

## Series: Chip Antenna

Description: 2.4-2.5/5.15-5.85GHz Dual band Ceramic 10x3.2x1.5mm

PART NUMBER: W3006

## **Features:**

- 2.4-2.5 / 5.15-5.85GHz
- 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:**

- IEEE 802.11a/b/g/n
- 5 GHz WLAN
- 2.4 GHz WLAN
- 2.4 GHz ISM Band Systems
- 5GHz ISM Band Systems
- ZigBee IEEE 802.15.4

### All dimensions are in inches/mm

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## **ELECTRICAL SPECIFICATIONS**

Frequency1	2.4-2.5GHz
Frequency2	5.15-5.85GHz
Nominal Impedance	$50\Omega$
Return Loss Frequency1	-8 dB max
Return Loss Frequency2	-10 dB max
Efficiency Frequency1	60 %
Efficiency Frequency2	70 %
Peak Gain Frequency1	2.2dBi
Peak Gain Frequency2	5.2dBi
Polarization	Linear
Interface	SMD mount ceramic antenna

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## **MECHANICAL SPECIFICATIONS**

0.24g

Size

Weight

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	
Vibration	
Sinusoidal 2-8Hz	7.5 mm
Sinusoidal 8-200Hz	20 m/s²
Shocks	0.5 m/s
Salt mist	96 hours

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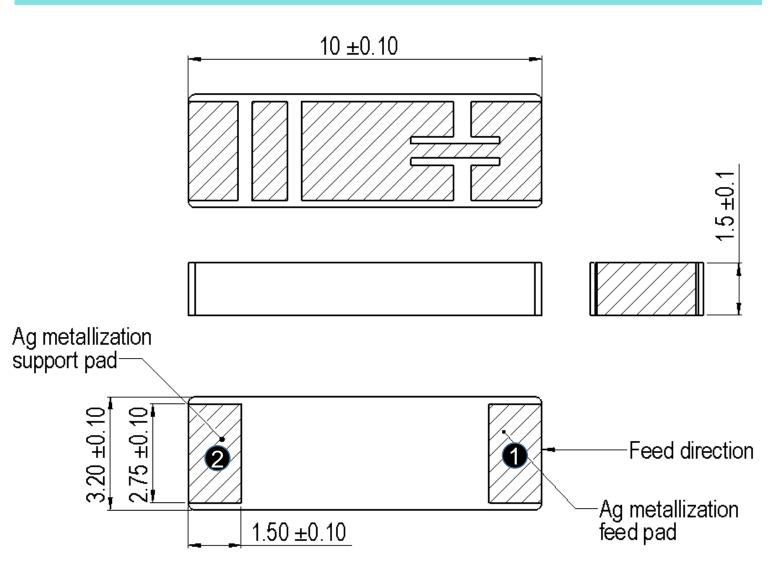


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## **MECHANICAL DRAWING AND TERMINAL CONFIGURATION**



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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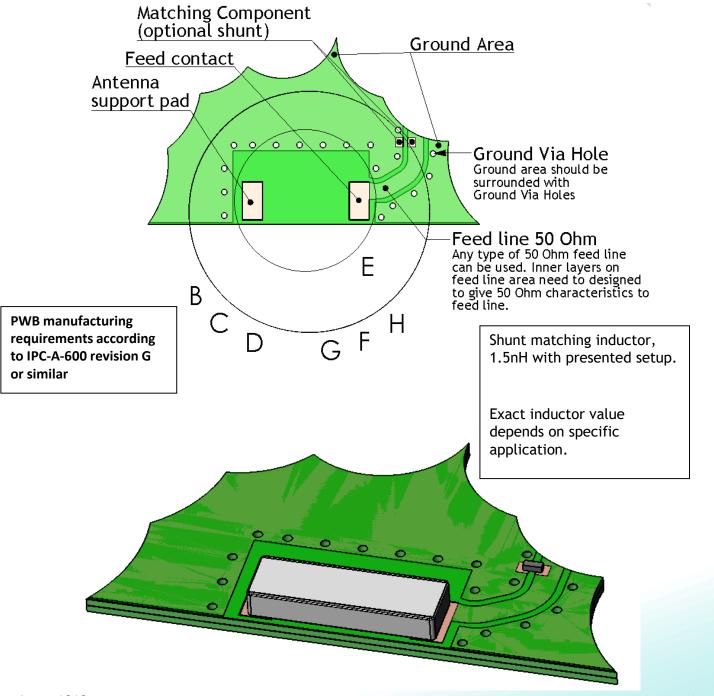
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## **MECHANICAL DRAWING AND TERMINAL CONFIGURATION**

