

**Series:** The Blue Dot**Description:** Bluetooth, WiFi Antenna**PART NUMBER:** W3092**Features:**

- Chip Antenna
- Frequency:  
2400MHz ~ 2483MHz
- Low profile  
2.0mm(Length) x 1.2mm(Width)  
x 0.55mm(Thickness)

**Applications:**

- WLAN
- 802.11b/g
- Bluetooth
- Zigbee, ISM 2.4GHz

All dimensions are in mm / inches

Issue: 2335

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**Series:** The Blue Dot**Description:** Bluetooth, WiFi Antenna**PART NUMBER:** W3092**ELECTRICAL SPECIFICATIONS**

Frequency	2400-2483	MHz
Nominal Impedance	50	Ω
VSWR	3	max
Gain (Typ.)	0.89	dBi
Efficiency(Typ.)	50	%
Polarization	Linear	

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**Series:** The Blue Dot**Description:** Bluetooth, WiFi Antenna**PART NUMBER:** W3092**MECHANICAL SPECIFICATIONS**

Weight	0.005 g
Size	2.0x1.2x0.55 mm
MSL Level	1

**ENVIRONMENTAL SPECIFICATIONS**

Operating temperature	-40/+105 ° C
High temperature resistance	150 ° C, 1000 hours
Low temperature resistance	-40 ° C, 1000 hours
Humidity	85%R.H. 85±5 ° C, 1000 cycles
Soldering heat resistance	260 ° C 10s
Thermal shock	-40/+105 ° C
Storage condition	
At warehouse	0-30 ° C, <60%R.H., shoule be used<1 year
On board	-40 ~85 ° C, <85%R.H

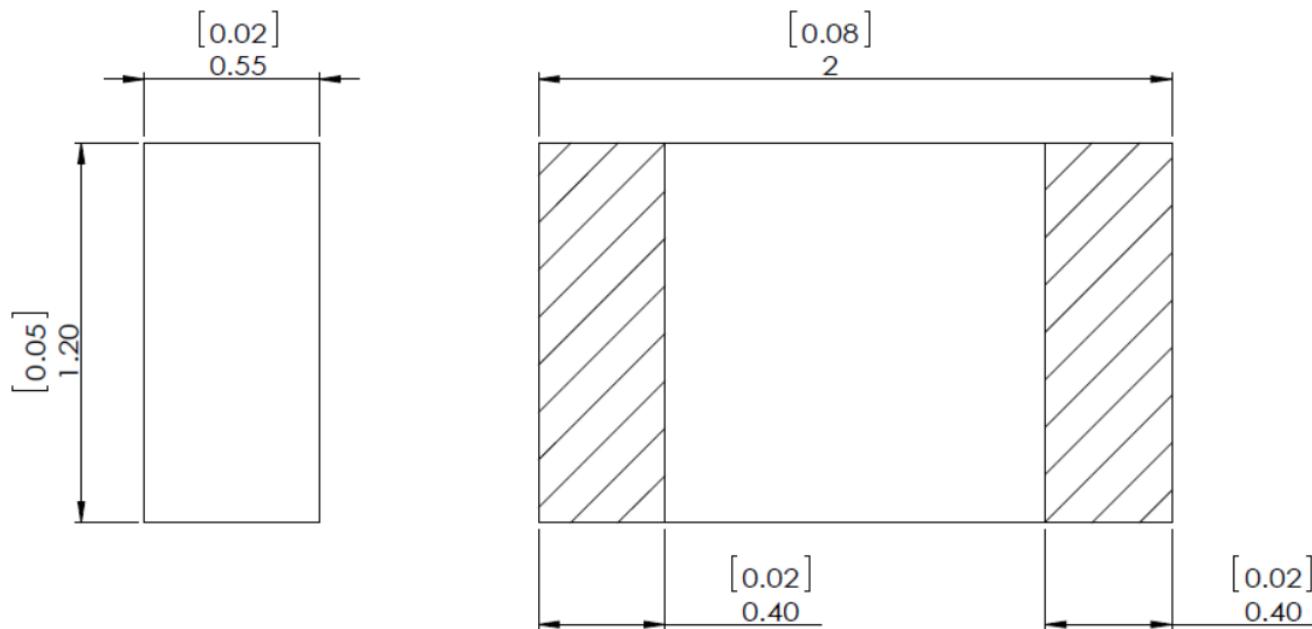
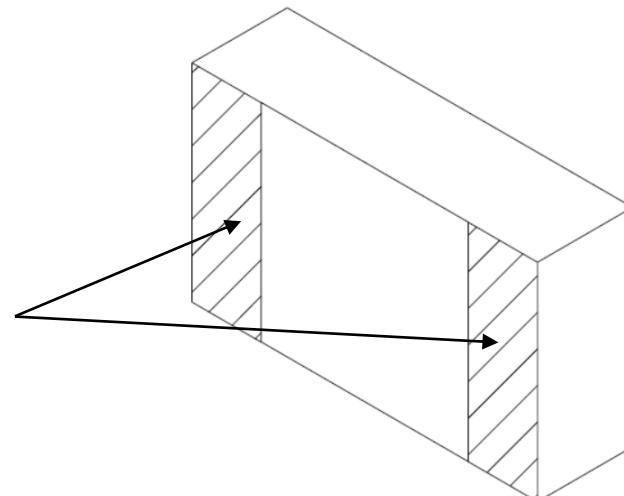
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**Series:** The Blue Dot**Description:** Bluetooth, WiFi Antenna**PART NUMBER:** W3092**MECHANICAL DRAWING****Pad for SMT process****Issue:** 2335

