

Description: 2.4GHz SMT PIFA Antenna

# Series: Embedded Antenna

PART NUMBER: W3613



## **Features:**

- Frequency: 2.4-2.5GHz
- Gain: 4dBi
- Size: 14.2 x 13.3 x 3.2 mm
- SMT compatible
- Packing: Tape&Reel
- RoHS compliant

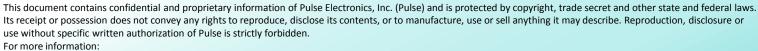
## **Applications:**

- WiFi, ISM 2.4-2.5GHz
- Tablets, Notebooks
- IoT and M2M devices
- Portable Electronics
- Security, Transportation

All dimensions are in mm / inches

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Pulse Worldwide Headquarters 15255 Innovation Drive #100 San Diego, CA 92128 USA Tel:1-858-674-8100 Pulse/Larsen Antennas 18110 SE 34<sup>th</sup> St Bldg 2 Suite 250 Vancouver, WA 98683 USA Europe Headquarters Pulse GmbH & Do, KG Zeppelinstrasse 15 Herrenberg, Germany

Tel: 1-360-944-75t Downloaded From Oneyac.com

Pulse (Suzhou) Wireless Products Co, Inc. 99 Huo Ju Road(#29 Bldg,4<sup>th</sup> Phase Suzhou New District Jiangsu Province, Suzhou 215009 PR China Tel: 86 512 6807 9998





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## **ELECTRICAL SPECIFICATIONS**

Frequency	2.4-2.5GHz
Nominal Impedance	50Ω
VSWR	2:1
Peak Gain	4dBi +/- 1 dB
Radiation Pattern	Omni
Polarization:	Linear
Power withstanding	5W

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MECHANICAL SPECIFICATIONS		
Plastic frame	LCP	
Color	Gray	
Weight	1	g
Size(LXWXT)	14.2(0.56)X13.3(0.52)X3.2(0.13)	mm(inch)
Fixing system	SMT	

### **ENVIRONMENTAL SPECIFICATIONS**

Operating temperature

-40/+85 ° C

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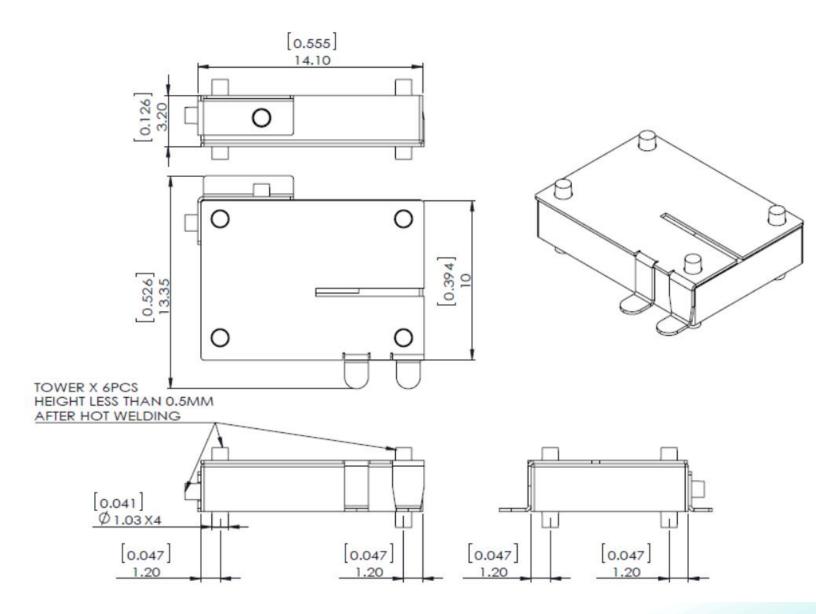


