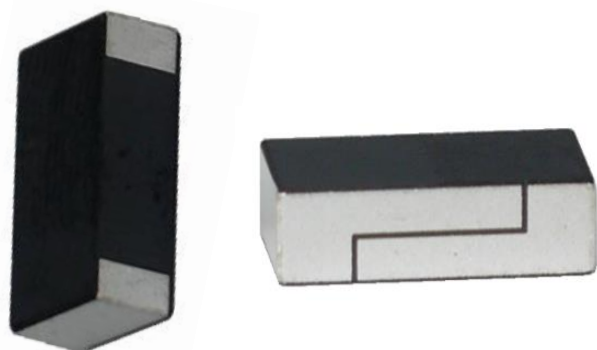


Features:

- Frequency 863-873 MHz
- Size 10 x 3.2 x 5mm
- Full metal under antenna
- Peak Gain 1dBi
- Peak Efficiency 55%
- RoHs Compliant
- MSL level 1

Applications:

- 868MHz ISM band radios
- IoT devices
- Sensors, monitoring
- 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: 868MHz On Ground Ceramic
SMD Loop Antenna**PART NUMBER:** W3214**ELECTRICAL SPECIFICATIONS**

Frequency	863-873MHz
Nominal Impedance	50 Ω
Return Loss Peak	-20dB
Return Loss Band edge	-5dB
Radiation Pattern	Omn
Peak Gain	1dBi
Efficiency	38% (55% peak)
Polarization	Linear
Power Withstanding	5W

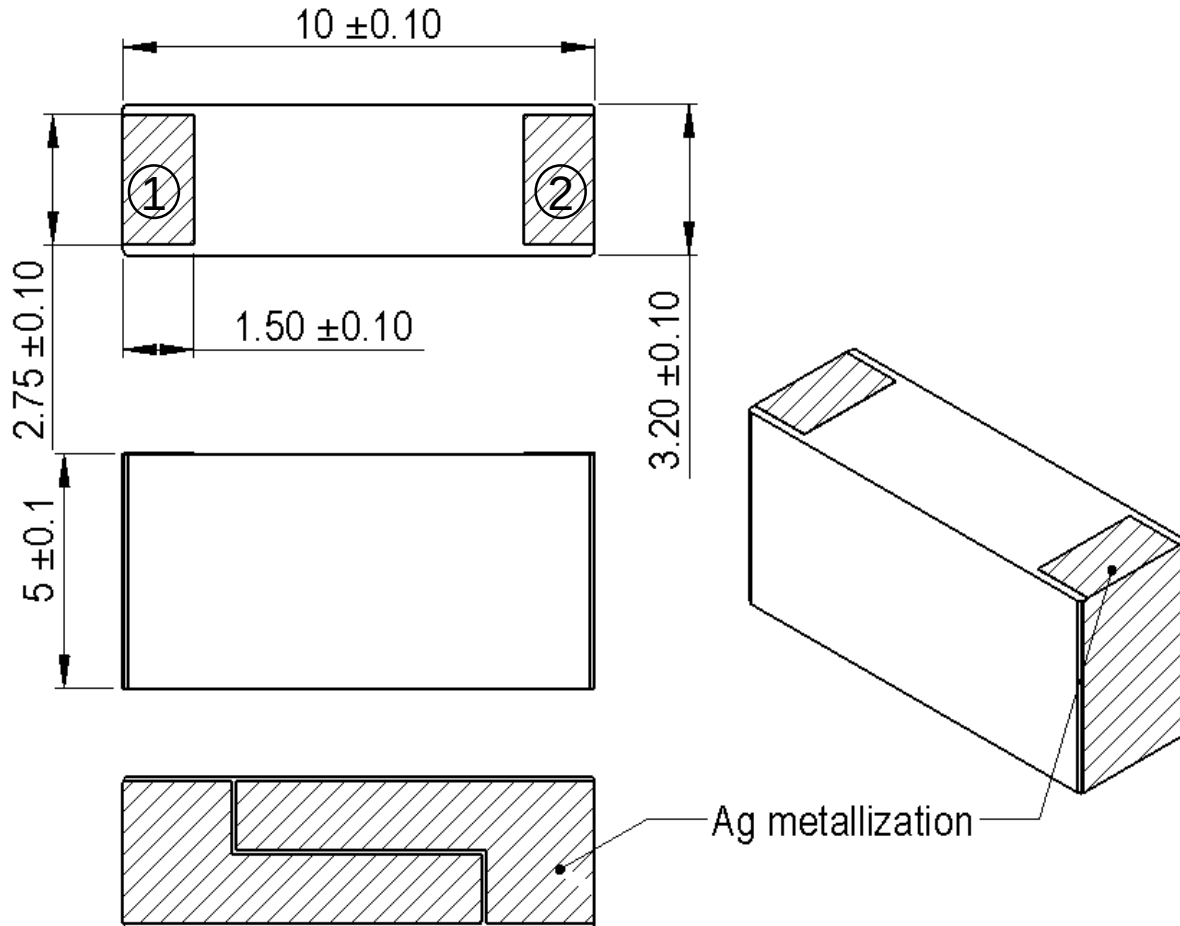
MECHANICAL SPECIFICATIONS

Overall Length	10x3.2x5mm
Weight	0.73g
Antenna Material	Ceramic with silver plating

