PulseLARSEN Antennas

TECHNICAL DATA SHEET

Description: Bluetooth, WiFi Antenna

Series: The Blue Dot

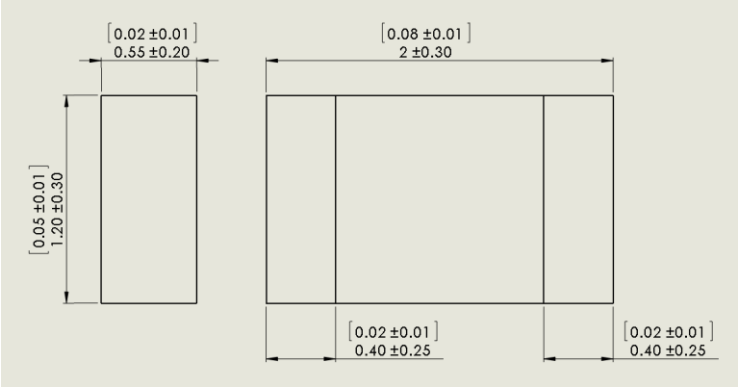
PART NUMBER: W3092

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: 1612

RoHS COMPLIANT

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ELECTRICAL SPECIFICATIONS

Frequency	2400-2483	MHz
Nominal Impedance	50	Ω
VSWR	3	max
Gain (Typ.)	0.89	dBi
Efficiency(Typ.)	55	%
Polarization		Linear

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MECHANICAL SPECIFICATIONS

Weight	0.005 g
Size	2.0x1.2x0.55 mm

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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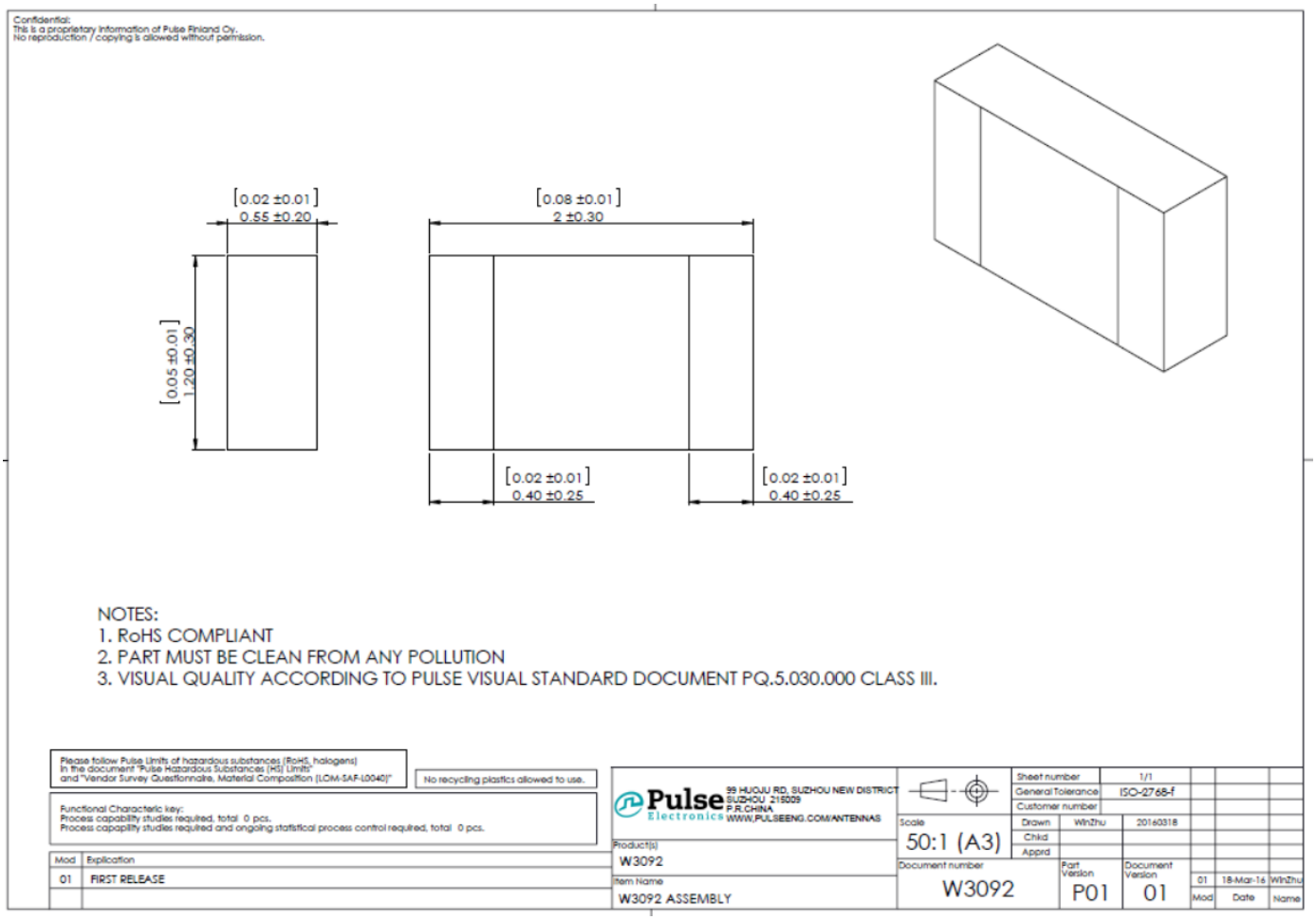
MECHANICAL DRAWING