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### **MECHANICAL DRAWING**



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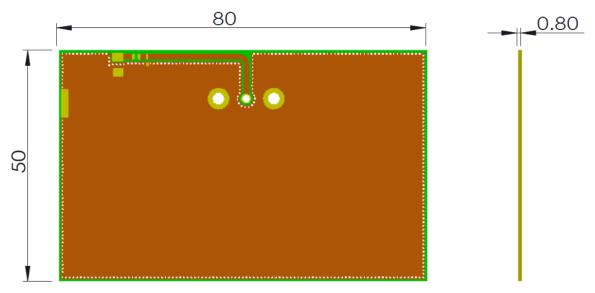
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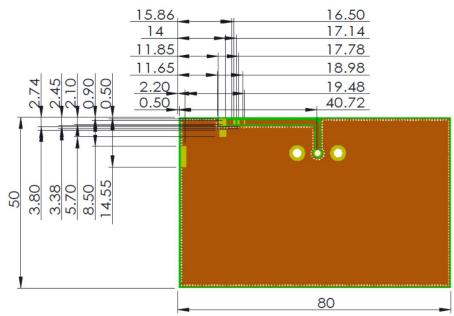
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## **OTHER SPECIFICATIONS**

PCB LAYOUT: 1, PCB material, FR4, size, 80X50X0.8mm



# 2, Clearance area (Top)



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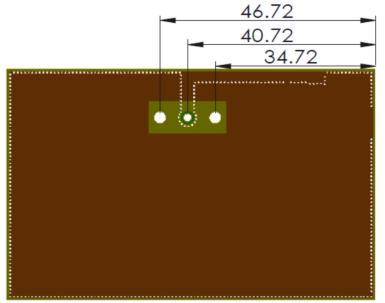
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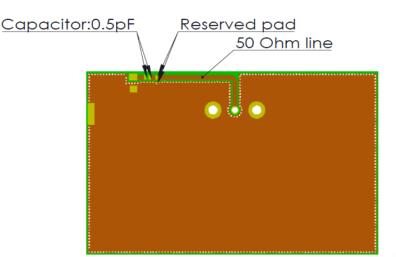
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### **OTHER SPECIFICATIONS**

3, Clearance area (Bottom)



# 4, PCB Features



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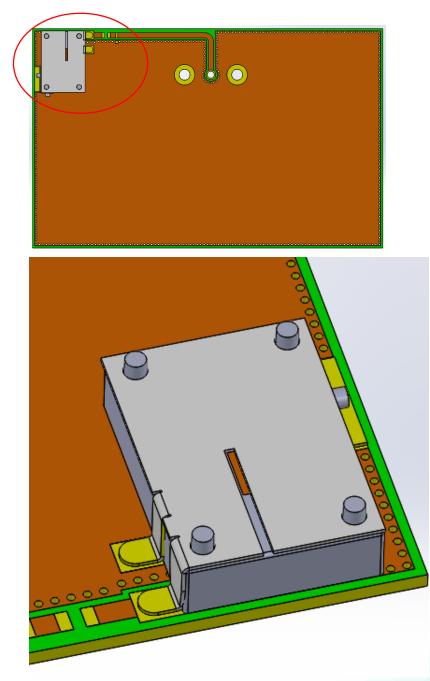
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## **OTHER SPECIFICATIONS**

5, Antenna on test board



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### **OTHER SPECIFICATIONS**

## **Recommendation for reflow soldering process**

Printing stencil thickness 0,15 - 0,25 mm is recommended for the solder paste. The maximum soldering temperature should not exceed 260°C. The temperature profile recommendations for reflow soldering process is presented in the Figures 1 and 2. The reflow profile presented in figure 1 describes minimum reflow temperatures. The reflow profile presented in figure 2 describes maximum reflow temperatures. located at the center of the coverage area.

	Method of heat transfer	Controlled hot air convection
1	Average temperature gradient in preheating	2.5 °C/s
2	Soak time	2-3 minutes
3	Max temperature gradient in reflow	3 °C/s
4	Time above 217 °C	Max 30 sec
5	Peak temperature in reflow	230 °C for 10 seconds
6	Temperature gradient in cooling	Max -5 °C/s

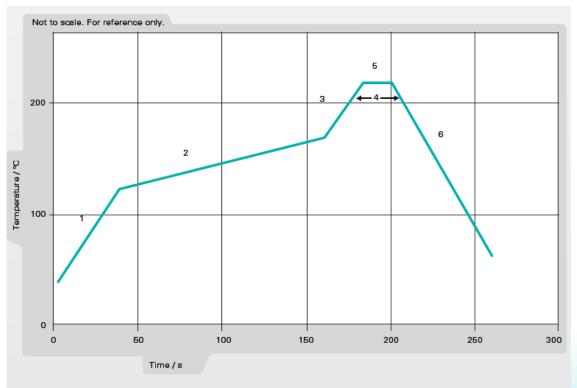


Figure 1. Minimum temperature profile recommendation for reflow soldering process