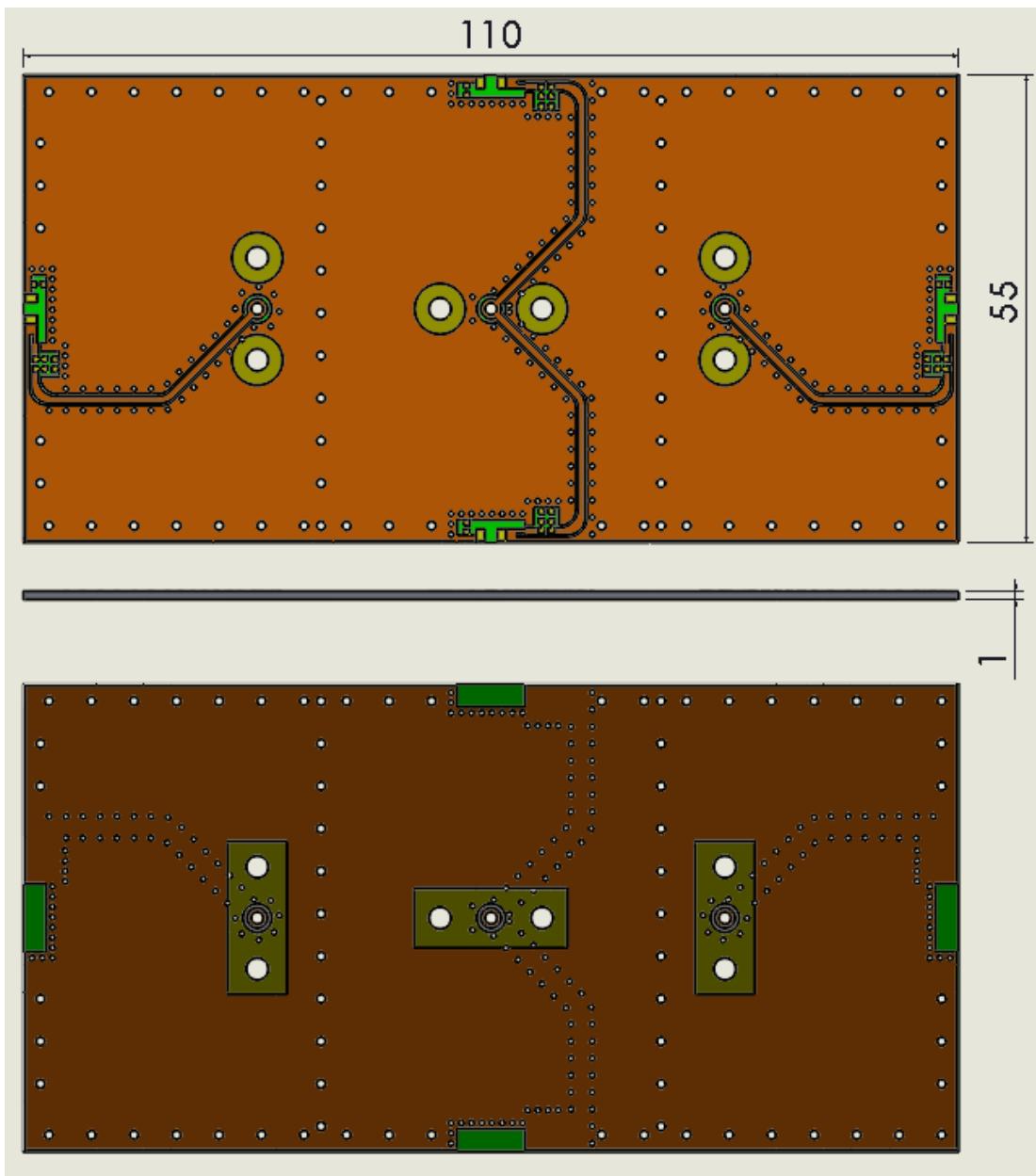
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**Description:** Bluetooth, WiFi Antenna**Series:** The Blue Dot**PART NUMBER:** W3092**OTHER SPECIFICATIONS****Recommended PCB layout(Unit:mm)**

