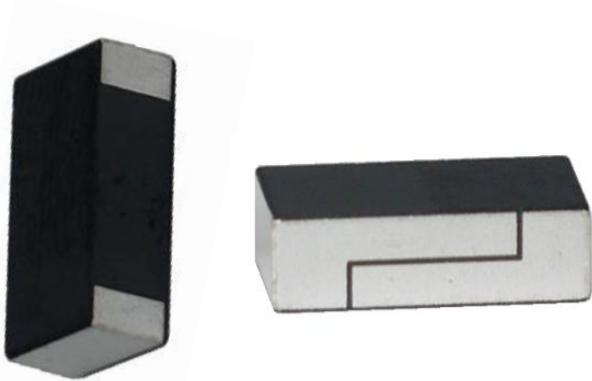


Features:

- 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.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

For more information:

Pulse Worldwide Headquarters
15255 Innovation Drive #100
San Diego, CA 92128
USA
Tel: 1-858-674-8100

Pulse/Larsen Antennas
18110 SE 34th St Bldg 2 Suite 250
Vancouver, WA 98683
USA
Tel: 1-360-944-7551

Europe Headquarters
Pulse GmbH & Do, KG
Zeppelinstrasse 15
Herrenberg, Germany
Tel: 49 7032 7806 0

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

ELECTRICAL SPECIFICATIONS

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

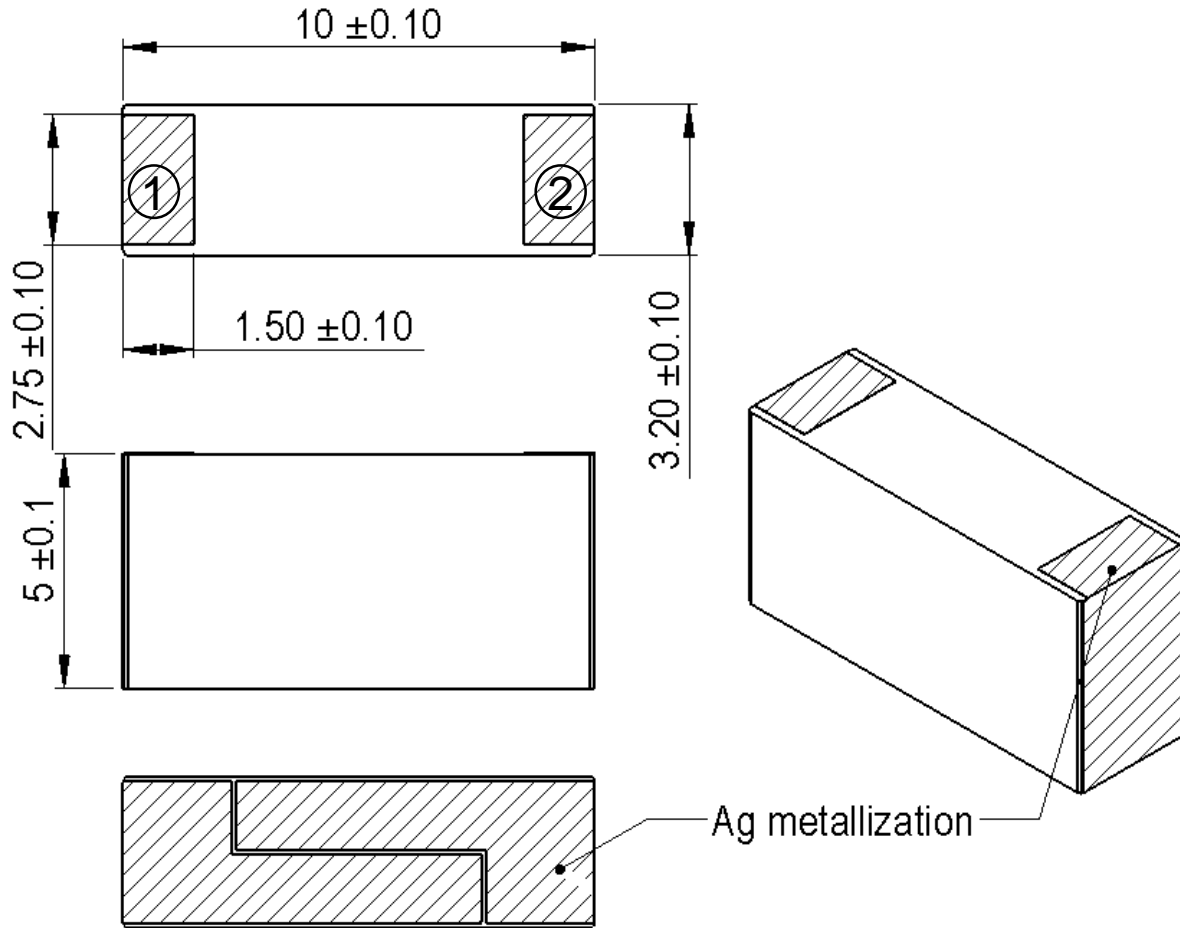
MECHANICAL SPECIFICATIONS

| | |
|------------------|-----------------------------|
| 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)

Matching Component
(optional shunt)

