

Description: 5GHz WiFi SMT Antenna

**PART NUMBER: W3714** 

**Series: Embedded Antenna** 



## Features:

Frequency: 4.9-6GHz

· Gain: 4.5dBi

Size: 10.5 x 3.2 x 2.4 mm

SMT compatible

Packing: Tape&Reel

· RoHS compliant

Mirror image pair for this antenna is W3713

# **Applications:**

- WiFi, ISM 5GHz
- DSRC 5.925GHz
- Tablets, Notebooks
- IoT and M2M devices
- Portable Electronics
- · Security, Transportation

All dimensions are in mm / inches

Issue: 1812

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 4.9-6GHz

Nominal Impedance  $50\Omega$ 

VSWR 2:1

Gain (Radiating element 4.5dBi +/- 1 dB

Radiation Pattern Omni

Polarization: Linear

Power withstanding 5W



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MECHANICAL SPECIFICATIONS					
Material	Phosphor bronze				
Thickness	0.2	mm			
Weight	0.1	g			
Overall Length	10.5(0.41)	mm(inch)			
Fixing system	SMT				

# **ENVIRONMENTAL SPECIFICATIONS**

Operating temperature

-40/+85 ° C



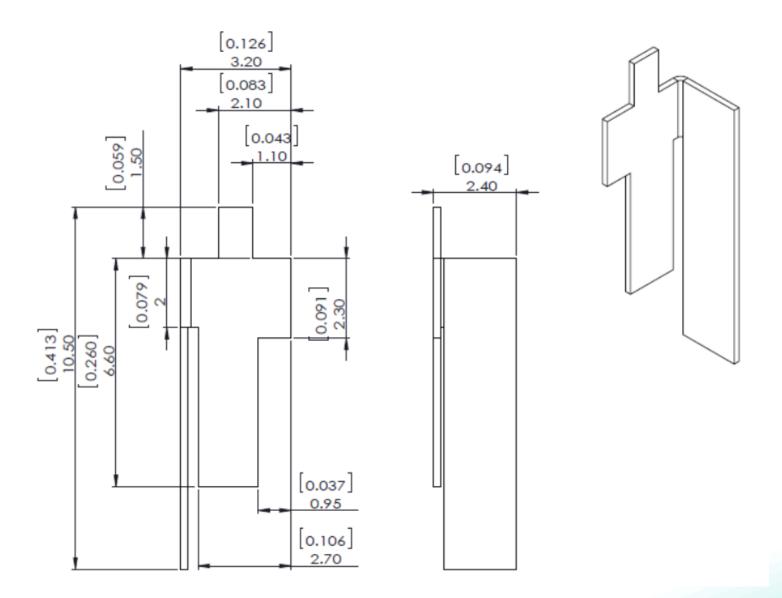


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# **MECHANICAL DRAWING**





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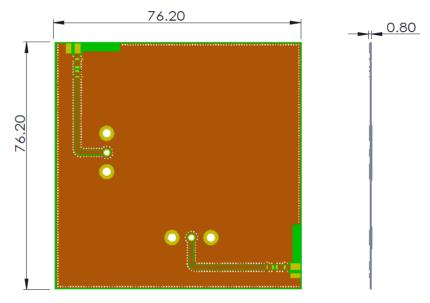
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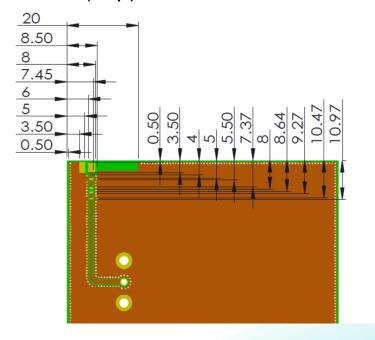
# **OTHER SPECIFICATIONS**

# **PCB LAYOUT:**

1, PCB material, FR4, size, 76.2X76.2X0.8mm



# 2, Clearance area (Top)









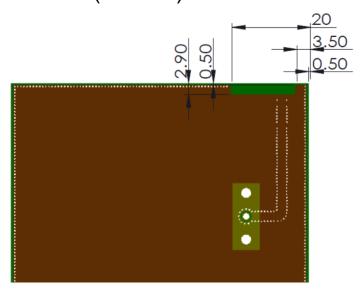
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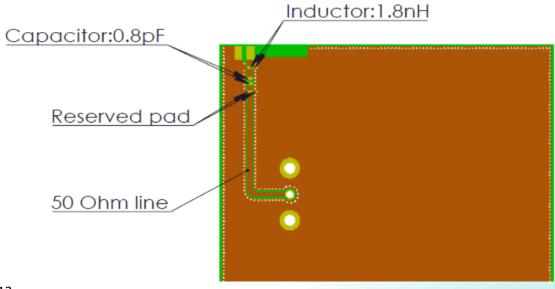
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# **OTHER SPECIFICATIONS**

