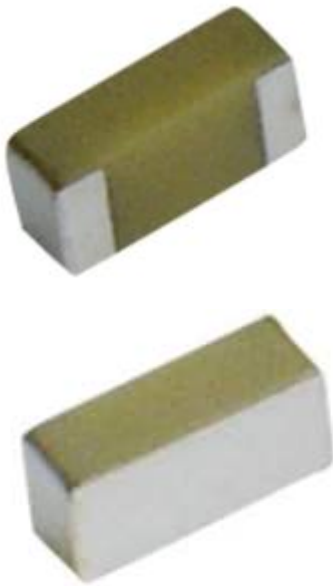


Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004



Features:

- Frequency 5150-5950MHz
- Size 3.2 x 1.6 x 1.1 mm
- Efficiency 71 %
- Gain 3.2 dBi
- SMD compatible
- RoHS compliant
- Moisture Sensitivity level: MSL1

Applications:

- WiFi 5GHz
- 5GHz ISM band Radios
- LAA
- DSRC

All dimensions are in mm / inches

Issue: 1919

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



Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004

ELECTRICAL SPECIFICATIONS

| | |
|--------------------|--------------|
| Frequency | 5150-5950MHz |
| Nominal Impedance | 50 Ω |
| Return Loss | -10dB |
| Radiation Pattern | Omni |
| Gain | 3.2dBi |
| Efficiency | 71% |
| Polarization | linear |
| Power Withstanding | 5W |

MECHANICAL SPECIFICATIONS

| | |
|------------------|--------------------------|
| Overall Length | 3.2x1.6x1.1mm |
| Weight | 33mg |
| Antenna Material | Ceramic / Silver plating |

ENVIRONMENTAL SPECIFICATIONS

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

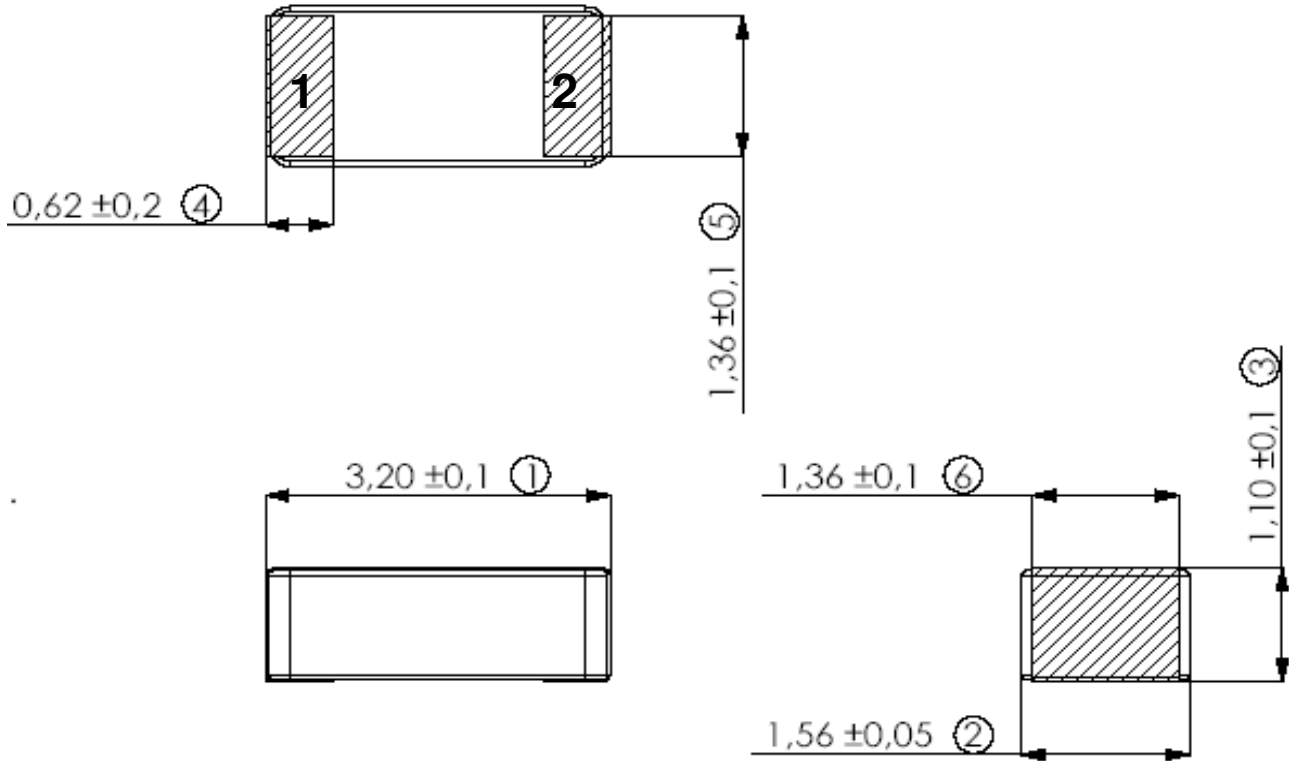
Typical free space performance measured on 80*37mm test board, Ground clearance area 5.25*4.25mm

Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004

MECHANICAL DRAWING AND TERMINAL CONFIGURATION



| Antenna features | | |
|---|----------------|---------------------|
| No. | Terminal Name | Terminal Dimensions |
| 1 | Feed / Support | 0.62 x 1.36mm |
| 2 | Feed / Support | 0.62 x 1.36 mm |
| Antenna is symmetrical. Either of terminals 1 or 2 can be Feed / Support | | |

Issue: 1919

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.

