

Description: 2.4-2.5/5.15-7.125GHz Dual band Ceramic 10x3.2x1.5mm PART NUMBER: W3006

Series: Chip Antenna



- 2.4-2.5 / 5.15-7.125GHz WIFi-6E
- Peak gain 2.2 / 5.2 dBi
- Efficiency 60 / 70 %
- Compact size W x L x H (10 x 3.2 x 1.5 mm)
- Low weight: 240 mg
- Fully SMD compatible
- Tape and reel packing
- RoHS Compliant Product
- Moisture Sensitivity Level: MSL1

Applications:

- Layout 1 for 2.4-2.5 / 5.15-5.85GHz
- Layout 2 for 2.4-2.5 / 5.15-7.125GHz
- IEEE 802.11a/b/g/n/x
- WiFi-6E
- 5 GHz WLAN
- 2.4 GHz WLAN
- 2.4 GHz ISM Band Systems
- 5GHz ISM Band Systems
- ZigBee IEEE 802.15.4



Issue: 2137

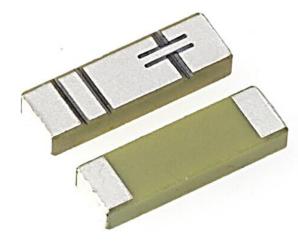
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Pulse Worldwide Headquarters 15255 Innovation Drive #100 San Diego, CA 92128 USA Tel:1-858-674-8100

All dimensions are in inches/mm

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





TECHNICAL DATA SHEET

Description: 2.4-2.5/5.15-7.125GHz Dual band Ceramic 10x3.2x1.5mm

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ELECTRICAL SPECIFICATIONS

Layout and Matching for 2.4-2.5/5.15-5.85GHz Frequency 2.4-2.5 / 5.15-5.85 GHz **Return Loss** -8/-9 dB max 60 / 80 % Efficiency (typical) Peak Gain (typical) 1.8 / 4.5dBi Layout and Matching for 2.4-2.5/5.15-7.125GHz WiFi-6E Frequency 2.4-2.5 / 5.15-7.125 GHz **Return Loss** -5/-5 dB max Efficiency (typical) 65 / 75 % Peak Gain (typical) 1.6 / 4.2dBi Nominal Impedance 50Ω Polarization Linear Interface SMD mount ceramic antenna



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MECHANICAL SPECIFICATIONS

Weight	0.24g
Size	10 x 3.2 x 1.5 mm

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-40~+85° C
Temperature	-40~+85° C
Humidity	Cyclic 6 +25° C/+55° C 95%
Vibration	
Sinusoidal 2-8Hz	7.5 mm
Sinusoidal 8-200Hz	20 m/s²
Shocks	0.5 ms
Salt mist	96 hours

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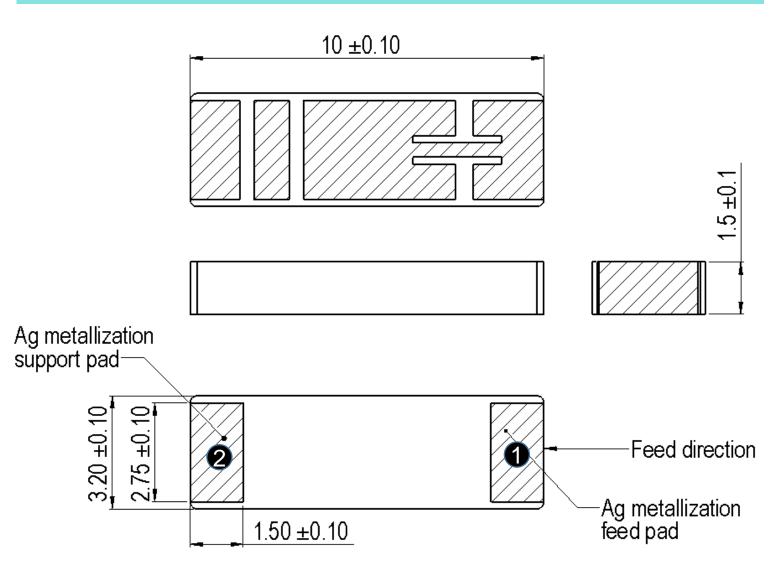