ENVIRONMENTAL SPECIFICATIONS

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

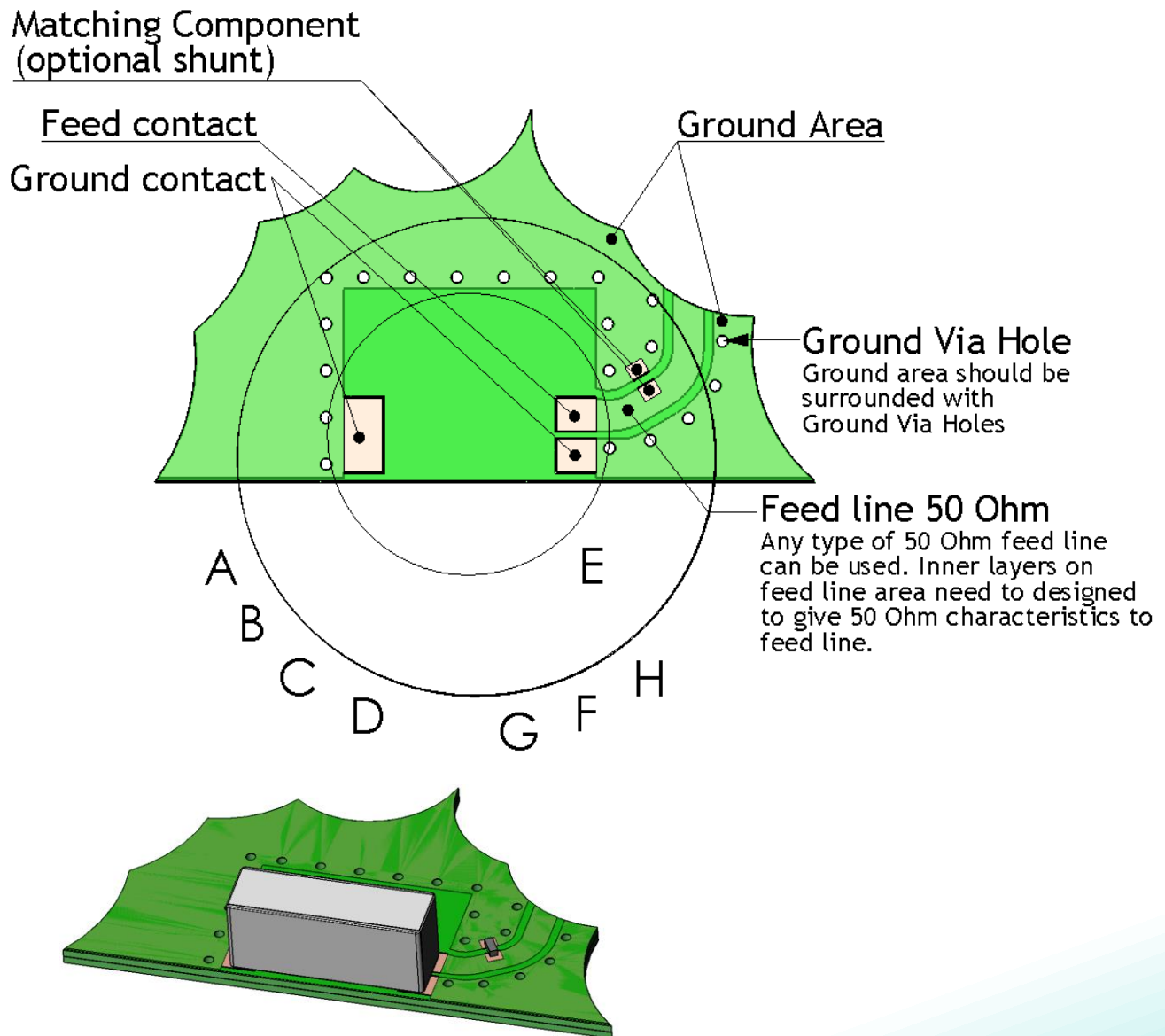
MECHANICAL DRAWING



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

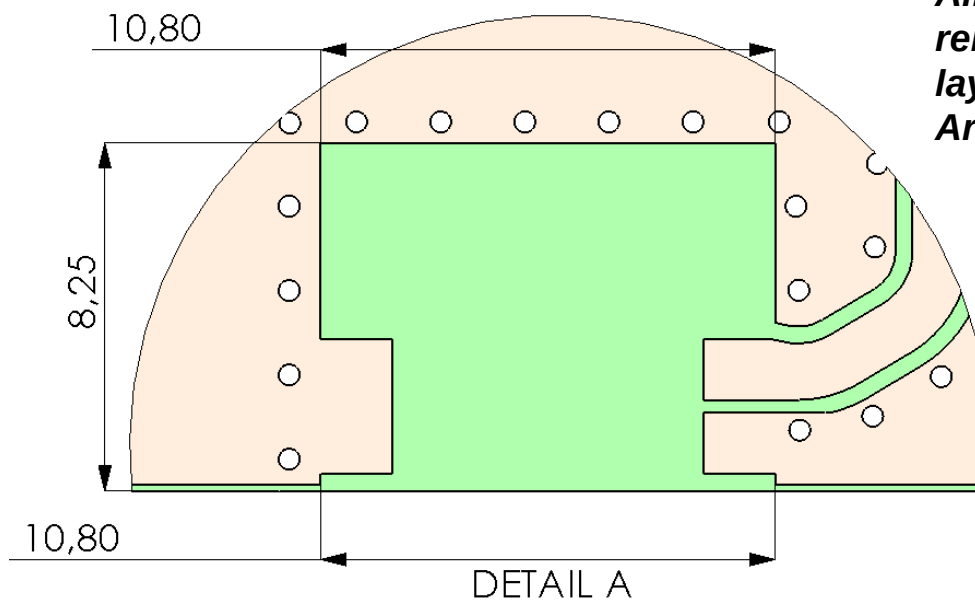
Ground cleared under antenna TOP and MIDDLE layers, clearance area 10.8 mm x 8.25mm (BOTTOM layer solid ground)