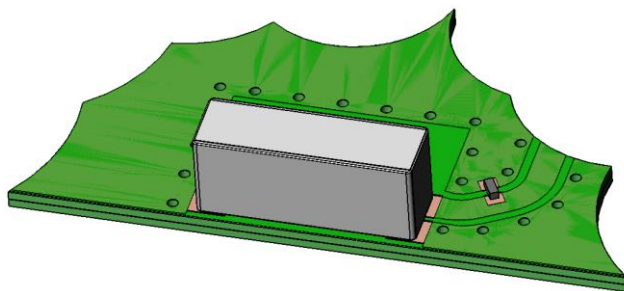
Feed contact
Ground contact

Ground Area

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

Feed line 50 Ohm

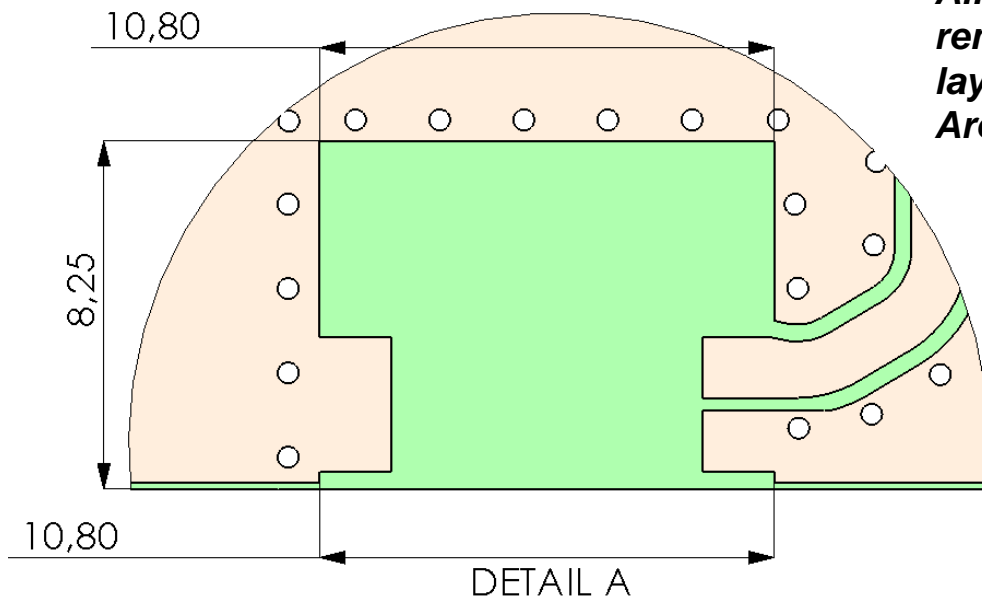
Any type of 50 Ohm feed line can be used. Inner layers on feed line area need to be designed to give 50 Ohm characteristics to feed line.



MECHANICAL DRAWING AND TERMINAL CONFIGURATION

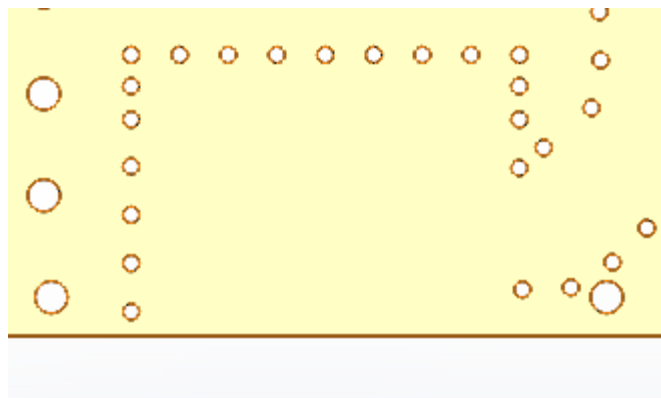
Recommended Antenna Pad Dimensions on PCB Layout (top surface)
Ground cleared under antenna on top and inner layers,
clearance area 10.8 mm x 8.25 mm

Ground clearance area (10.80 x 8.25 mm)



