



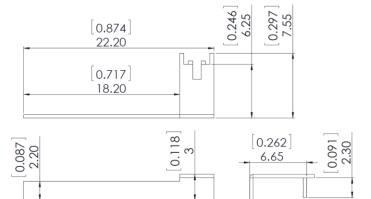
Series: Embedded Antenna

**PART NUMBER: W3317** 



#### Features:

- 2400-2500MHz
- Gain 4dBi
- Radiation Efficiency 77%
- Size 22.4 x 3 x 6.25mm
- VSWR 2:1



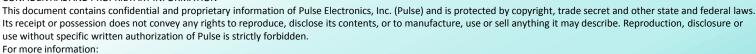
## **Applications:**

- Wi-Fi, Bluetooth, ZigBee
- 2.4GHz ISM band radios
- Routers, Gateways
- IoT terminals
- M2M
- Automation, security, transportation

All dimensions are in mm / inches

Issue: 1649

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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**Series: Embedded Antenna** 

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ELECTRICAL SPECIFICATIONS				
Frequency	2400-2500	MHz		
Nominal Impedance	50	Ω		
VSWR	2:1			
Average efficiency	77	%		
Peak Gain	4	dBi +/- 1 dB		
Polarization:	linear			
Power withstanding	5	W		

### Note:

1. Performance measured on standard 100x100x1mm evaluation board, refer to page 5.



#### **TECHNICAL DATA SHEET**

**Description: 2.4-2.5GHz Sheet Metal PIFA** 

**Series: Embedded Antenna** 

**PART NUMBER: W3317** 

#### **MECHANICAL SPECIFICATIONS**

Material Cu Copper-Nickel-Zinc Alloy

Weight 0.27 g

Thickness 0.4[0.016] mm[inch]

Overall Length 22.2[0.874] mm[inch]