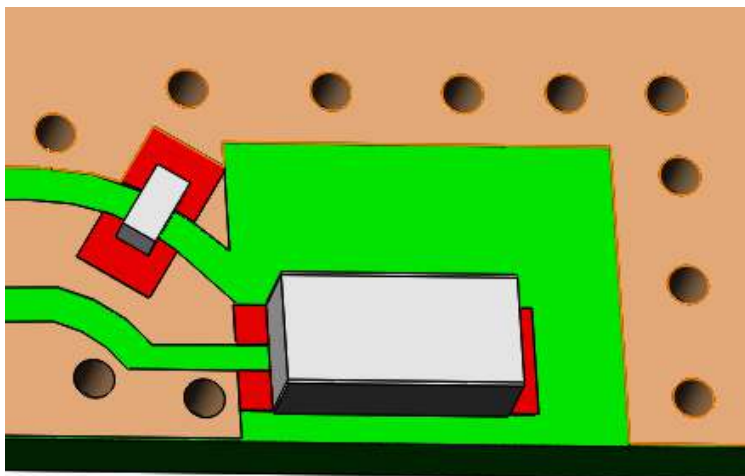
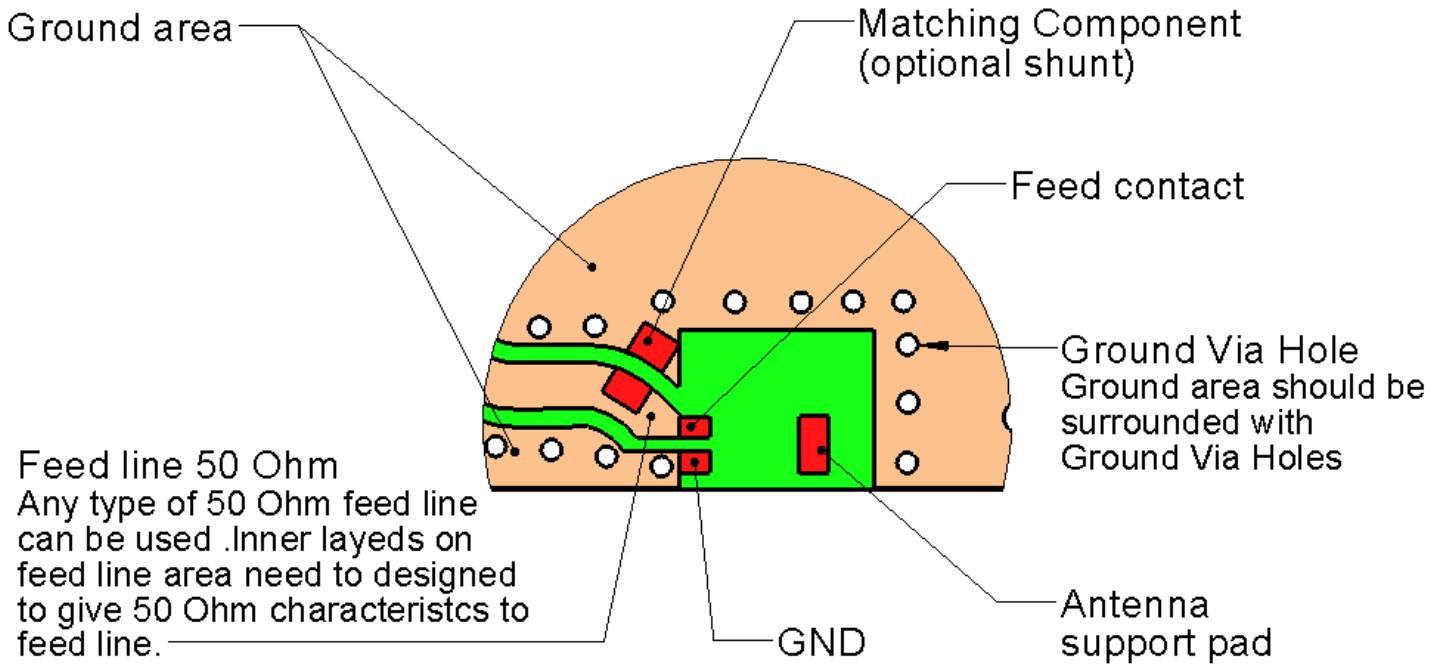
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004

MECHANICAL DRAWING AND TERMINAL CONFIGURATION

Ground cleared under antenna, clearance area 5.25 mm x 4.25 mm



Shunt matching capacitance, 0.3 pF with presented setup.
Exact capacitance value depends on specific application.

