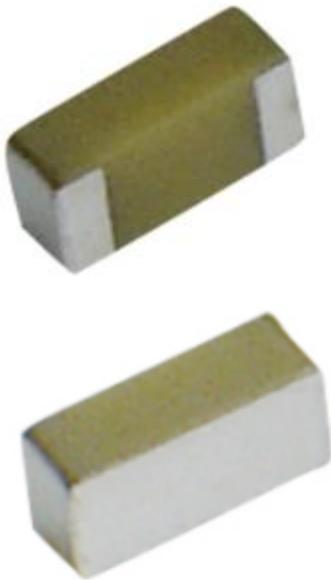


Description: **5150-5950 3.2x1.6x1.1mm**
SMT Ceramic Antenna

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

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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 |

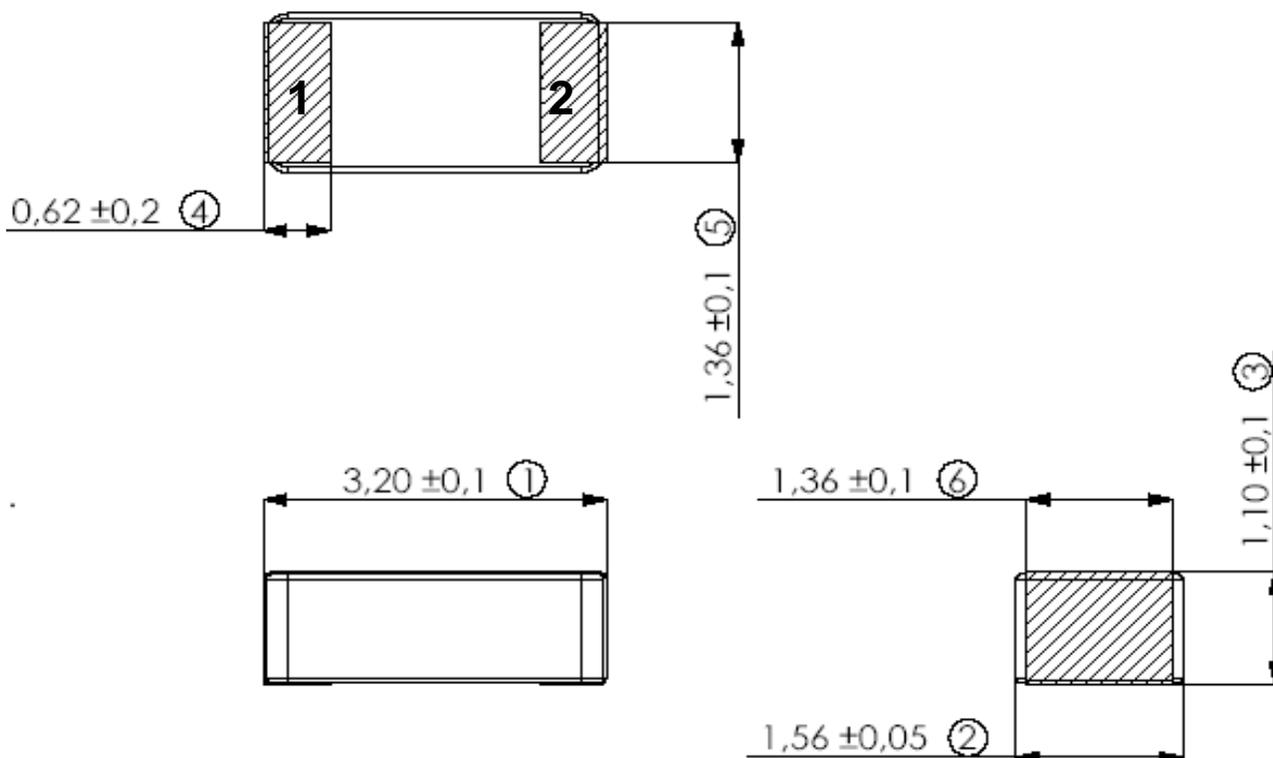
Typical free space performance measured on 80*37mm test board, Ground clearance area 5.25*4.25mm

