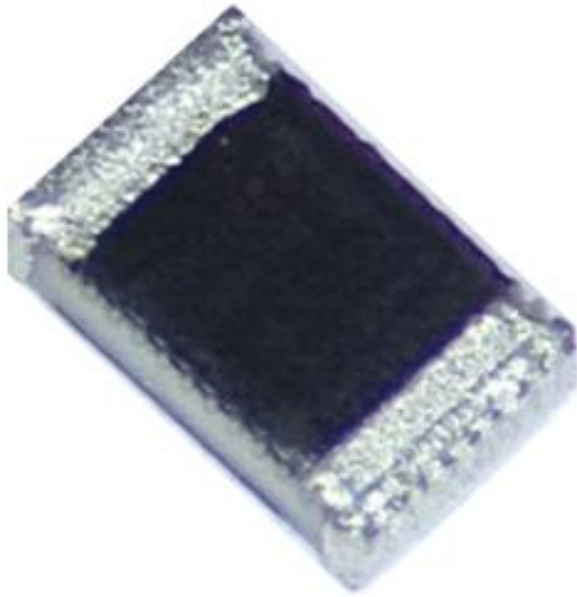


Description: Bluetooth, WiFi Antenna**Series:** The Blue Dot**PART NUMBER:** W3092**Features:**

- 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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Pulse/Larsen Antennas
18110 SE 34th St Bldg 2 Suite 250
Vancouver, WA 98683
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Pulse GmbH & Co, KG
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Pulse (Suzhou) Wireless Products Co, Inc.
99 Huo Ju Road(#29 Bldg, 4th Phase
Suzhou New District
Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998



Description: Bluetooth, WiFi Antenna**Series:** The Blue Dot**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	

Issue: 2335

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Description: Bluetooth, WiFi Antenna**Series:** The Blue Dot**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., should be used <1 year
On board	-40 ~85 ° C, <85%R.H

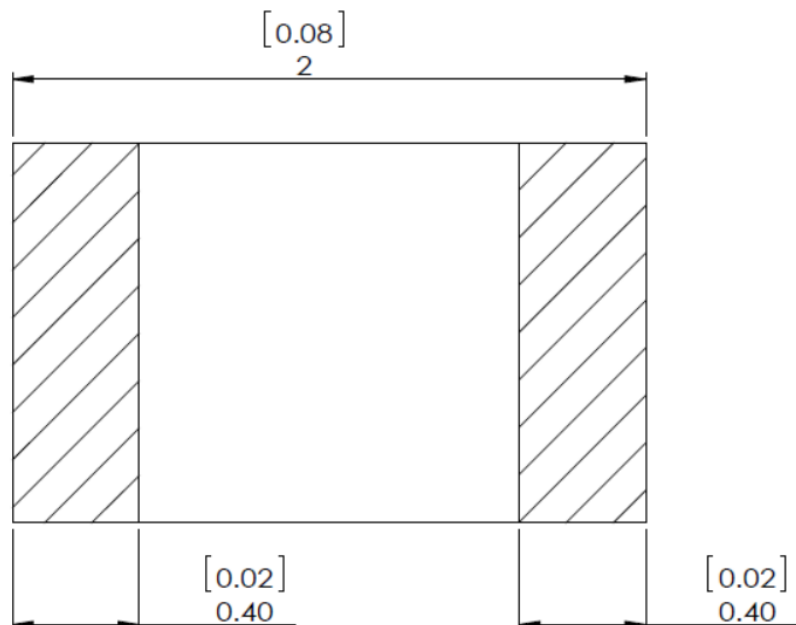
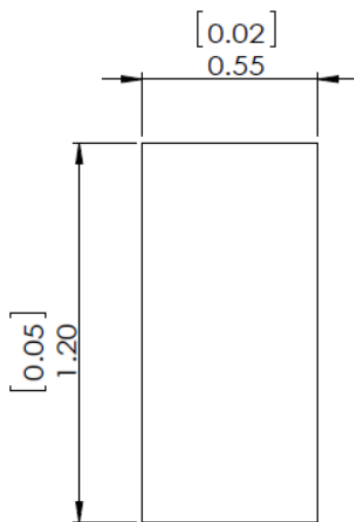
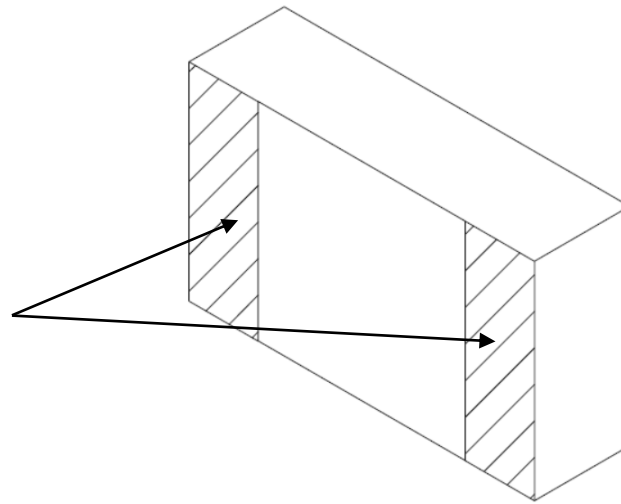
Description: Bluetooth, WiFi Antenna

Series: The Blue Dot

PART NUMBER: W3092

MECHANICAL DRAWING

Pad for SMT process



Issue: 2335

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Description: Bluetooth, WiFi Antenna