PCB size(L X W X T): 110 X 55 X 1mm

**Issue:** 2335

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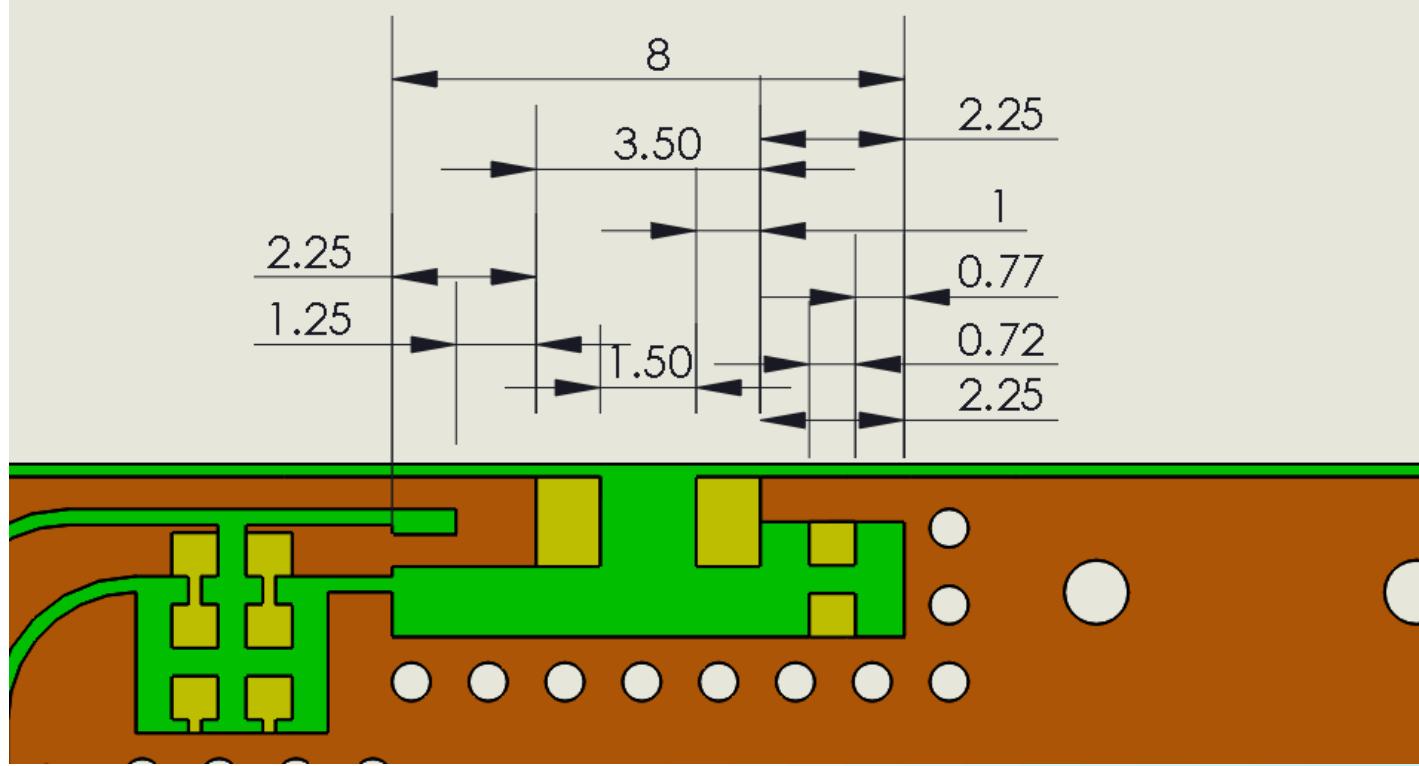
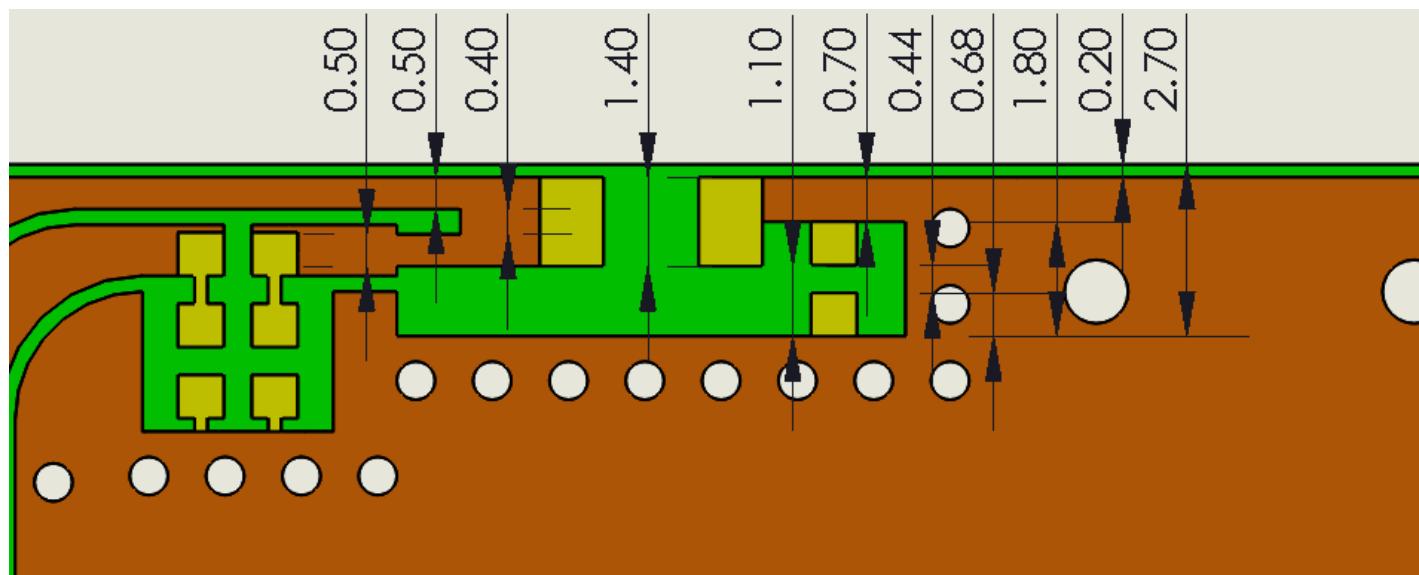
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**Description:** Bluetooth, WiFi Antenna**Series:** The Blue Dot**PART NUMBER:** W3092**OTHER SPECIFICATIONS**

PCB top side layout



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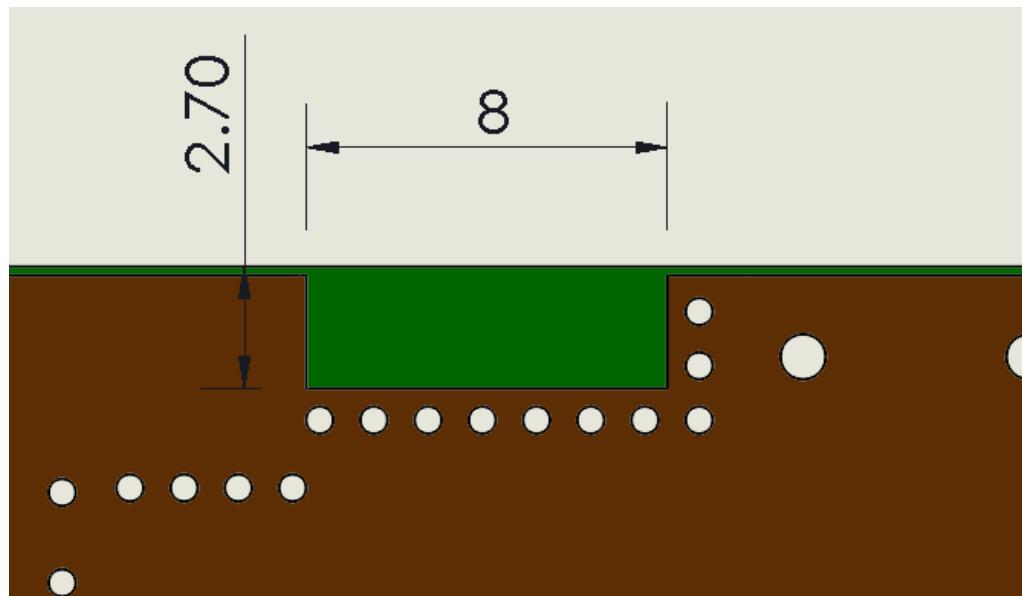
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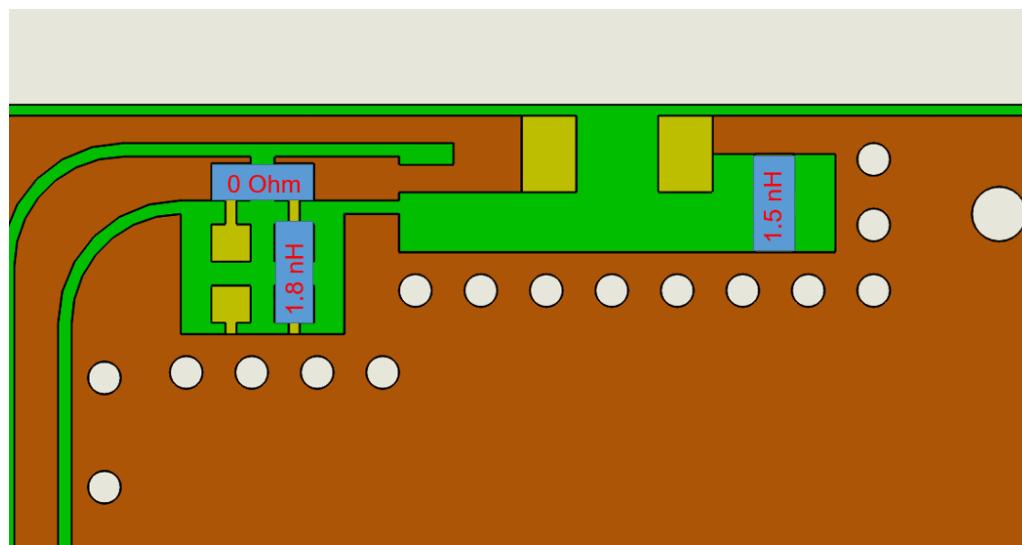


