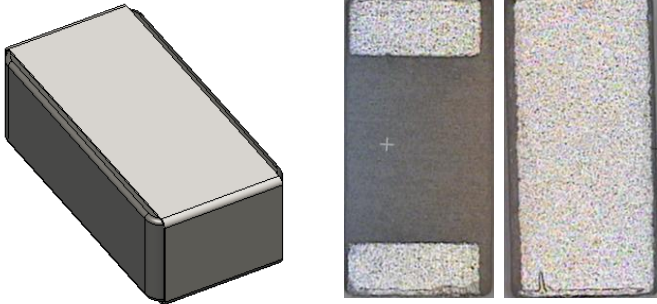


## Description: Ceramic Dual Band WLAN

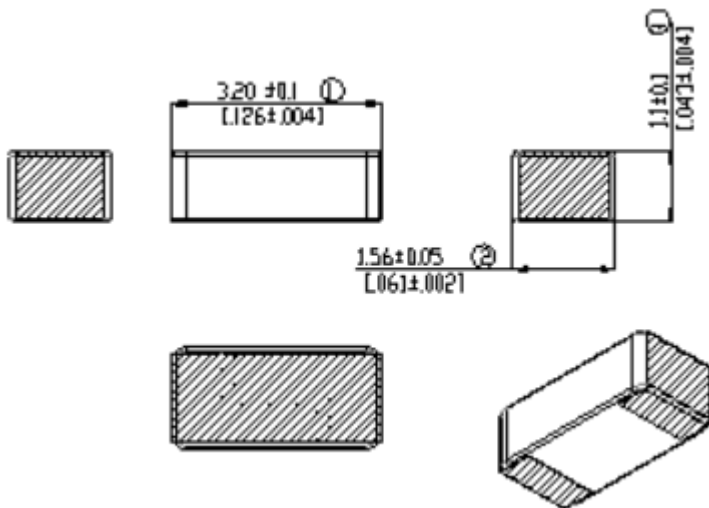
Series: Antenna

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

Issue: 2049

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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



**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 ° C
MSL	Level 1

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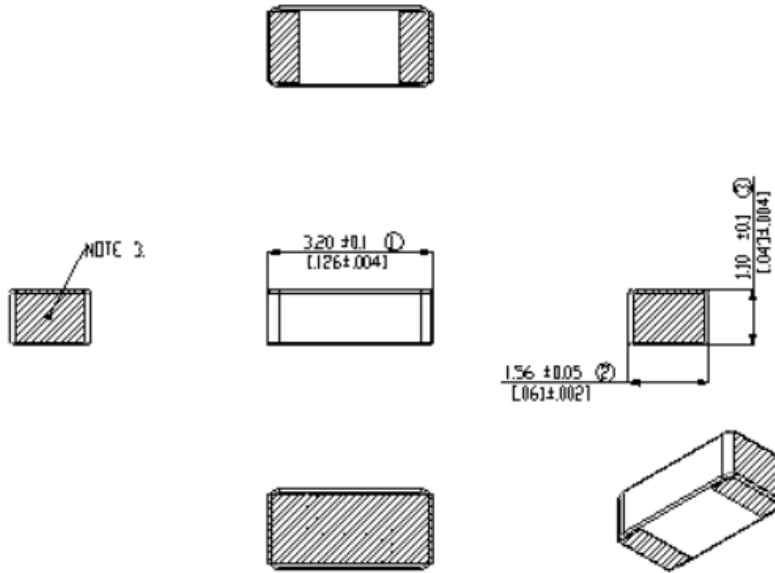
## Description: Ceramic Dual Band WLAN

Series: Antenna

PART NUMBER: W3079

### MECHANICAL DRAWING

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NOTES:

1. RoHS compliant
2. Dimension numbered 1-3
3. Ag metallization on hatched areas

ROHS request							
Item	Cd	Hg	Pb	Cr6+	PBB	PBDE	Other
PPW=C	100	1000	1000	1000	1000	1000	ReXXXX

(Elements must be free of Br, Cl, HCl, P, S, Se, Sn ppm in homogeneous material)

Functional Characteristic key:  
Process capability studies required (total) pcs  
Process capability studies (material and ongoing statistical process control) required (total) pcs

Rev	Description
A	Several update (class A release)