#### **ENVIRONMENTAL SPECIFICATIONS**

Operating temperature -40/+105 ° C

Low temperature -30 ° C 500 hours

High temperature +85 ° C 500 hours

Humidity +85°C and 90-95 % r.h. 96 hours

Vibration X&Y directions 2 hours

Z directions 4 hours

Thermal Shock -30 ° C /+85 ° C 5 cycles

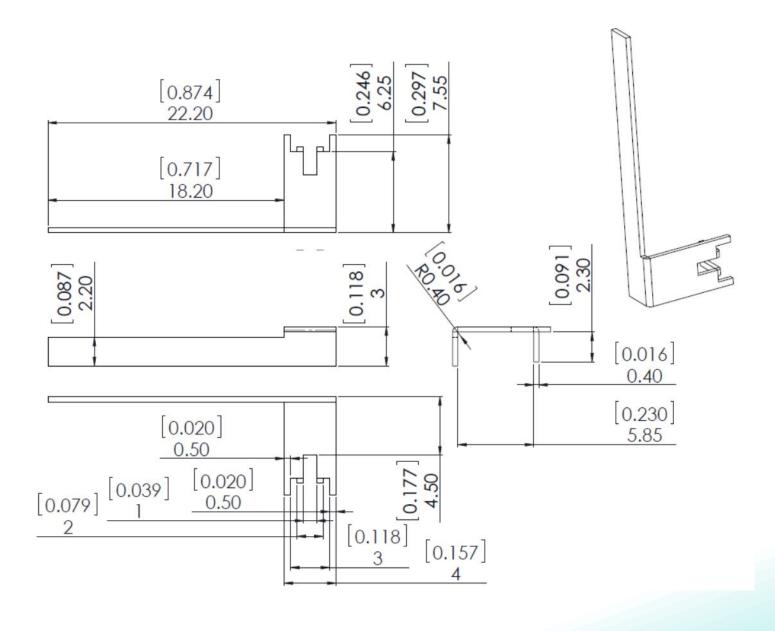




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#### **MECHANICAL DRAWING**







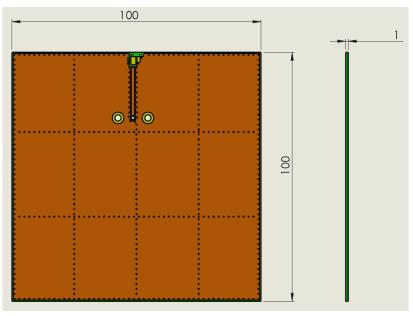
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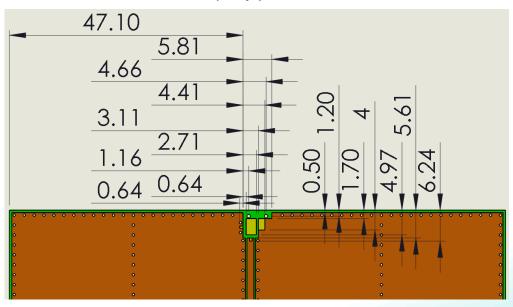
#### **OTHER SPECIFICATIONS**

## **PCB LAYOUT**

1. PCB material, FR4, size, 100X100X1mm



# 2. Clearance area (Top)







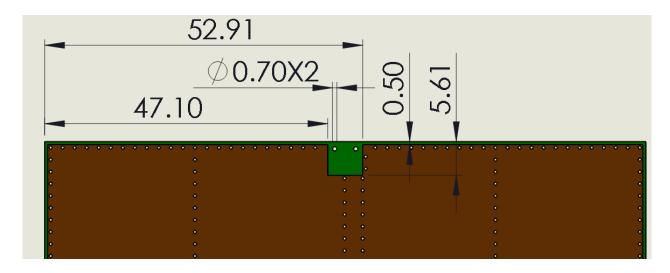
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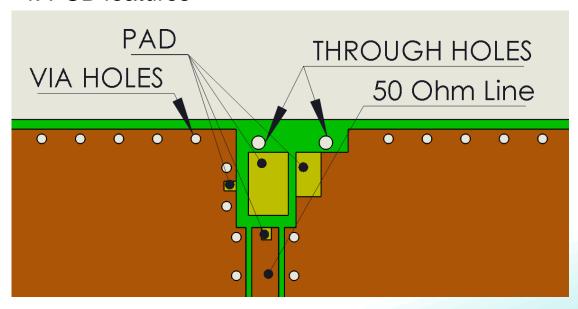
#### **OTHER SPECIFICATIONS**

## **PCB LAYOUT**

3. Clearance area (Bottom)



## 4. PCB features





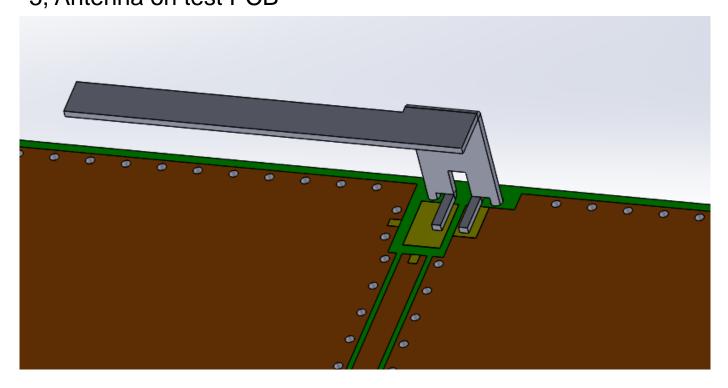


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#### **OTHER SPECIFICATIONS**

# ANTENNA MOUNTING ON PCB 5, Antenna on test PCB



## Others:

- 1. This antenna is designed for manual or semi automated assembly.
- 2. While soldering of the antenna it is recommend to use process jig to keep the placement of the antenna stable.





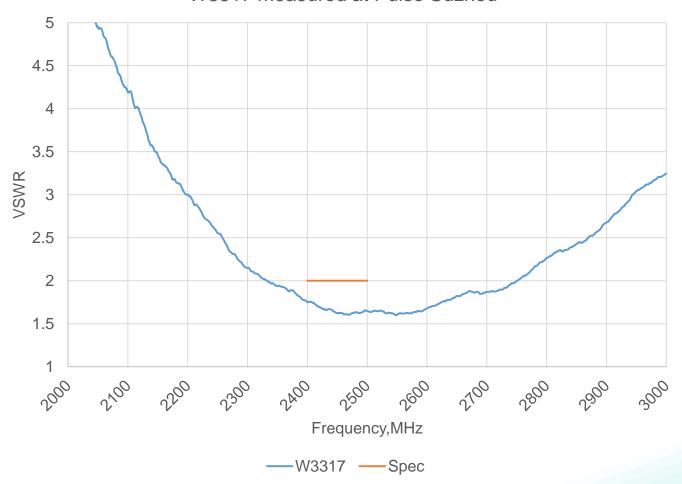
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#### **CHARTS**