MECHANICAL DRAWING AND TERMINAL CONFIGURATION

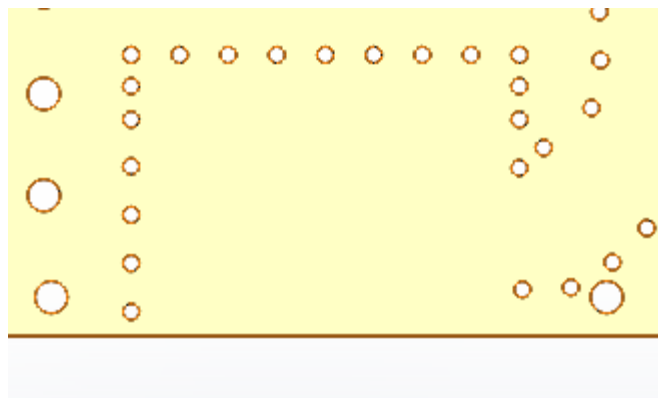
Recommended Antenna Pad Dimensions on PCB Layout (top surface)
Ground cleared under antenna on top and inner layers,
clearance area 10.8 mm x 8.25 mm

Ground clearance area (10.80 x 8.25 mm)



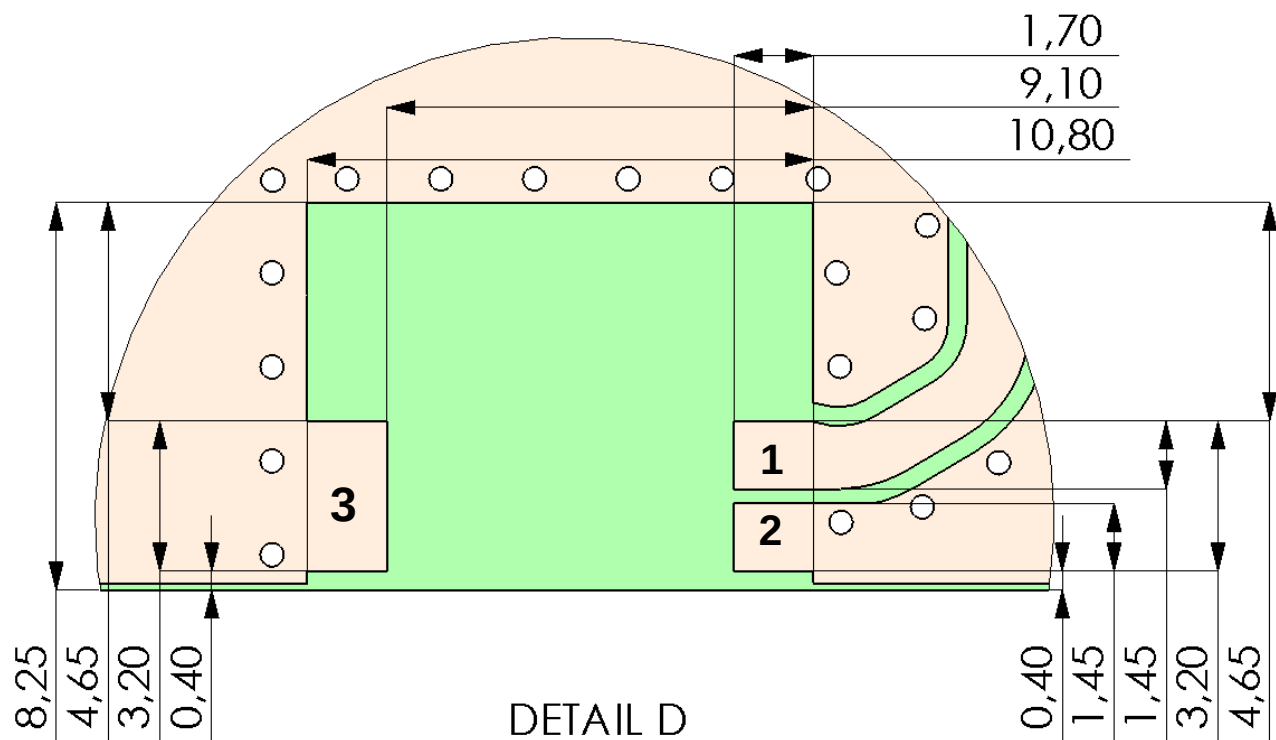
All metallization must be removed from top and inner layers, clearance Area (10.8 x 8.25 mm)