Product: W3079  
Part Name: W3079 antenna assembly



Scale: 14:1 (A3)  
Document number: W3079

Sheet number	1/1	
General tolerance		
Customer number		
Drawn	Jianhui Gao	
Check		
Appr'd		
Part version	A	
Document revision	V01	
Rev	Date	Drawn

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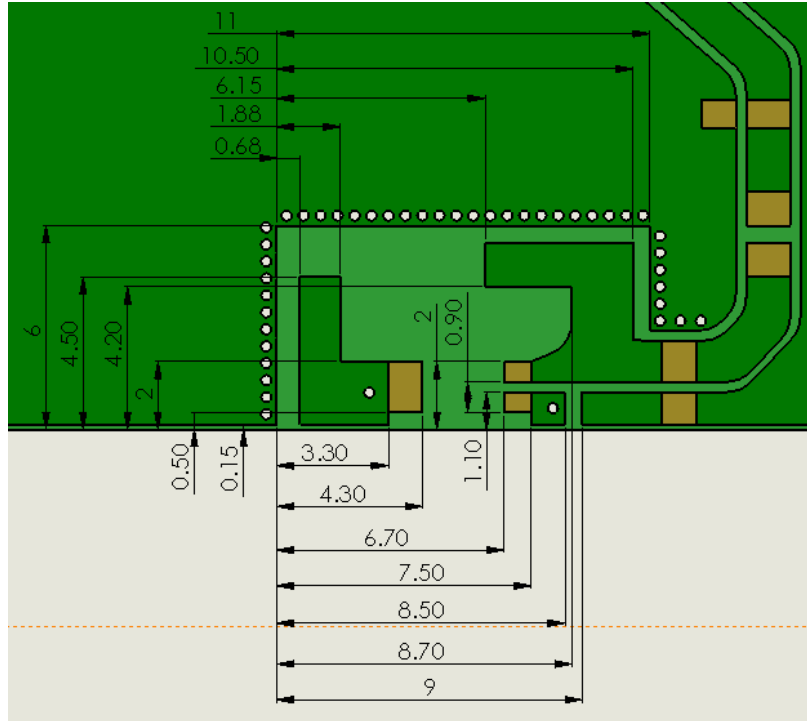
Description: Ceramic Dual Band WLAN