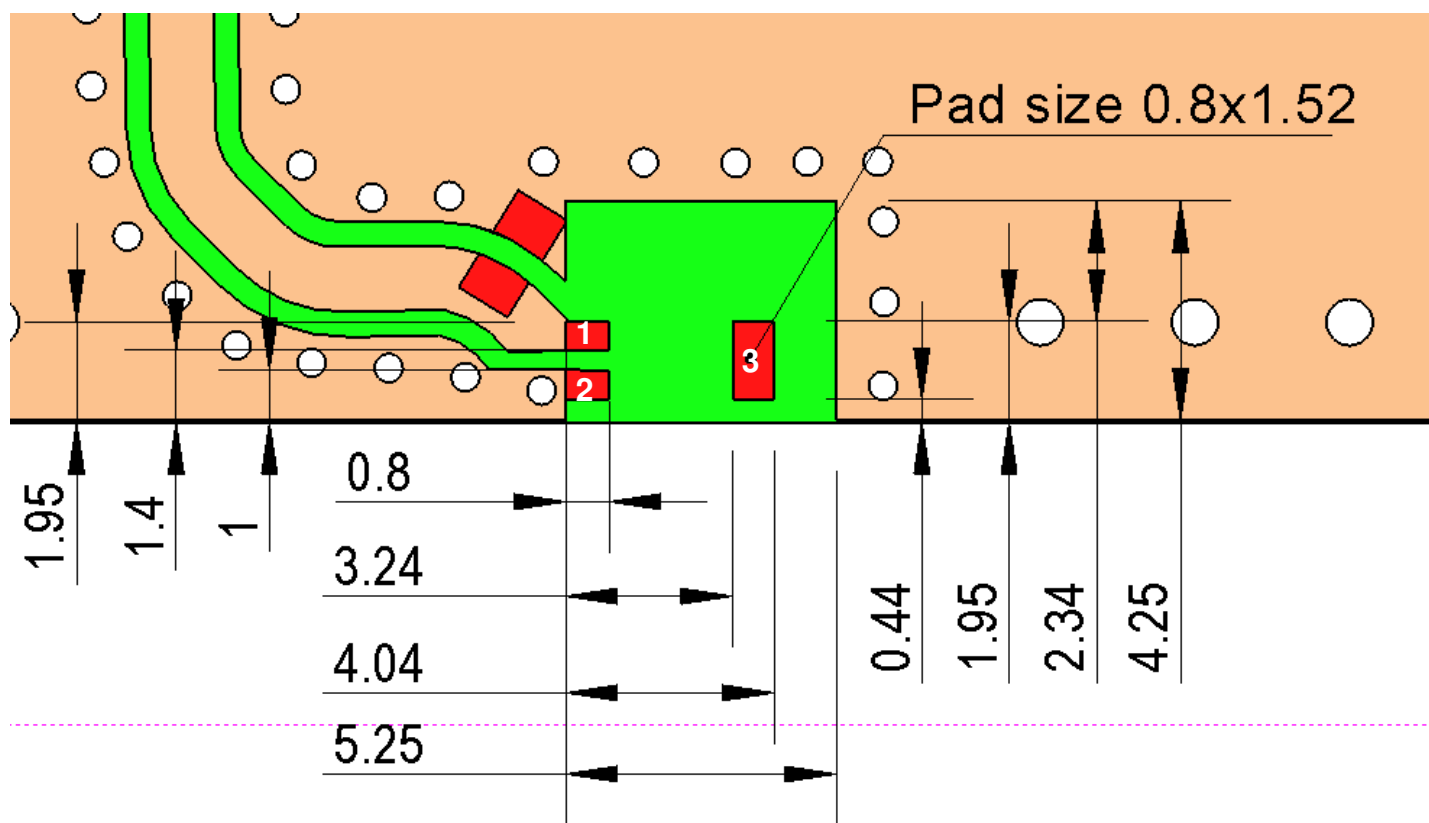
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004

MECHANICAL DRAWING AND TERMINAL CONFIGURATION

Recommended Antenna Pad Dimensions on PCB Layout (top surface)
Ground cleared under antenna, clearance area 5.25 mm x 4.25 mm



| PCB contact pads | | |
|------------------|---------------|---------------------|
| No. | Terminal Name | Terminal Dimensions |
| 1 | Feed | 0,80 x 0,60 mm |
| 2 | GND | 0,80 x 0,60 mm |
| 3 | support pad | 0,80 x 1,52 mm |

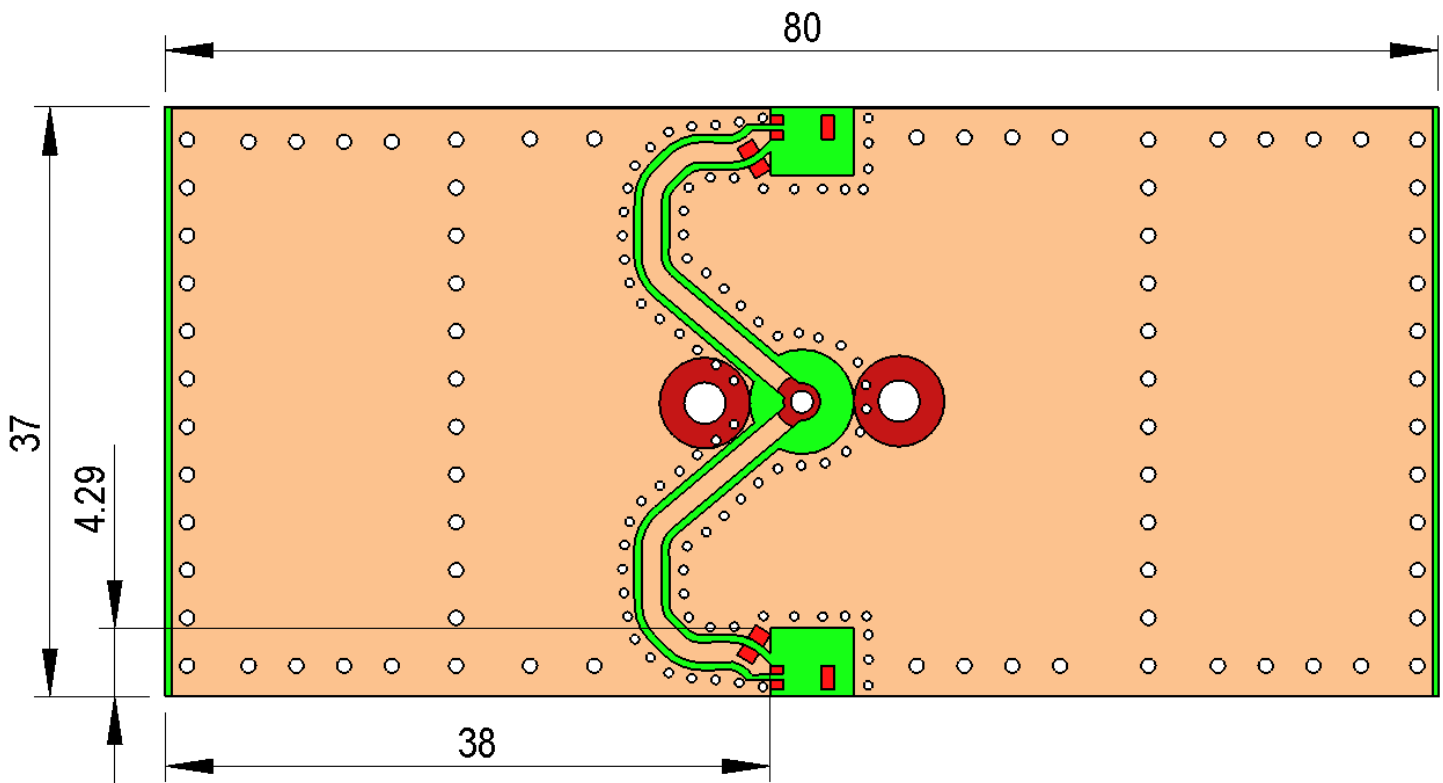
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004