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 | | |

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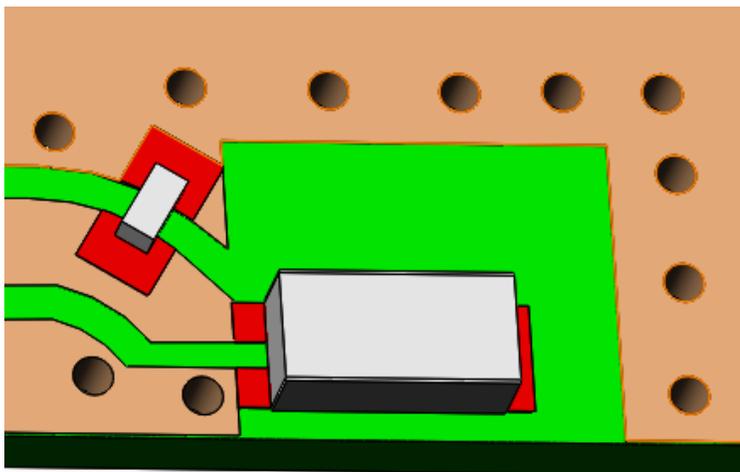
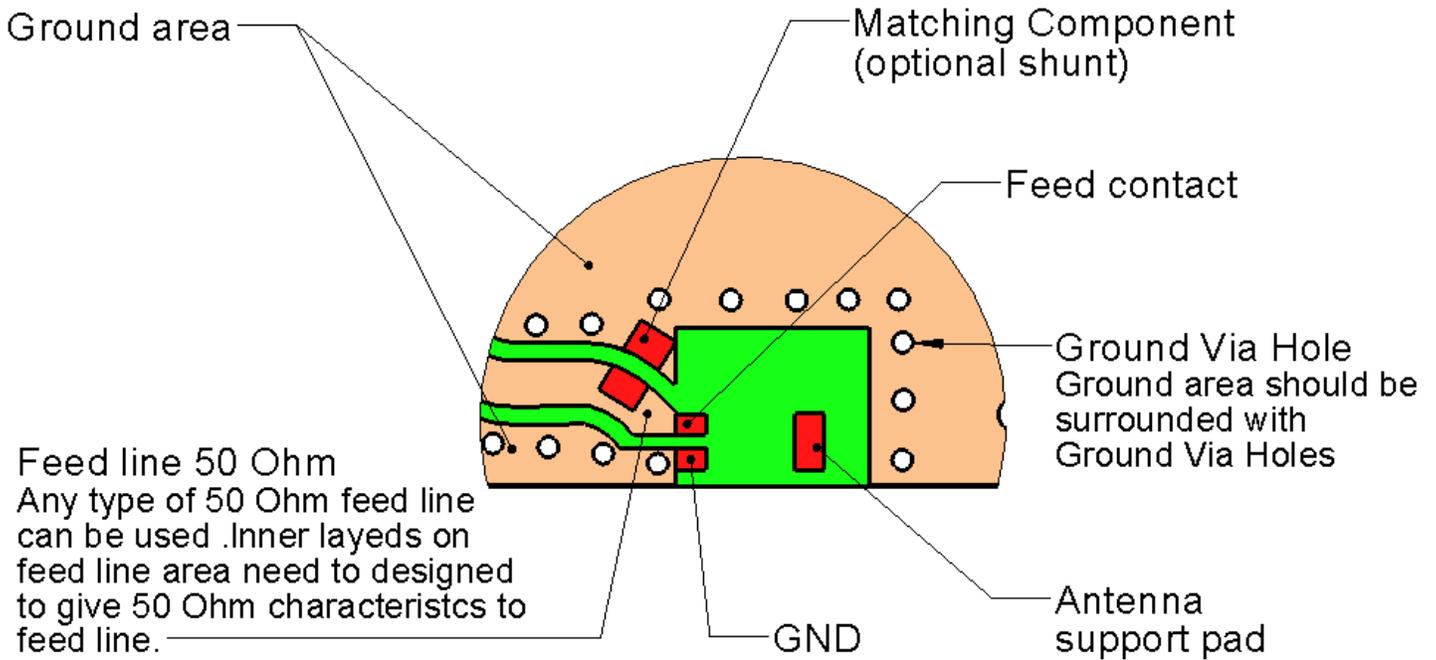
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

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.

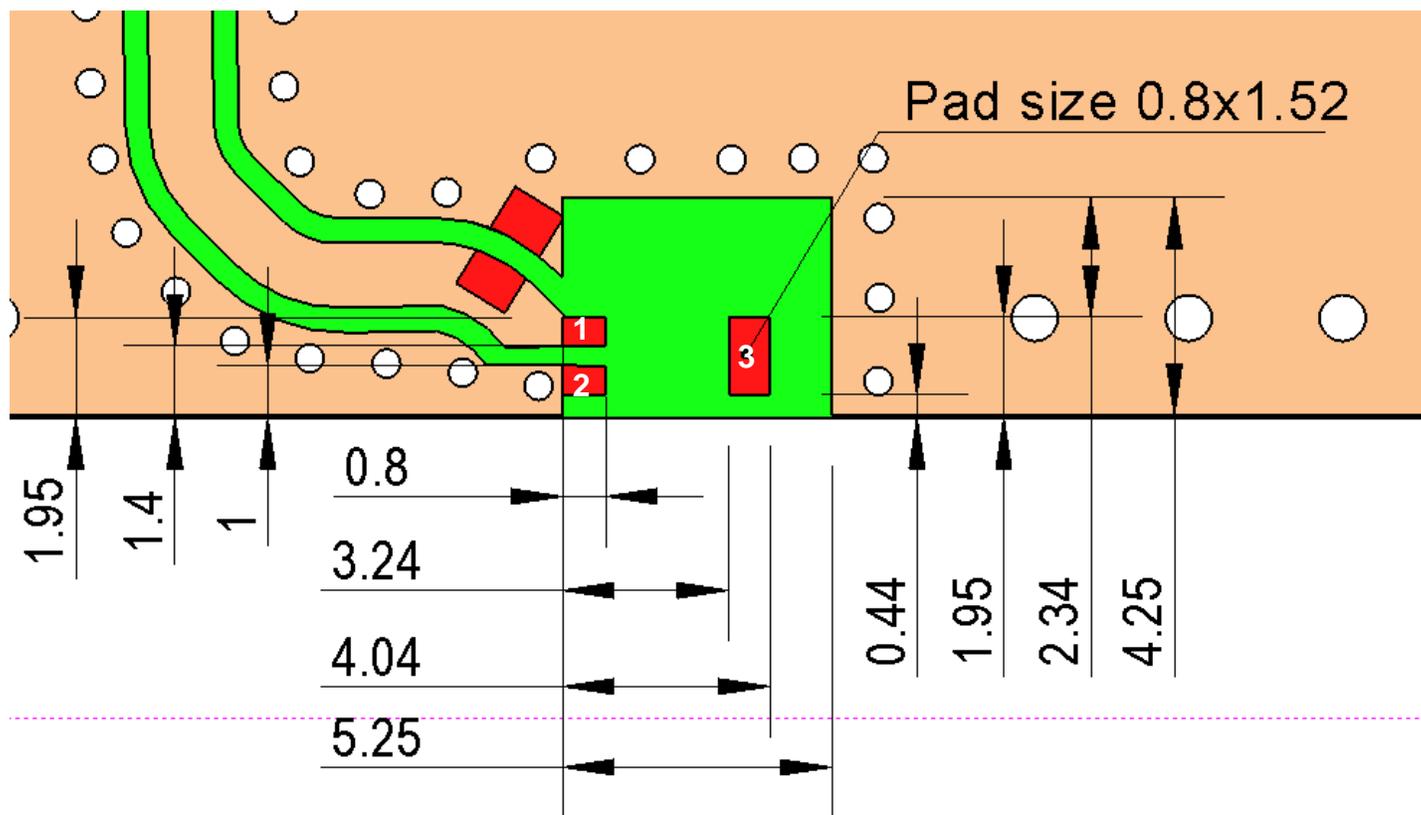
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