**Description:** Bluetooth, WiFi Antenna**Series:** The Blue Dot**PART NUMBER:** W3092**OTHER SPECIFICATIONS**

PCB bottom side layout



\*Clearance 8mm x 2.7mm : All metallization should be removed from all PCB layers.

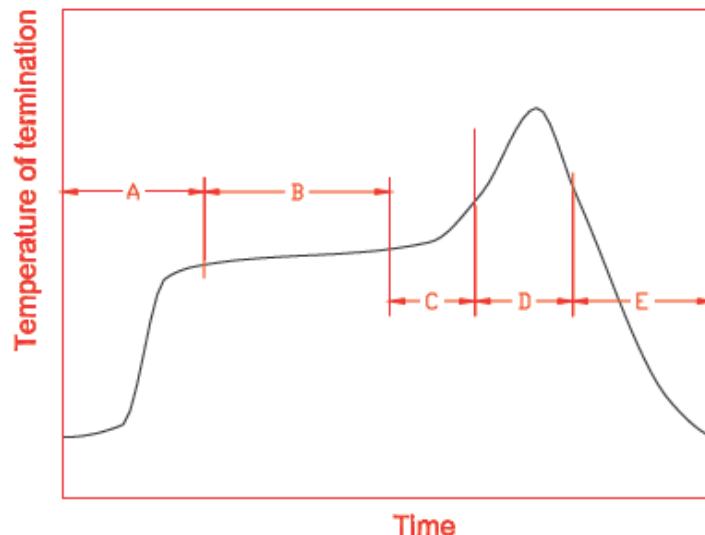
**Recommended matching circuit**

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**Description:** Bluetooth, WiFi Antenna**Series:** The Blue Dot**PART NUMBER:** W3092**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
		if 260°C	20s~40s
E	Regular cooling	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.

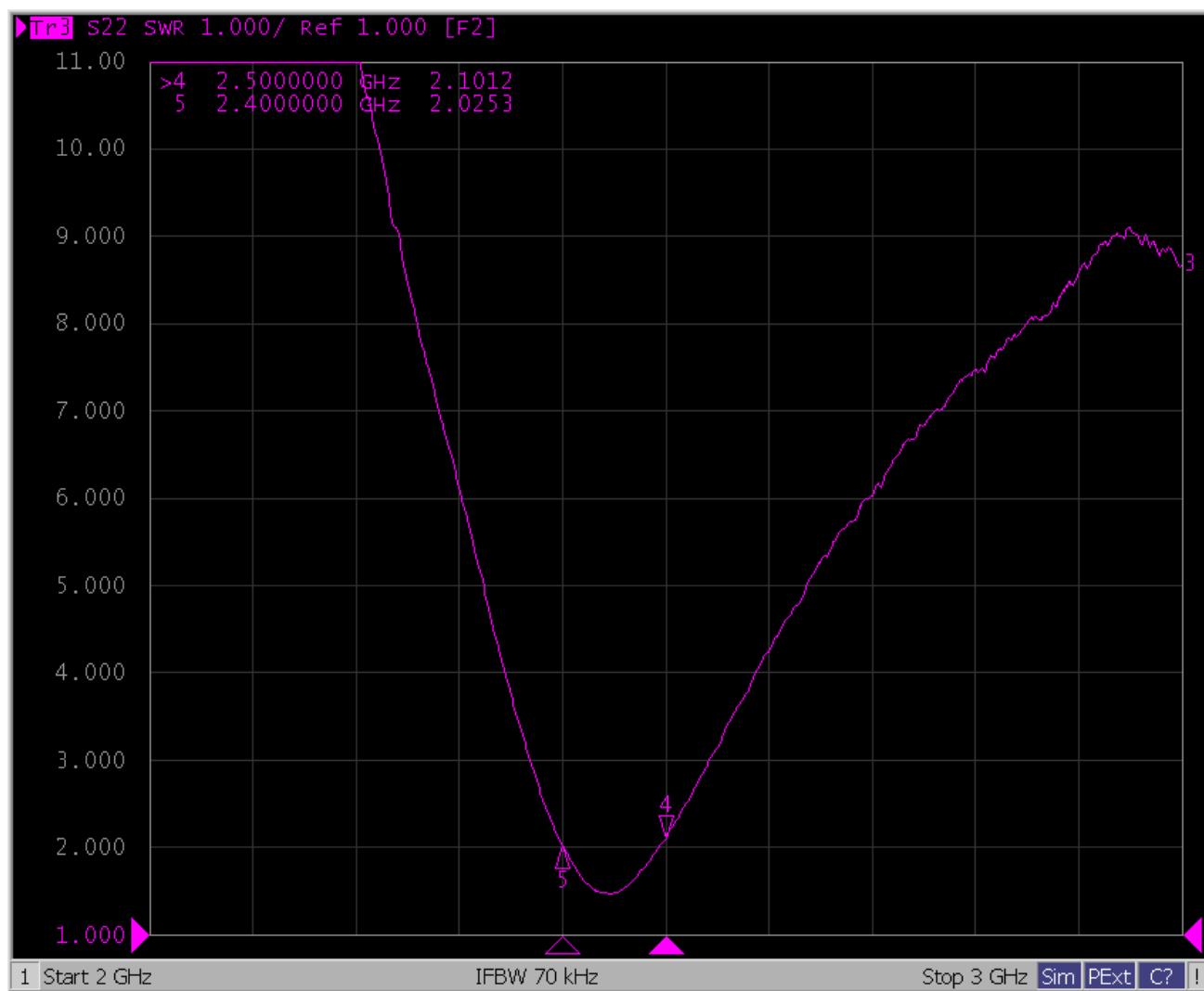
Issue: 2335

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**Series:** The Blue Dot**Description:** Bluetooth, WiFi Antenna**PART NUMBER:** W3092**CHARTS****VSWR****Issue:** 2335