Ground cleared under antenna, clearance area 11.60 mm x 6.25 mm



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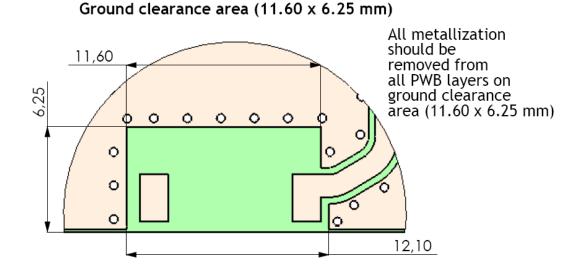


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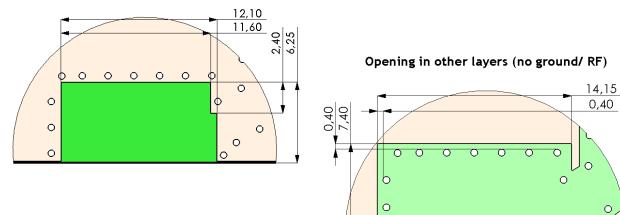
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## **MECHANICAL DRAWING AND TERMINAL CONFIGURATION**



### Opening in bottom/inner ground layers



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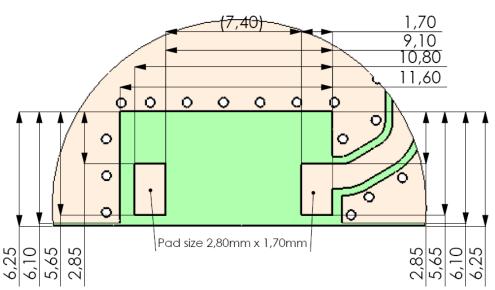
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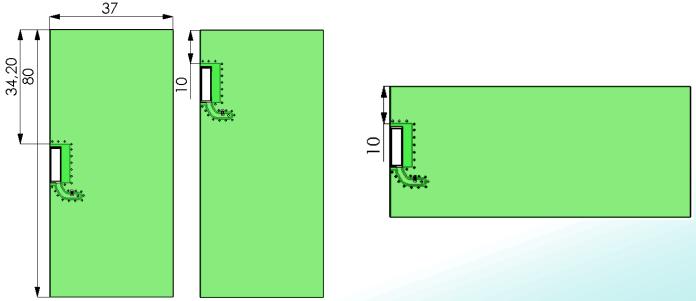
## **MECHANICAL DRAWING AND TERMINAL CONFIGURATION**

Recommended Antenna Pad Dimensions on PWB Layout (top surface)



Pad dimensions in top copper

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



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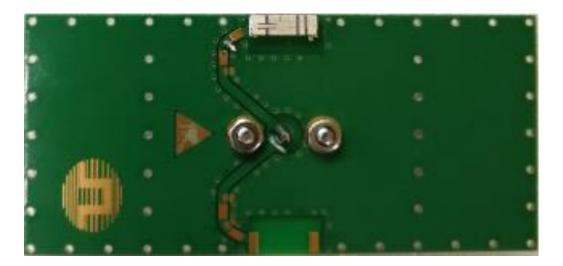




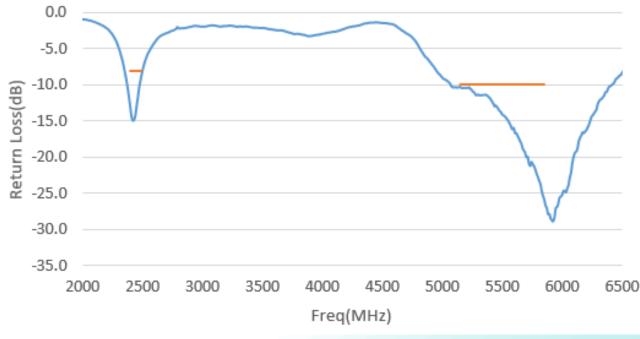
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### **Test setup**



## **Return Loss**



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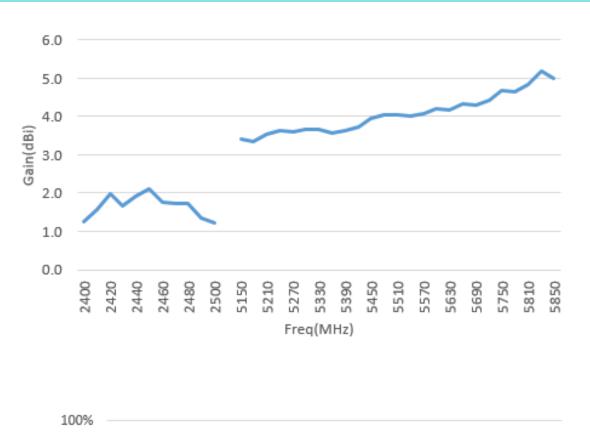
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## CHARTS