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 |

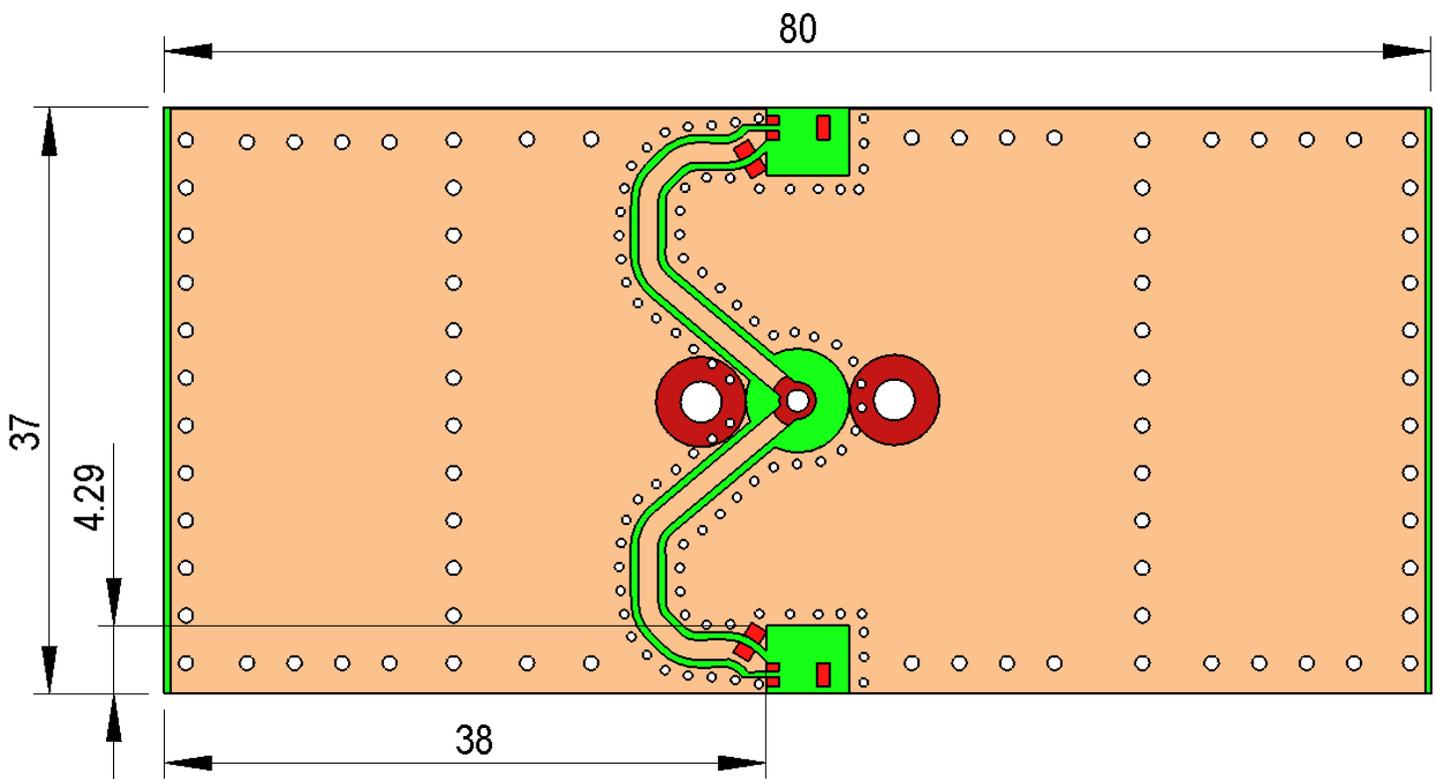
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