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MECHANICAL DRAWING AND TERMINAL CONFIGURATION



No.	Terminal Name	Terminal Dimensions
1	Feed	1.5 x 2.75 mm
2	Support pad	1.5 x 2.75 mm
Antenna feed pad can be identified by looking top surface metallization pattern		

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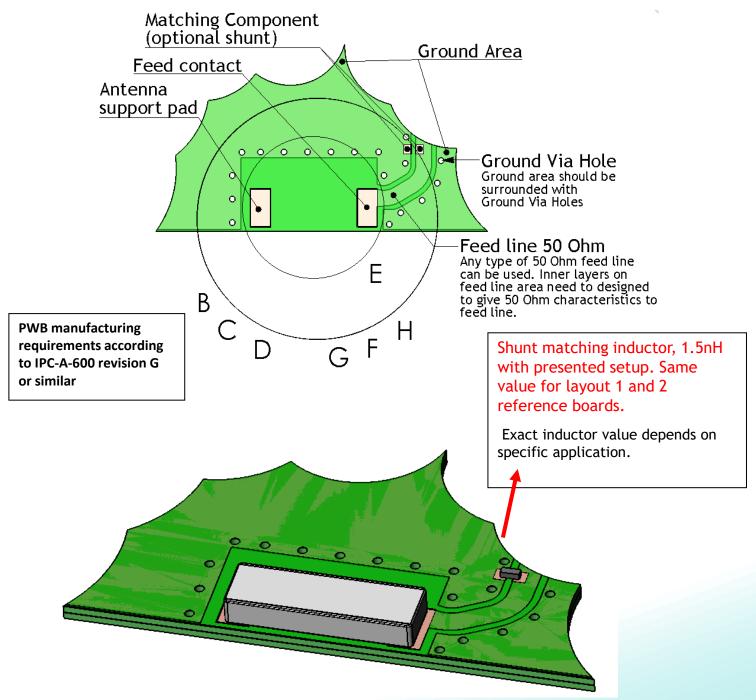
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Series: Chip Antenna

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MECHANICAL DRAWING AND TERMINAL CONFIGURATION

Ground cleared under antenna



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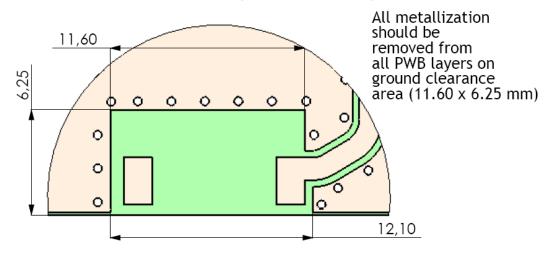
Series: Chip Antenna

PART NUMBER: W3006

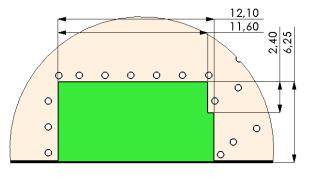
MECHANICAL DRAWING AND TERMINAL CONFIGURATION

1.Layout and Matching for 2.4-2.5/5.15-5.85GHz

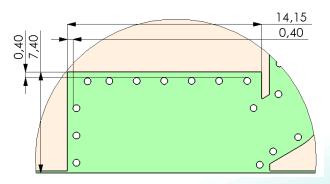
Ground clearance area (11.60 x 6.25 mm)



Opening in bottom/inner ground layers



Opening in other layers (no ground/ RF)