# 3, Clearance area (Bottom)



# 4, PCB Features



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ROHS



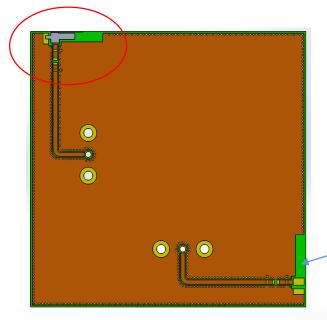
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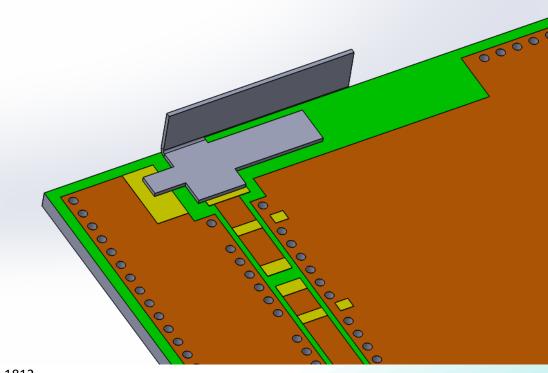
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# **OTHER SPECIFICATIONS**

# 5, Antenna on test PCB



Reserved for W3713



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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

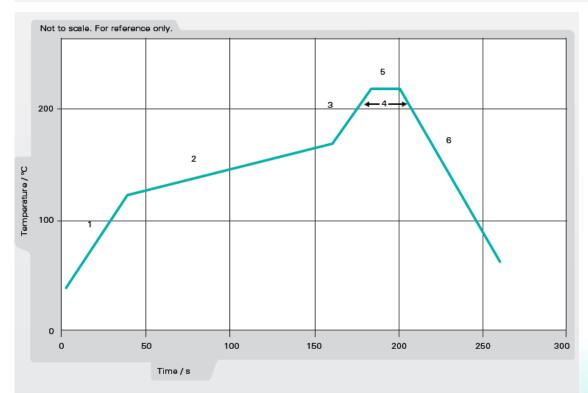


Figure 1. Minimum temperature profile recommendation for reflow soldering process





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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

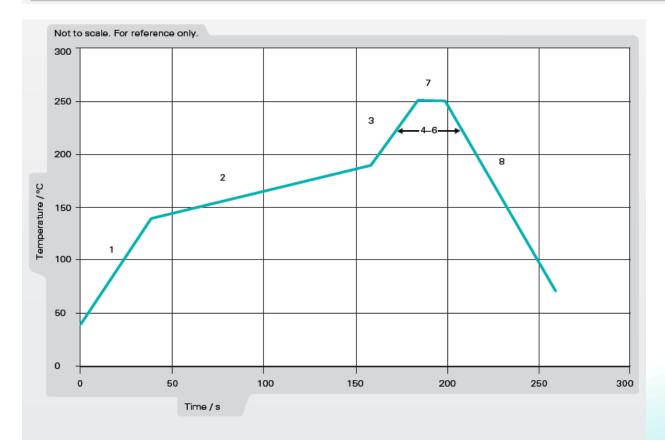


Figure 2. Maximum temperature profile recommendation for reflow soldering process