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



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SMT Ceramic Antenna

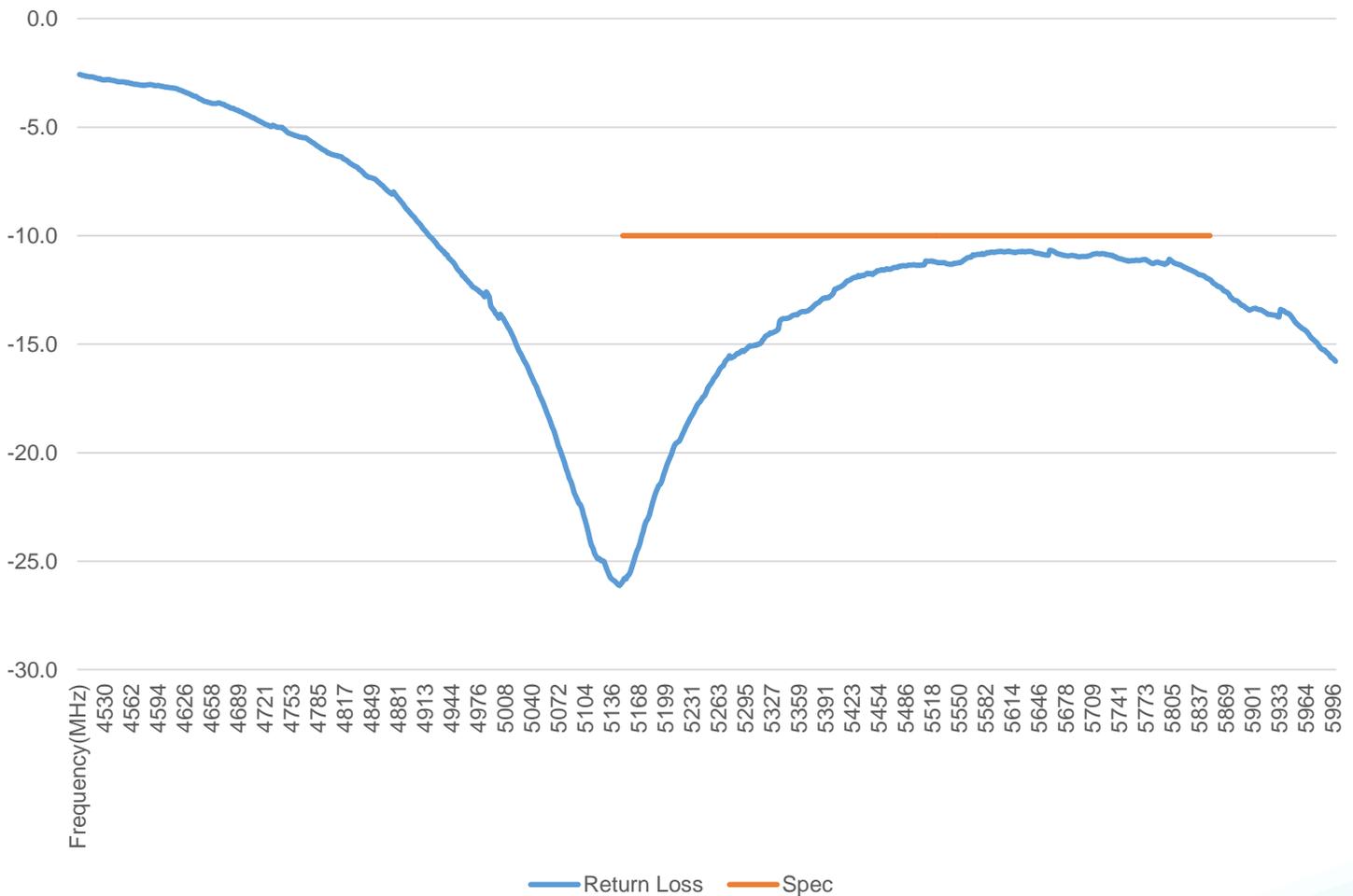
Series: Chip Antenna

PART NUMBER: W3004

CHARTS

Return Loss

Return Loss