MECHANICAL DRAWING AND TERMINAL CONFIGURATION

Recommended test board layout for electrical characteristic measurement, test board outline size 80 x 37mm



Issue: 1919

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.

Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

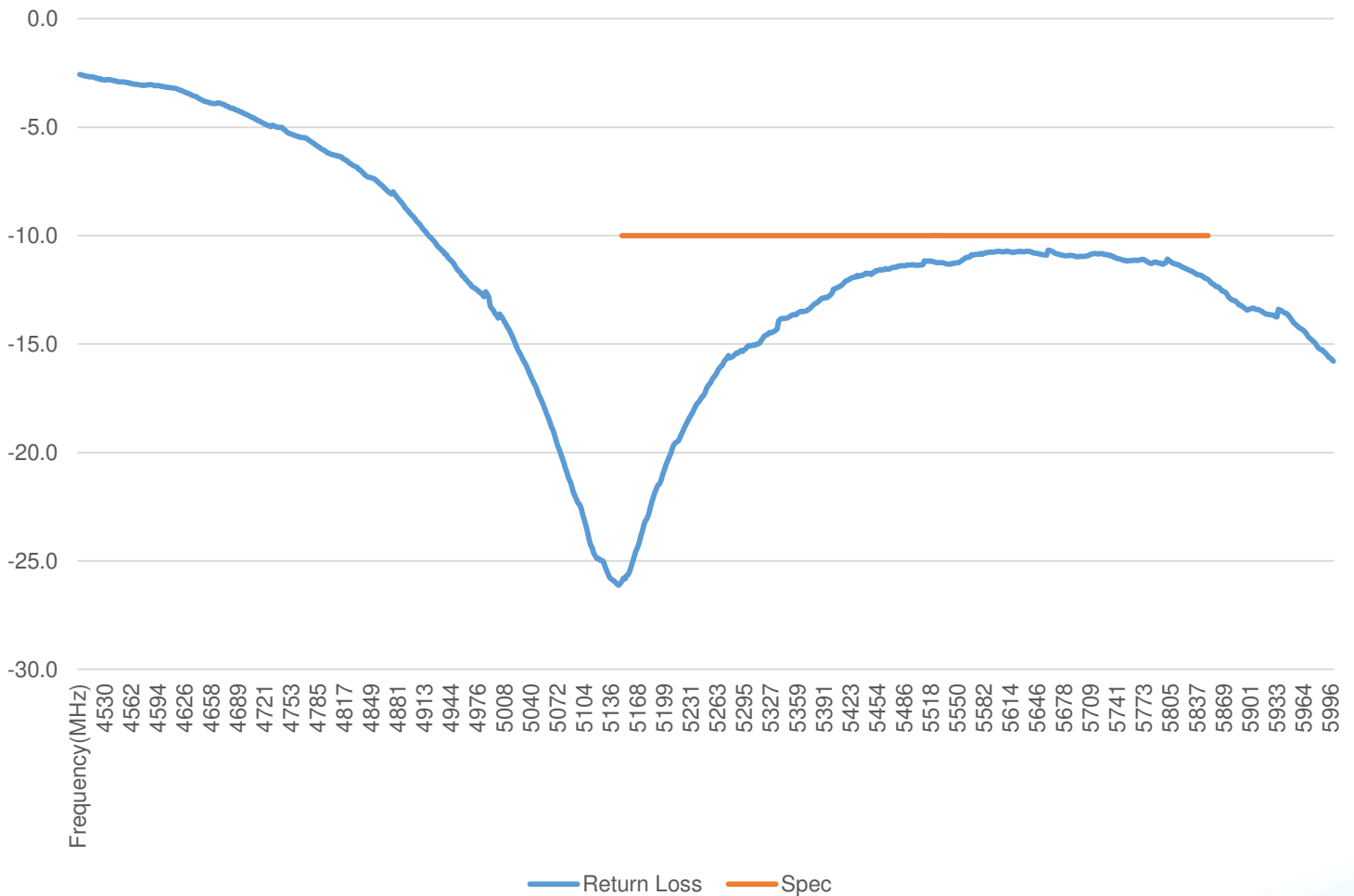
Series: Chip Antenna

PART NUMBER: W3004

CHARTS

Return Loss

Return Loss



Issue: 1919

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.

Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

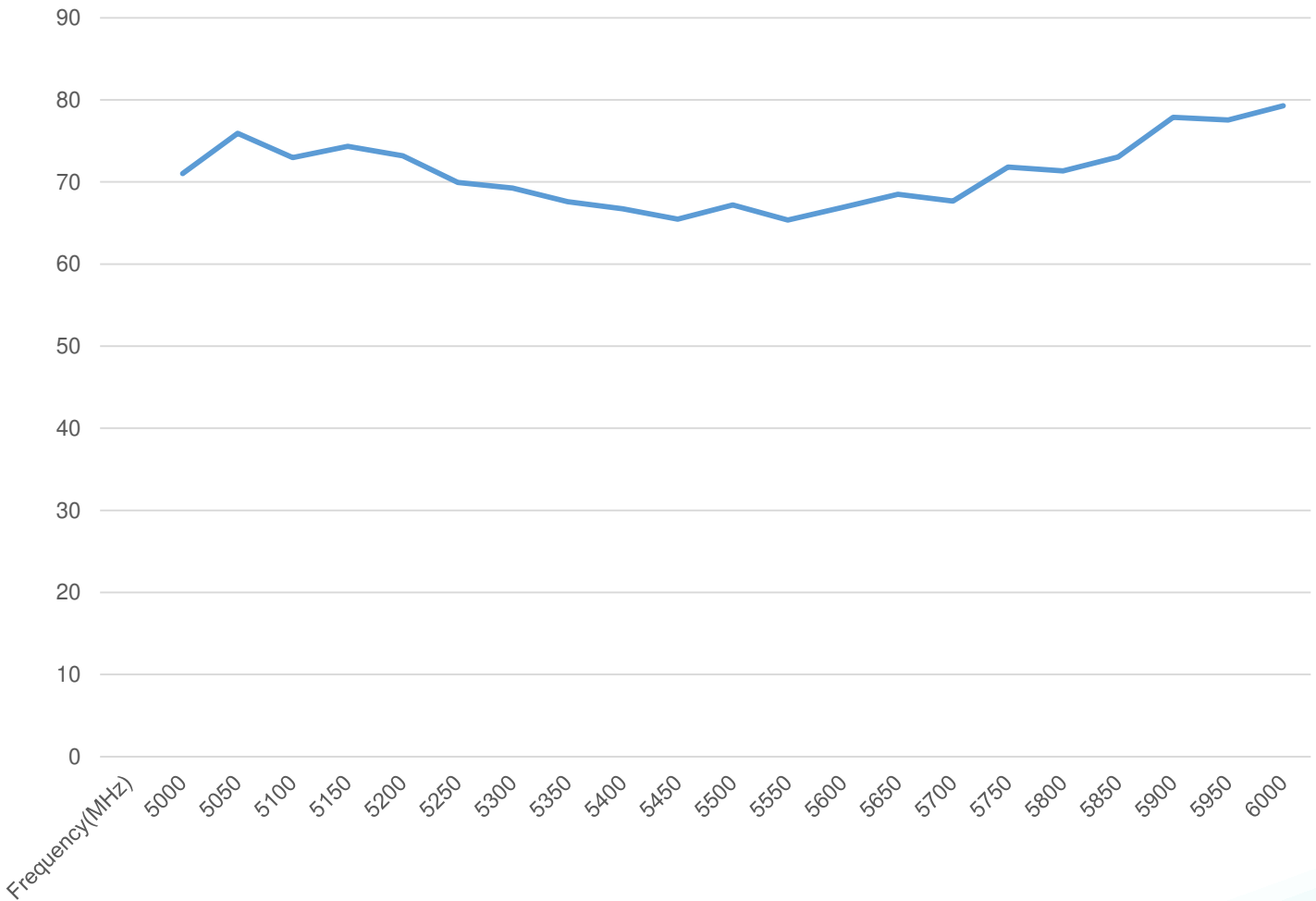
Series: Chip Antenna

PART NUMBER: W3004

CHARTS

Efficiency

Efficiency(%)



Issue: 1919

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.



Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

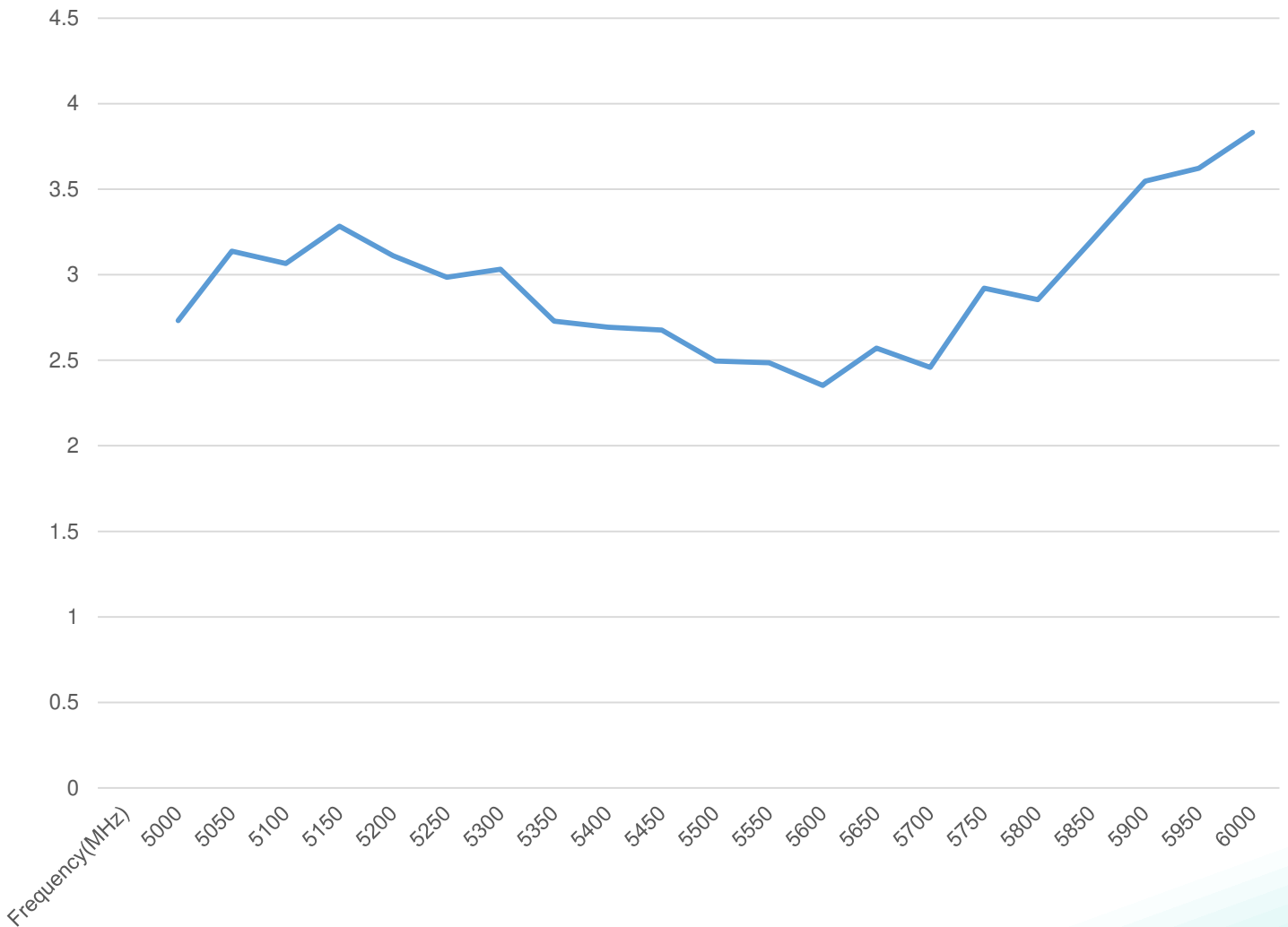
Series: Chip Antenna

PART NUMBER: W3004

CHARTS

Peak Gain

Peak Gain(dBi)



Issue: 1919

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.

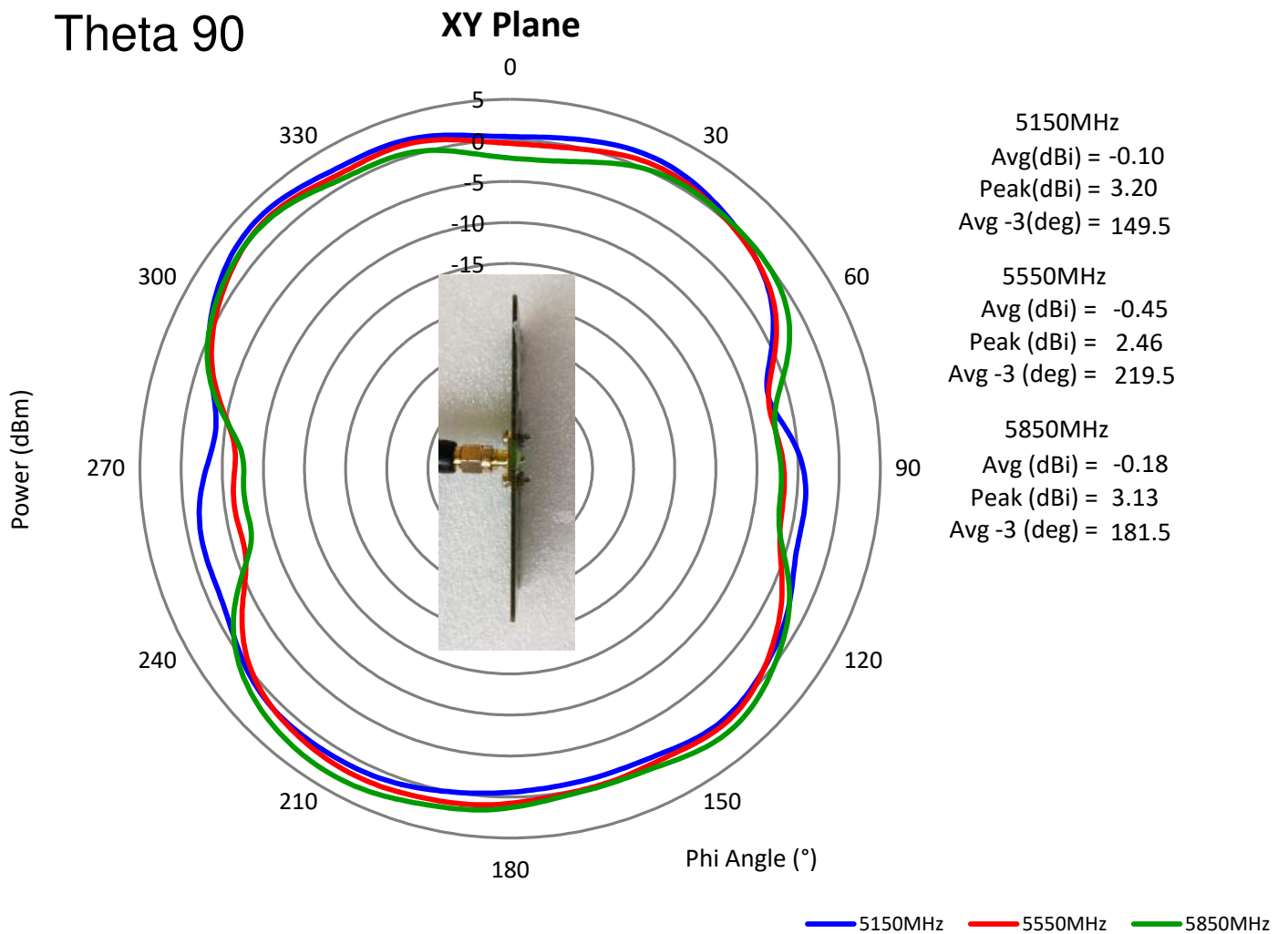
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004

