

#### **TECHNICAL DATA SHEET**

Description: 2.4-2.4835GHz Ceramic SMT antenna, 4x6.25mm keep out area

PART NUMBER: W3008C



2400-2483.5MHz

• Size: 3.2 x 1.6 x 1.1mm

• Efficiency: 68 %

Gain: 1.3 dBi

Polarization: Linear

Power Handling: 5W

RoHS Compliant

Moisture Sensitivity Level MSL3

# **Applications:**

Bluetooth, BLE, Zigbee, WiFi

· 2.4GHz ISM band radios



All dimensions are in mm / inches

Issue: 1823

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

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## **ELECTRICAL SPECIFICATIONS**

Frequency	2400-2483.5MHz
Nominal Impedance	50 Ω
Return Loss	-8dB
Radiation Pattern	Omni
Gain	1.3dBi
Efficiency	68%
Polarization	Linear
Power Withstanding	5W

## **MECHANICAL SPECIFICATIONS**

Overall Length 3.2x1.6x1.1mm Weight 33mg Antenna Color / Material Ceramic

### **ENVIRONMENTAL SPECIFICATIONS**

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

(\*) All RF parameters measured on 80\*37mm PCB with 4\*6.25mm clearance in free space. No matching component used.



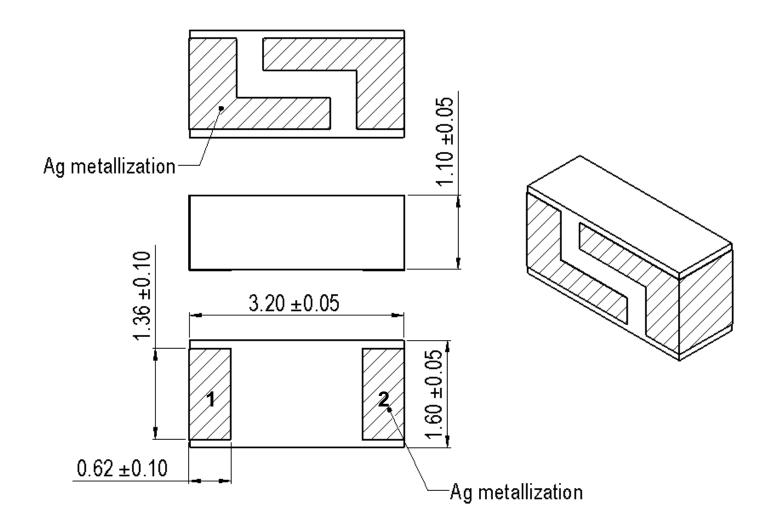


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## **MECHANICAL DRAWING**



No.	Terminal Name	Terminal Dimensions
1	Feed /GND	0.62 x 1.36 mm
2	Feed /GND	0.62 x 1.36 mm
Antenna is symmetrical, either one of pads 1 or 2 can be used as feed terminal		



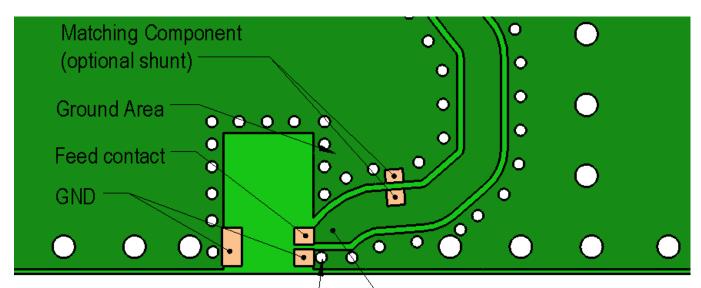
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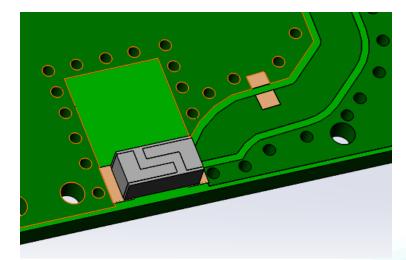
## MECHANICAL DRAWING AND TERMINAL CONFIGURATION

# Ground cleared under antenna, clearance area 4 mm x 6.25mm



Ground Via Hole
Ground area should be
surround with ground via holes

Feed line 500hm
Any type of 50 0hm feed line can be used. inner layers on feed line area need to designed to give 50 0hm characteristics to feed line.