Series: Antenna

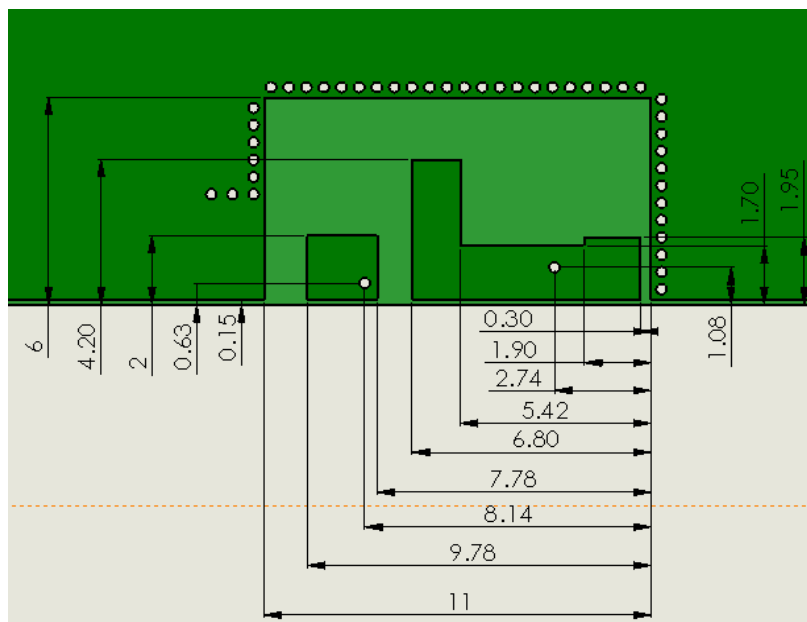
PART NUMBER: W3079

OTHER SPECIFICATIONS

Top side



Bottom side



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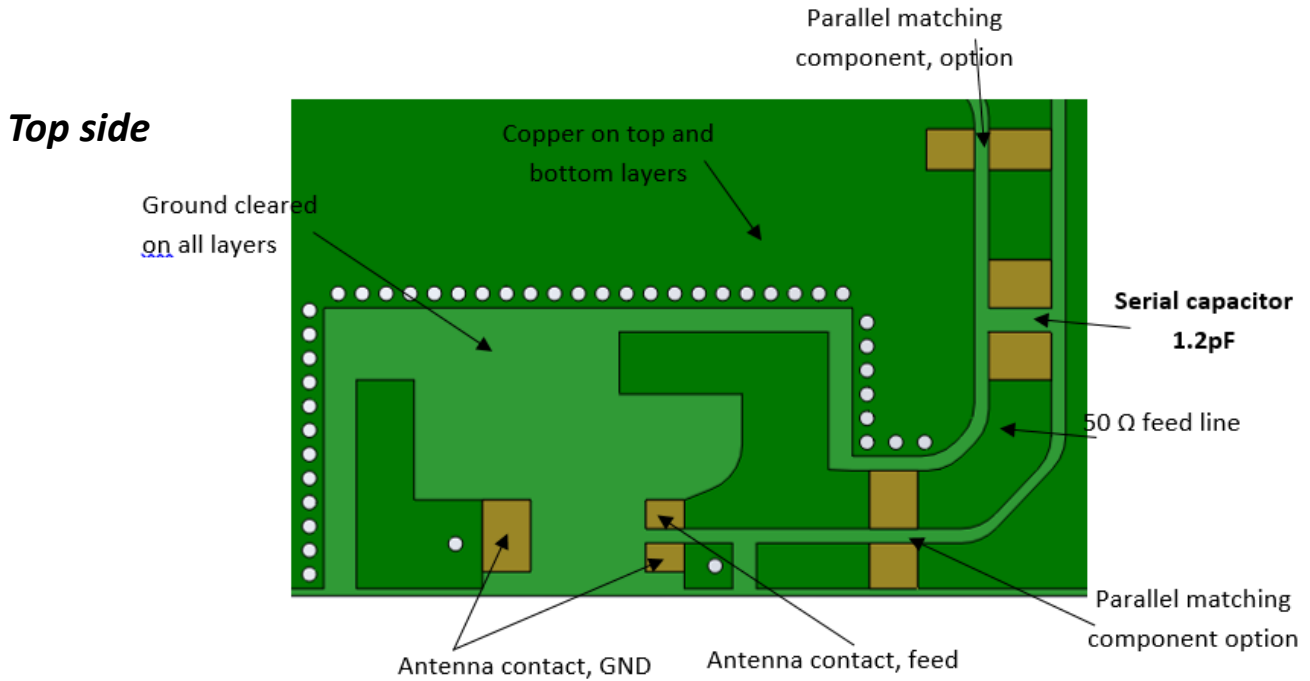
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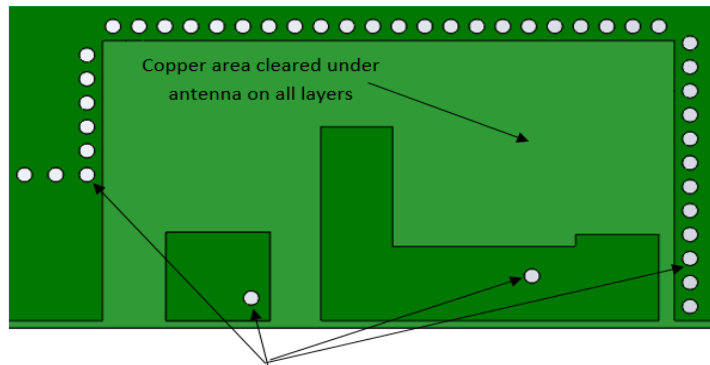
Series: Antenna