#### **VSWR**

VSWR vs Frequency measured with 100mm\*100mm ground W3317 measured at Pulse Suzhou









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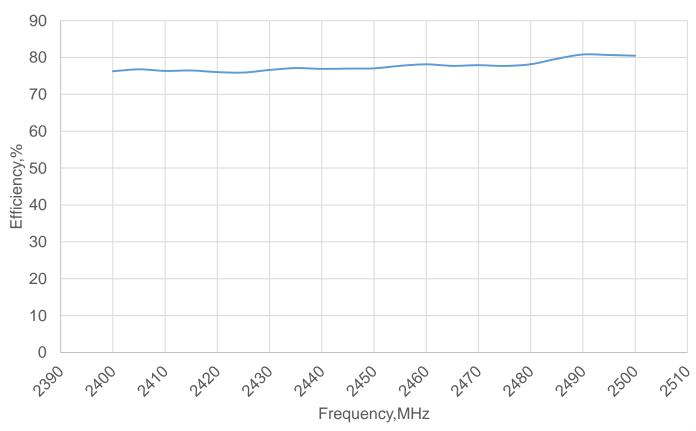
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#### **CHARTS**

# Efficiency

Efficiency vs Frequency measured with 100mm\*100mm ground W3317 measured at Pulse Suzhou







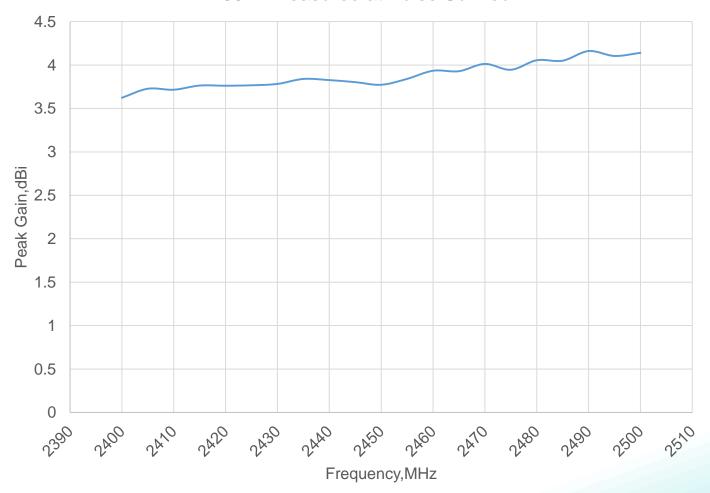
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#### **CHARTS**

#### Peak Gain

Peak Gain vs Frequency measured with 100mm\*100mm ground W3317 measured at Pulse Suzhou