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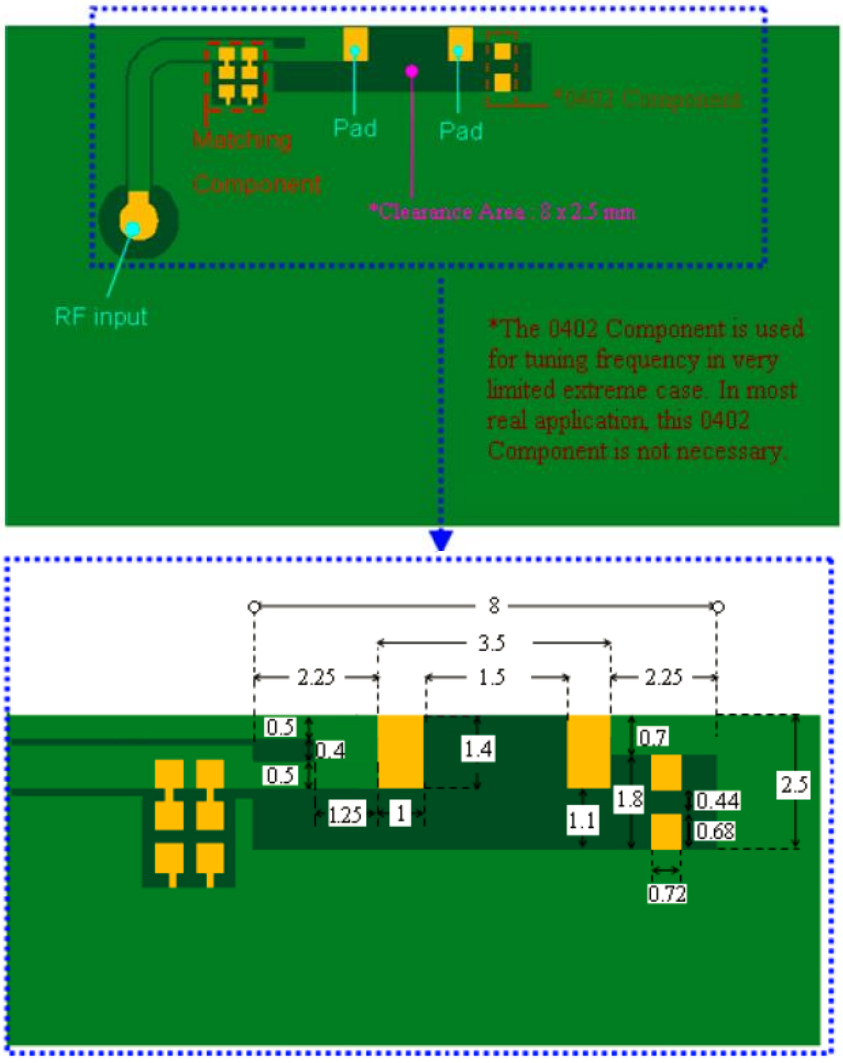
OTHER SPECIFICATIONS

Recommended PCB layout(Unit:mm)