Bottom solid ground layer



MECHANICAL DRAWING AND TERMINAL CONFIGURATION

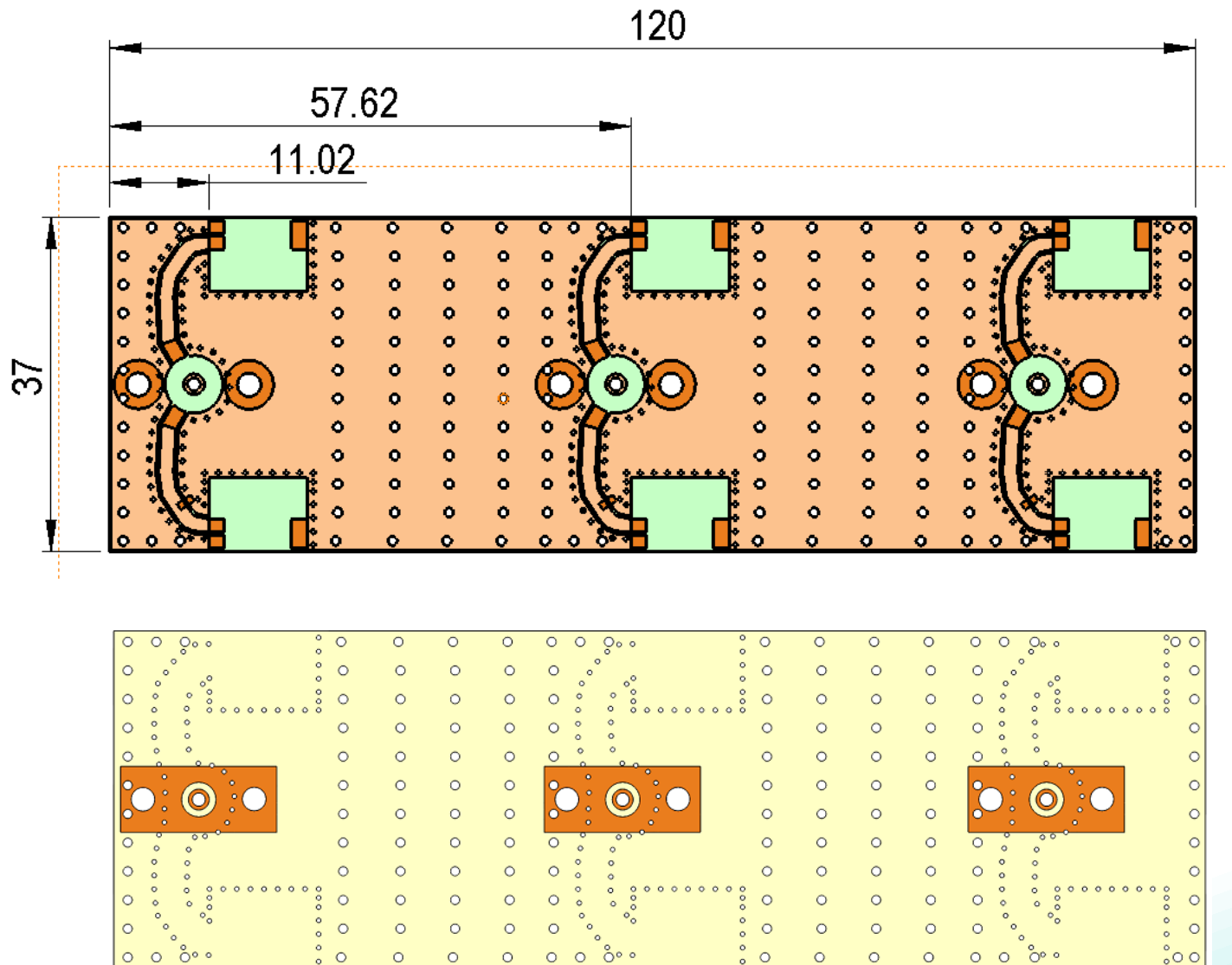
Recommended Antenna Pad Dimensions on PWB Layout (top surface)