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SMT Ceramic Antenna

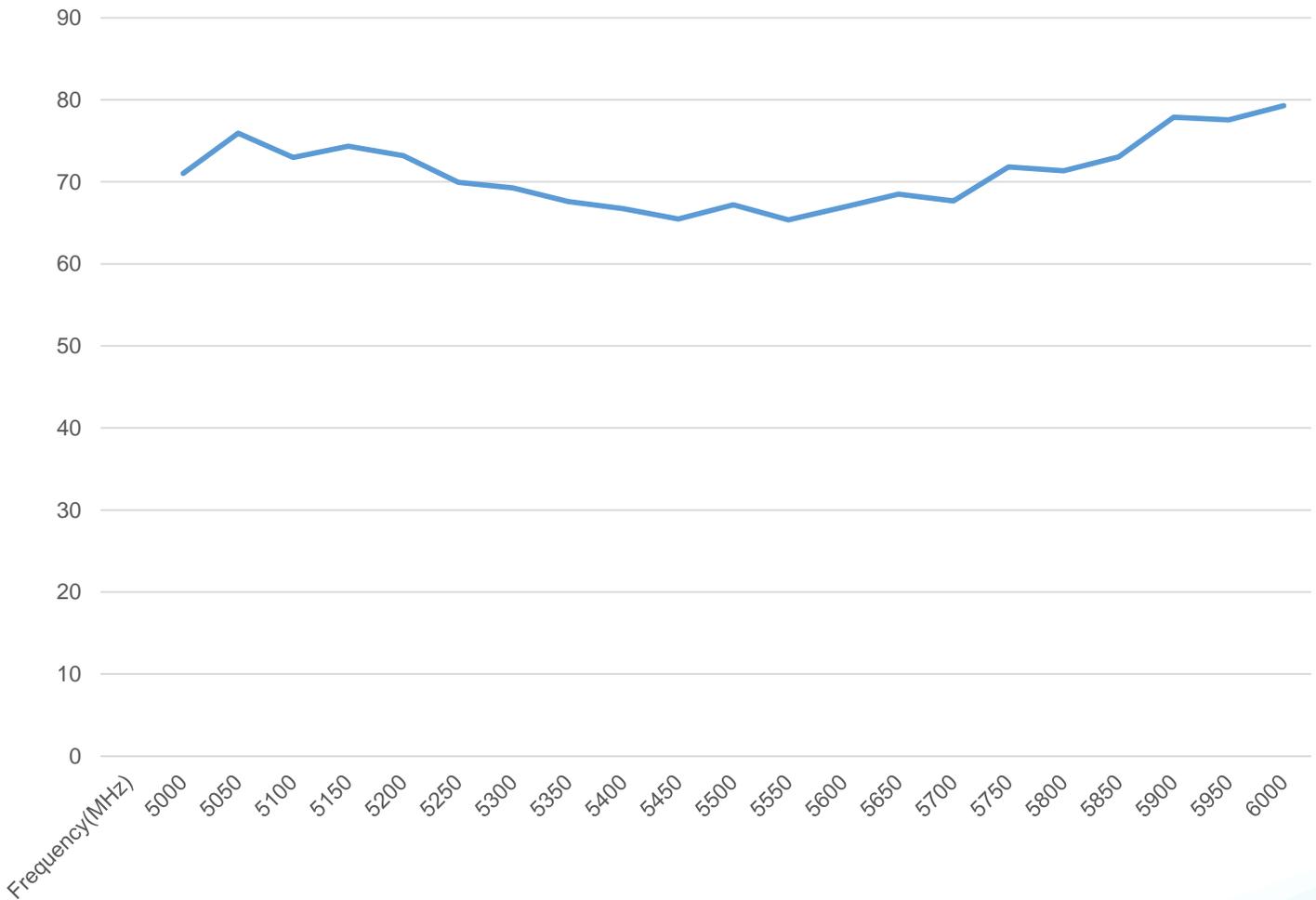
Series: **Chip Antenna**

PART NUMBER: W3004

CHARTS

Efficiency

Efficiency(%)



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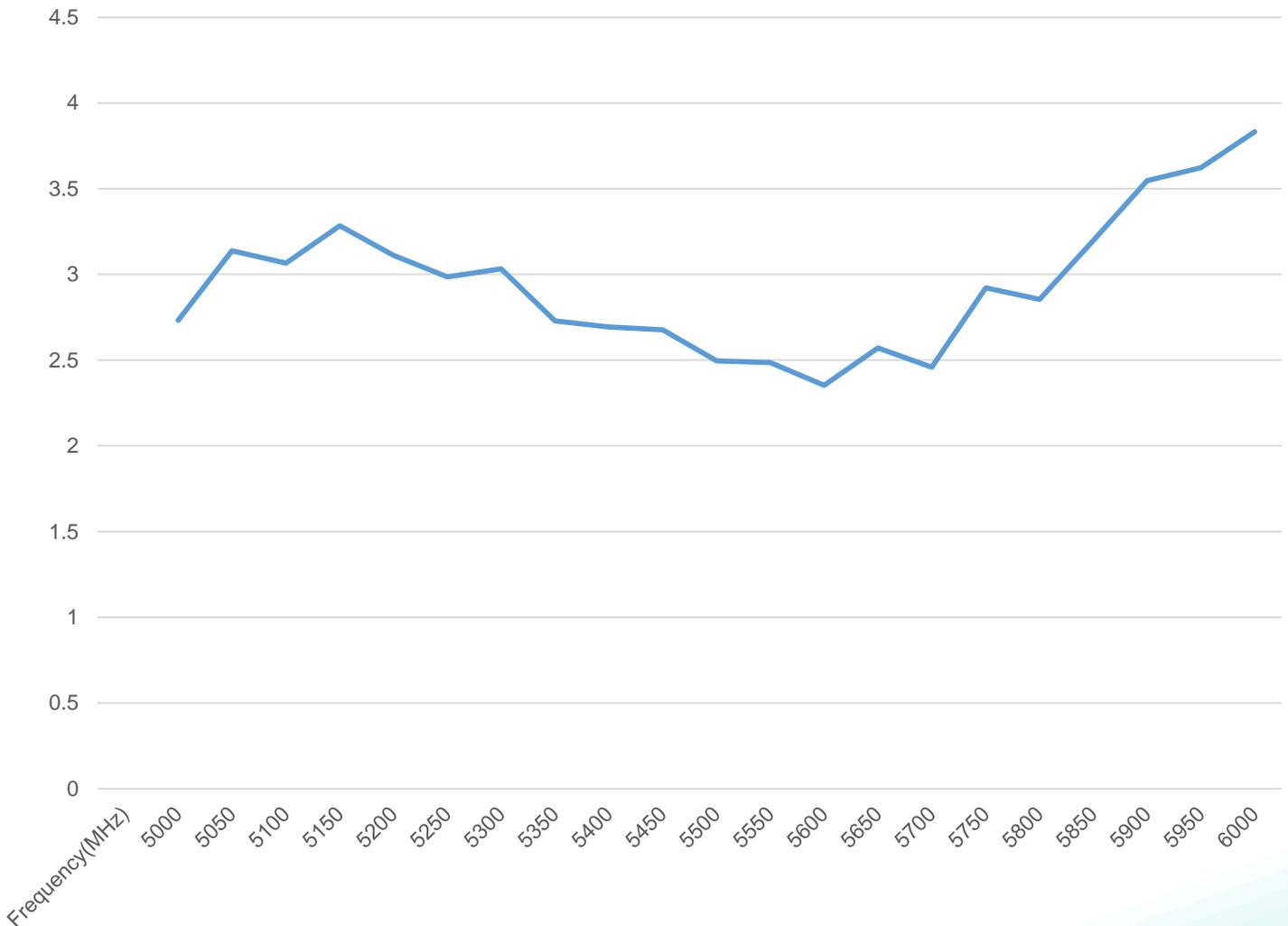
Series: Chip Antenna