***Clearance 8mm × 2.5mm：All metallization should be removed from all PCB layers.**

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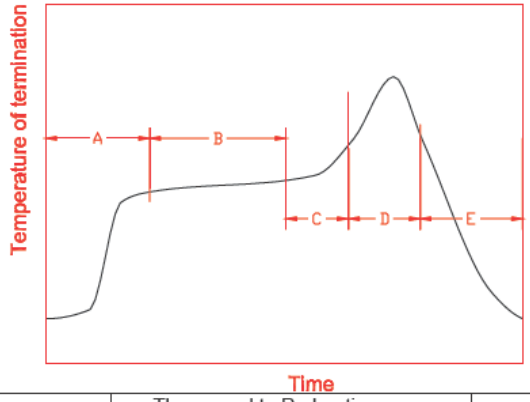
OTHER SPECIFICATIONS

Recommended reflow soldering



A	1st rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140℃ to 160℃	60s to 120s
C	2nd rising temperature	Preheating to 200℃	20s to 40s
D	Main heating	if 220℃	50s~60s
		if 230℃	40s~50s
		if 240℃	30s~40s
		if 250℃	20s~40s
		if 260℃	20s~40s
E	Regular cooling	200℃ to 100℃	1℃/s ~ 4℃/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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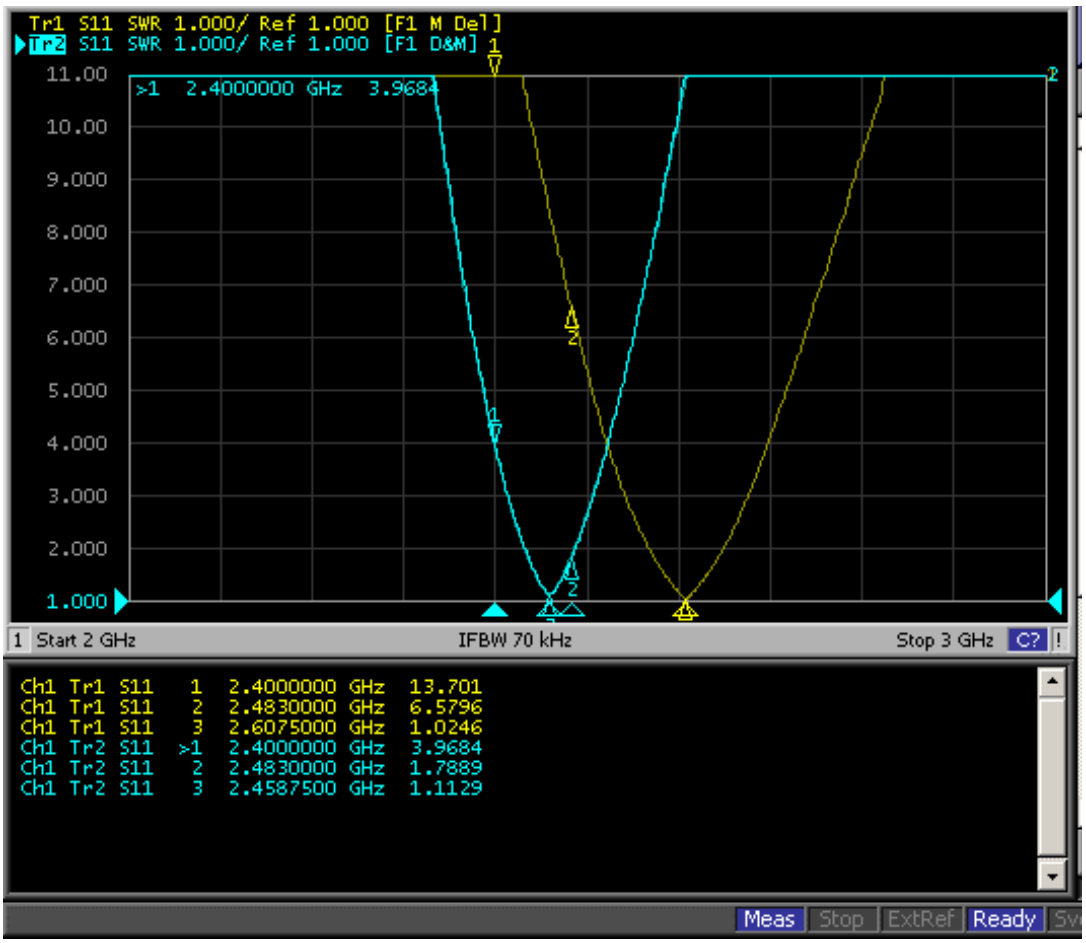
CHARTS