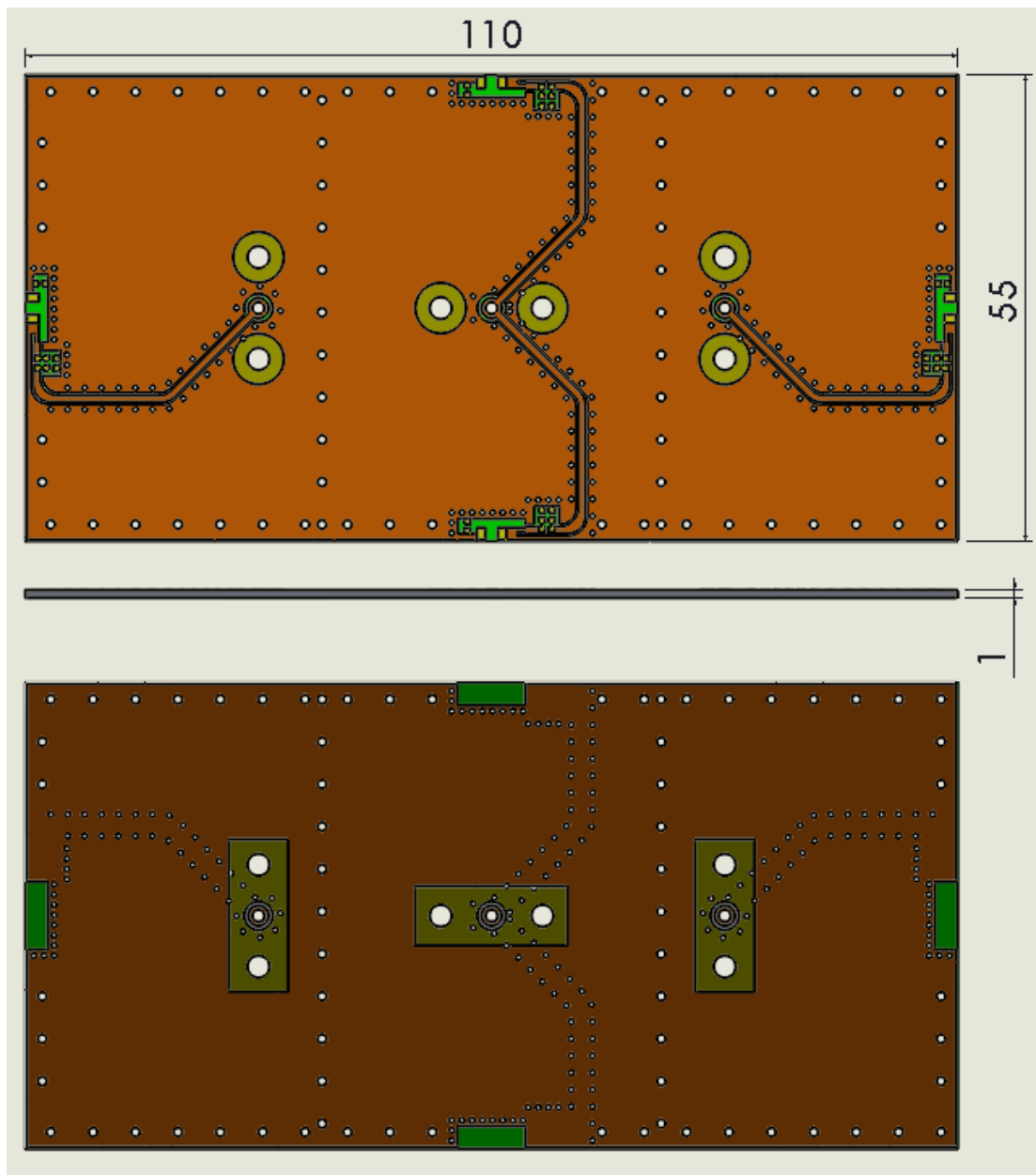
Series: The Blue Dot

PART NUMBER: W3092

OTHER SPECIFICATIONS

Recommended PCB layout(Unit:mm)

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



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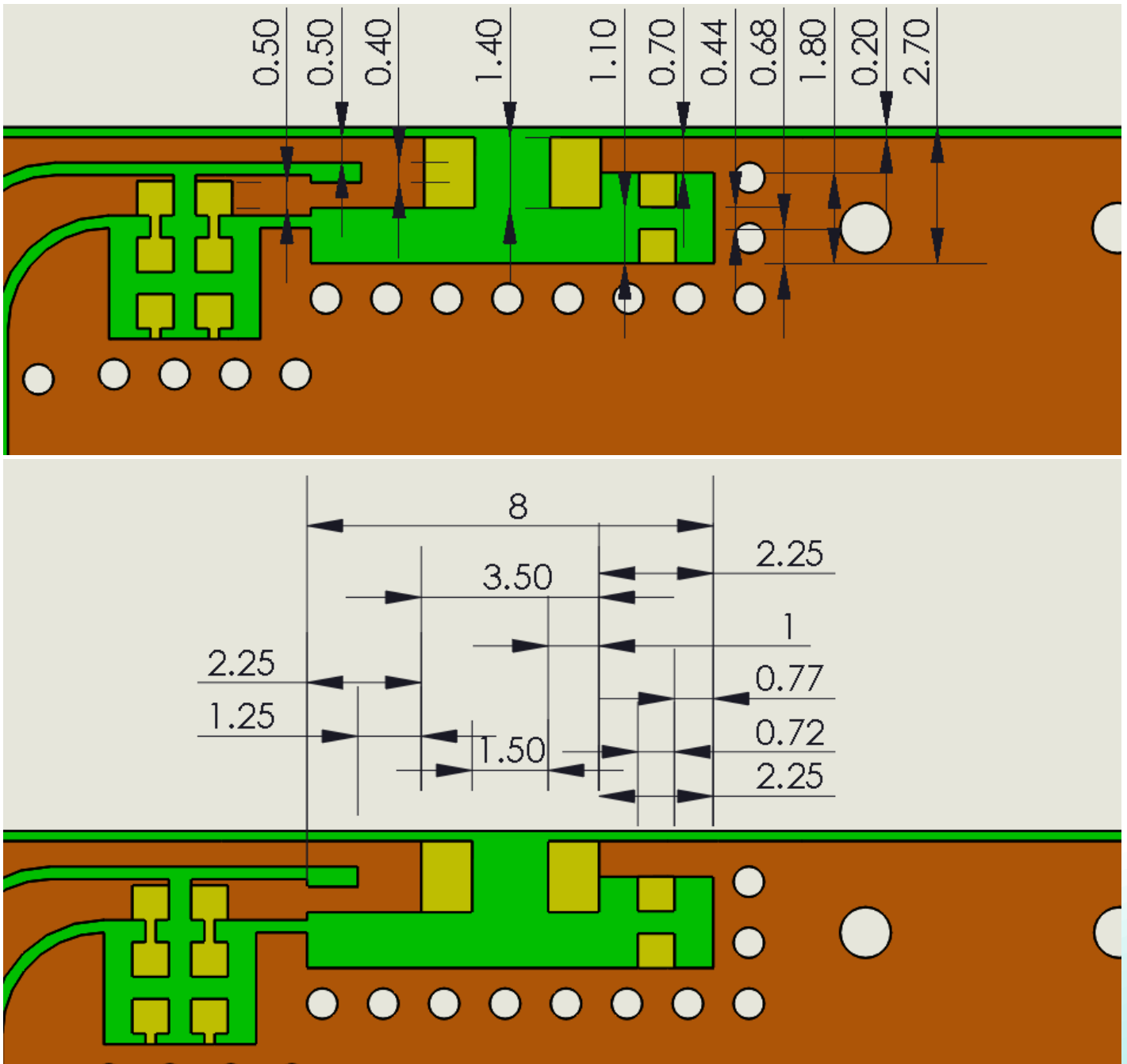
Description: Bluetooth, WiFi Antenna