CHARTS

Free Space Radiation Pattern



Issue: 1919

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.

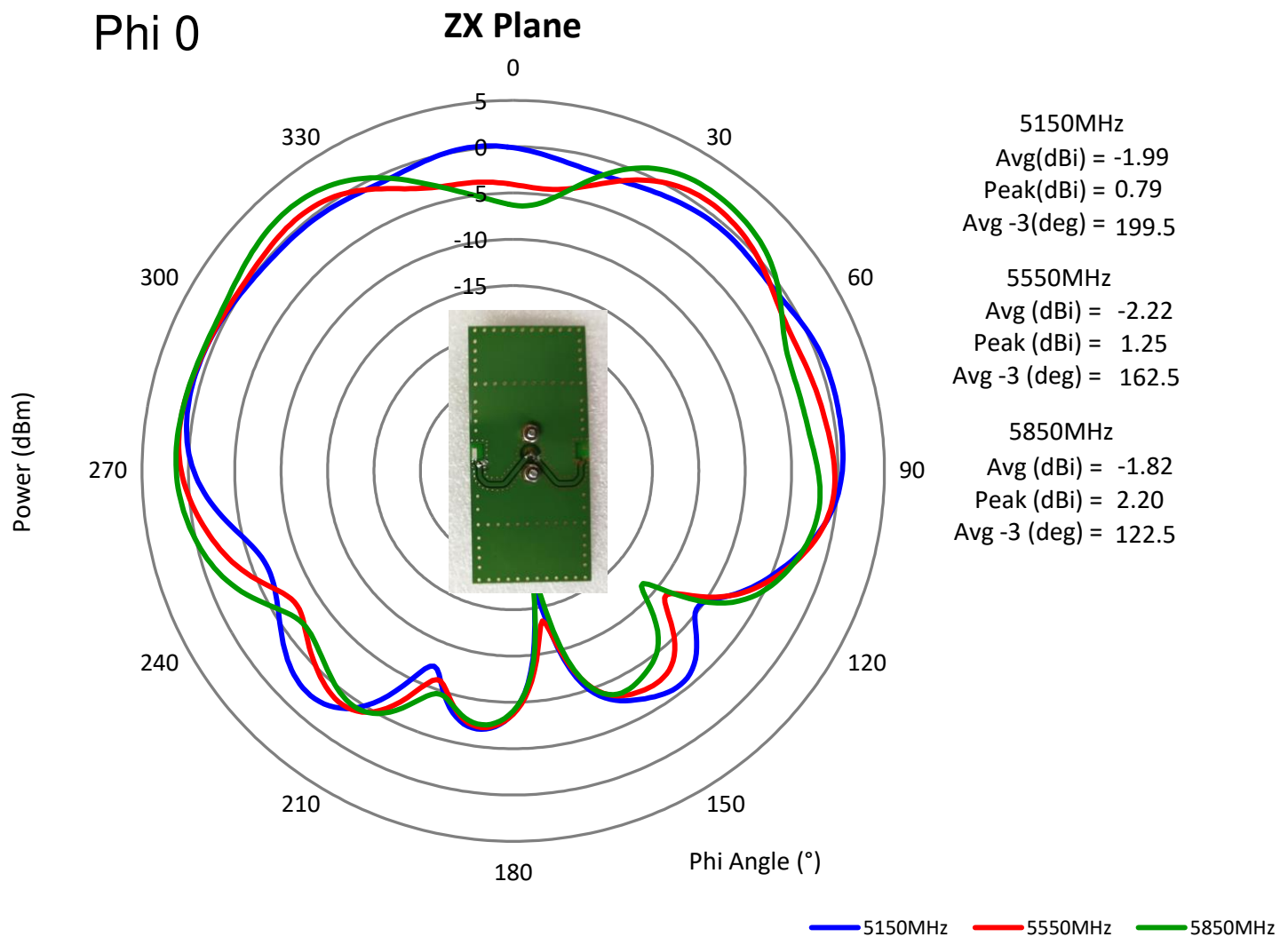
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004

CHARTS

Free Space Radiation Pattern



Issue: 1919

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.