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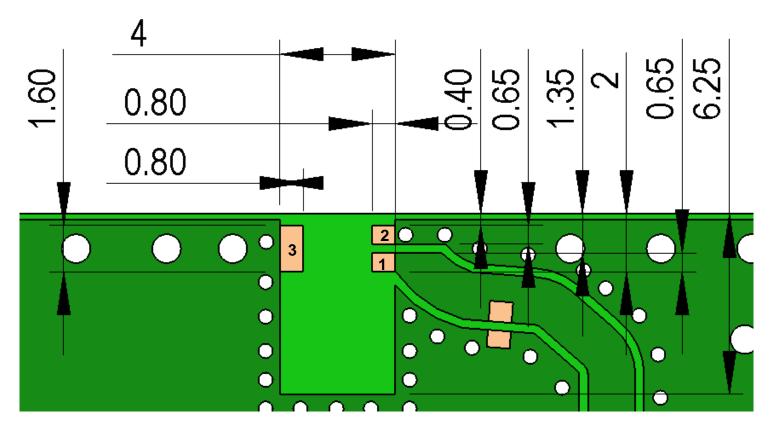
antenna, 4x6.25mm keep out area

PART NUMBER: W3008C

Series: Chip Antenna

# **MECHANICAL DRAWING AND TERMINAL CONFIGURATION**

Recommended Antenna Pad Dimensions on PCB Layout (top surface) Ground cleared under antenna, clearance area 4 mm x 6.25 mm



PCB contact pads		
No.	Terminal Name	Terminal Dimensions
1	Feed	0,80 x 0,65 mm
2	GND	0,80 x 0,65 mm
3	GND	0,80 x 1,60 mm





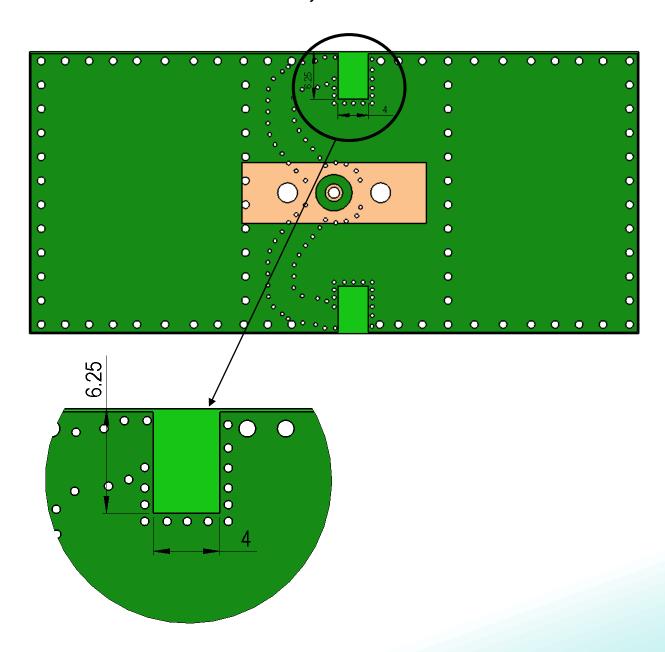
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# **MECHANICAL DRAWING AND TERMINAL CONFIGURATION**

Recommended Antenna Pad Dimensions on PCB Layout (bottom surface) Ground cleared under antenna, clearance area 4 mm x 6.25 mm





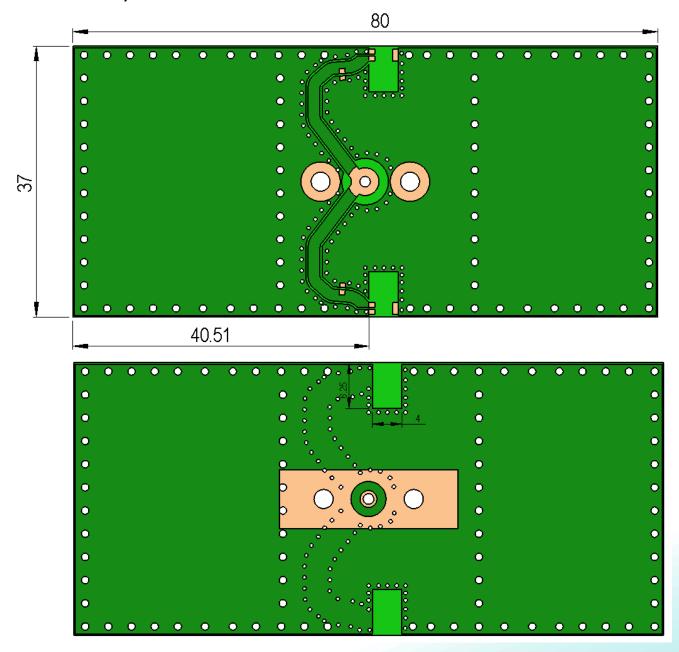
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# MECHANICAL DRAWING AND TERMINAL CONFIGURATION