Series: The Blue Dot

PART NUMBER: W3092

OTHER SPECIFICATIONS

PCB top side layout



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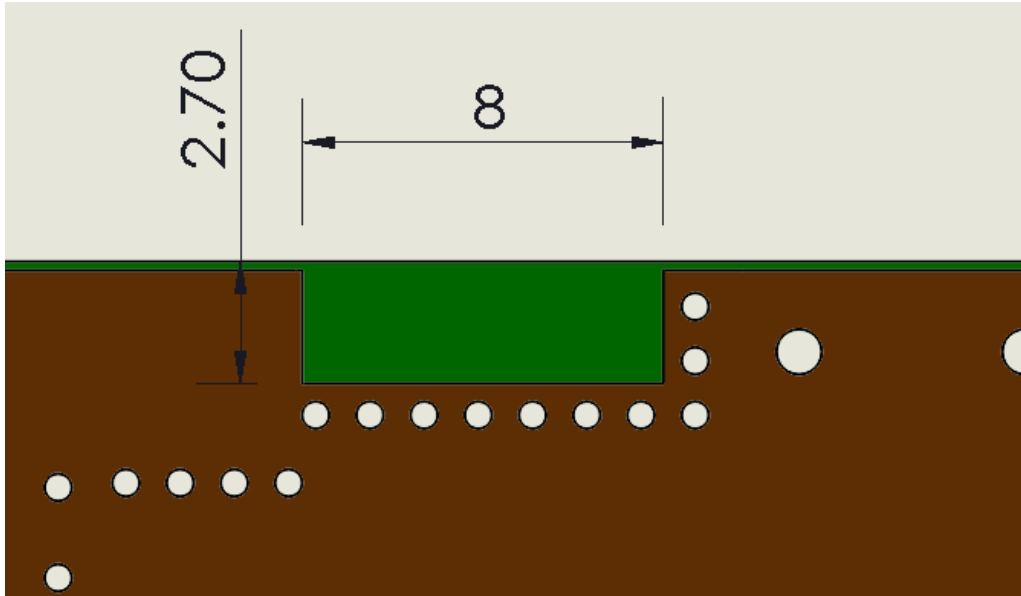
Description: Bluetooth, WiFi Antenna

Series: The Blue Dot

PART NUMBER: W3092

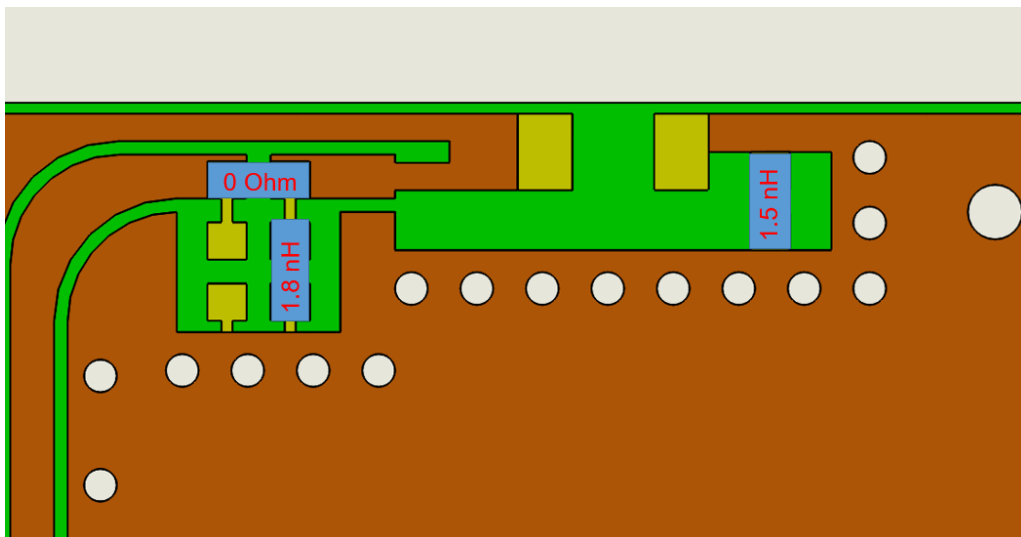
OTHER SPECIFICATIONS

PCB bottom side layout



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

Recommended matching circuit



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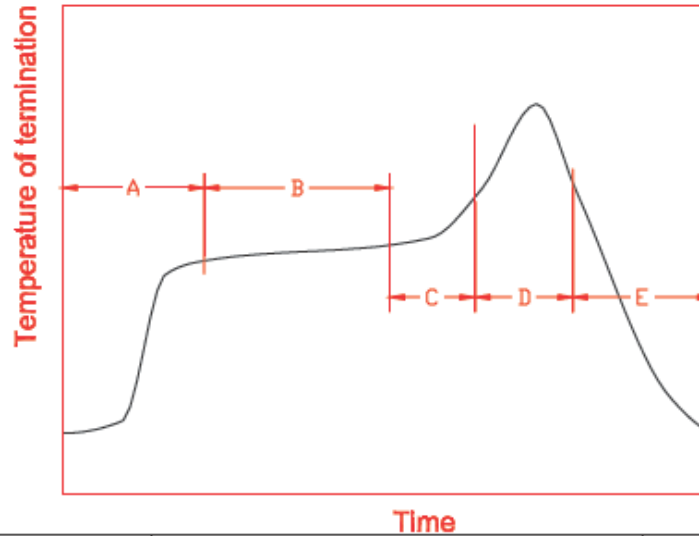
Description: Bluetooth, WiFi Antenna

Series: The Blue Dot

PART NUMBER: W3092

OTHER SPECIFICATIONS

Recommended reflow soldering



Time			
A	1 st rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 160°C	60s to 120s
C	2 nd 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.