PART NUMBER: W3004

CHARTS

Peak Gain

Peak Gain(dBi)



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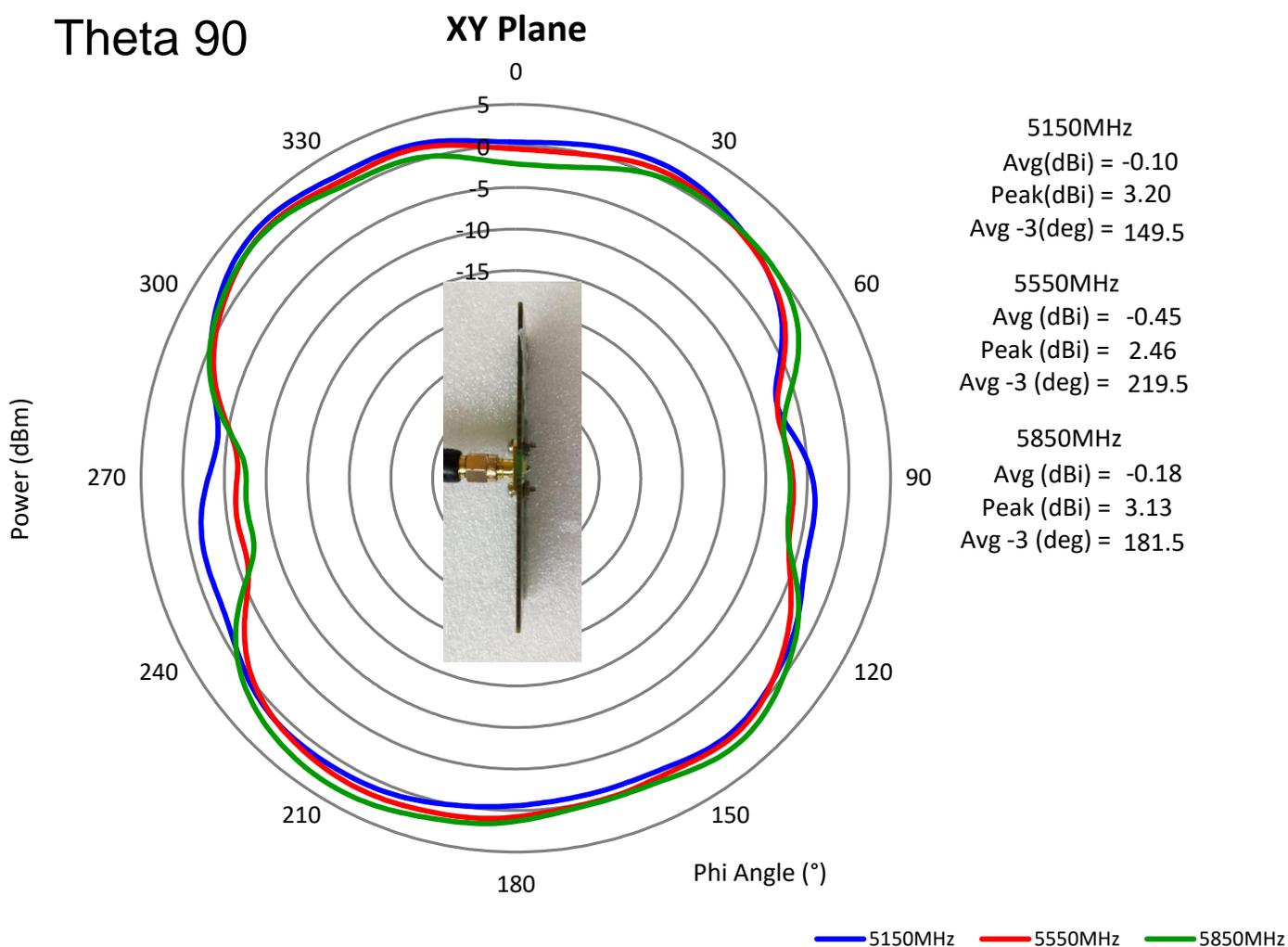
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

