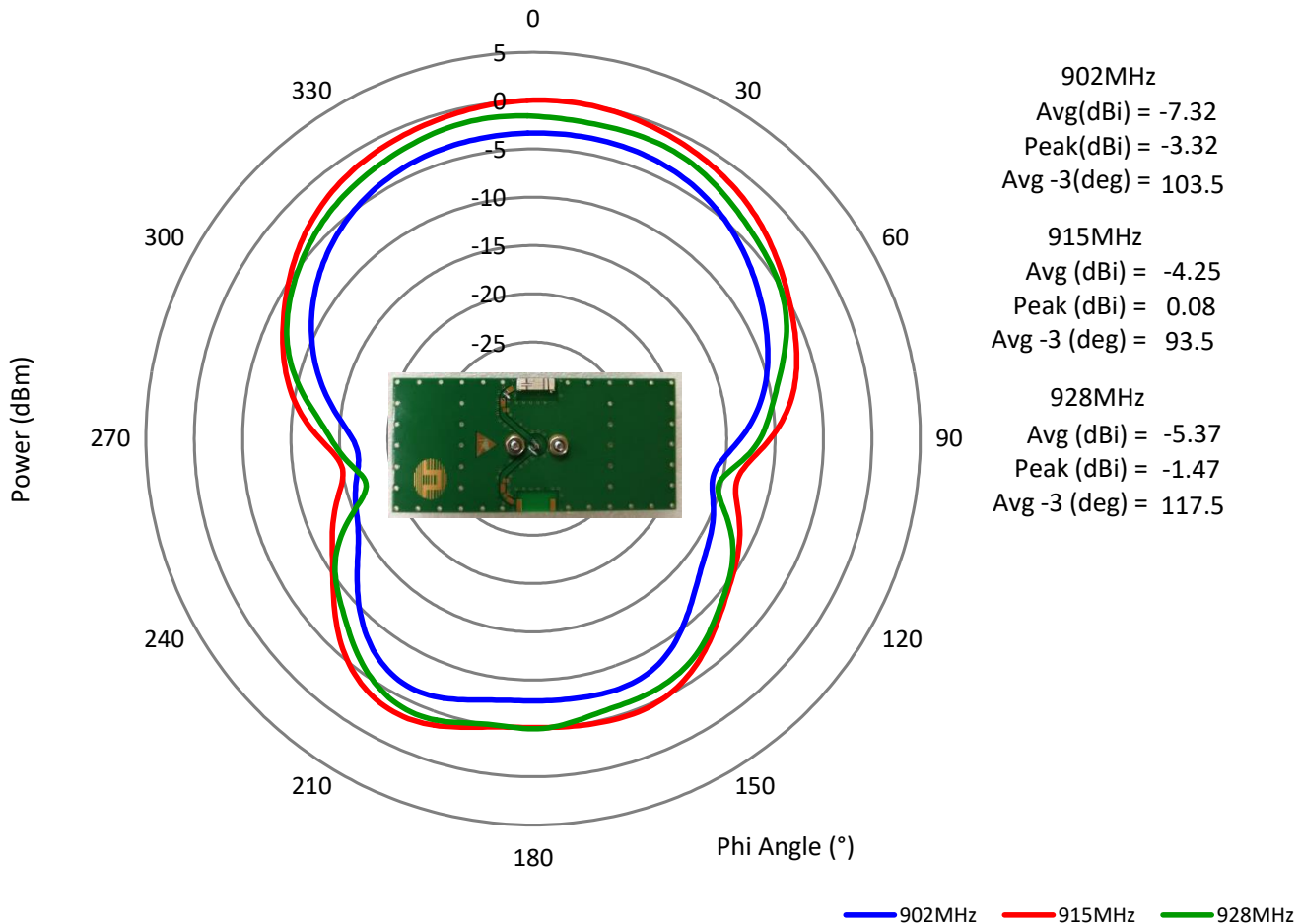


CHARTS

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Radiation Pattern ZX Plane



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Radiation Pattern YZ Plane