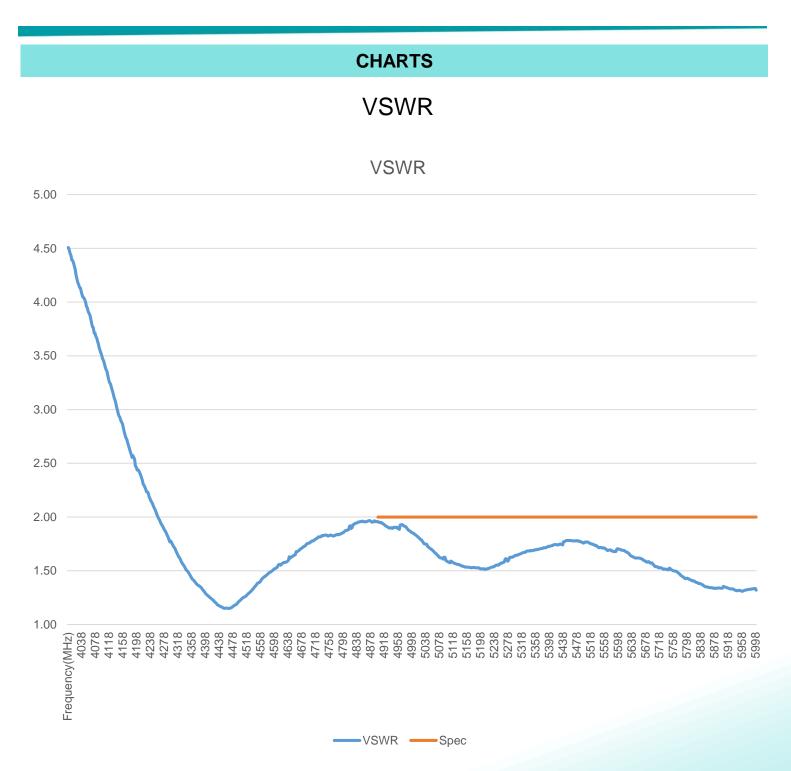




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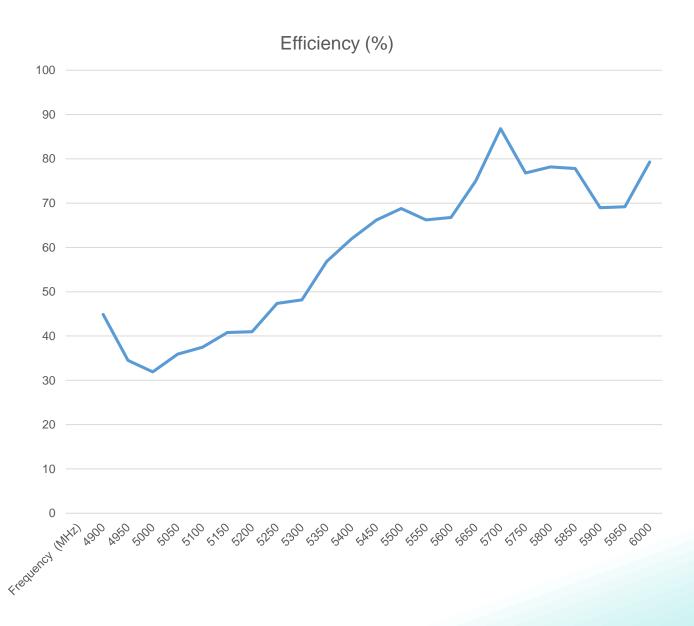
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## **CHARTS**

# Efficiency(%)







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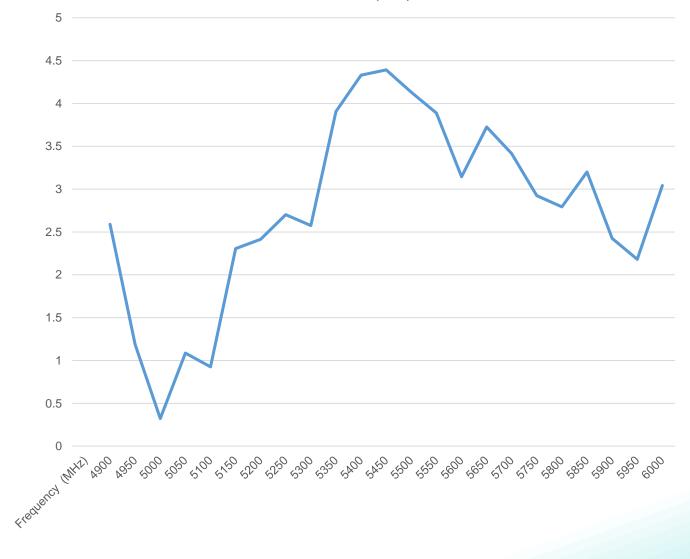
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## **CHARTS**

# Peak Gain (dBi)

# Peak Gain (dBi)





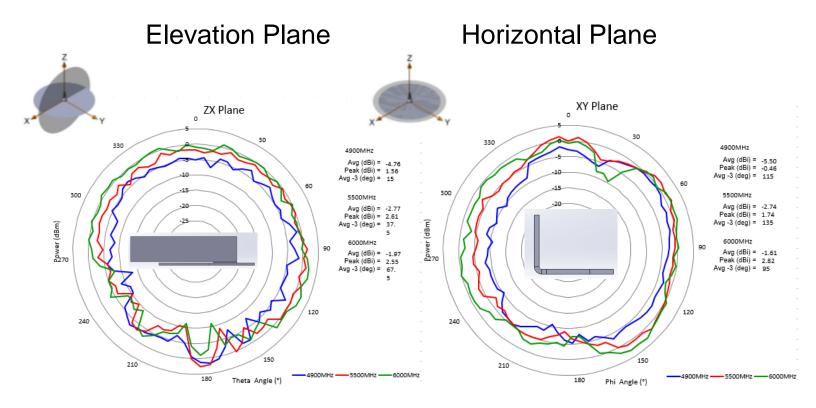
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## **CHARTS**

# Free Space Radiation Pattern







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## **PACKAGING**

Tape and Reel packing: 3000PCS/Tape and Reel 6000PCS/ Carton box

Tape Width: 24mm

Tape Material: Polystyrene





## **ПОСТАВКА** ЭЛЕКТРОННЫХ КОМПОНЕНТОВ

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001 Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

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