PART NUMBER: W3004

CHARTS

Free Space Radiation Pattern



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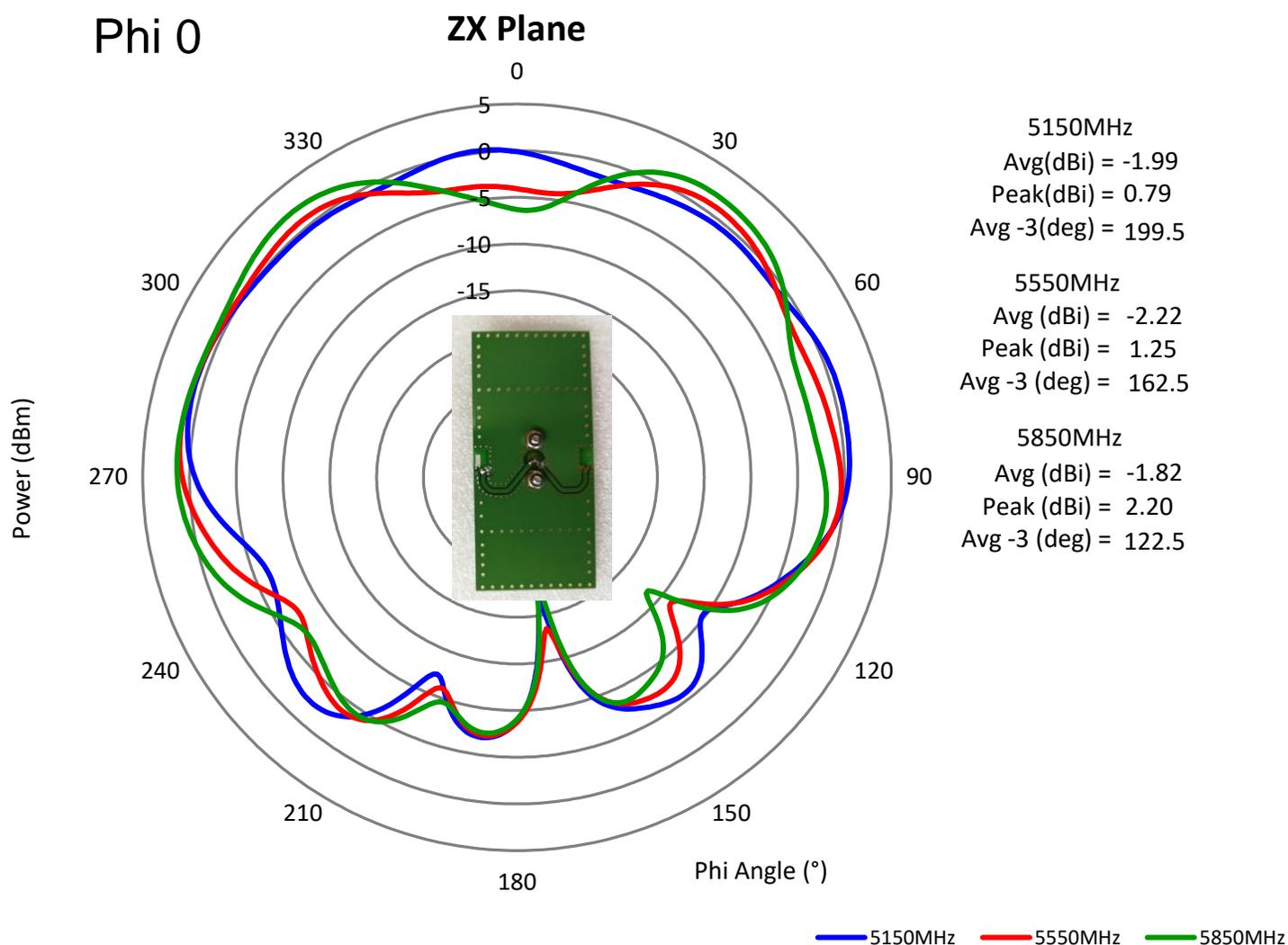
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