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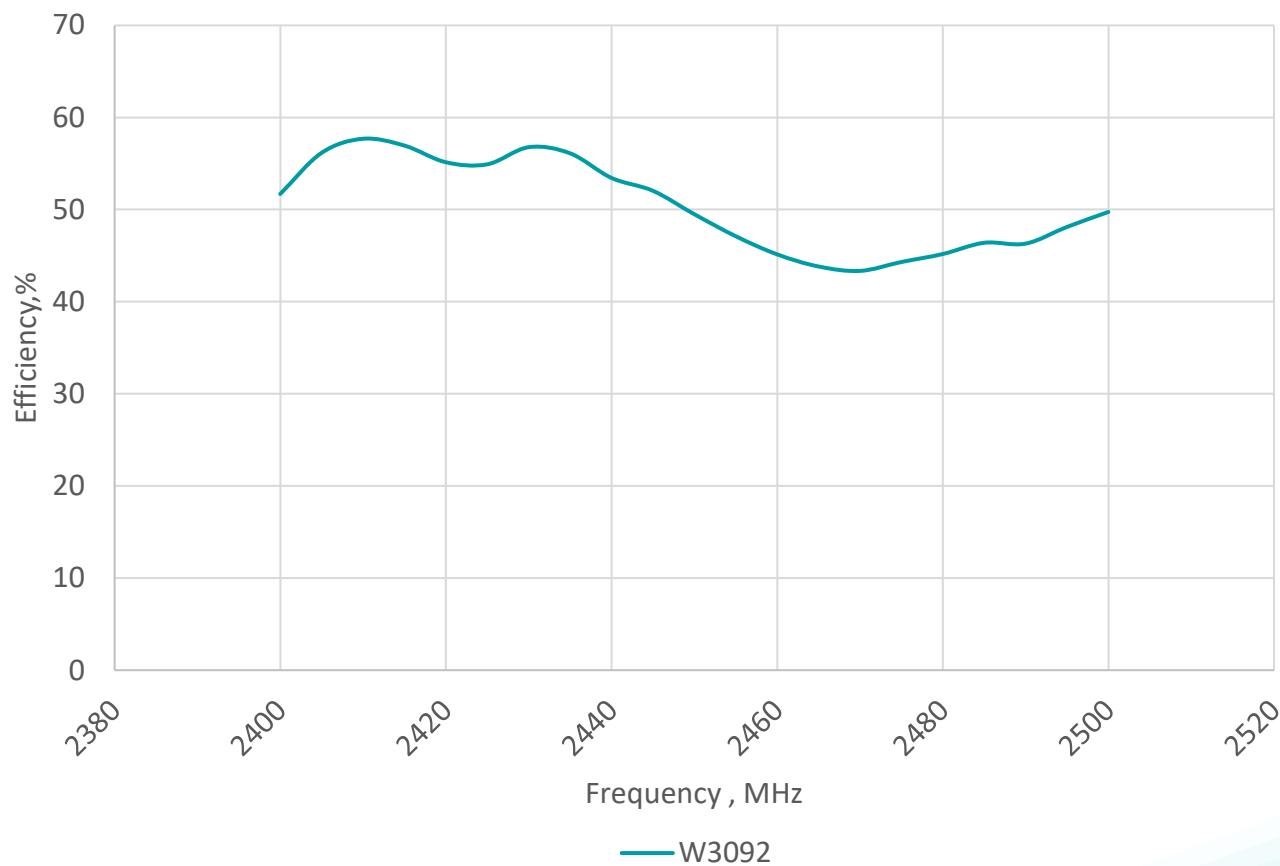
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**Series:** The Blue Dot**Description:** Bluetooth, WiFi Antenna**PART NUMBER:** W3092**CHARTS****Efficiency**

Efficiency vs Frequency measured with demo board

**Issue:** 2335

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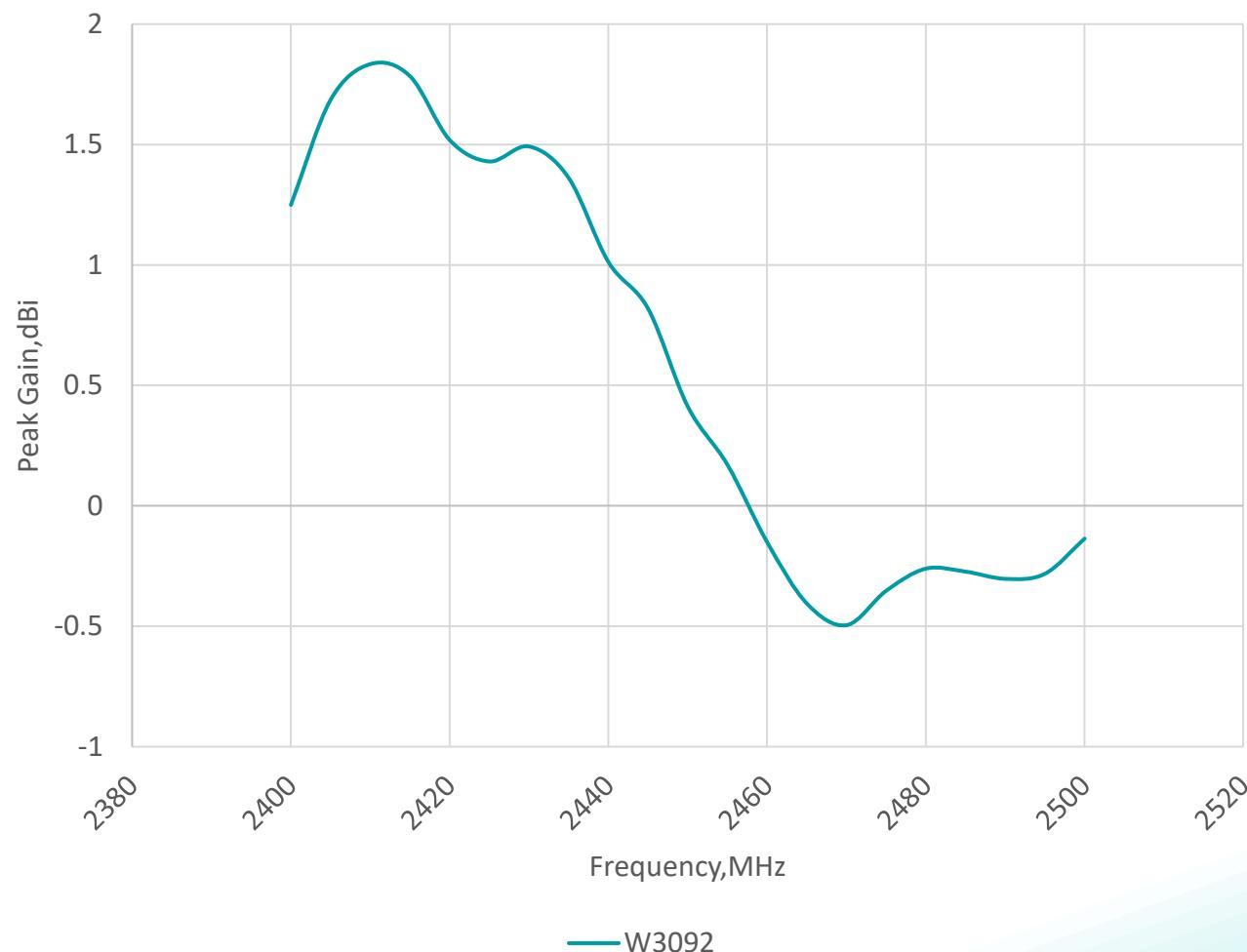
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**Series:** The Blue Dot**Description:** Bluetooth, WiFi Antenna**PART NUMBER:** W3092**CHARTS****Peak Gain**

