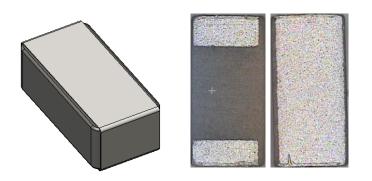
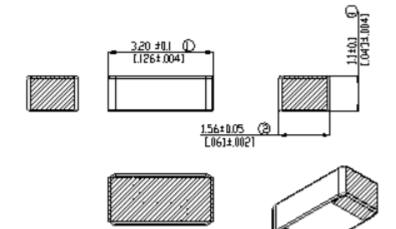


**Description: Ceramic Dual Band WLAN** 

# Series: Antenna

PART NUMBER: W3079





# **Features:**

- High efficiency and high peak gain
- Low Profile
- Compact size (3.2x1.56x1.1mm)
- SMD compatible

# **Applications:**

- IEEE 802.11 a/b/g
- Bluetooth, Zigbee
- 2.4GHz and 5GHz WLAN
- 2.4GHz and 5GHz ISM band

#### All dimensions are in mm / inches

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**Description: Ceramic Dual Band WLAN** 

# Series: Antenna

PART NUMBER: W3079

## **ELECTRICAL SPECIFICATIONS**

Frequency	2.4–2.4835 / 5.15–5.85 GHz	
Nominal Impedance	50 Ω	
VSWR	< 1.9 / < 2.5	
Gain (peak)	2.4 / 5.7 dBi +/- 1 dB	
Total efficiency (peak)	70 / 77 %	
Ground clearance area under antenna	6.0 x 11.00mm	