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## **OTHER SPECIFICATIONS**

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1	Average temperature gradient in preheating	2.5 °C/s
2	Soak time	2-3 minutes
3	Max temperature gradient in reflow	3 °C/s
4	Time above 217 °C	Max 60 sec
5	Time above 230 °C	Max 50 sec
6	Time above 250 °C	Max 10 sec
7	Peak temperature in reflow	260 °C for 5 seconds
8	Temperature gradient in cooling	Max -5 °C/s

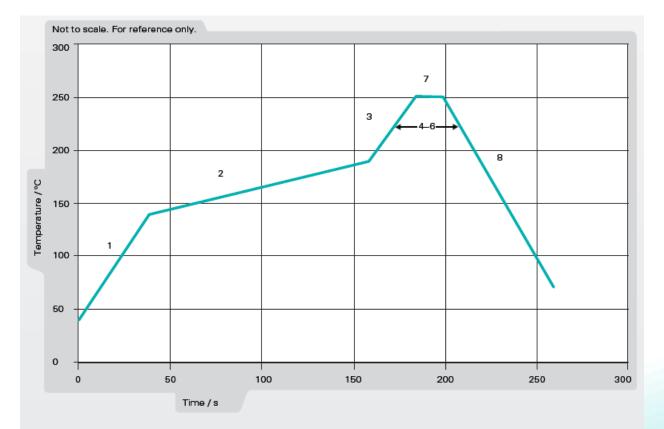


Figure 2. Maximum temperature profile recommendation for reflow soldering process

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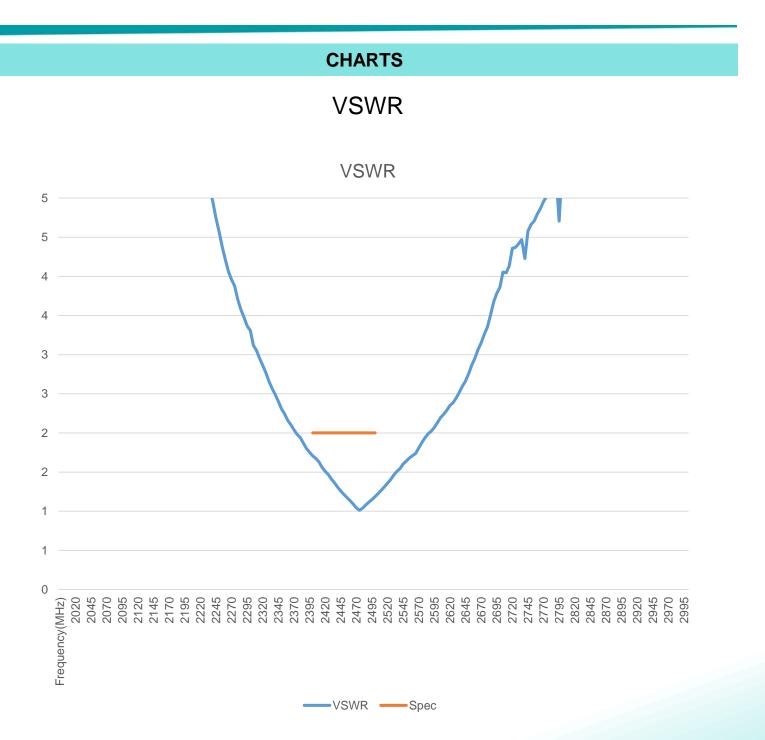
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ROHS 10