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

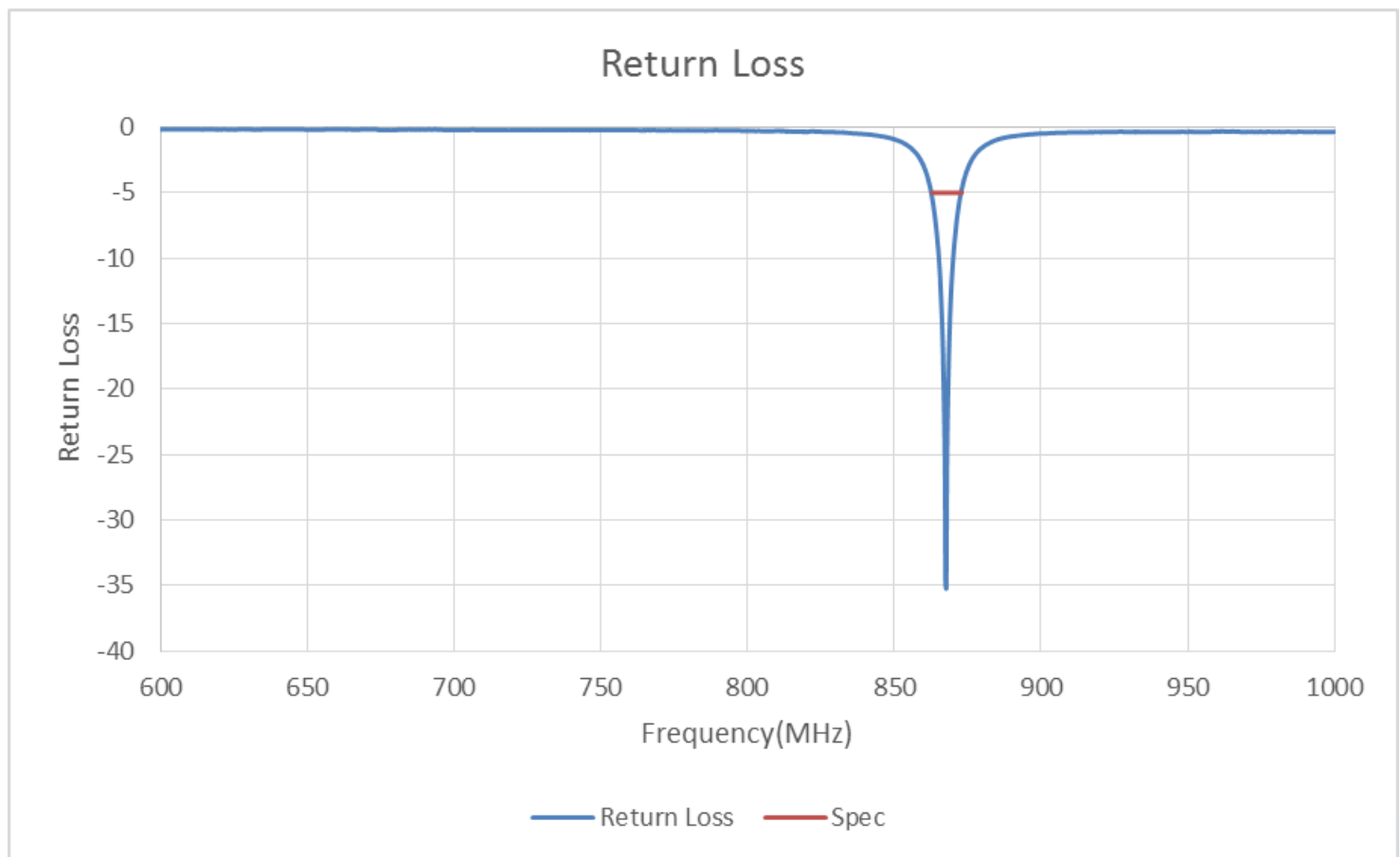
Recommended test board layout for electrical characteristic measurement, test board outline size 120 x 37mm



CHARTS

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

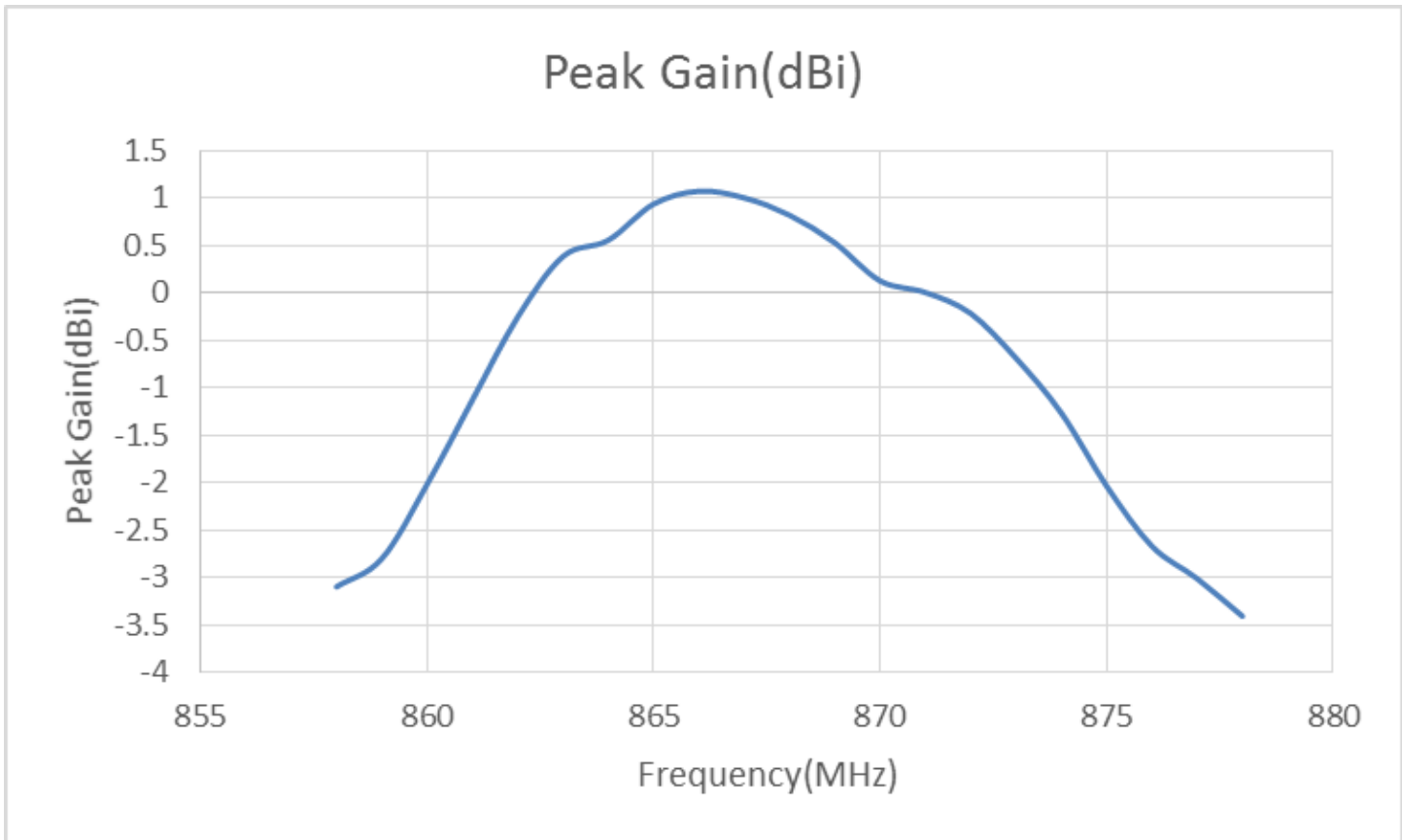
Ground cleared under antenna, clearance area 10.80 mm x 8.25 mm top and middle layers.