### **MECHANICAL SPECIFICATIONS**

Weight	0,033 g
Overall Dimensions (L*W*H)	3.2*1.56*1.1 mm

### **ENVIRONMENTAL SPECIFICATIONS**

Operating temperature

-40-+85	0	С
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Level3

lssue: 1622

**MSL** 

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2

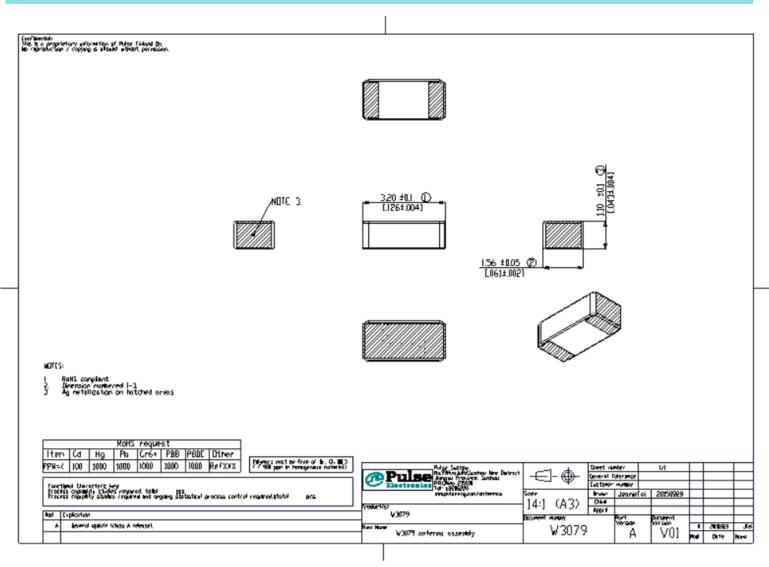


**Description: Ceramic Dual Band WLAN** 

# Series: Antenna

PART NUMBER: W3079

# MECHANICAL DRAWING



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3

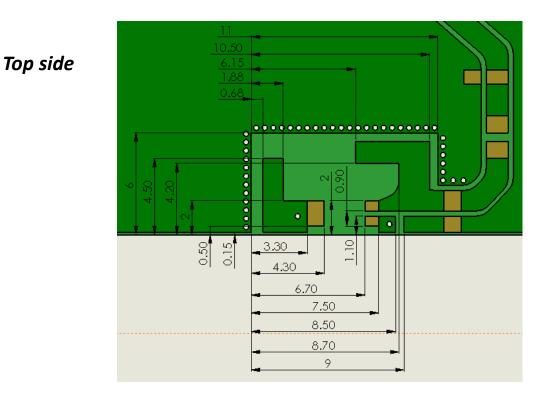


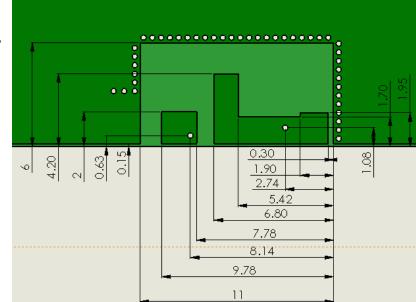
**Description: Ceramic Dual Band WLAN** 

# Series: Antenna

PART NUMBER: W3079

## **OTHER SPECIFICATIONS**





**Bottom side** 

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4

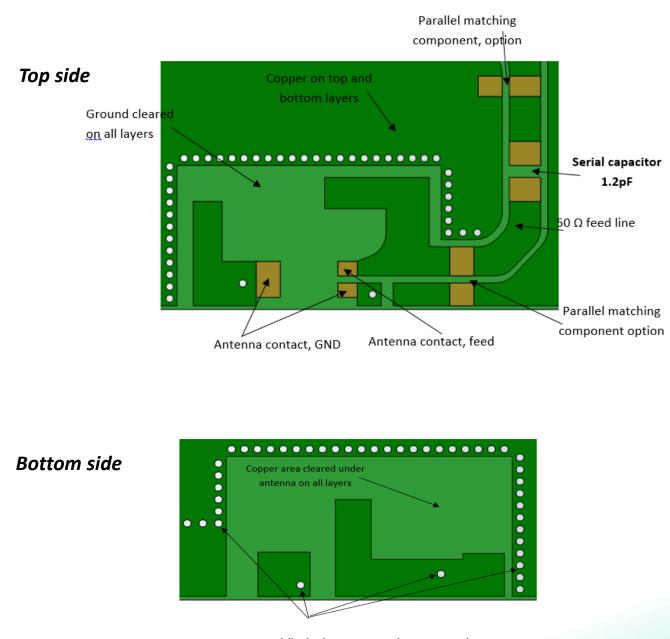


**Description: Ceramic Dual Band WLAN** 

# Series: Antenna

PART NUMBER: W3079

# **OTHER SPECIFICATIONS**



Via holes connecting top and bottom layer copper

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5



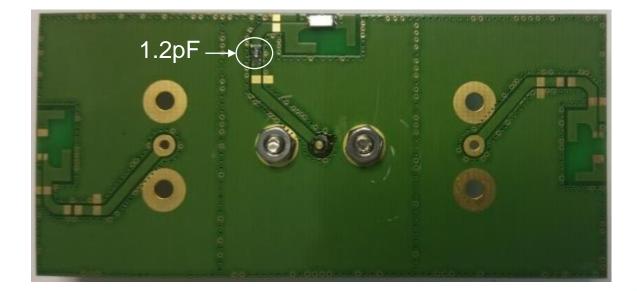
**Description: Ceramic Dual Band WLAN** 

## Series: Antenna

### PART NUMBER: W3079

### **Recommended Antenna Position on PCB**

- The recommended antenna location is the center edge of the longer PCB side.
- All measurement results of W3079 are measured on the 37x80mm evaluation board with matching circuit (series 1.2pF capacitor).
- To construct a fine matching on customer PCB design, proper impedance matching values should be obtained with a final customer PCB dimension, surrounded metallic components, and a package condition (with final assembly condition).
- The recommended minimum PCB size is around 35x35mm to obtain similar RF performances of datasheet. For more discussion, please contact to Pulse electronics.



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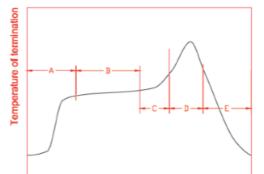
# **Description: Ceramic Dual Band WLAN**

Series: Antenna

PART NUMBER: W3079

## **OTHER SPECIFICATIONS**

# Recommended reflow soldering



		Time		
A	1 <sup>st</sup> rising temperature	The normal to Preheating temperature	30s to 60s	
В	Preheating	140°C to 160°C	60s to 120s	
С	2 <sup>nd</sup> rising temperature	Preheating to 200°C	20s to 40s	
D Main heating		if 220°C	50s~60s	
		if 230°C	40s~50s	
	D	Main heating	if 240°C	30s~40s
		if 250°C	20s~40s	
		if 260°C	20s~40s	
E	Regular cooling	200°C to 100°C	1°C/s ~ 4°C/s	
_				

\*reference: J-STD-020C

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### (1) Soldering gun procedure

Note the follows, in case of using solder gun for replacement. (a) The tip temperature must be less than 350°C for the period within 3 seconds by using soldering gun under 30 W. (b) The soldering gun tip shall not touch this product directly. (2) Soldering volume Note that excess of soldering volume will easily get crack the body of this product.