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YAGEO company

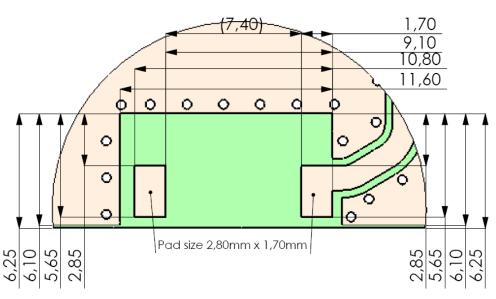
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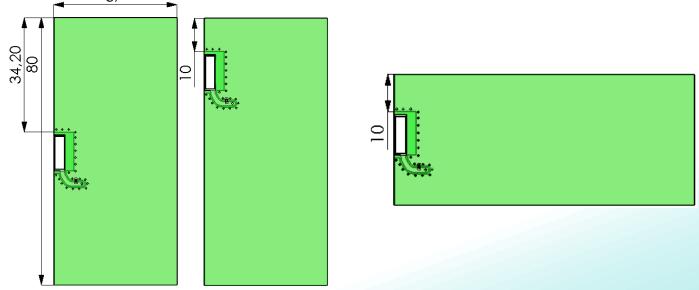
MECHANICAL DRAWING AND TERMINAL CONFIGURATION

Recommended Antenna Pad Dimensions on PWB Layout (top surface)



Pad dimensions in top copper

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



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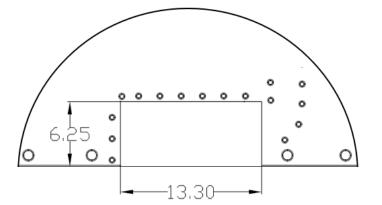
Ground clearance area (13.3 x 6.25 mm)

2.Layout and Matching for 2.4-2.5/5.15-7.125GHz

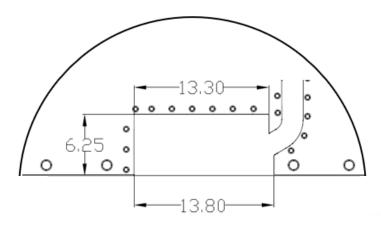
6.2 o О O С 13.80

All metallization should be removed from all PWB layers on ground clearance area (13.3 x 6.25mm)

Opening in bottom/inner ground layers



Opening in other layers (no ground/RF)



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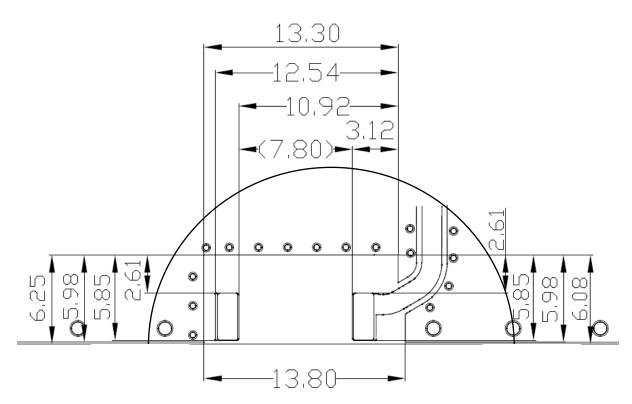
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MECHANICAL DRAWING AND TERMINAL CONFIGURATION

Recommended Antenna Pad Dimensions on PWB Layout (top surface)



Pad dimensions in top copper

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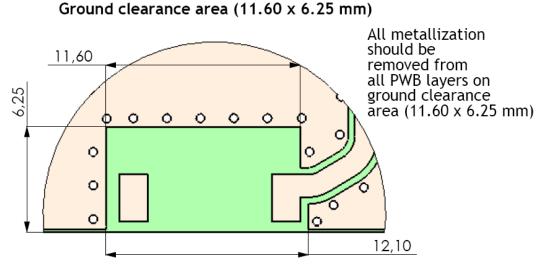
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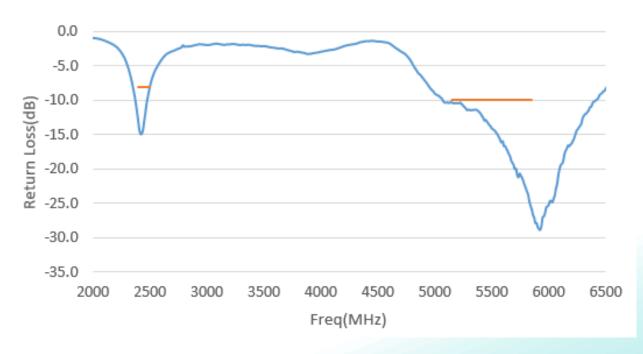
PART NUMBER: W3006