PART NUMBER: W3079

### OTHER SPECIFICATIONS



**Bottom side**



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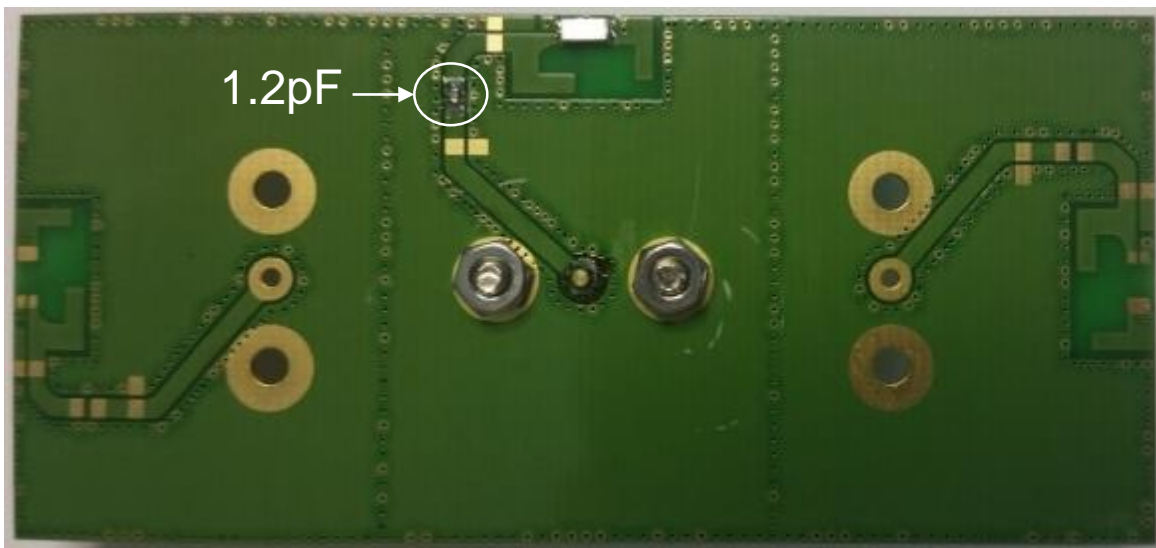
**Description: Ceramic Dual Band WLAN**

**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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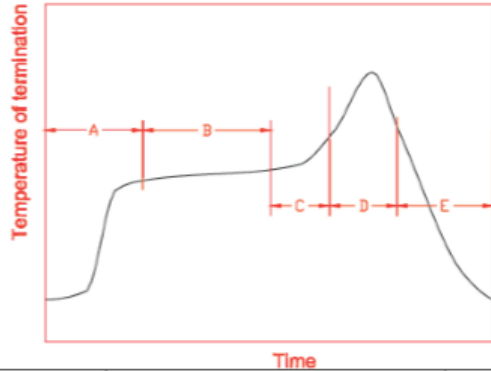
Description: Ceramic Dual Band WLAN

Series: Antenna

PART NUMBER: W3079

OTHER SPECIFICATIONS

Recommended reflow soldering



A	1 <sup>st</sup> rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 160°C	60s to 120s
C	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
		if 240°C	30s~40s
		if 250°C	20s~40s
E	Regular cooling	if 260°C	20s~40s
		200°C to 100°C	1°C/s ~ 4°C/s

\*reference: J-STD-020C

(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.