CHARTS

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

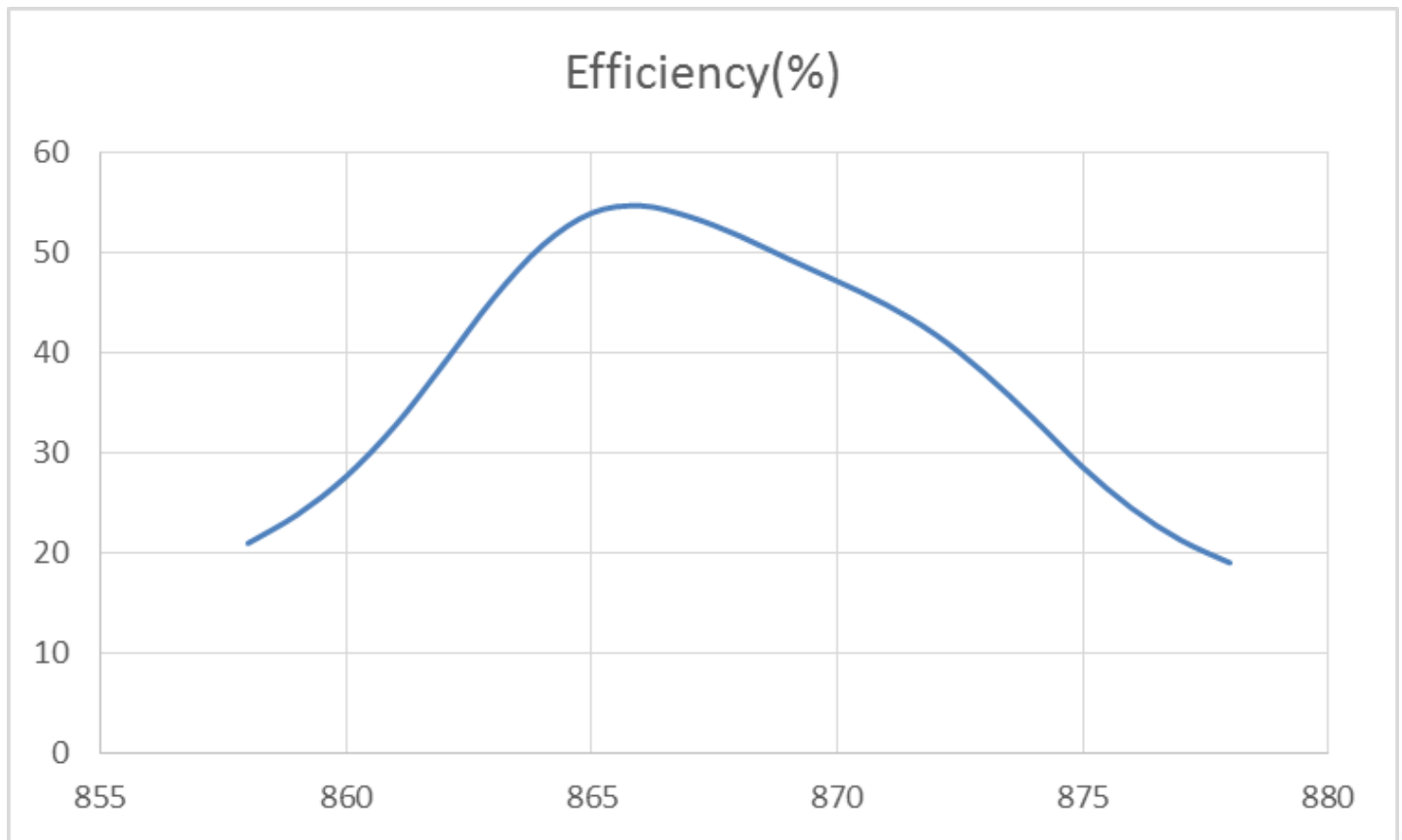
Ground cleared under antenna, clearance area 10.80 mm x 8.25 mm top and middle layers.



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.