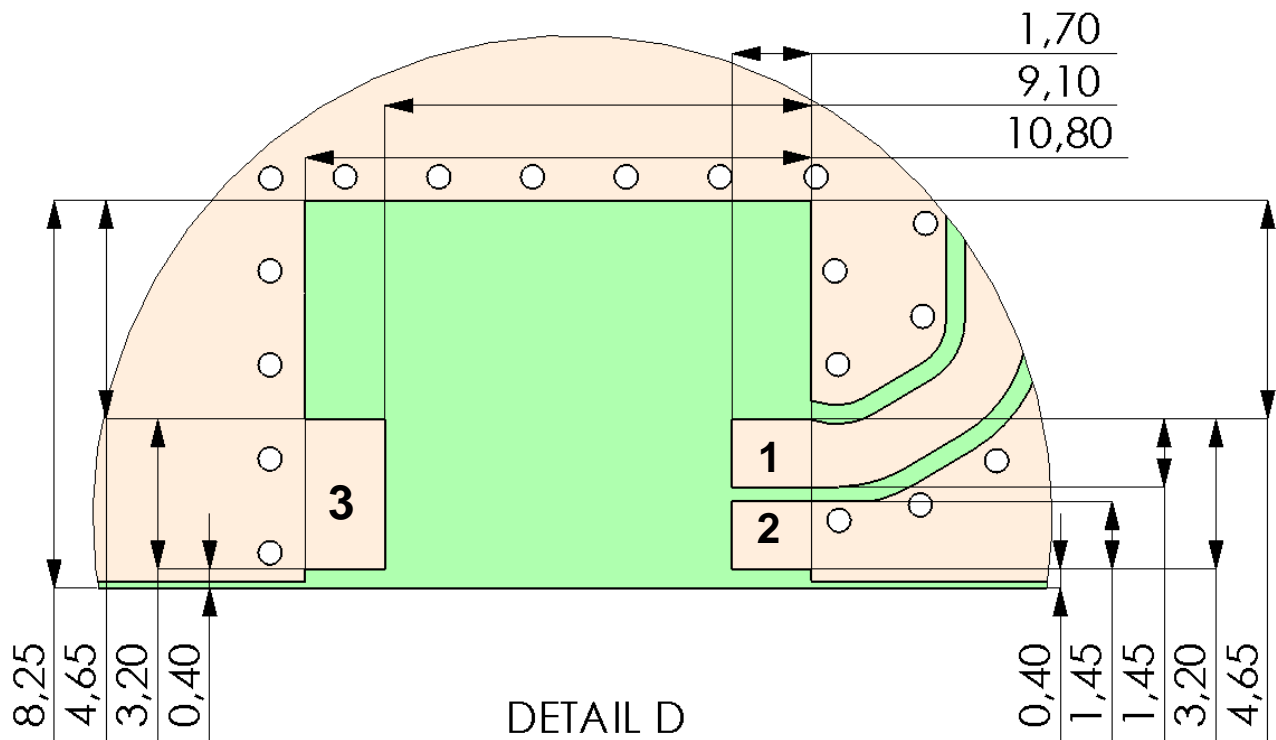
All metallization must be removed from top and inner layers, clearance Area (10.8 x 8.25 mm)

Bottom solid ground layer



MECHANICAL DRAWING AND TERMINAL CONFIGURATION

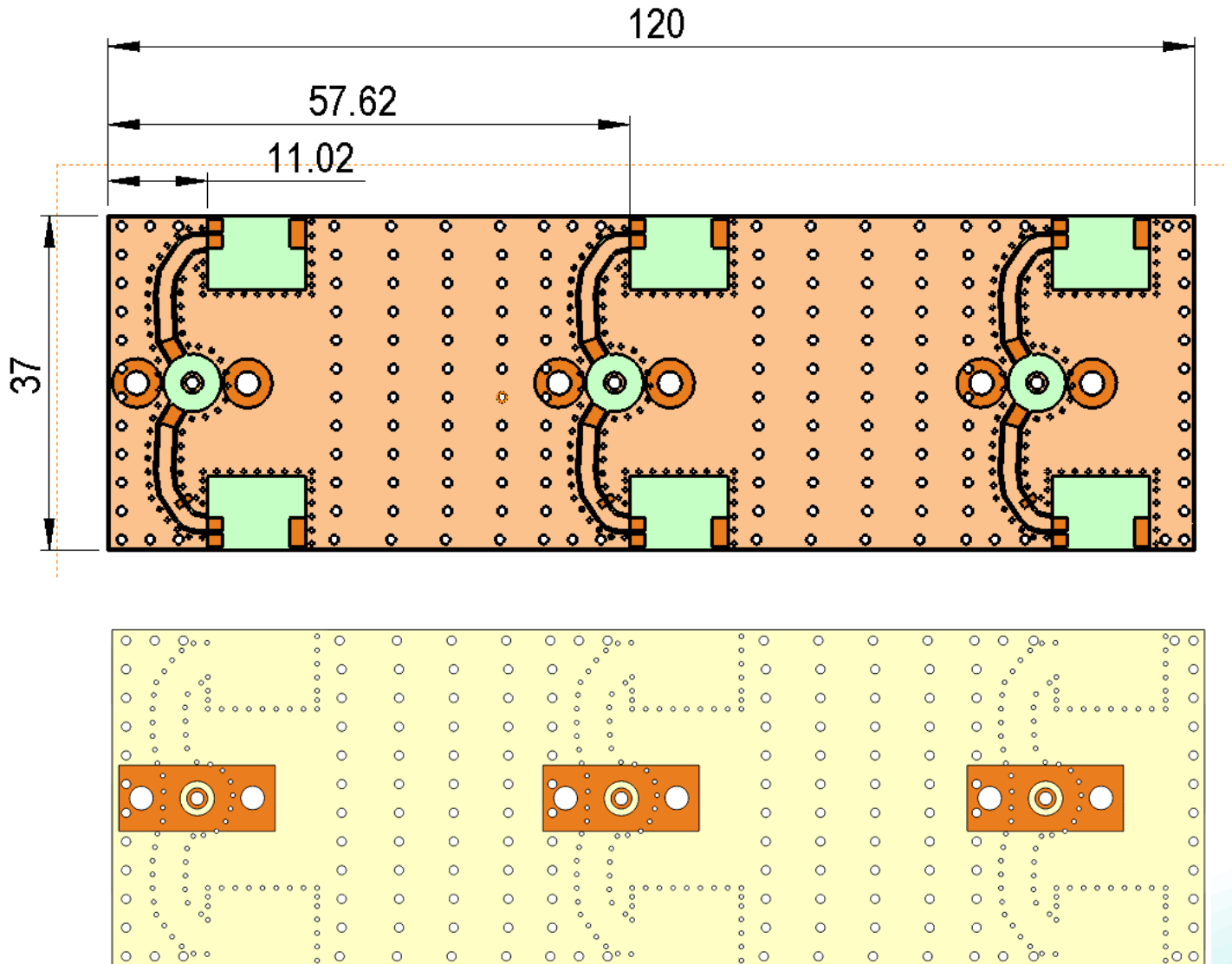
Recommended Antenna Pad Dimensions on PWB Layout (top surface)