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







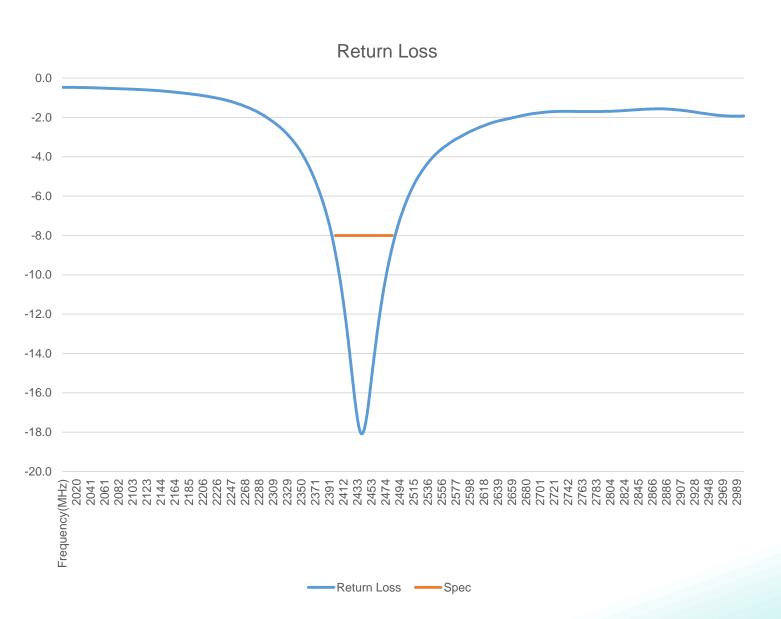
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### **CHARTS**

## Return loss



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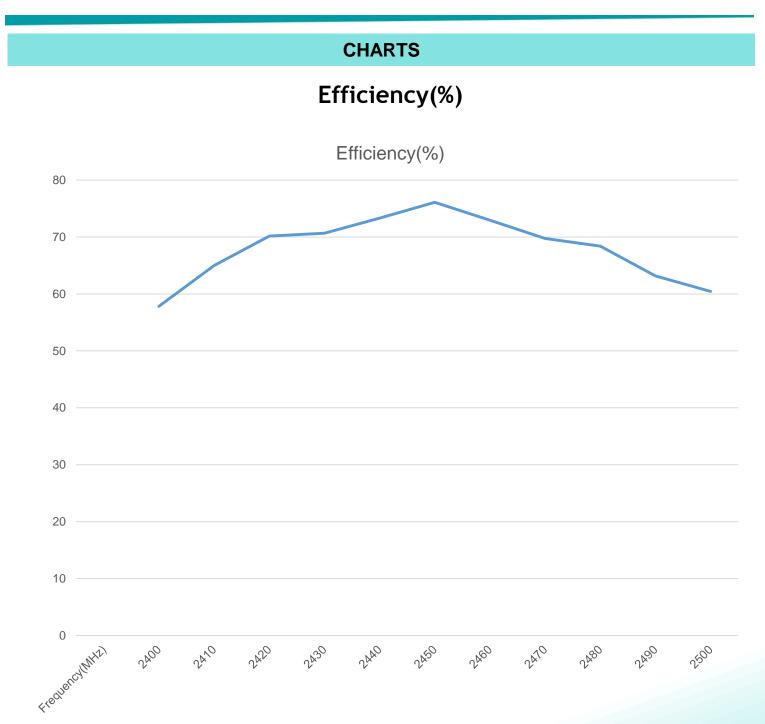




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## **CHARTS**

# Peak Gain(dBi)

Peak Gain(dBi)