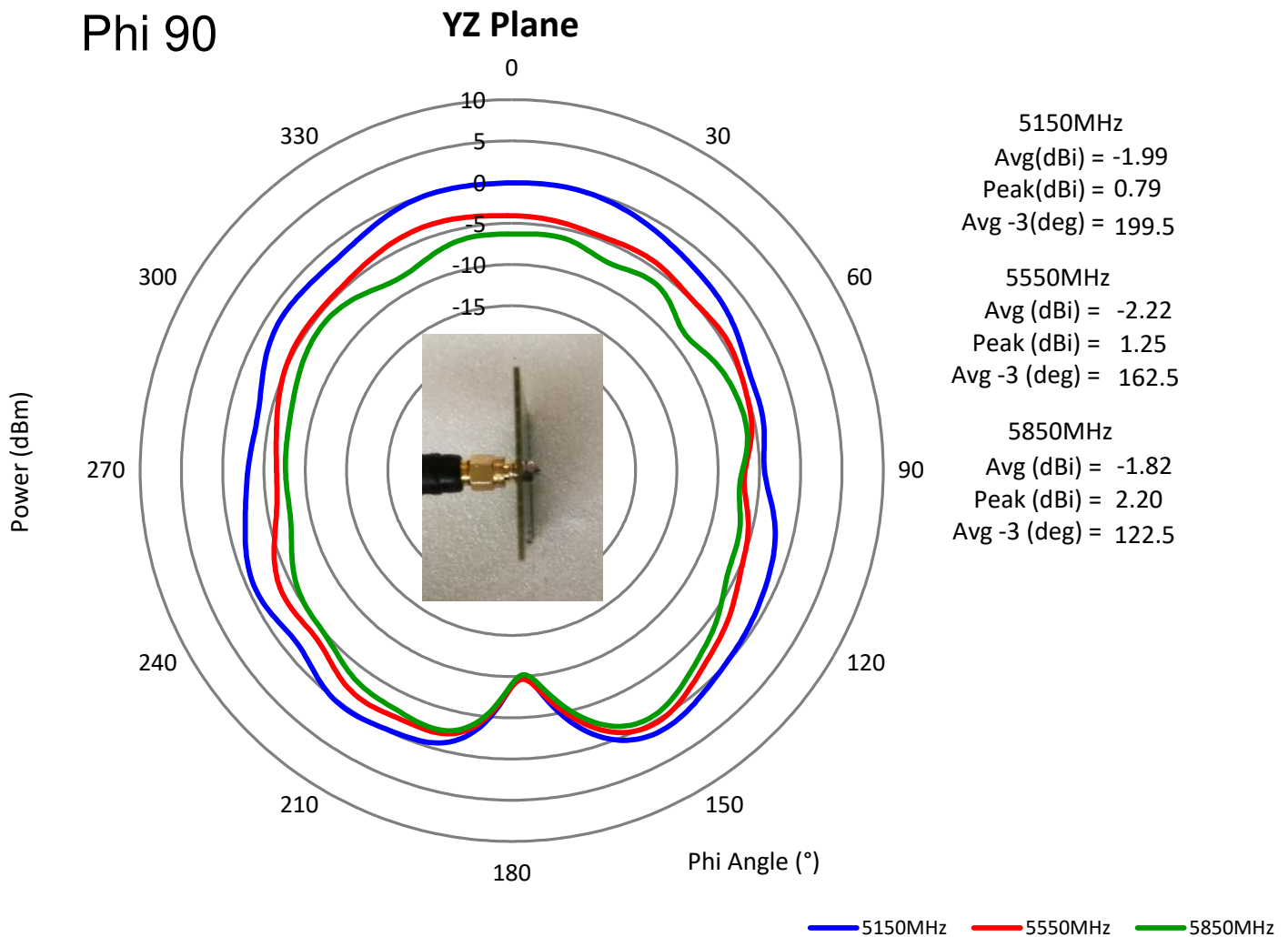
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004

CHARTS

Free Space Radiation Pattern



Issue: 1919

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.

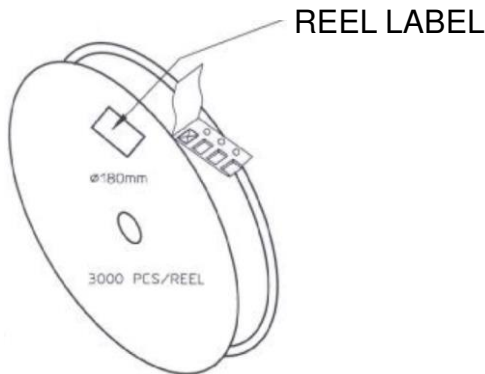
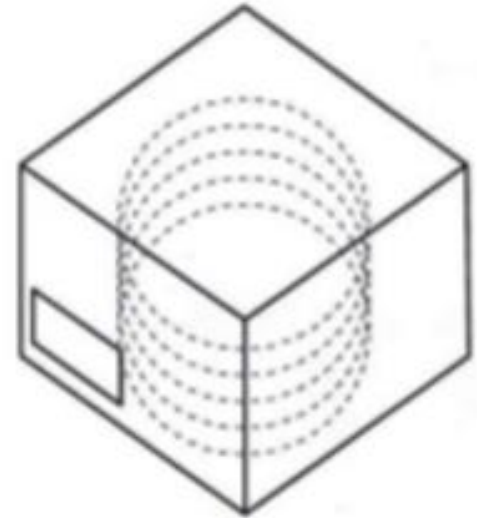
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004

PACKAGING

- 3000pcs antennas per 7" reel
- 5pcs 7" reel per inner package box
- 2pcs inner box per out box
- Total 30000pcs antenna per out box
- Out box size: 390mmx215mmx165mm



| |
|--|
| LEVEL |
| NOT MOISTURE SENSITIVE |
| 1 |
| <p>These Devices do not require special storage conditions provided:</p> <ol style="list-style-type: none"> 1. They are maintained at conditions equal to or less than 30°C and 85% RH. 2. They are solder reflowed at a peak body temperature which does not exceed 260°C. <p>Note: Level and body temperature defined by IPC/JEDEC J-STD-020</p> |