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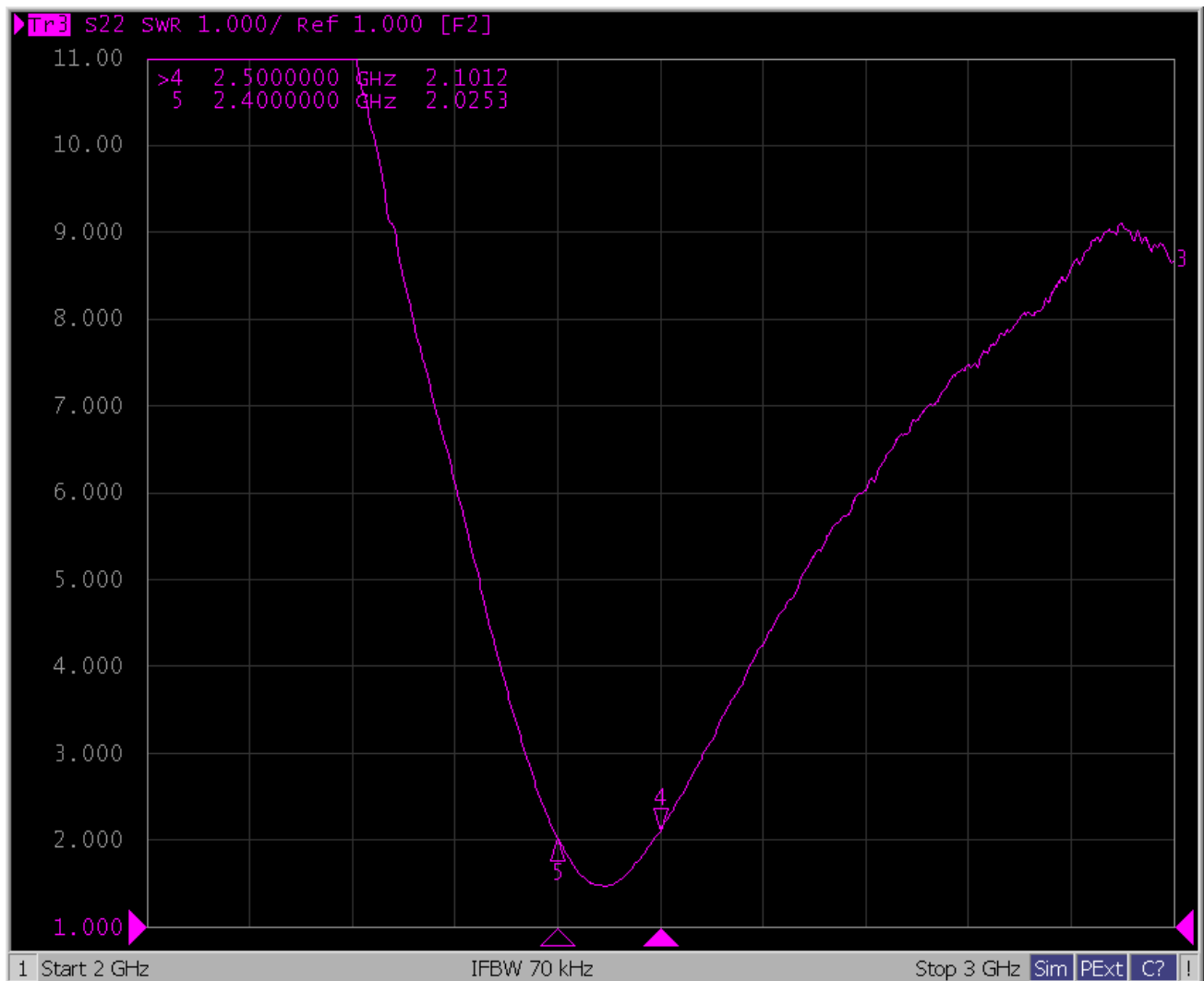
Description: Bluetooth, WiFi Antenna