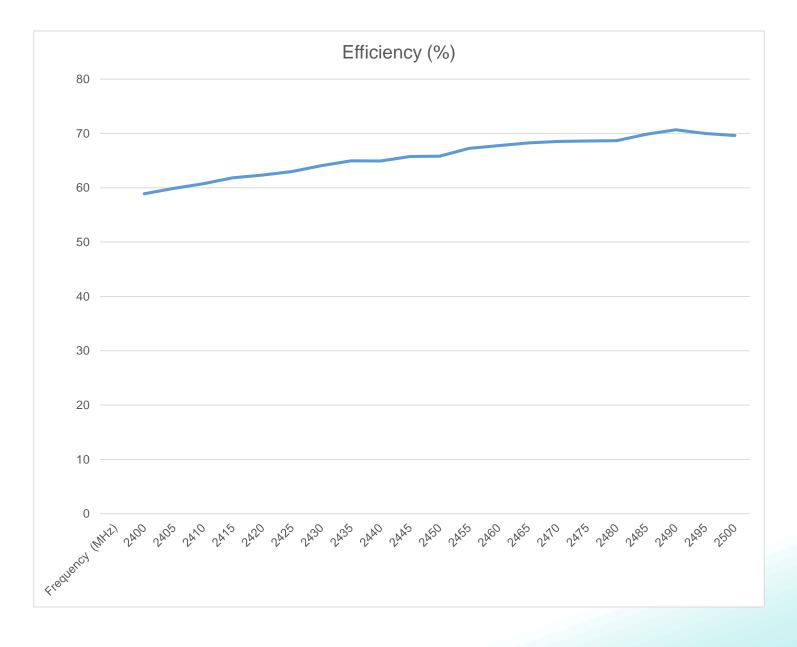
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# CHARTS

Efficiency(%)



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ROHS 11



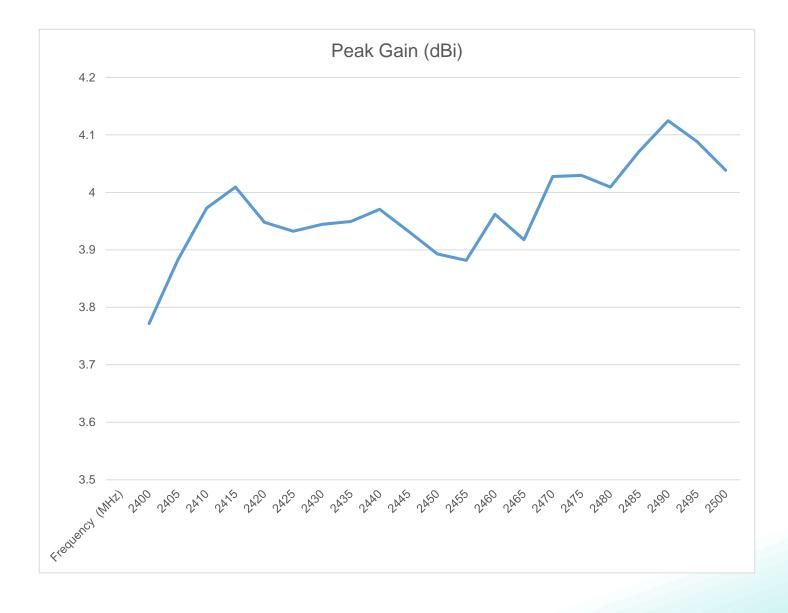
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## CHARTS

# Peak Gain (dBi)



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ROHS 12



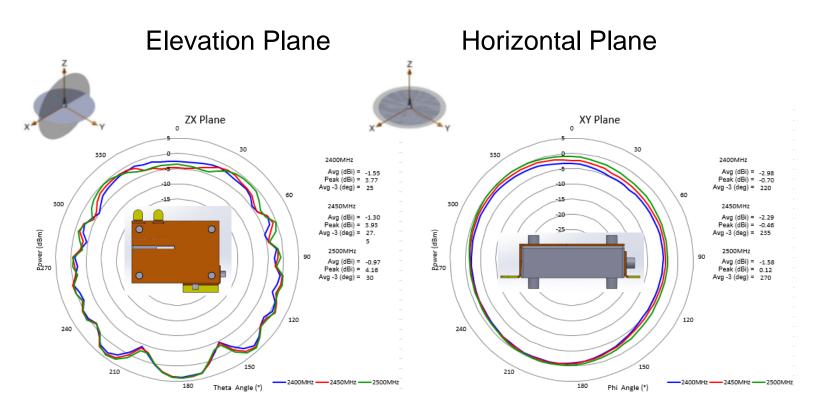
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### **CHARTS**

# Free Space Radiation Pattern



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### PACKAGING

Tray packing 500PCS/Tray 1000PCS/ Carton box



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>>Pulse(普思)