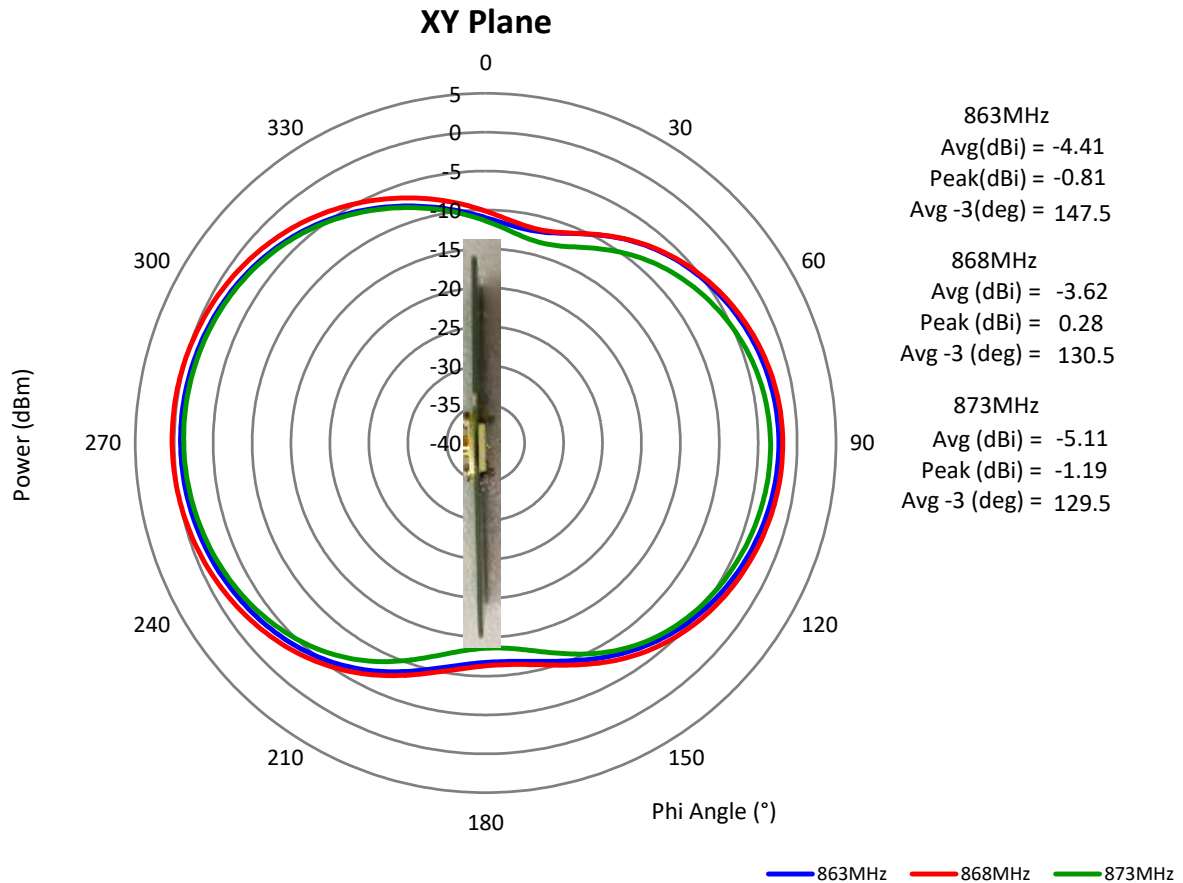


CHARTS

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.