Test setup

1. Layout and Matching for 2.4-2.5/5.15-5.85GHz



Return Loss



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RoHS



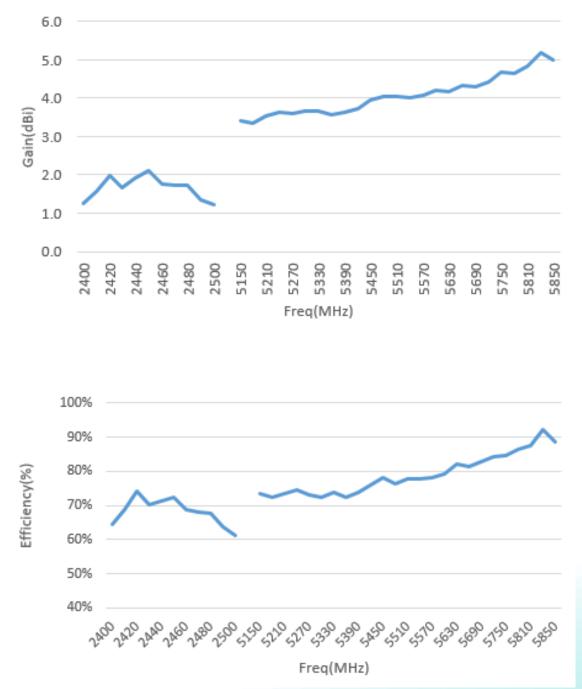
Description: 2.4-2.5/5.15-7.125GHz Dual band Ceramic 10x3.2x1.5mm