Peak Gain vs Frequency measured with demo board

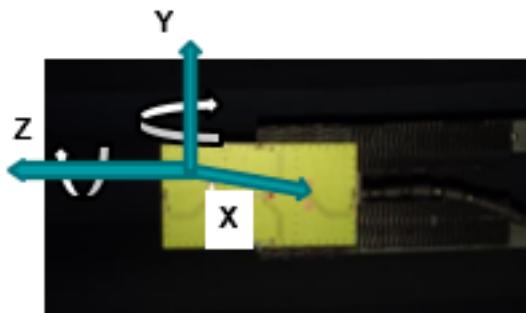
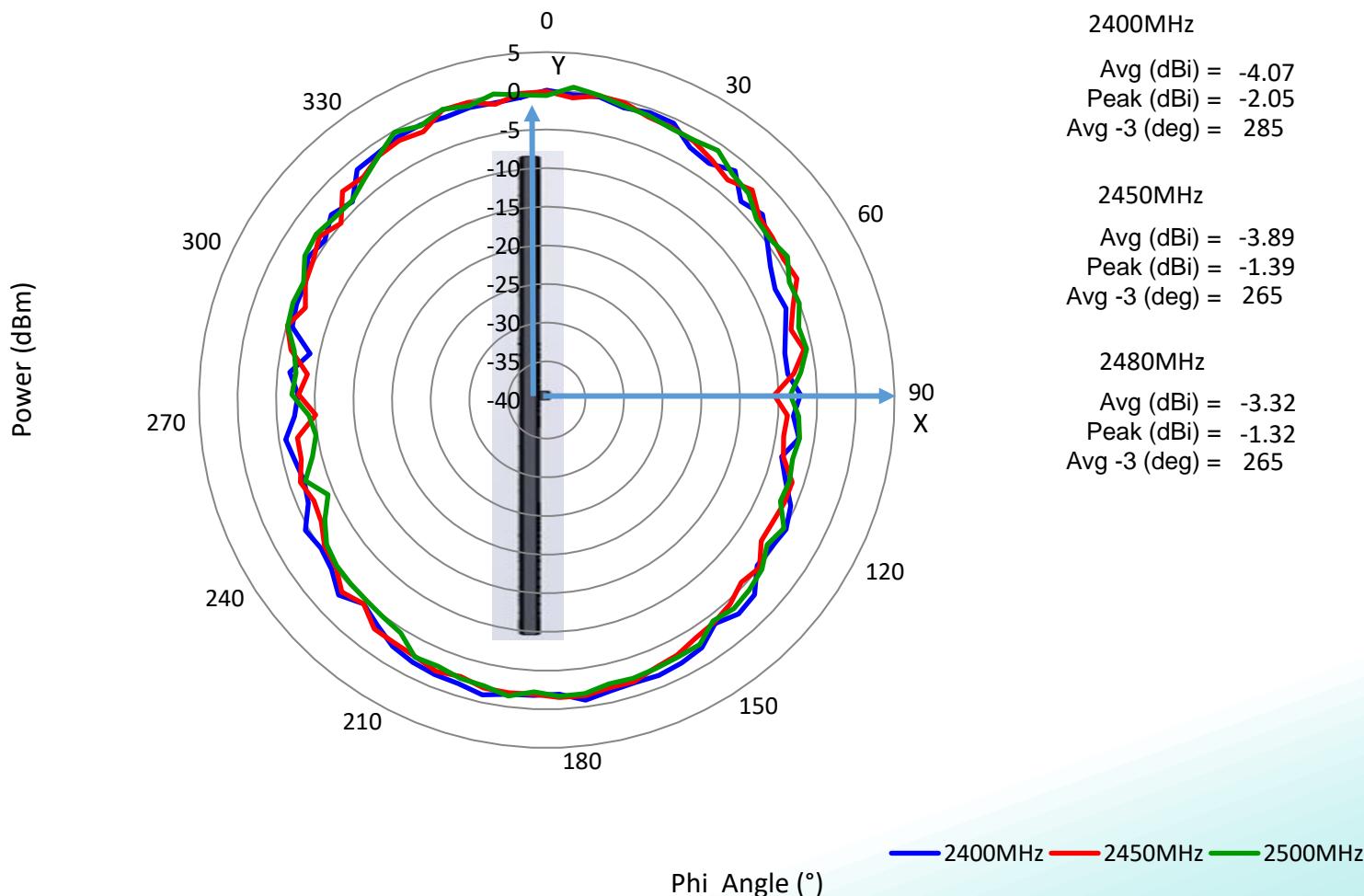
**Issue:** 2335