Radiation Pattern

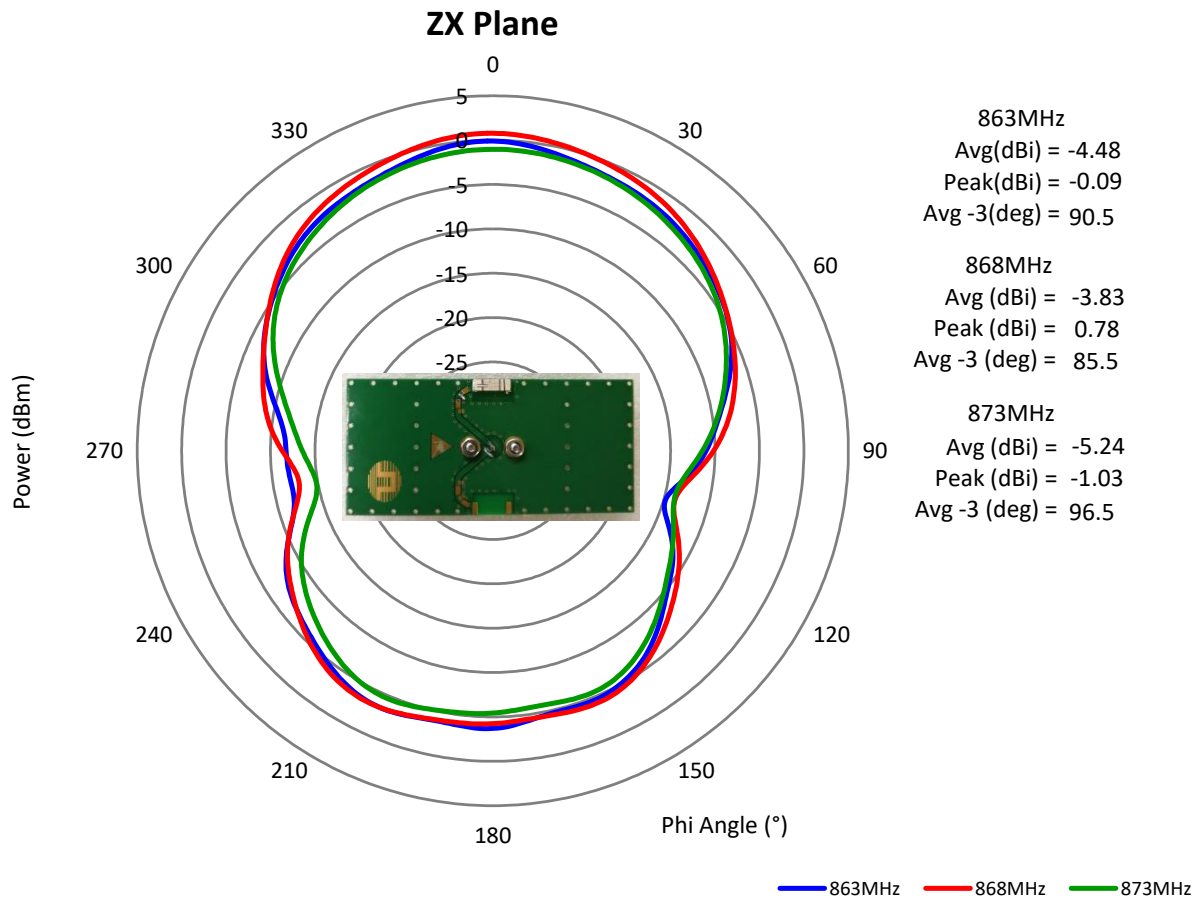


CHARTS

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.

Radiation Pattern

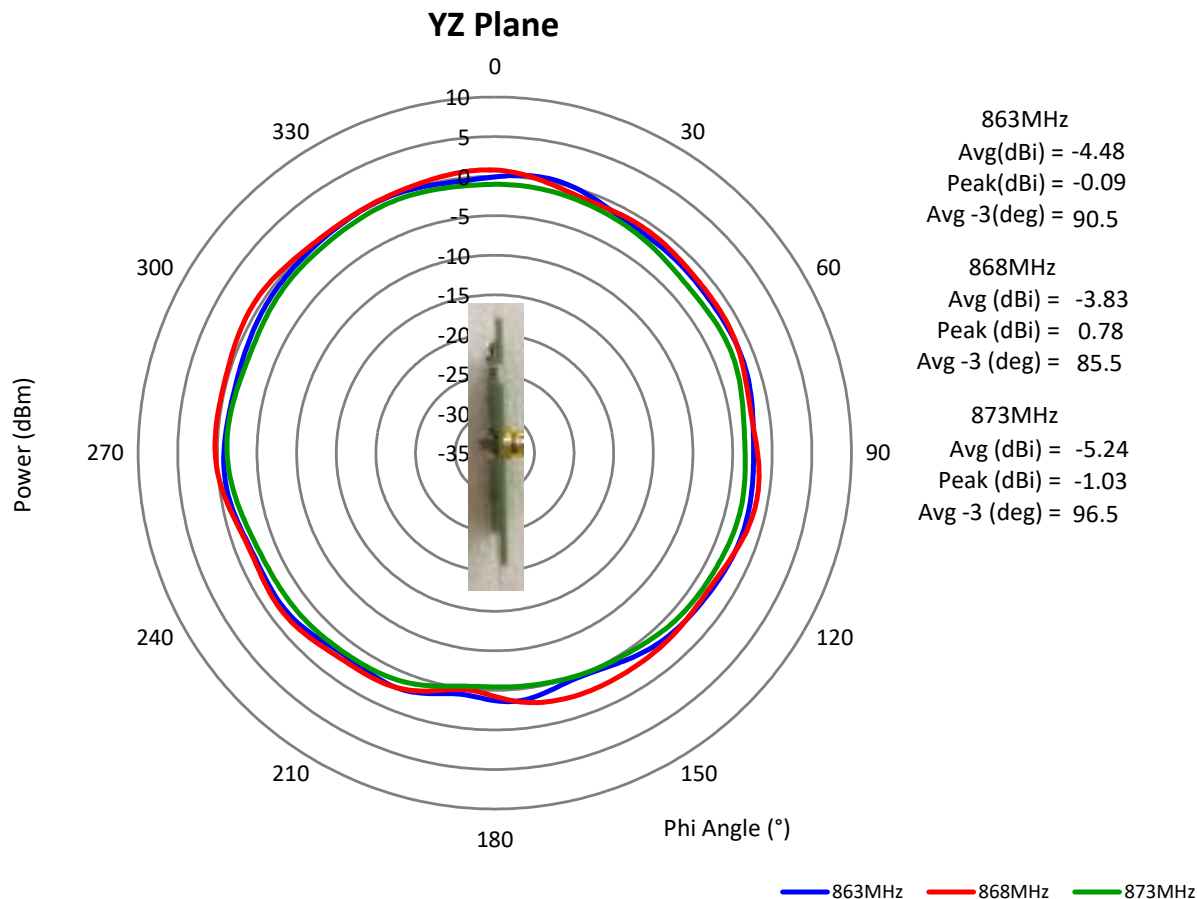


CHARTS

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.

Radiation Pattern



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