VSWR



Yellow: 0ohm resistor only
Blue: 0 ohm + 1.1pF capacitor

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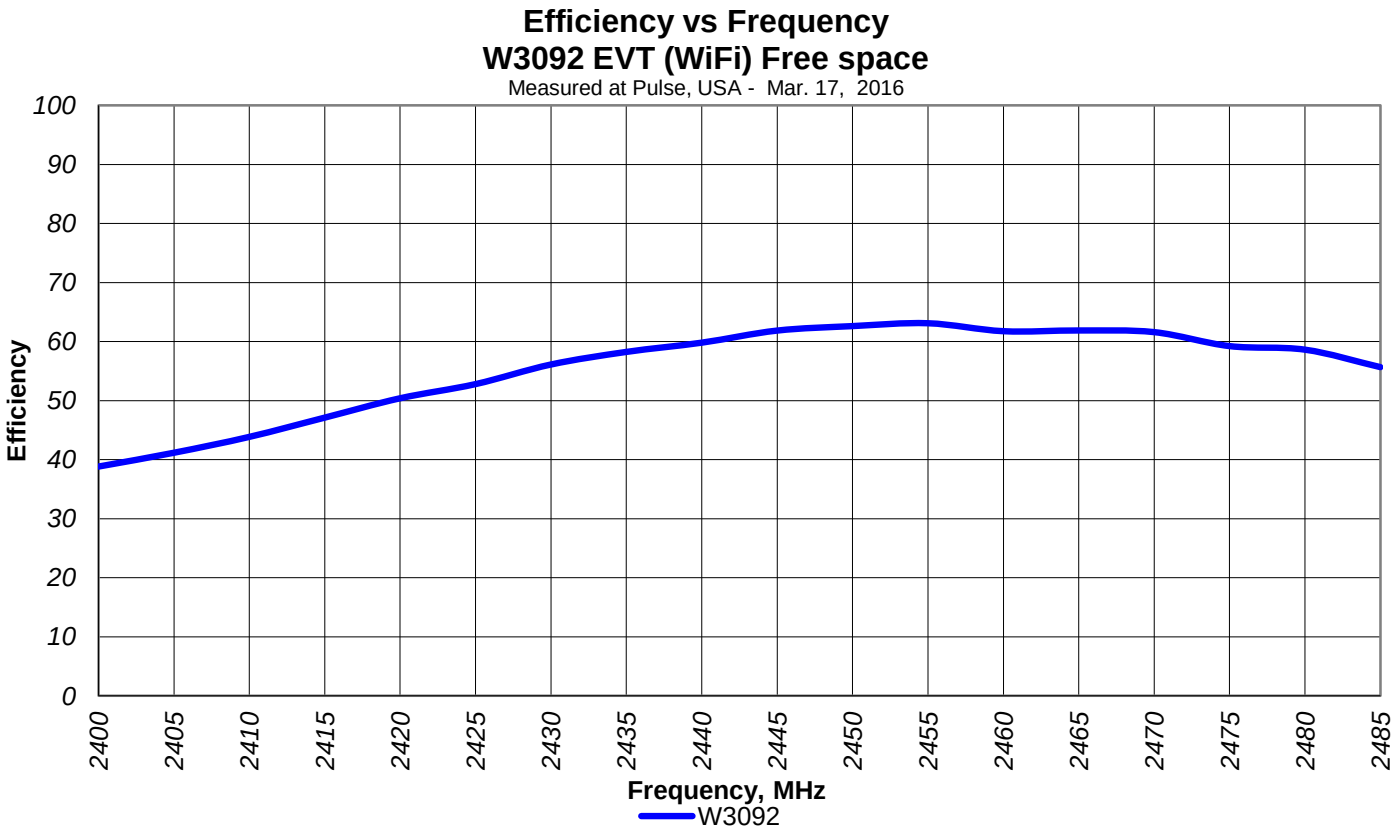
CHARTS