| 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

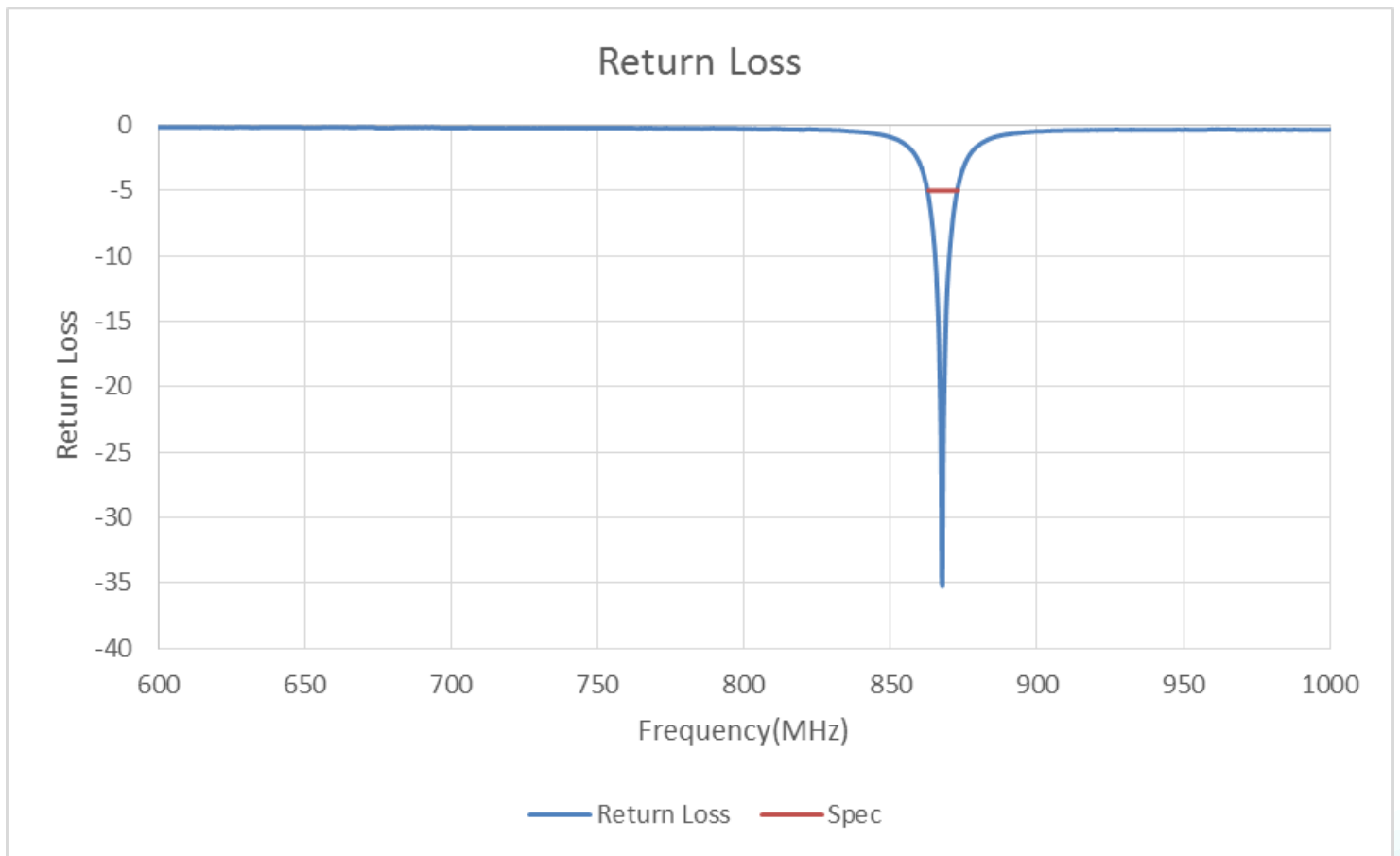
Recommended test board layout for electrical characteristic measurement, test board outline size 120 x 37mm