Series: The Blue Dot

PART NUMBER: W3092

CHARTS

VSWR



Issue: 2335

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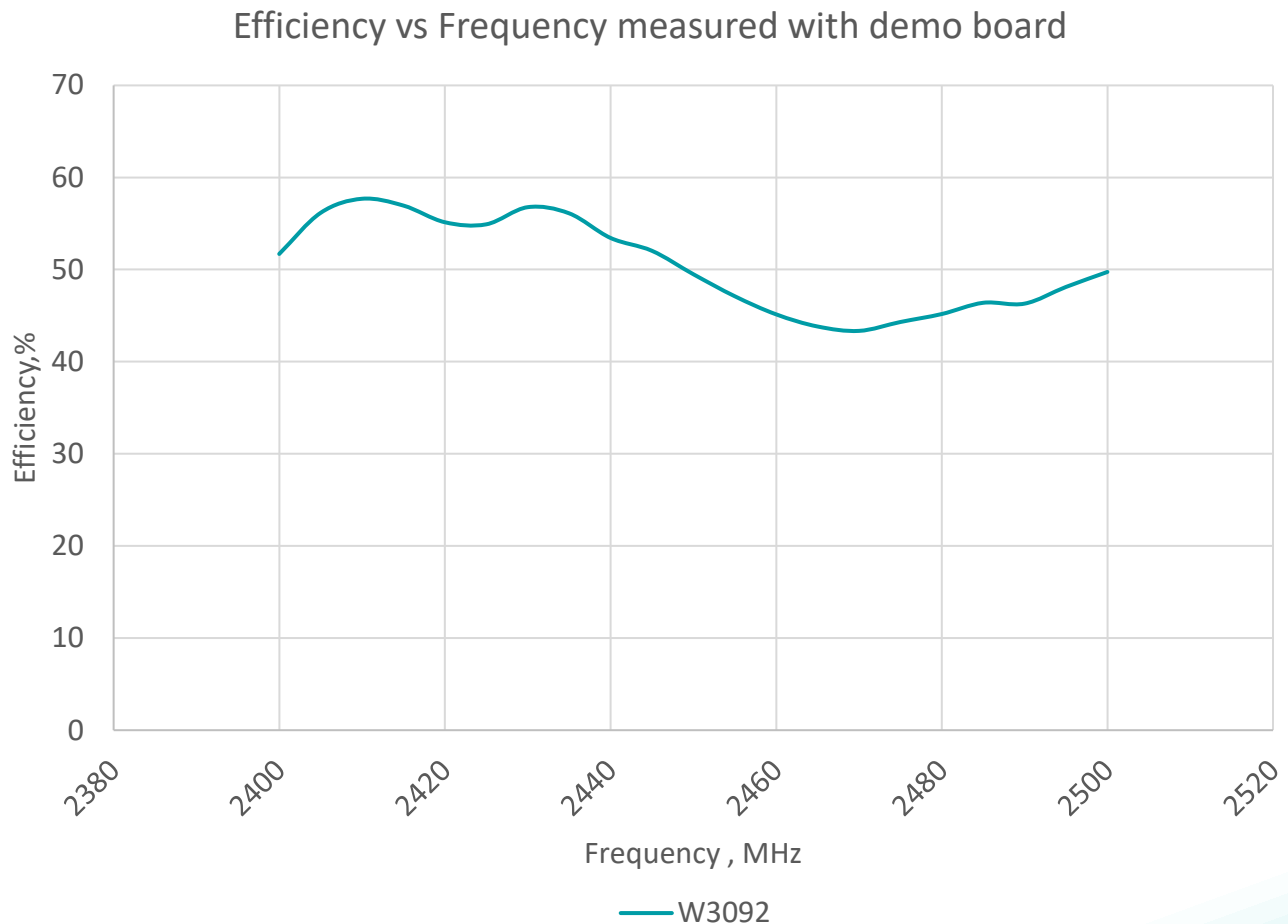
Description: Bluetooth, WiFi Antenna

Series: The Blue Dot

PART NUMBER: W3092

CHARTS

Efficiency



Issue: 2335

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Description: Bluetooth, WiFi Antenna