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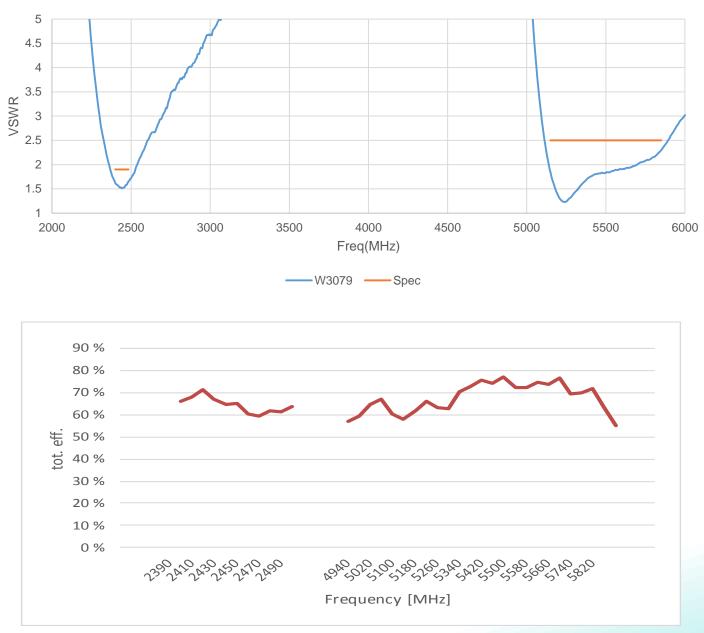


**Description: Ceramic Dual Band WLAN** 

# Series: Antenna

PART NUMBER: W3079

# CHARTS



W3079\*

### \* Free space measurements on Pulse reference test PCB

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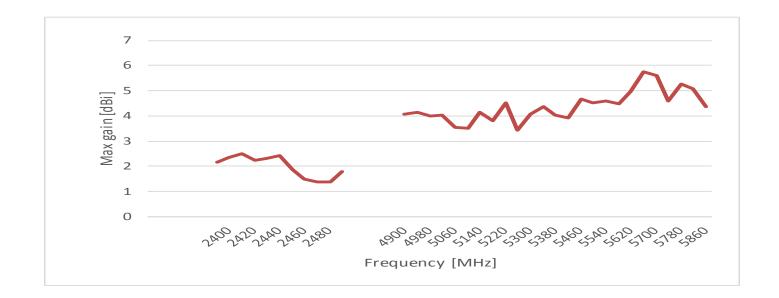


**Description: Ceramic Dual Band WLAN** 

# Series: Antenna

PART NUMBER: W3079

# **CHARTS**



#### \* Free space measurements on Pulse reference test PCB

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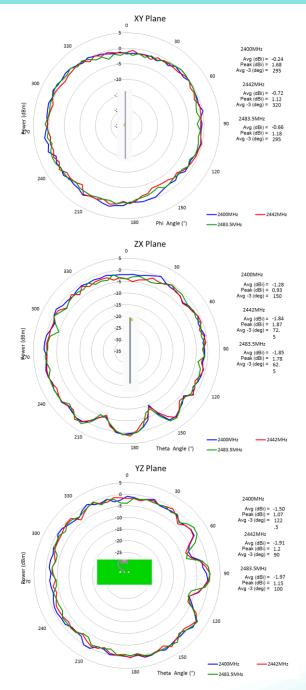


**Description: Ceramic Dual Band WLAN** 

# Series: Antenna

PART NUMBER: W3079

# CHARTS



#### \* Free space measurements on Pulse reference test PCB

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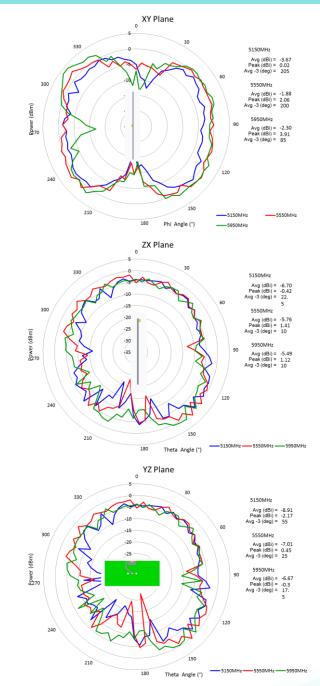


**Description: Ceramic Dual Band WLAN** 

# Series: Antenna

PART NUMBER: W3079

# CHARTS



#### \* Free space measurements on Pulse reference test PCB

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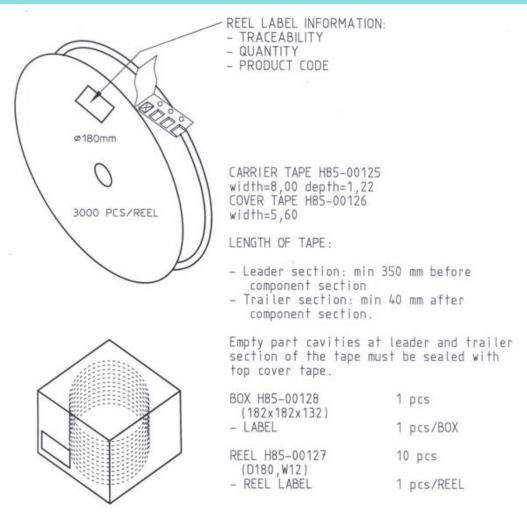


# **Description: Ceramic Dual Band WLAN**

# Series: Antenna

PART NUMBER: W3079

### PACKAGING



### ASSEMBLY

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