CHARTS

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

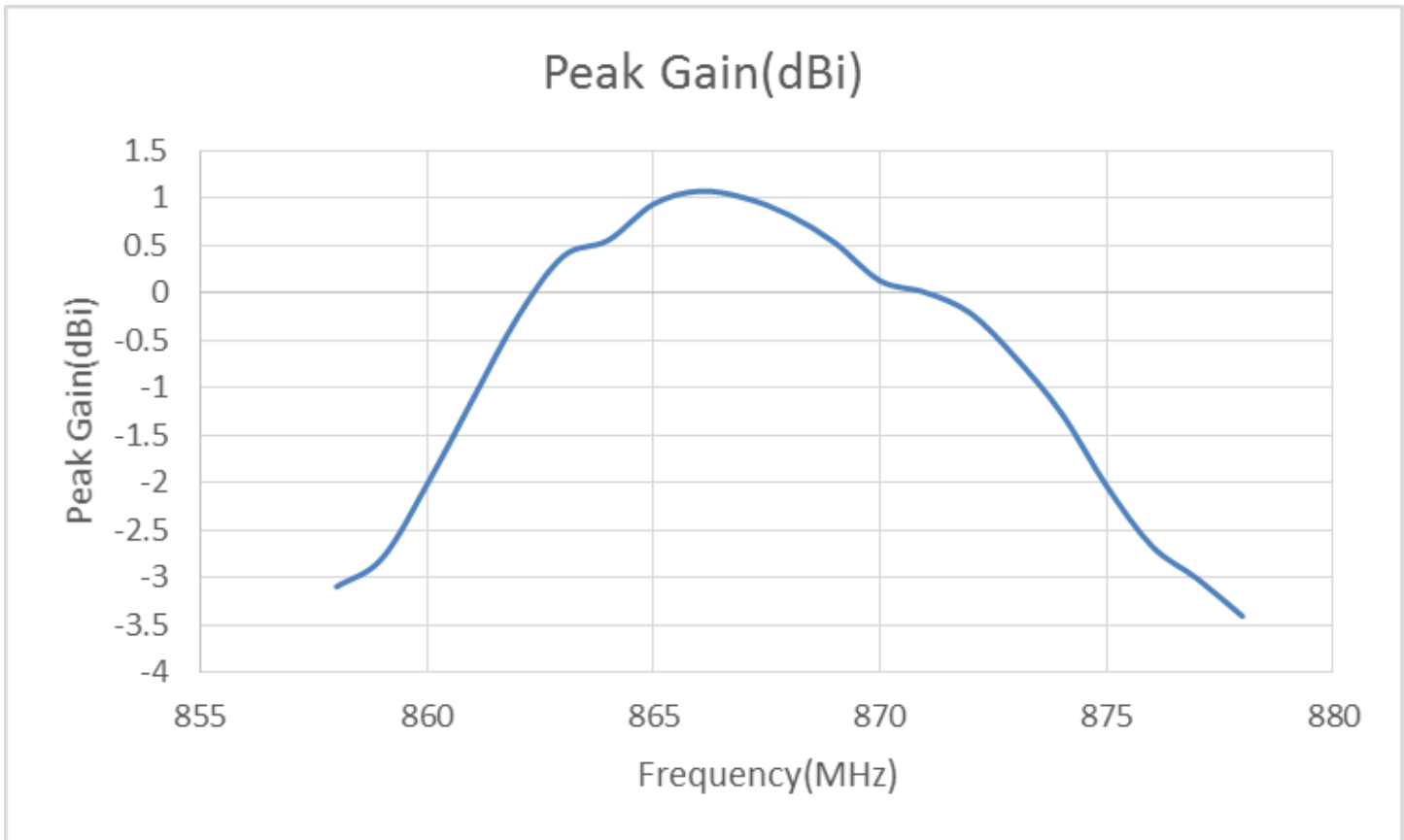
Ground cleared under antenna, clearance area 10.80 mm x 8.25 mm top and middle layers.



Description: 868MHz On Ground Ceramic SMD Loop Antenna**Series:** Chip Antenna**PART NUMBER:** W3214**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

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

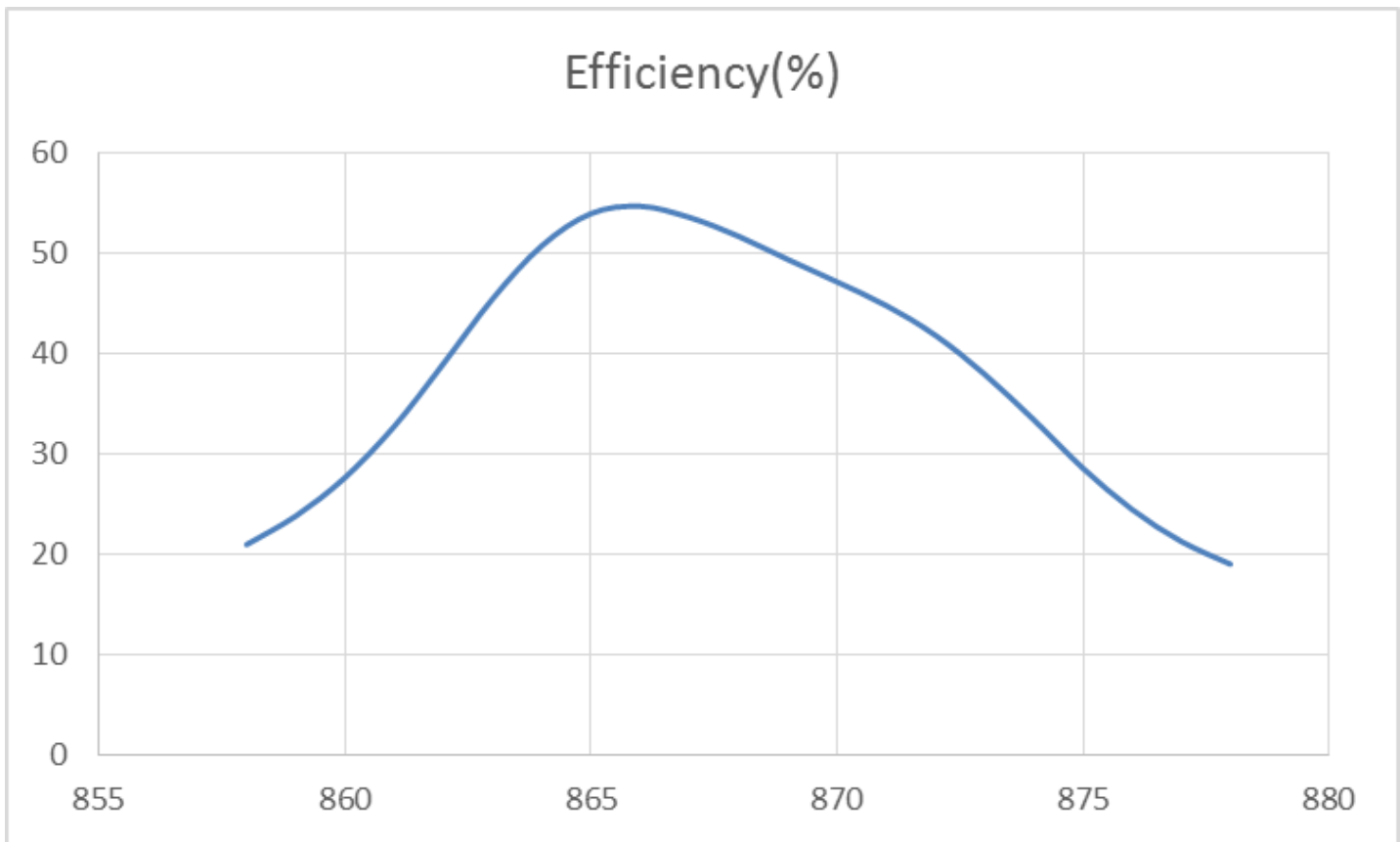
CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