Series: Chip Antenna

PART NUMBER: W3006

CHARTS

1. Layout and Matching for 2.4-2.5/5.15-5.85GHz



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RoHS



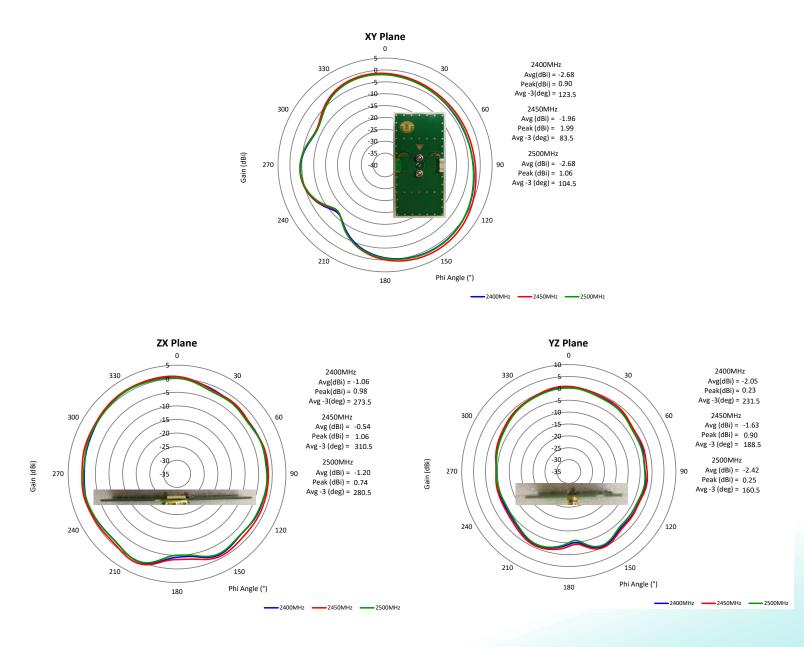
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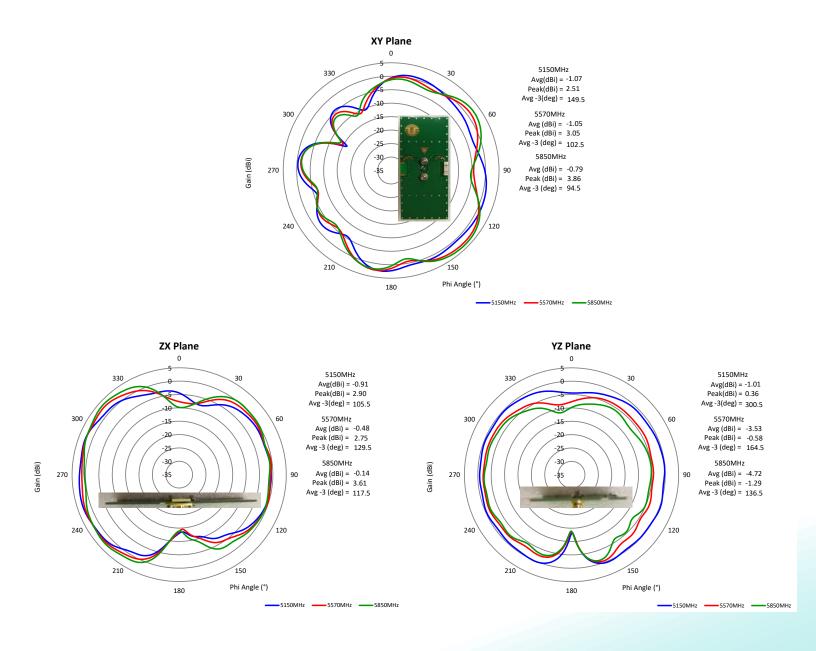
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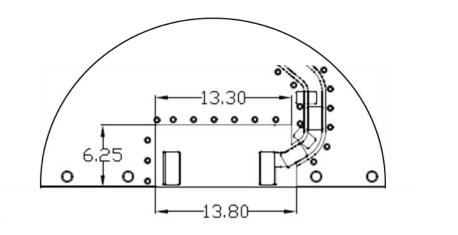
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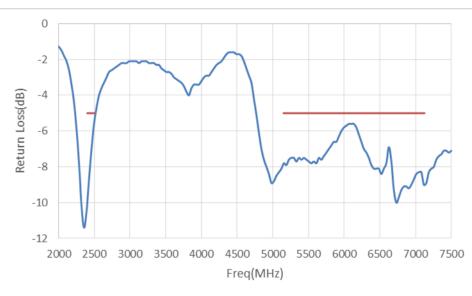
PART NUMBER: W3006