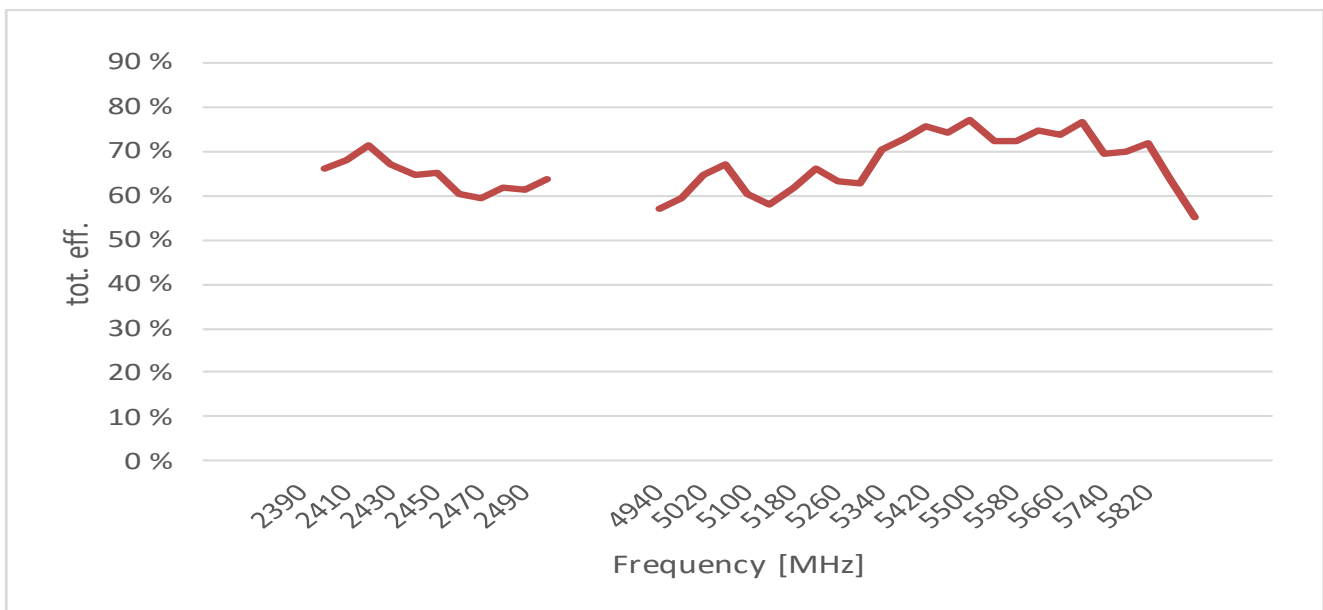
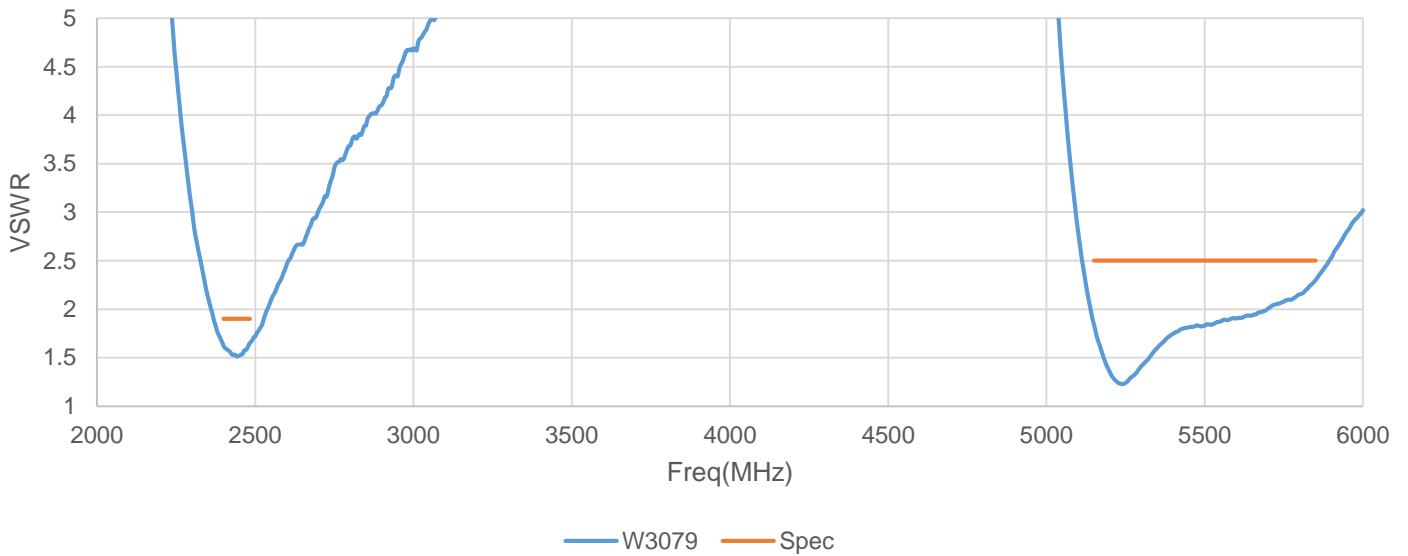
## Description: Ceramic Dual Band WLAN

