

Description: 2.4GHz SMT PIFA Antenna

**PART NUMBER: W3613** 

**Series: Embedded Antenna** 



## 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

Issue: 1719

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 2.4-2.5GHz

Nominal Impedance  $50\Omega$ 

VSWR 2:1

Peak Gain 4dBi +/- 1 dB

Radiation Pattern Omni

Polarization: Linear

Power withstanding 5W



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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





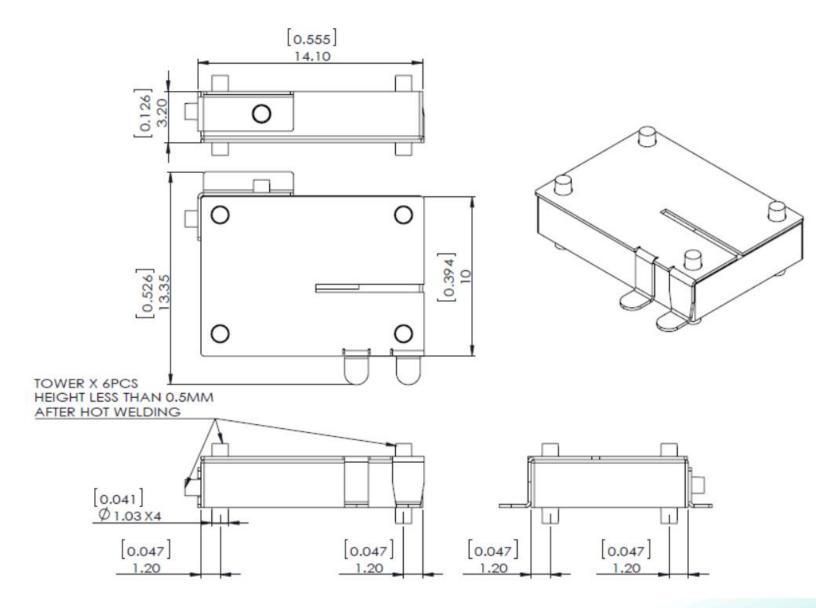
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#### TECHNICAL DATA SHEET

Description: 2.4GHz SMT PIFA Antenna

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# **MECHANICAL DRAWING**





Description: 2.4GHz SMT PIFA Antenna

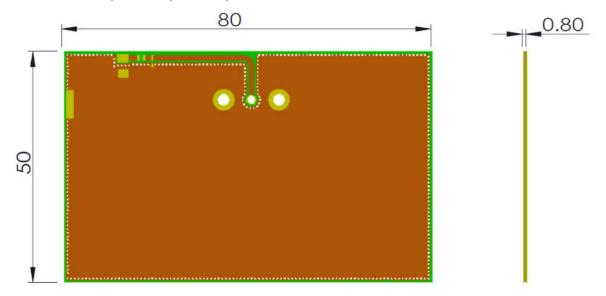
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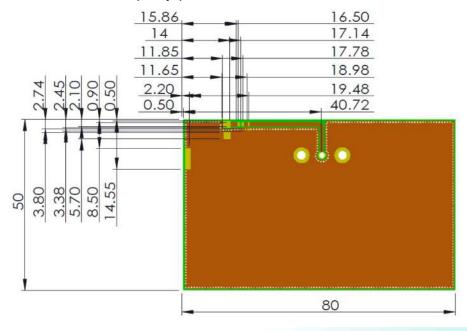
# **OTHER SPECIFICATIONS**

# **PCB LAYOUT:**

# 1, PCB material, FR4, size, 80X50X0.8mm



# Clearance area (Top)



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ROHS



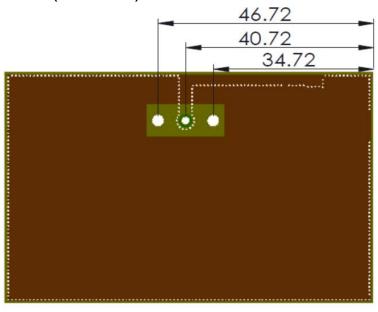
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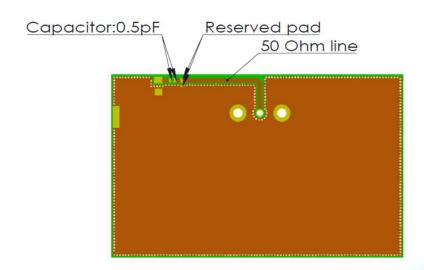
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# **OTHER SPECIFICATIONS**

# 3, Clearance area (Bottom)



# 4, PCB Features





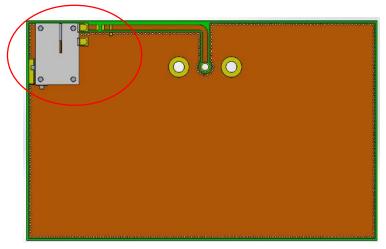
Description: 2.4GHz SMT PIFA Antenna

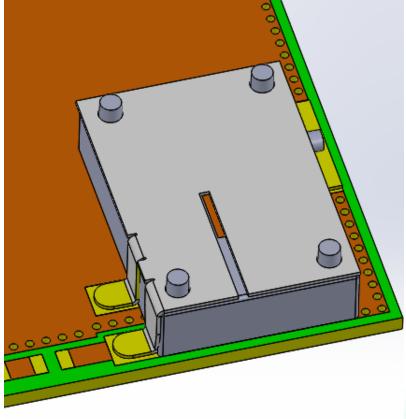
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# **OTHER SPECIFICATIONS**