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.

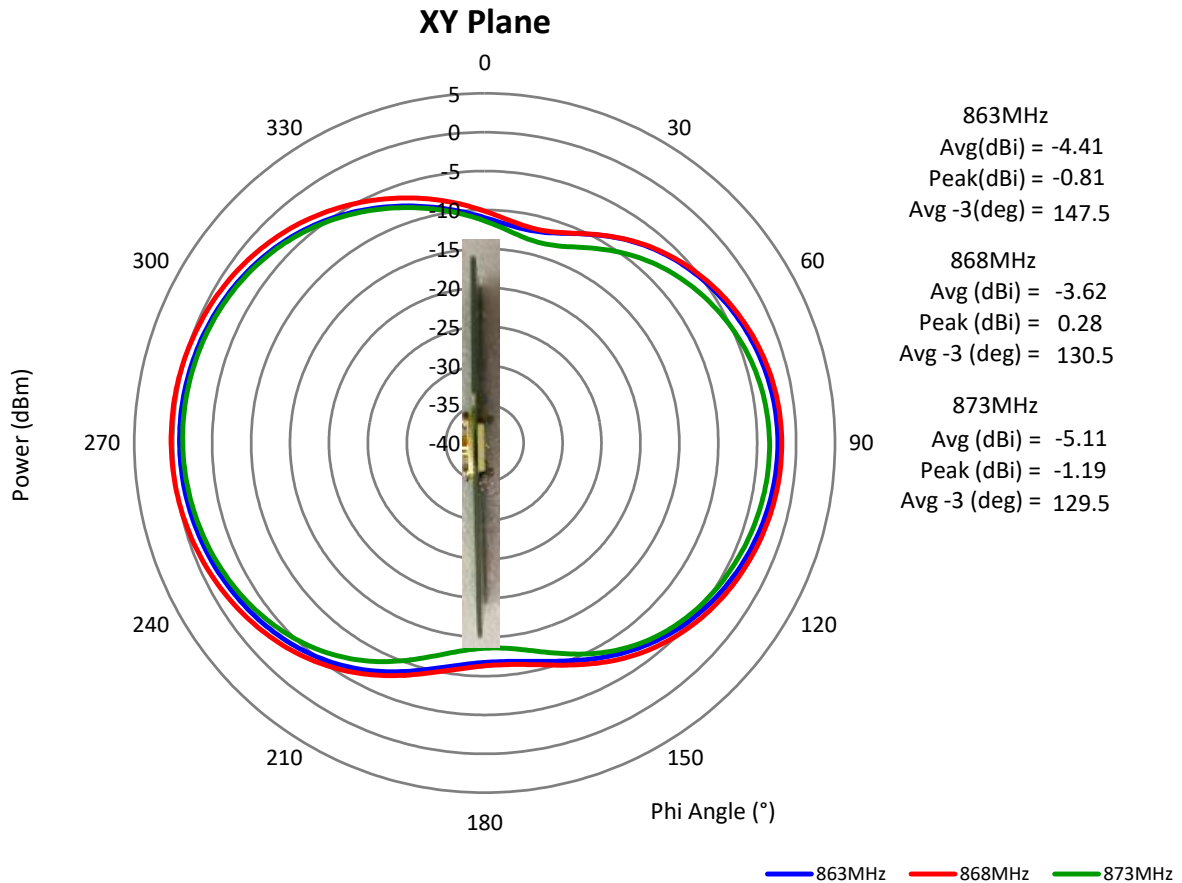


CHARTS

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

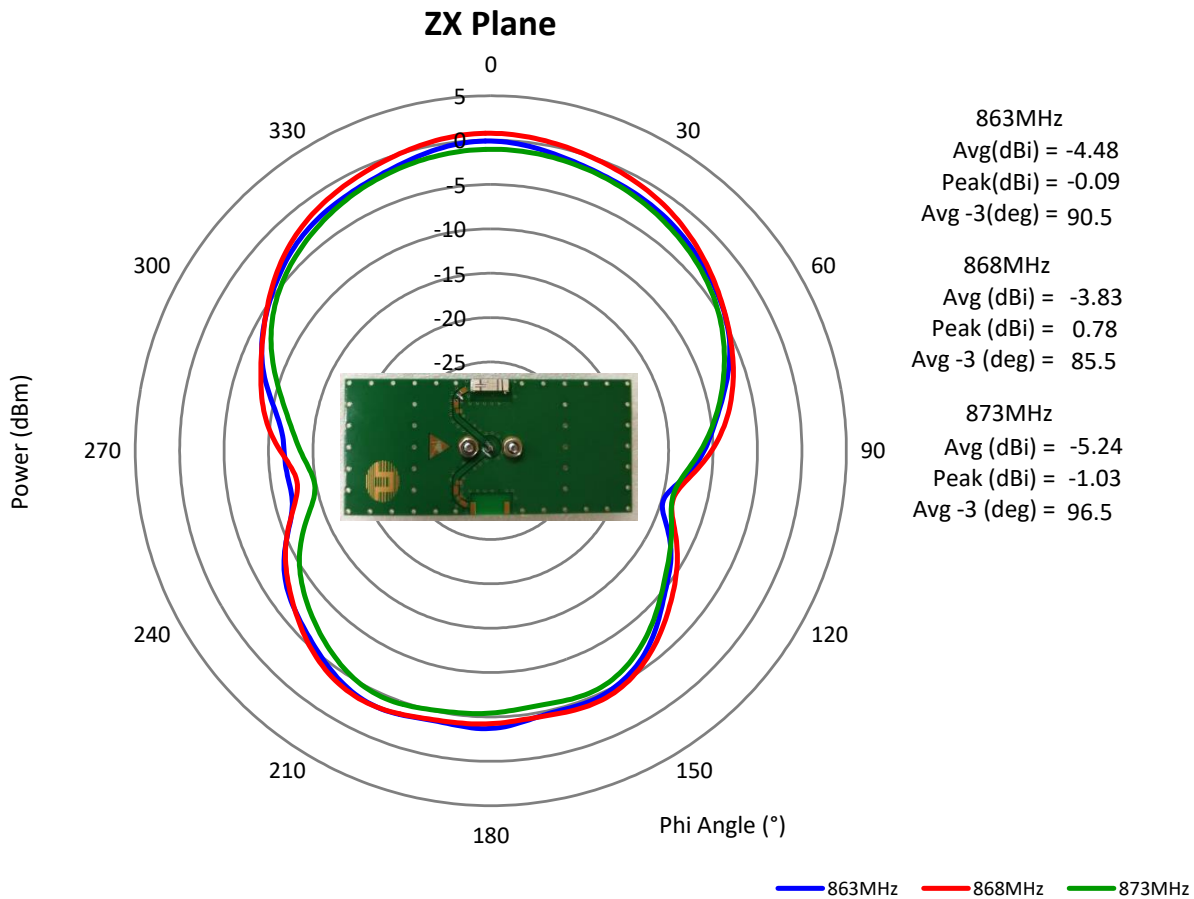


CHARTS

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



Description: 868MHz On Ground Ceramic SMD Loop Antenna

Series: Chip Antenna

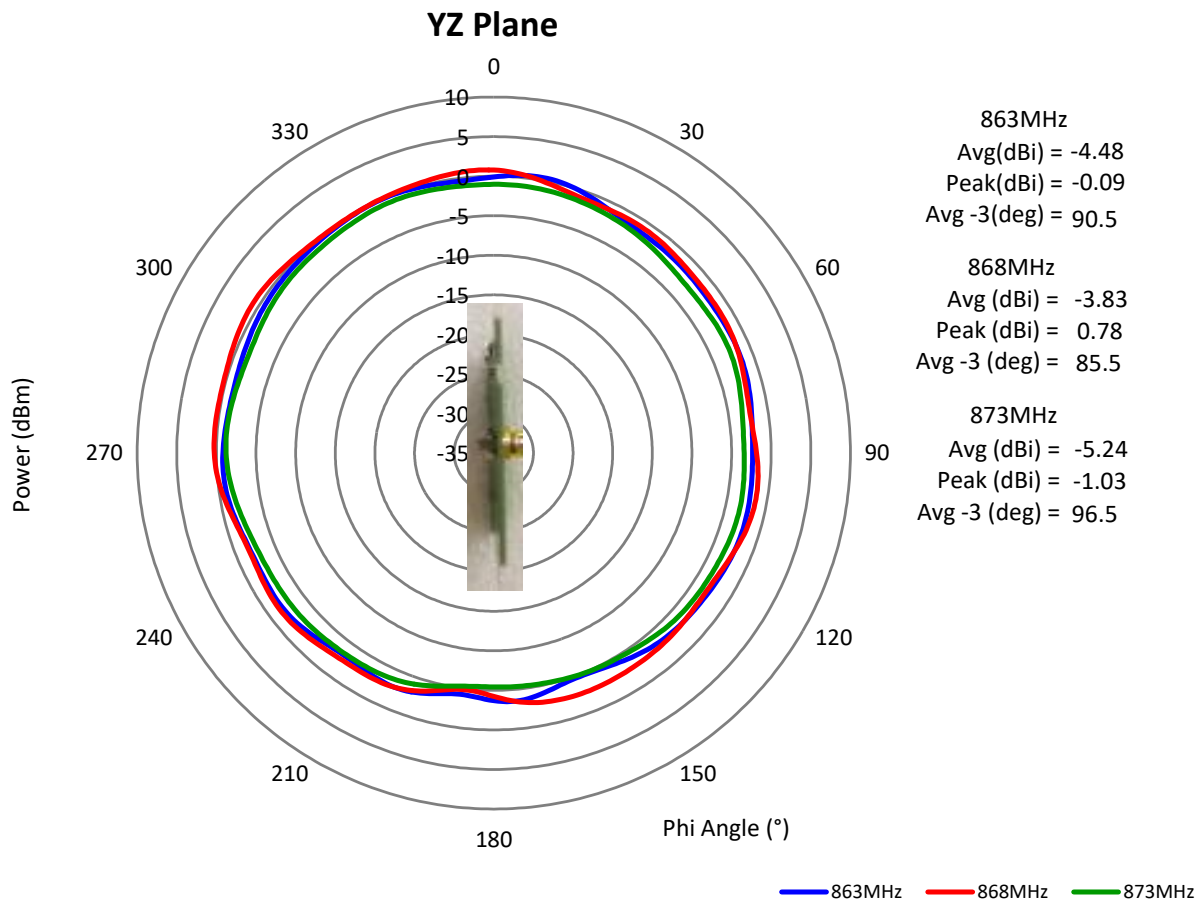
PART NUMBER: W3214

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



Issue: 2049

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

PACKAGING

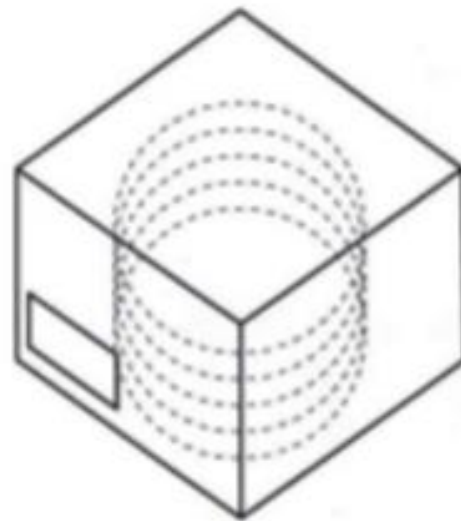