Series: Antenna

PART NUMBER: W3079

### CHARTS

W3079\*



\* Free space measurements on Pulse reference test PCB

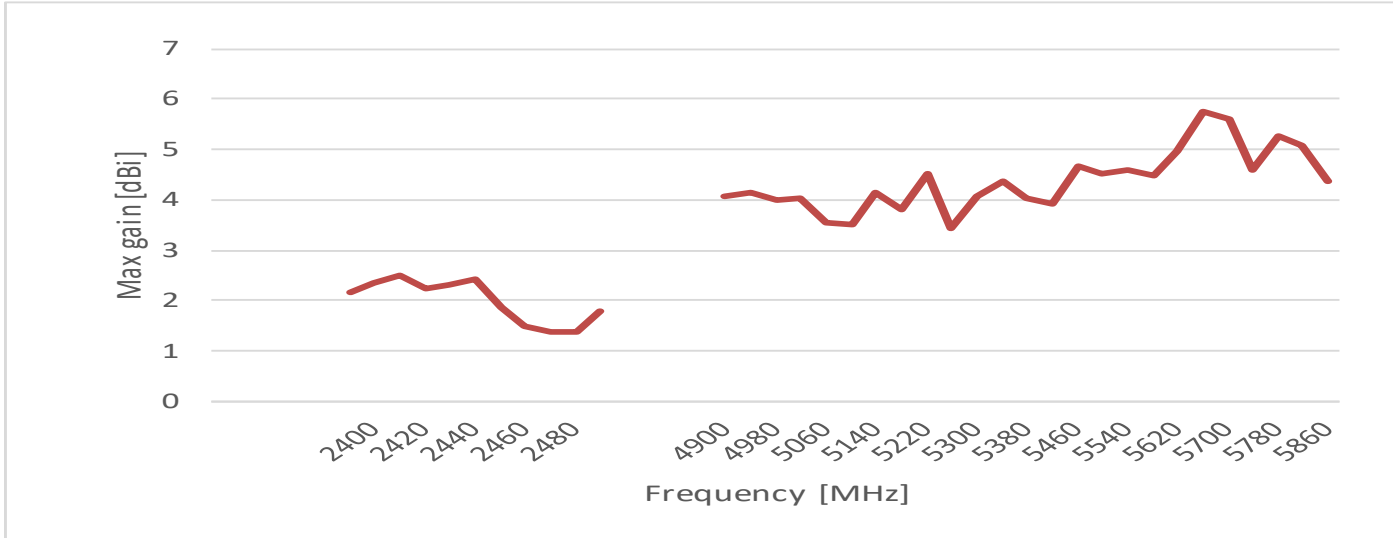
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**Description: Ceramic Dual Band WLAN****Series: Antenna****PART NUMBER: W3079****CHARTS****\* Free space measurements on Pulse reference test PCB**

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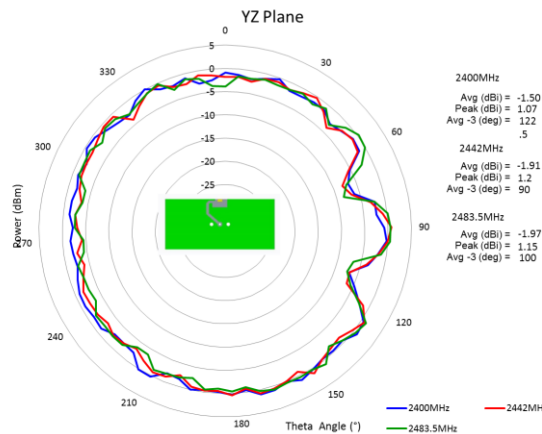
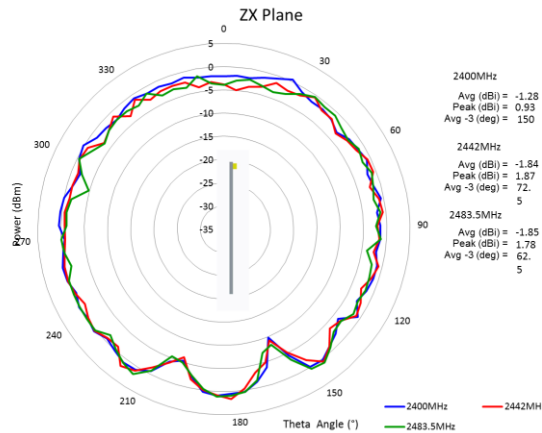
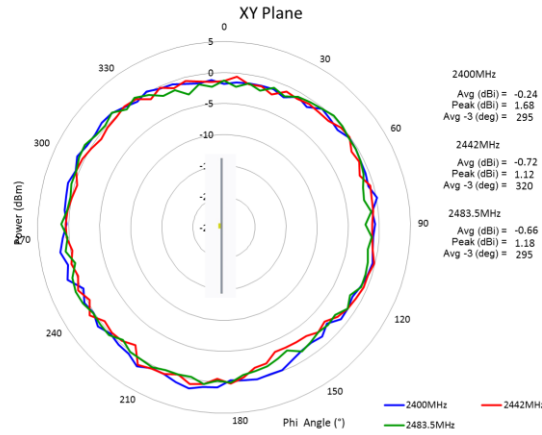
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## Description: Ceramic Dual Band WLAN