Series: Chip Antenna

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CHARTS

Free Space Radiation Pattern



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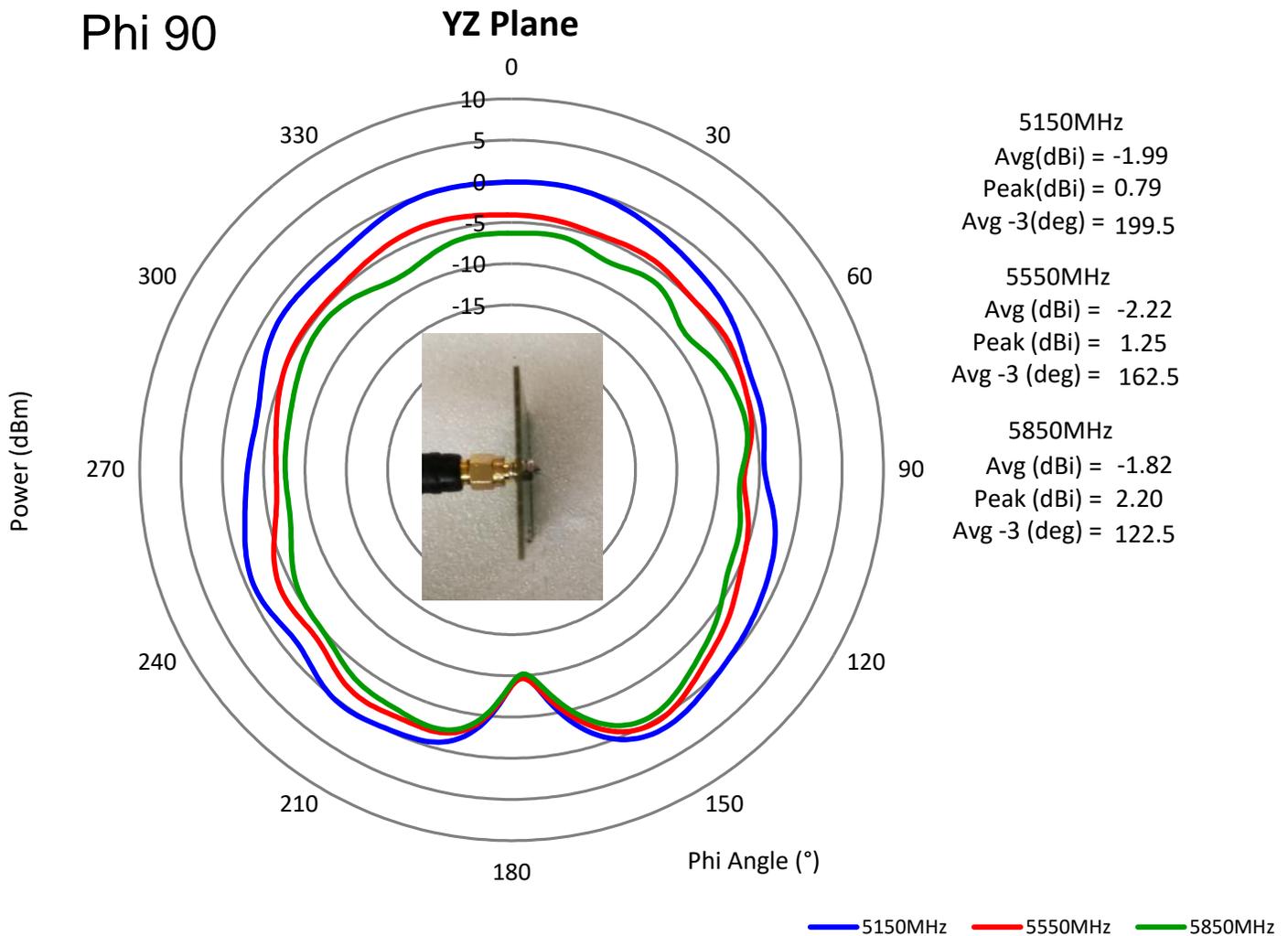
Description: 5150-5950 3.2x1.6x1.1mm
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CHARTS

Free Space Radiation Pattern



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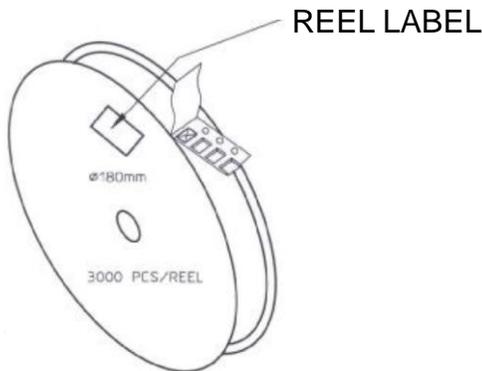
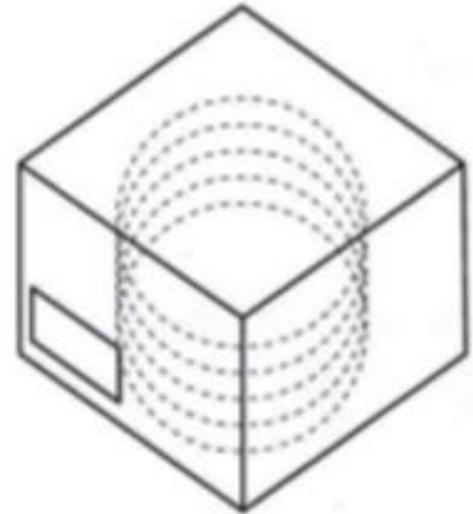
Description: 5150-5950 3.2x1.6x1.1mm
SMT Ceramic Antenna

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> |