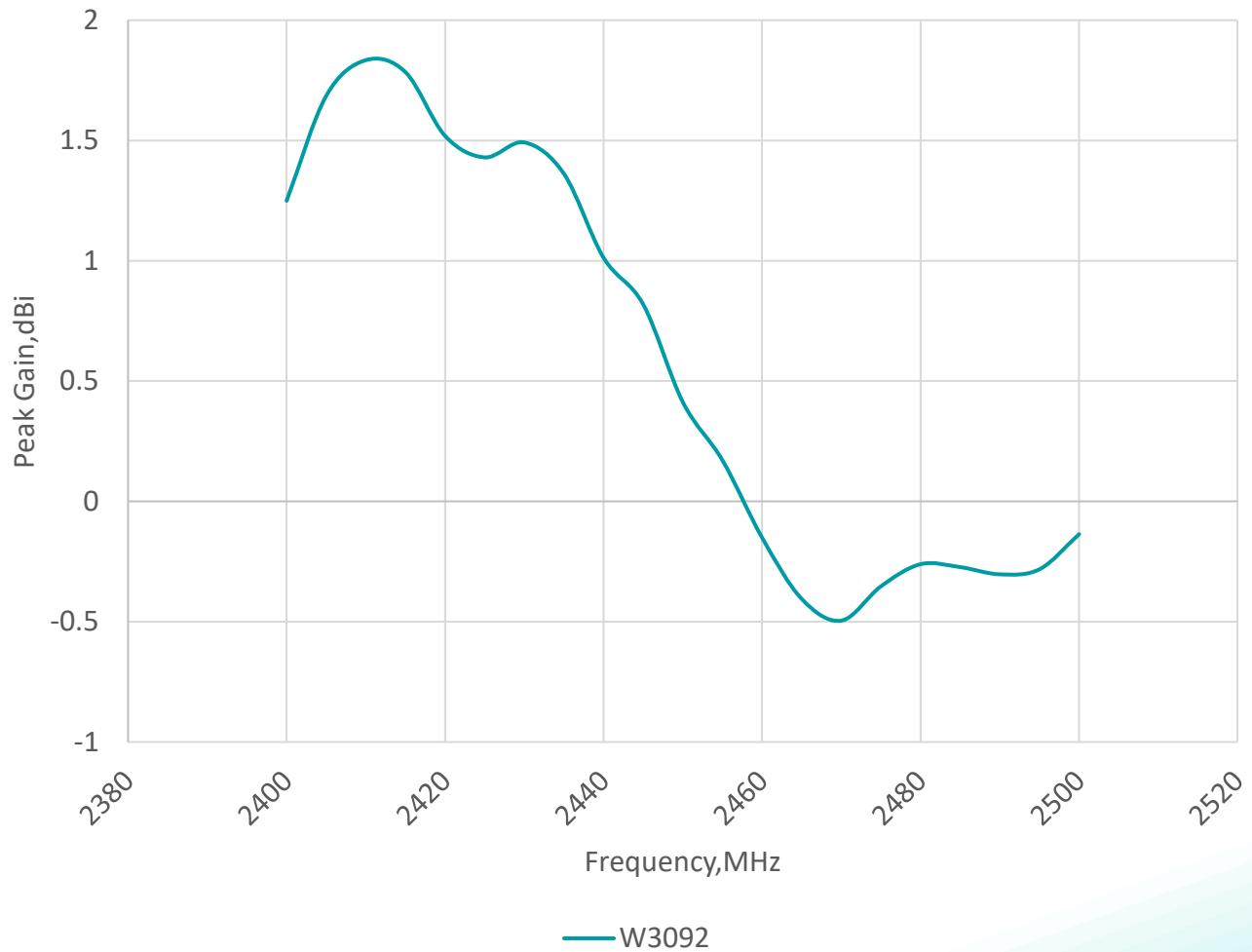
Series: The Blue Dot

PART NUMBER: W3092

CHARTS

Peak Gain

Peak Gain vs Frequency measured with demo board



Issue: 2335

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PROPRIETARY INFORMATION

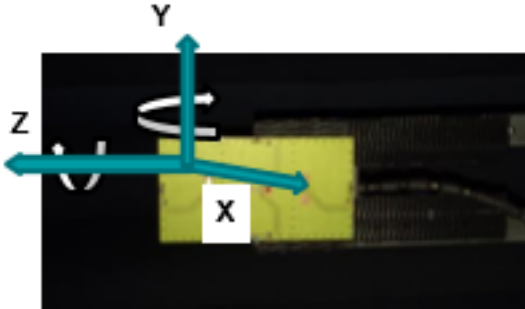
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Series: The Blue Dot

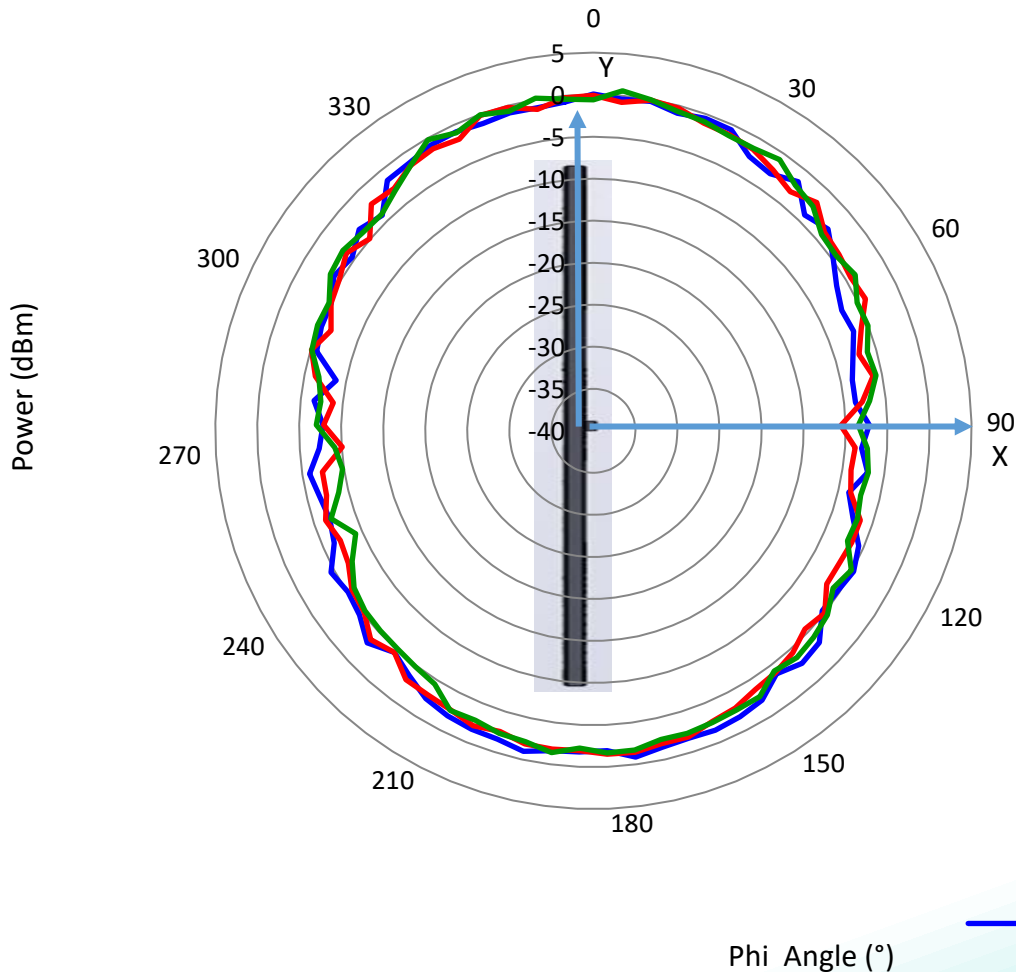
PART NUMBER: W3092

CHARTS



Radiation pattern

XY Plane



2400MHz

Avg (dBi) = -4.07
Peak (dBi) = -2.05
Avg -3 (deg) = 285

2450MHz

Avg (dBi) = -3.89
Peak (dBi) = -1.39
Avg -3 (deg) = 265

2480MHz

Avg (dBi) = -3.32
Peak (dBi) = -1.32
Avg -3 (deg) = 265

— 2400MHz — 2450MHz — 2500MHz

Phi Angle (°)