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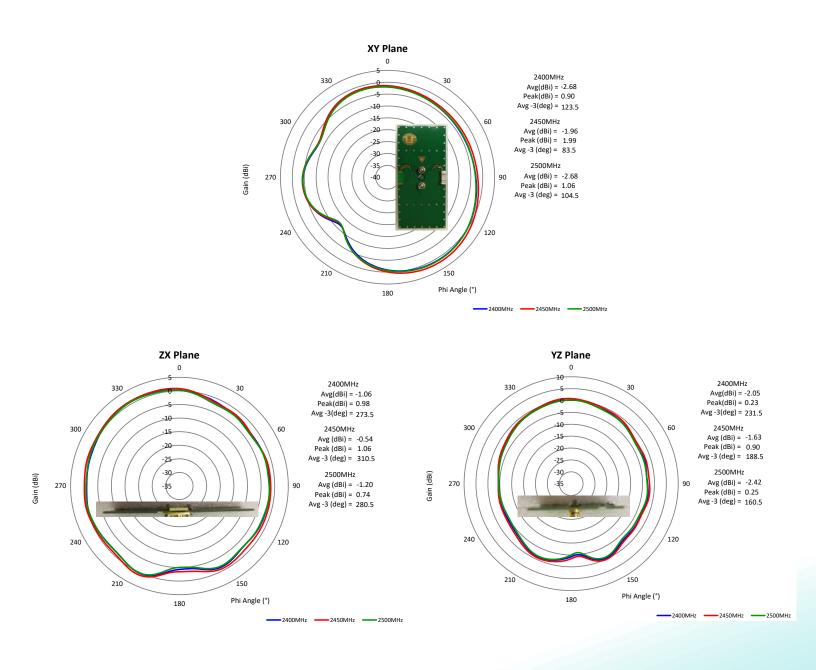
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TECHNICAL DATA SHEET

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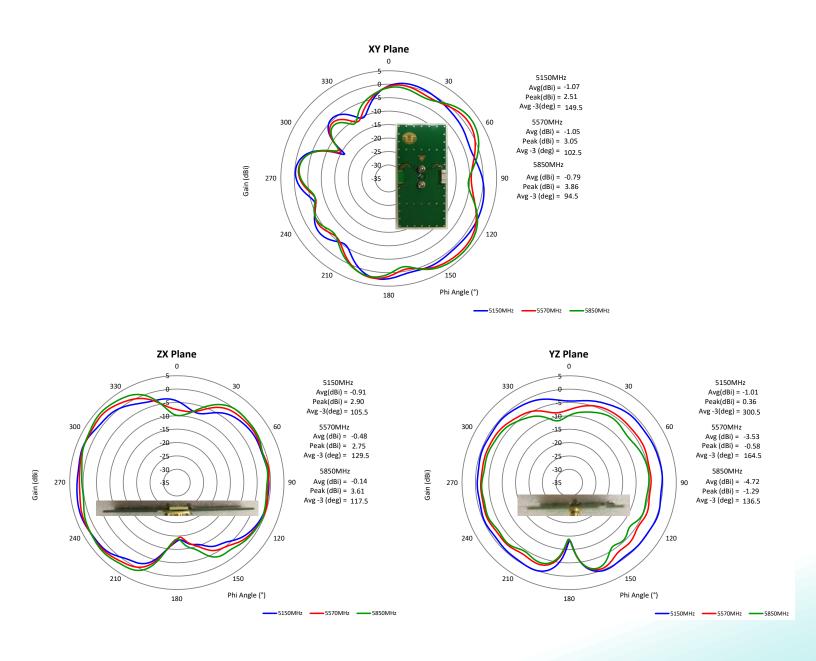
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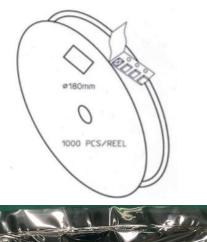
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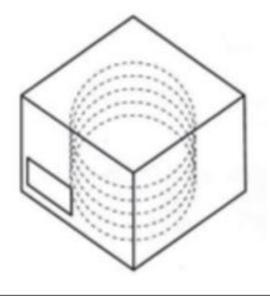
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## PACKAGING

- 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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