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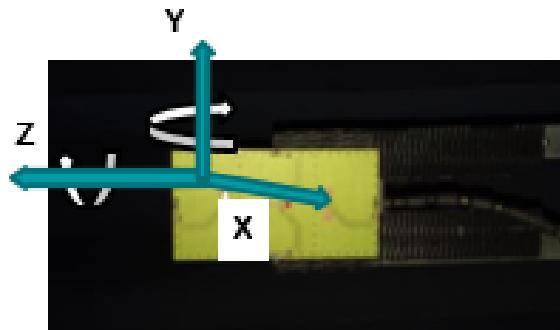
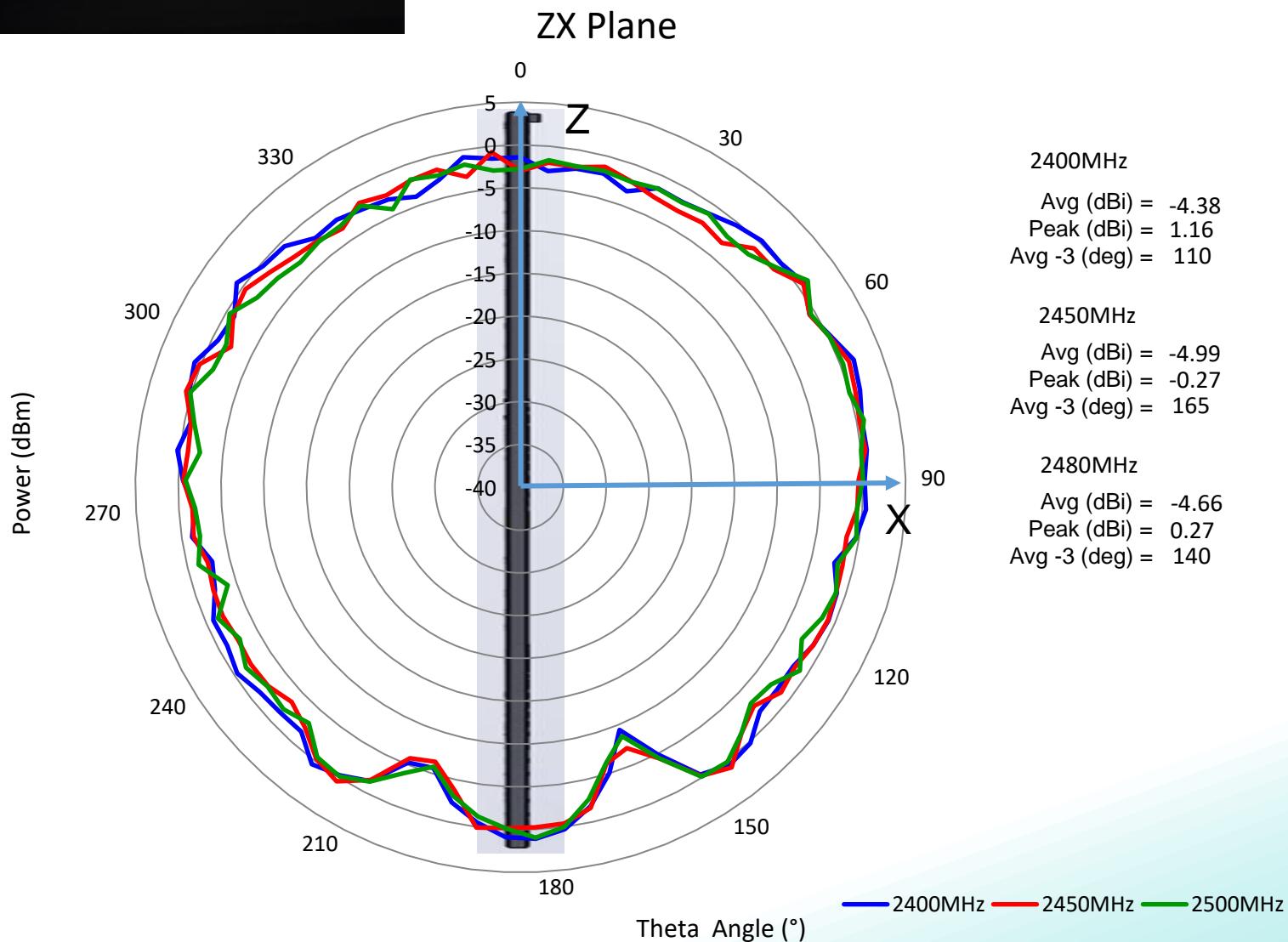
**Series: The Blue Dot****Description: Bluetooth, WiFi Antenna****PART NUMBER: W3092****CHARTS****Radiation pattern****XY Plane****Issue: 2335**