Issue: 2335

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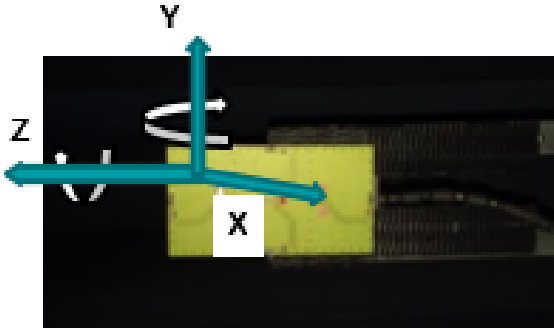
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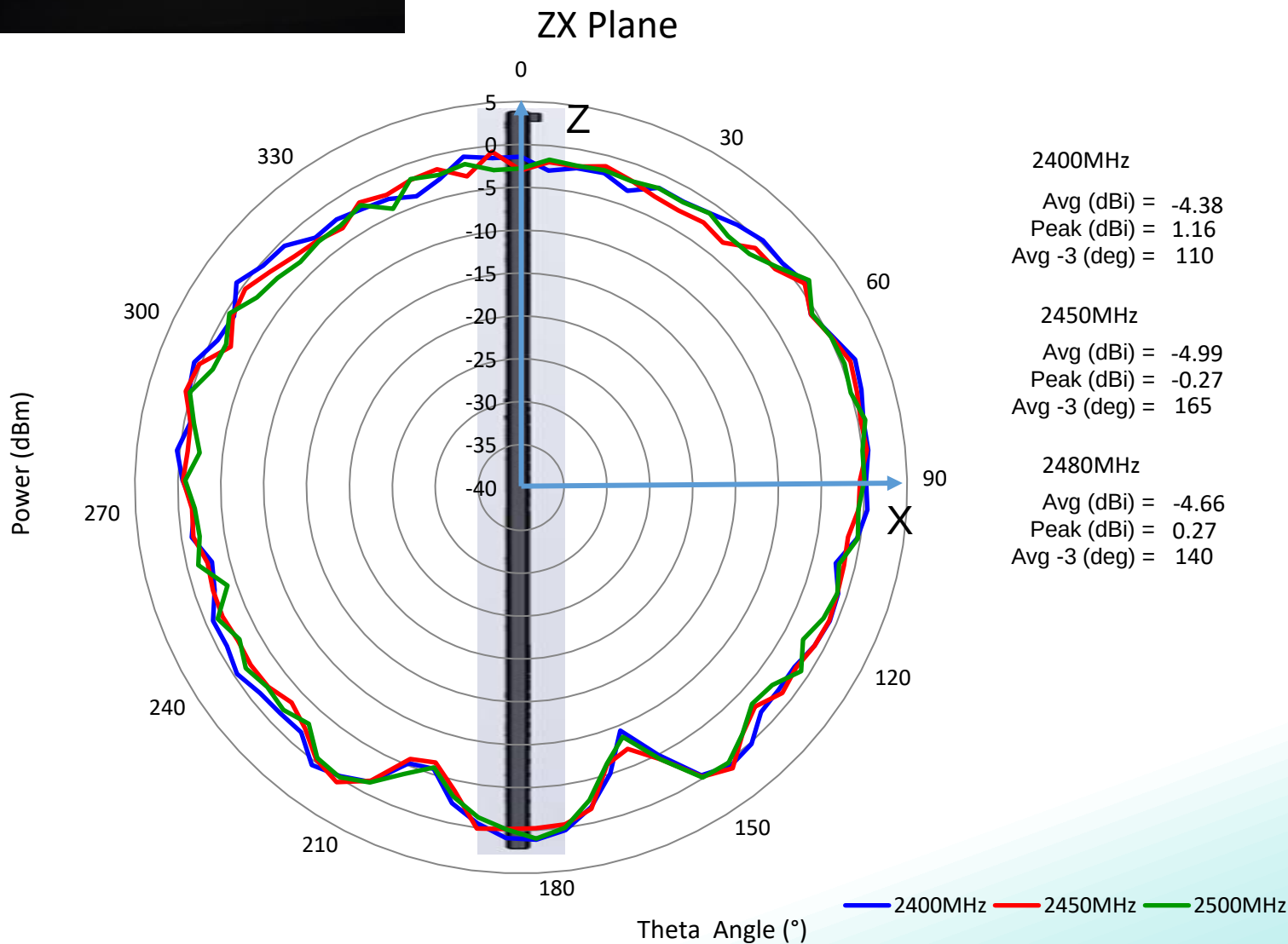
Series: The Blue Dot

PART NUMBER: W3092

CHARTS



Radiation pattern



Issue: 2335

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PROPRIETARY INFORMATION

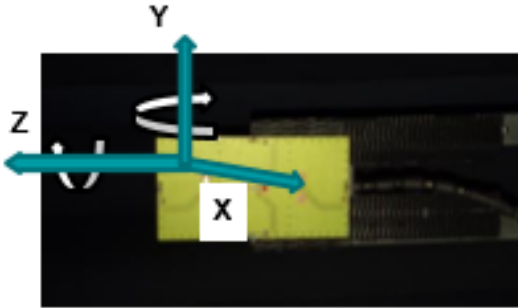
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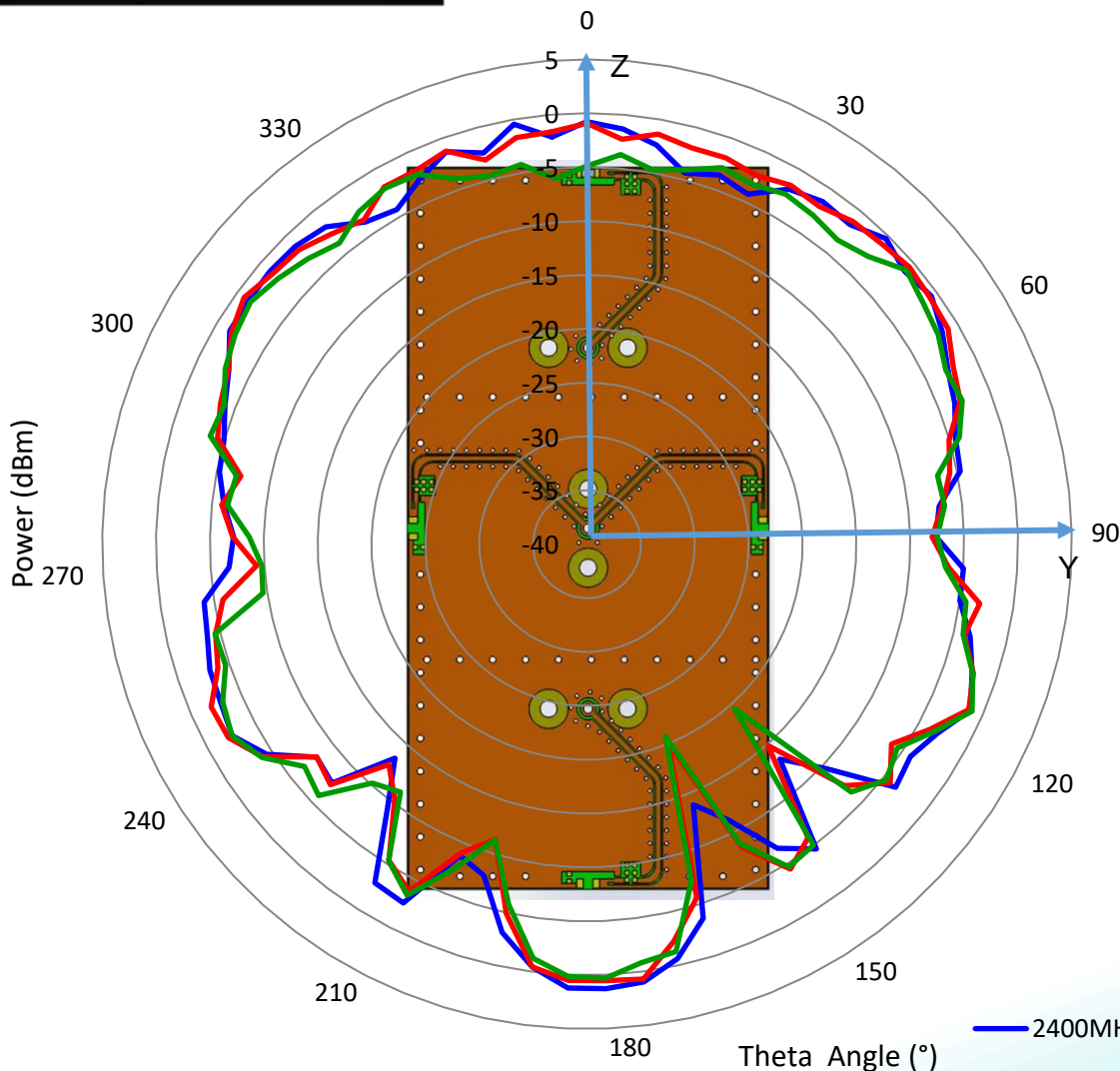
PART NUMBER: W3092