Test setup

2. Layout and Matching for 2.4-2.5/5.15-7.125GHz



Return Loss



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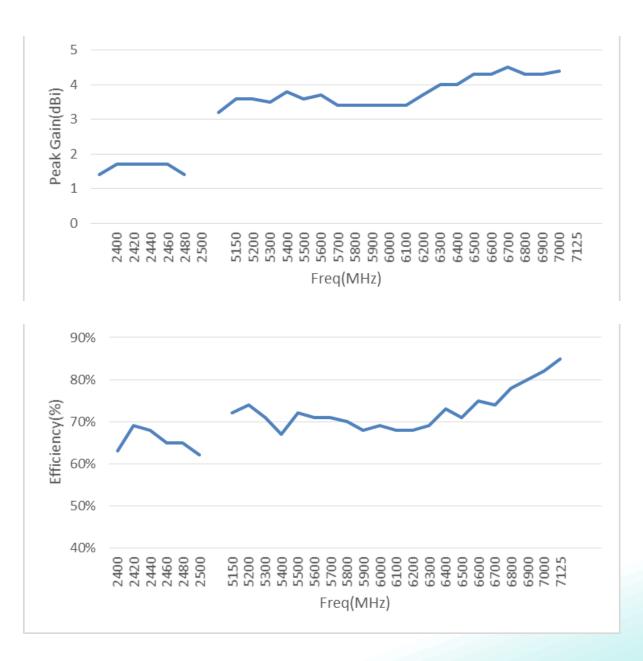
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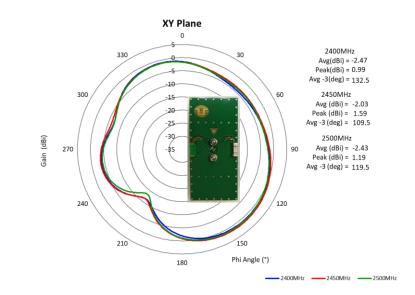
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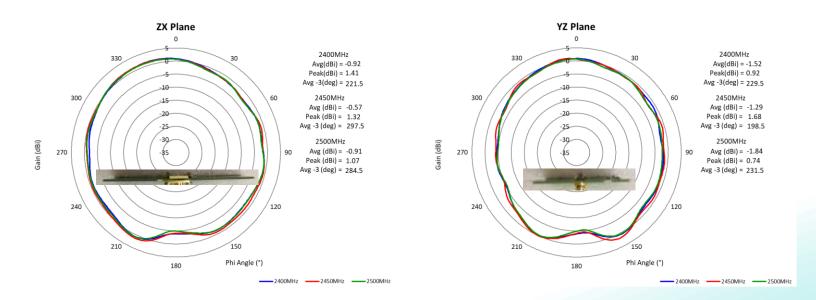
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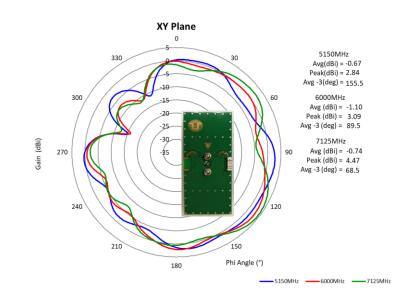
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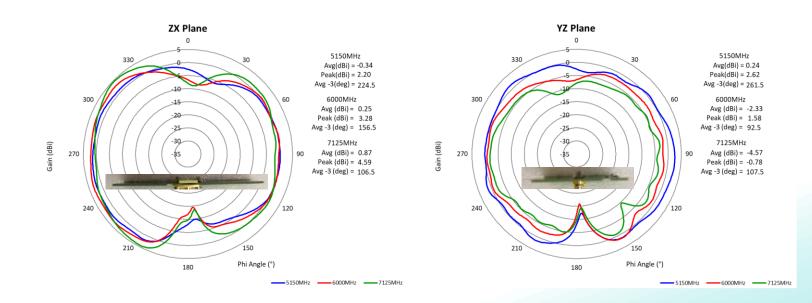
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PACKAGING

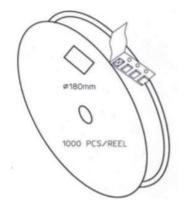
1000pcs antennas per 7" reel

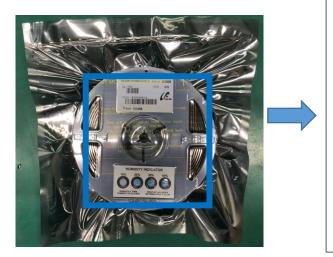
3pcs 7" reel per inner package box

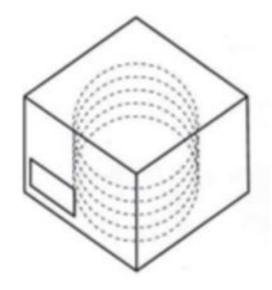
2pcs inner box per out box

Total 6000pcs antenna per out box

Out box size: 390mmx215mmx165mm







LEVEL

NOT MOISTURE SENSITIVE

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These Devices do not require special storage conditions provided:

- 1. They are maintained at conditions equal to or less than 30 $^{\circ}\mathrm{C}$ and 85% RH.
- They are solder reflowed at a peak body temperture which does not exceed 260°C.

Note: Level and body temperture defined by IPC/JEDEC J-STD-020

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 A09-F5NF-M
 RGFRA1903041A1T
 W3593B0100
 W3921B0100
 SIMNA-868
 SIMNA

 915
 SIMNA-433
 W1044
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