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PART NUMBER: W3079

### CHARTS



\* Free space measurements on Pulse reference test PCB

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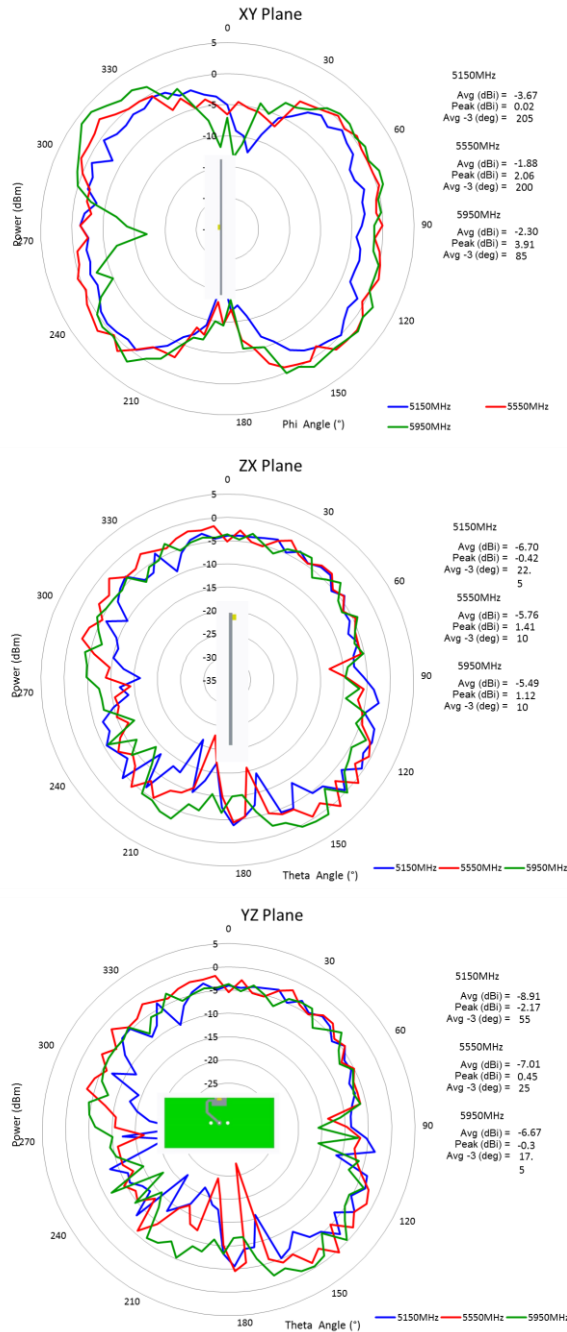
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Series: Antenna

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### CHARTS



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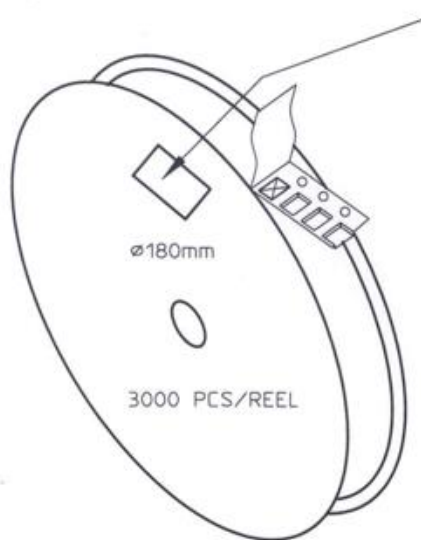
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## Description: Ceramic Dual Band WLAN

Series: Antenna

**PART NUMBER: W3079**

### PACKAGING



REEL LABEL INFORMATION:

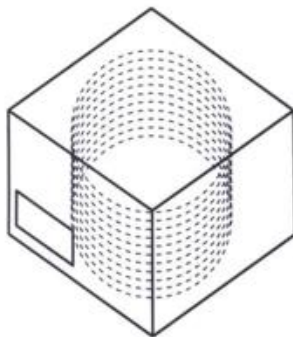
- TRACEABILITY
- QUANTITY
- PRODUCT CODE

CARRIER TAPE H85-00125  
width=8,00 depth=1,22  
COVER TAPE H85-00126  
width=5,60

LENGTH OF TAPE:

- Leader section: min 350 mm before component section
- Trailer section: min 40 mm after component section.

Empty part cavities at leader and trailer section of the tape must be sealed with top cover tape.



BOX H85-00128 (182x182x132)	1 pcs
- LABEL	1 pcs/BOX
REEL H85-00127 (D180, W12)	10 pcs
- REEL LABEL	1 pcs/REEL

### ASSEMBLY

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