# 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

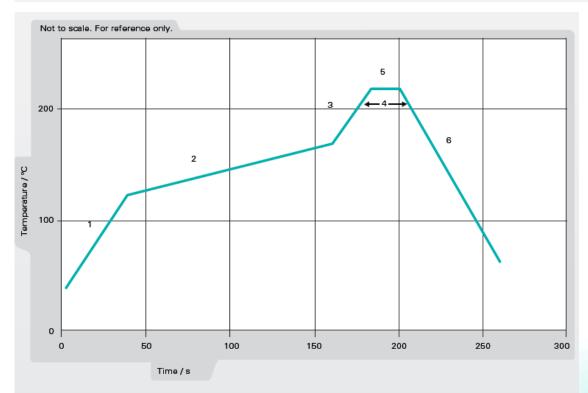


Figure 1. Minimum temperature profile recommendation for reflow soldering process





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	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 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

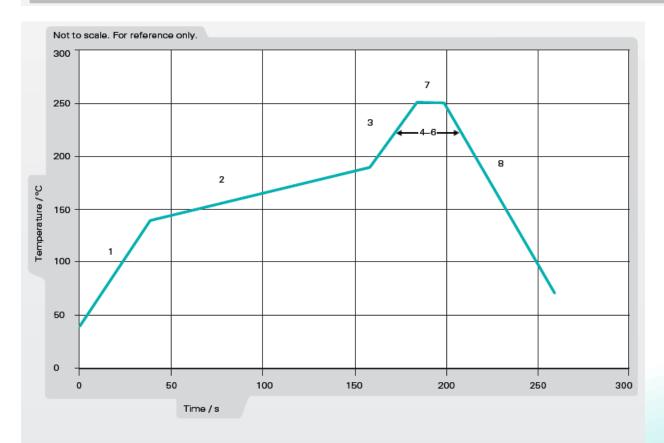


Figure 2. Maximum temperature profile recommendation for reflow soldering process

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# **CHARTS VSWR VSWR** 5 Frequency(MHz) VSWR ——Spec







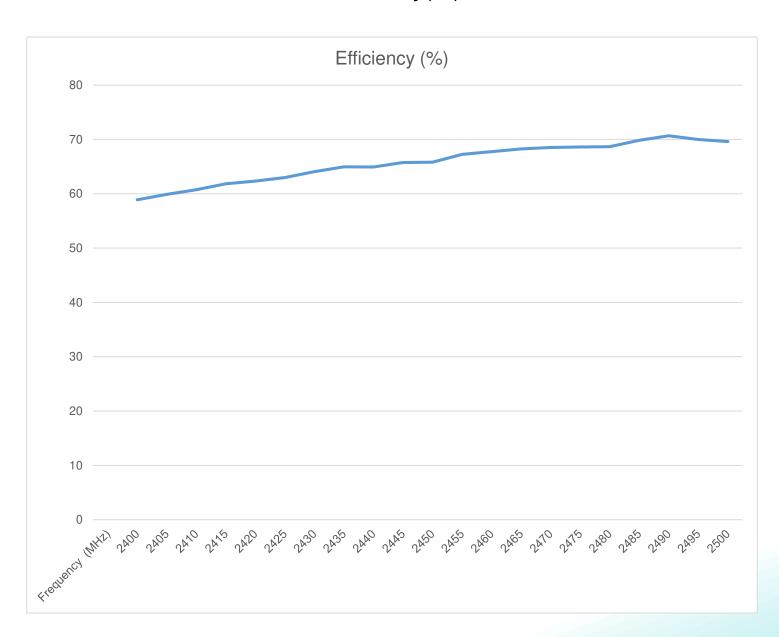
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## **CHARTS**

# Efficiency(%)





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## **CHARTS**

# Peak Gain (dBi)









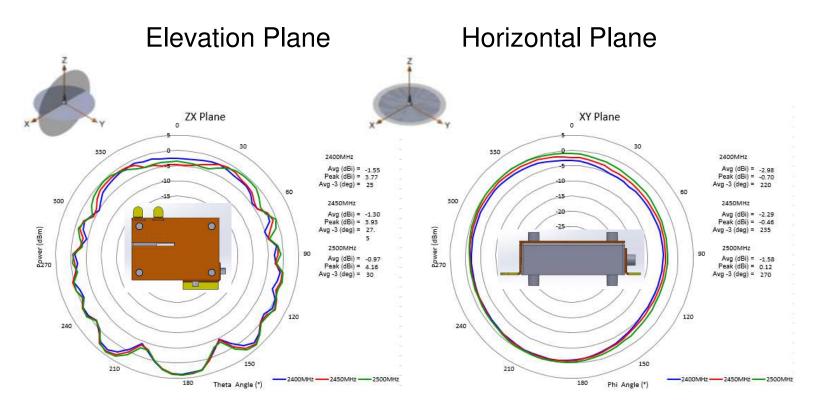
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## **CHARTS**

# Free Space Radiation Pattern





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# **PACKAGING**

Tray packing 500PCS/Tray 1000PCS/ Carton box