CHARTS



Radiation pattern

YZ Plane



2400MHz
Avg (dBi) = -5.51
Peak (dBi) = 1.17
Avg -3 (deg) = 55

2450MHz
Avg (dBi) = -5.79
Peak (dBi) = 1.17
Avg -3 (deg) = 40

2480MHz
Avg (dBi) = -5.37
Peak (dBi) = 0.76
Avg -3 (deg) = 60

— 2400MHz — 2450MHz — 2500MHz

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Series: The Blue Dot

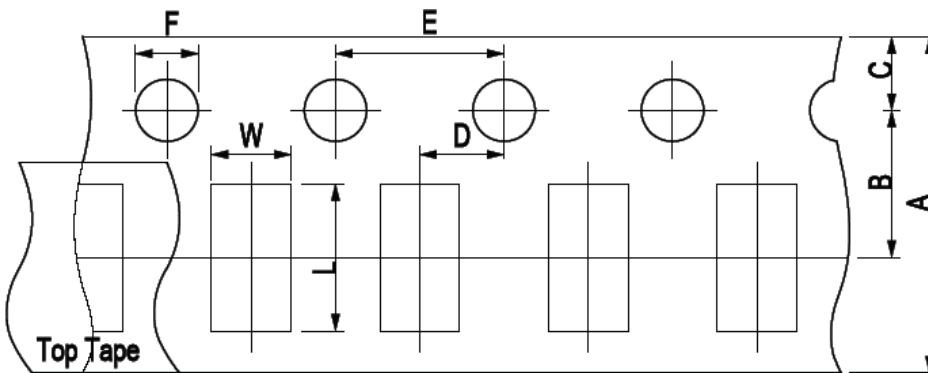
PART NUMBER: W3092

PACKAGING

Taping Package and Label Marking: (unit: mm)

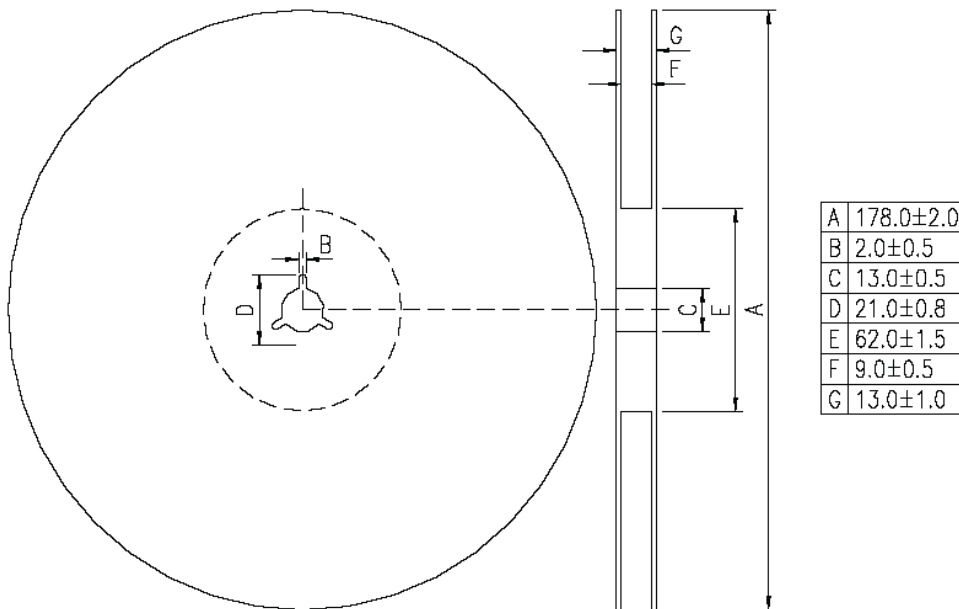
(1) Quantity/Reel: 5000pcs/Reel

(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



A	178.0±2.0
B	2.0±0.5
C	13.0±0.5
D	21.0±0.8
E	62.0±1.5
F	9.0±0.5
G	13.0±1.0

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