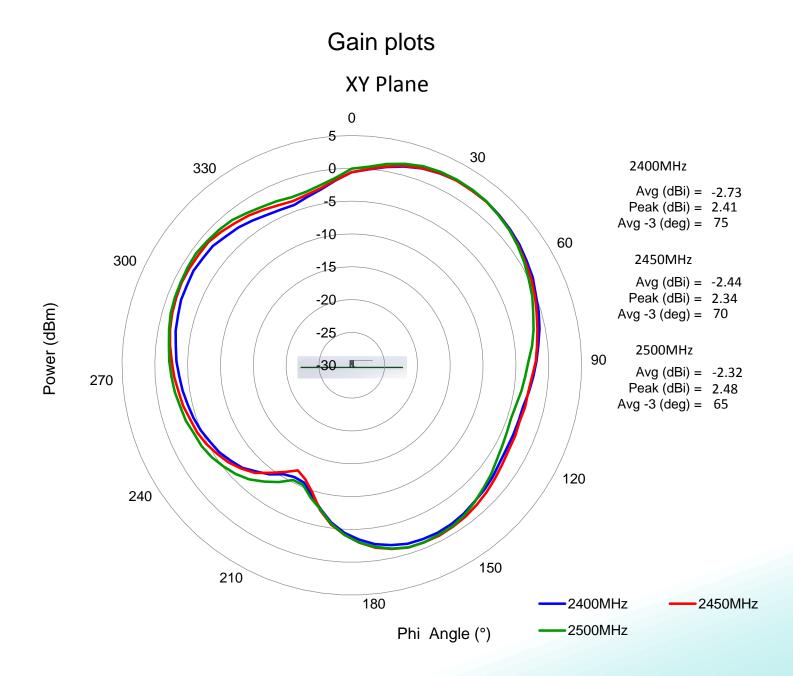




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#### **CHARTS**







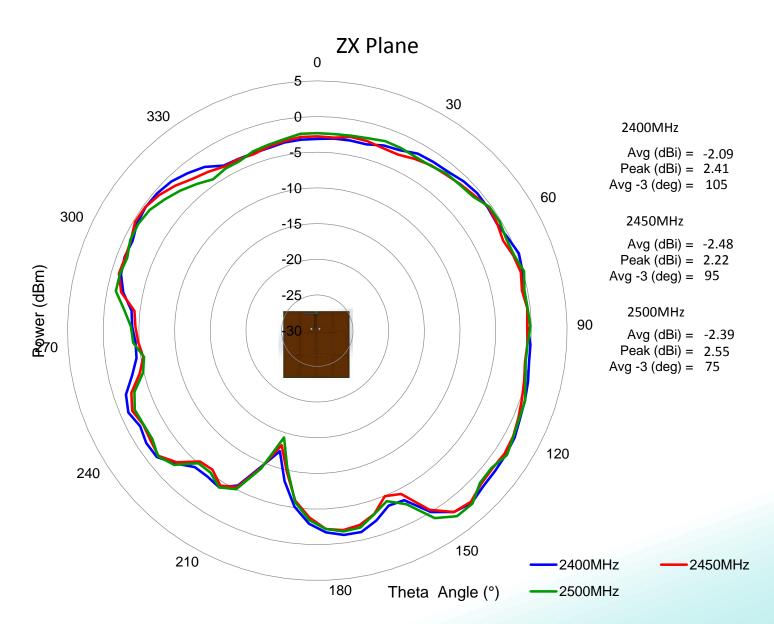
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#### **CHARTS**

# Gain plots









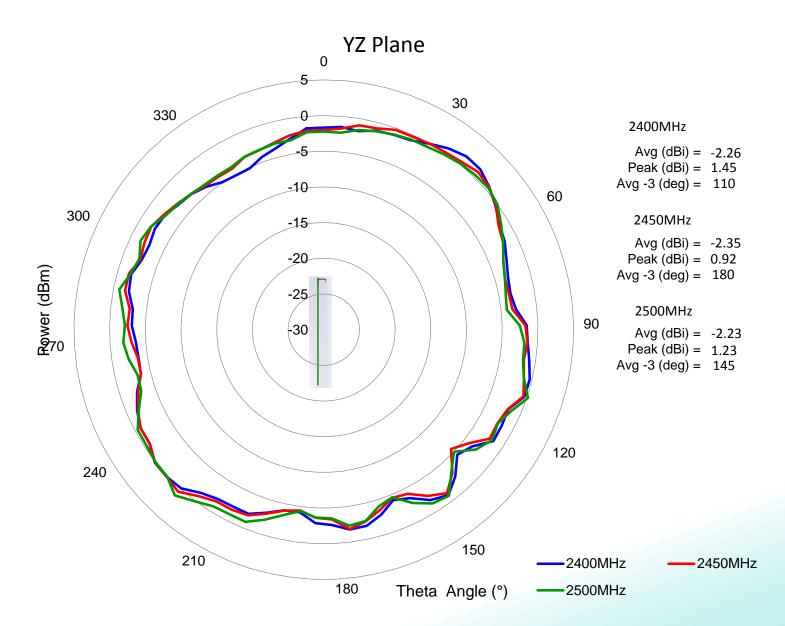
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#### **CHARTS**

# Gain plots







#### **TECHNICAL DATA SHEET**

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## **Series: Embedded Antenna**

#### **PACKAGING**

Tray packing 50PCS/Tray 2000PCS/Carton box