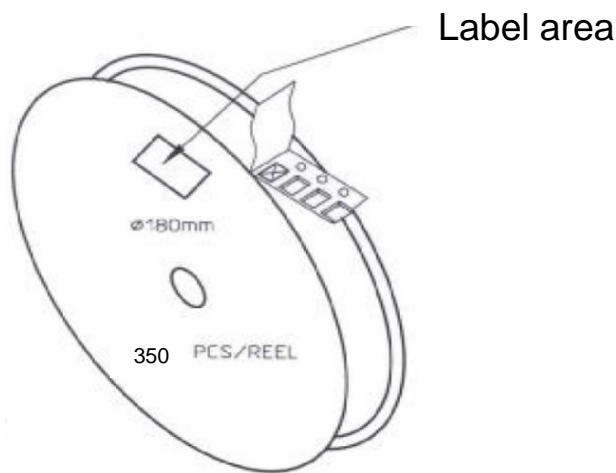
350pcs antennas per 7" reel

3pcs 7" reel per inner package box

2pcs inner box per out box

Total 2100pcs antenna per out box

Out box size: 390mmx215mmx165mm



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Antennas](#) category:

Click to view products by [PulseLarsen](#) manufacturer:

Other Similar products are found below :

[GAN30084EU](#) [930-033-R](#) [GW17.07.0250E](#) [1513563-1](#) [EXE902SM](#) [APAMPG-117](#) [MAF94383](#) [W3908B0100](#) [W6102B0100](#) [YE572113-30RSMM](#) [108-00014-50](#) [66089-2406](#) [SPDA17RP918](#) [A09-F8NF-M](#) [A09-F5NF-M](#) [RGFRA1903041A1T](#) [W3593B0100](#) [W3921B0100](#) [SIMNA-868](#) [SIMNA-915](#) [SIMNA-433](#) [W1044](#) [W1049B090](#) [A75-001](#) [WTL2449CQ1-FRSMM](#) [CPL9C](#) [EXB148BN](#) [0600-00060](#) [TRA9020S3PBN-001](#) [Y4503](#) [GD5W-28P-NF](#) [MA9-7N](#) [GD53-25](#) [GD5W-21P-NF](#) [C37](#) [MAF94051](#) [MA9-5N](#) [EXD420PL](#) [B1322NR](#) [QWFTB120](#) [MAF94271](#) [MAF94300](#) [GPSMB301](#) [FG4403](#) [AO-AGSM-OM54](#) [5200232](#) [MIKROE-2349](#) [WCM.01.0111](#) [MIKROE-2393](#) [MIKROE-2352](#)