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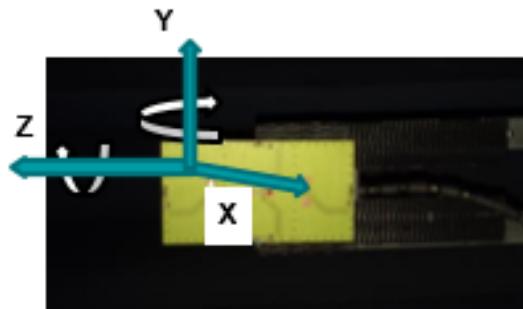
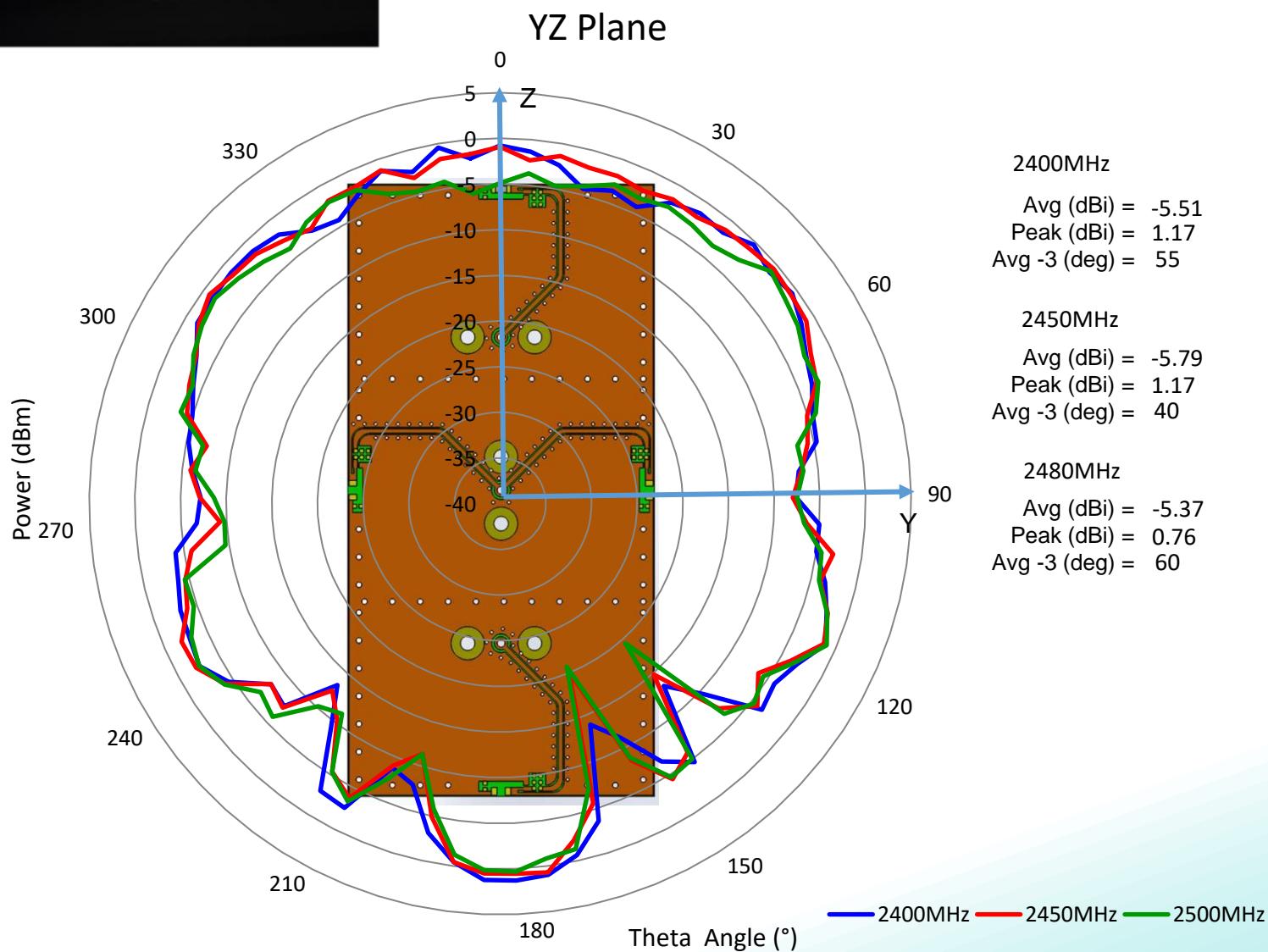
**Series: The Blue Dot****Description: Bluetooth, WiFi Antenna****PART NUMBER: W3092****CHARTS****Radiation pattern****Issue: 2335**

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**Series: The Blue Dot**
**Description: Bluetooth, WiFi Antenna**
**PART NUMBER: W3092**
**CHARTS**

**Radiation pattern**

**Issue: 2335**

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**Description:** Bluetooth, WiFi Antenna

**Series:** The Blue Dot

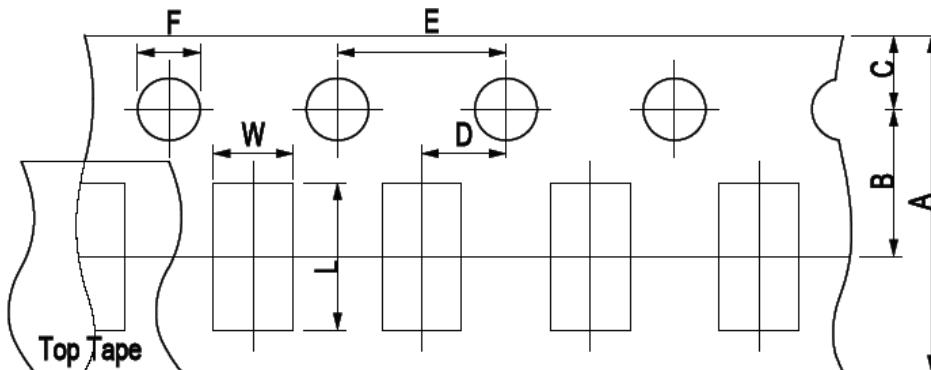
**PART NUMBER:** W3092

## PACKAGING

### Taping Package and Label Marking: (unit: mm)

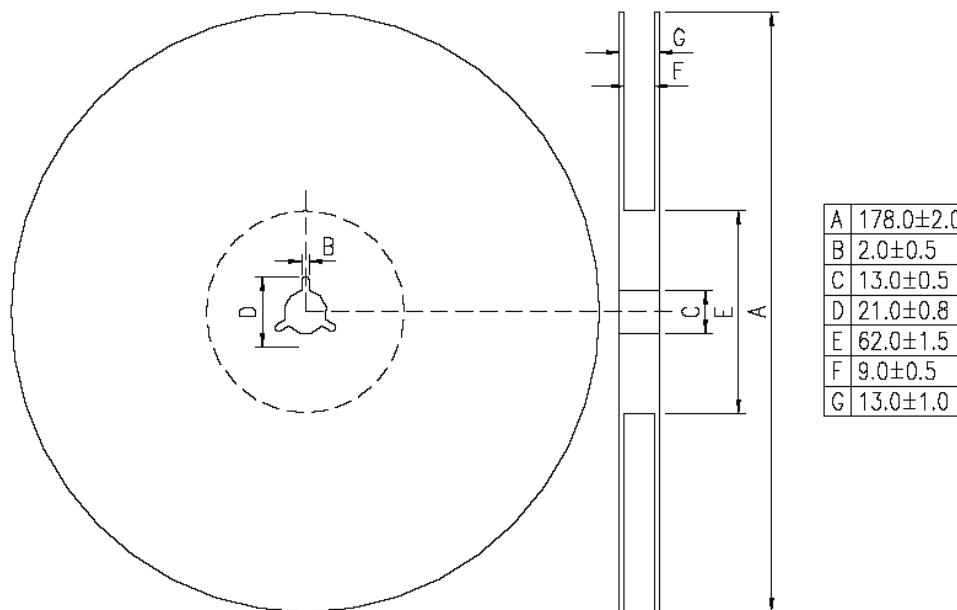
(1) Quantity/Reel: 5000pcs/Reel

(2) Carrier tape dimensions



Type	A	B	C	D	E	F	L	W
ACA2012	8.00± 0.30	3.50± 0.05	1.75± 0.10	2.00± 0.05	4.00± 0.10	1.50± 0.10	2.30± 0.10	1.55± 0.10

## (3) Taping reel dimensions



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