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ROHS



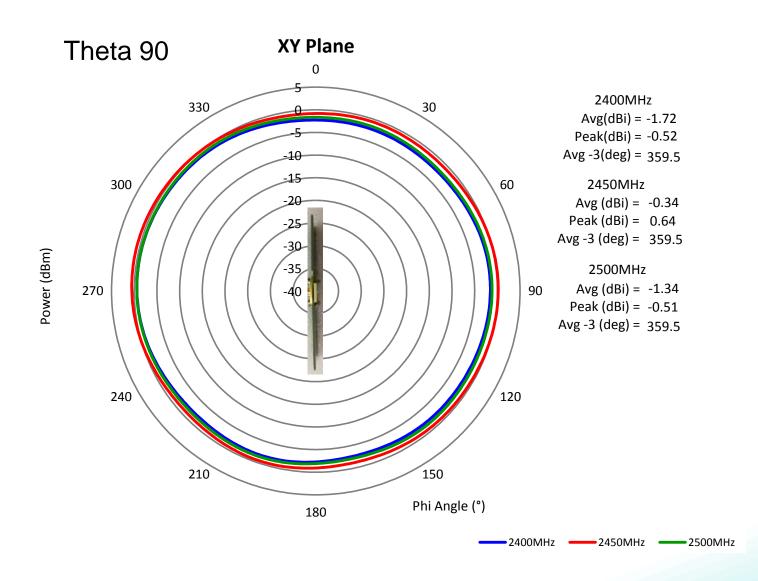
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### **CHARTS**

# Free Space Radiation Pattern



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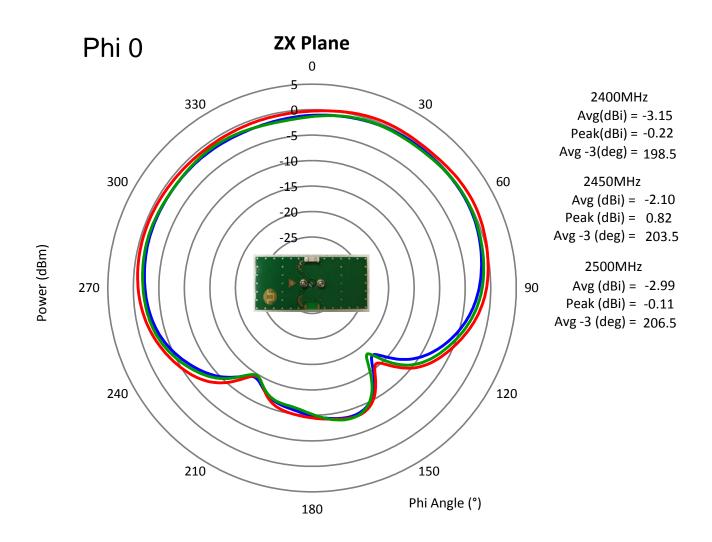
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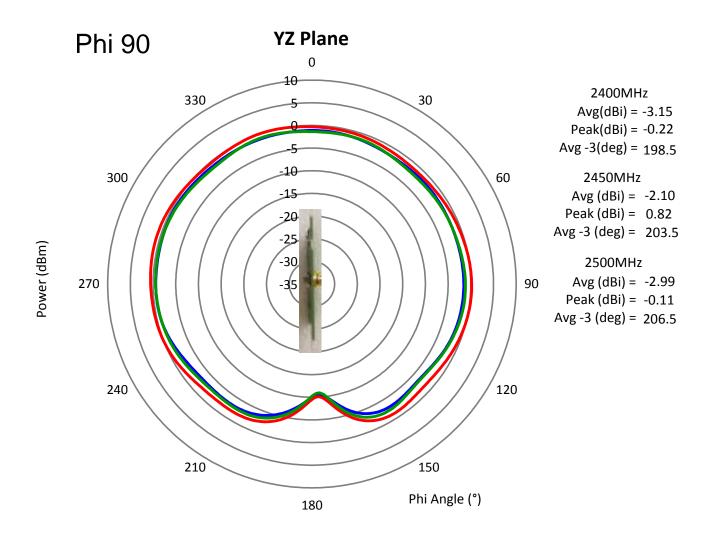
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### **PACKAGING**

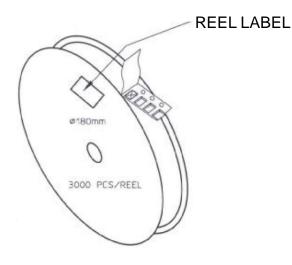
3000pcs antennas per 7" reel

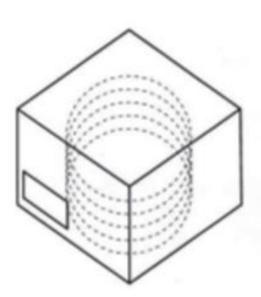
5pcs 7" reel per inner package box

2pcs inner box per out box

Total 30000pcs antenna per out box

Out box size: 390mmx215mmx165mm





According to MSL3 packing requirement, MBB-Moisture Barrel Bag, Desiccant, HIC-Humidity Indicator Card, MSID Label, Caution Label are required.