Efficiency



with 1.1pF tuning capacitor

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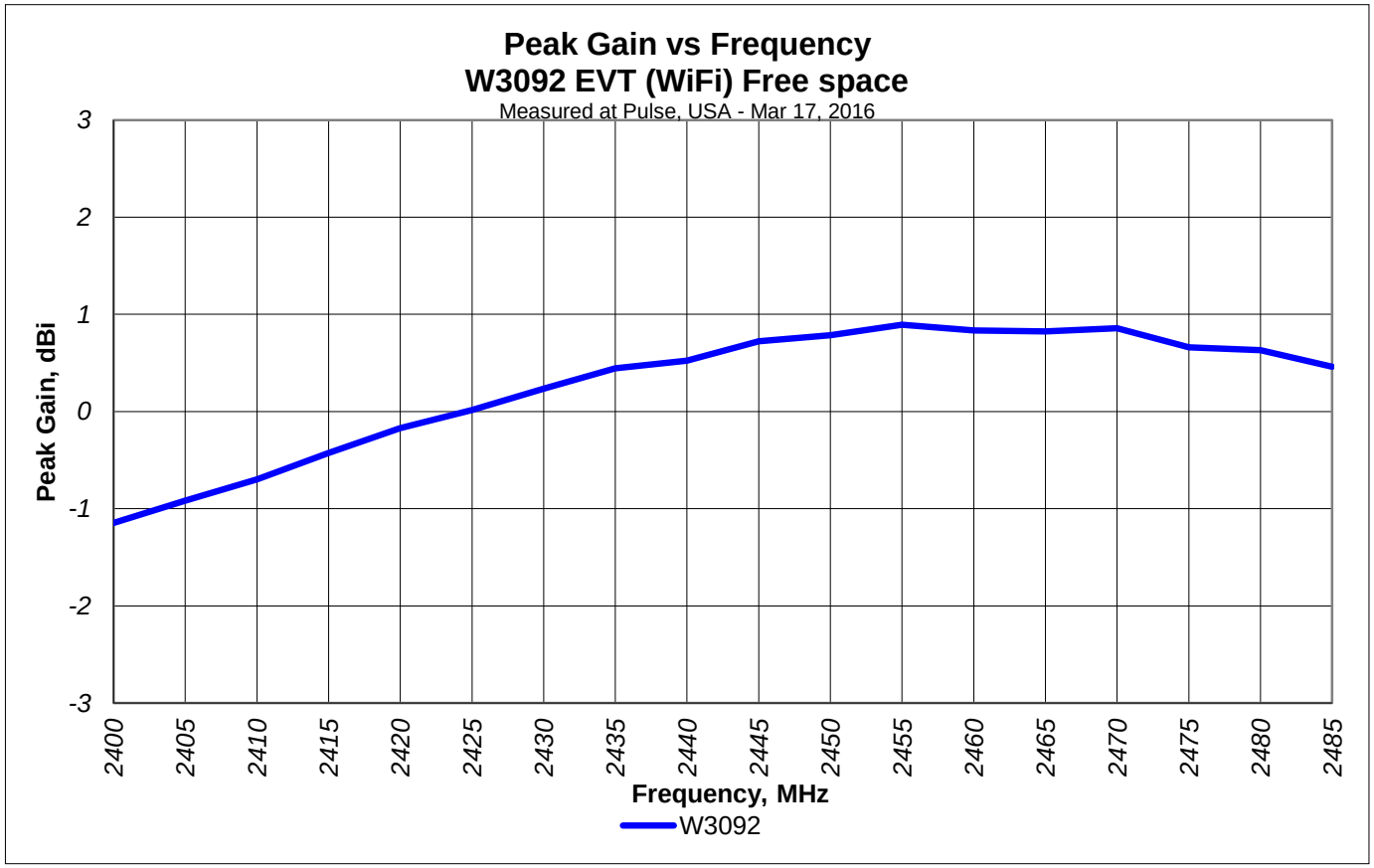
CHARTS

Gain



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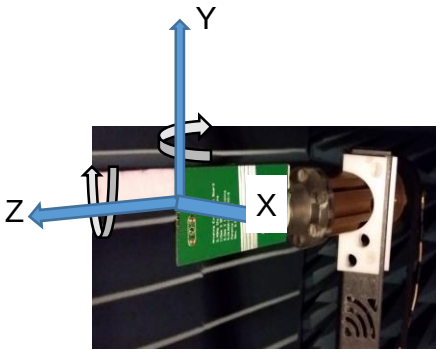
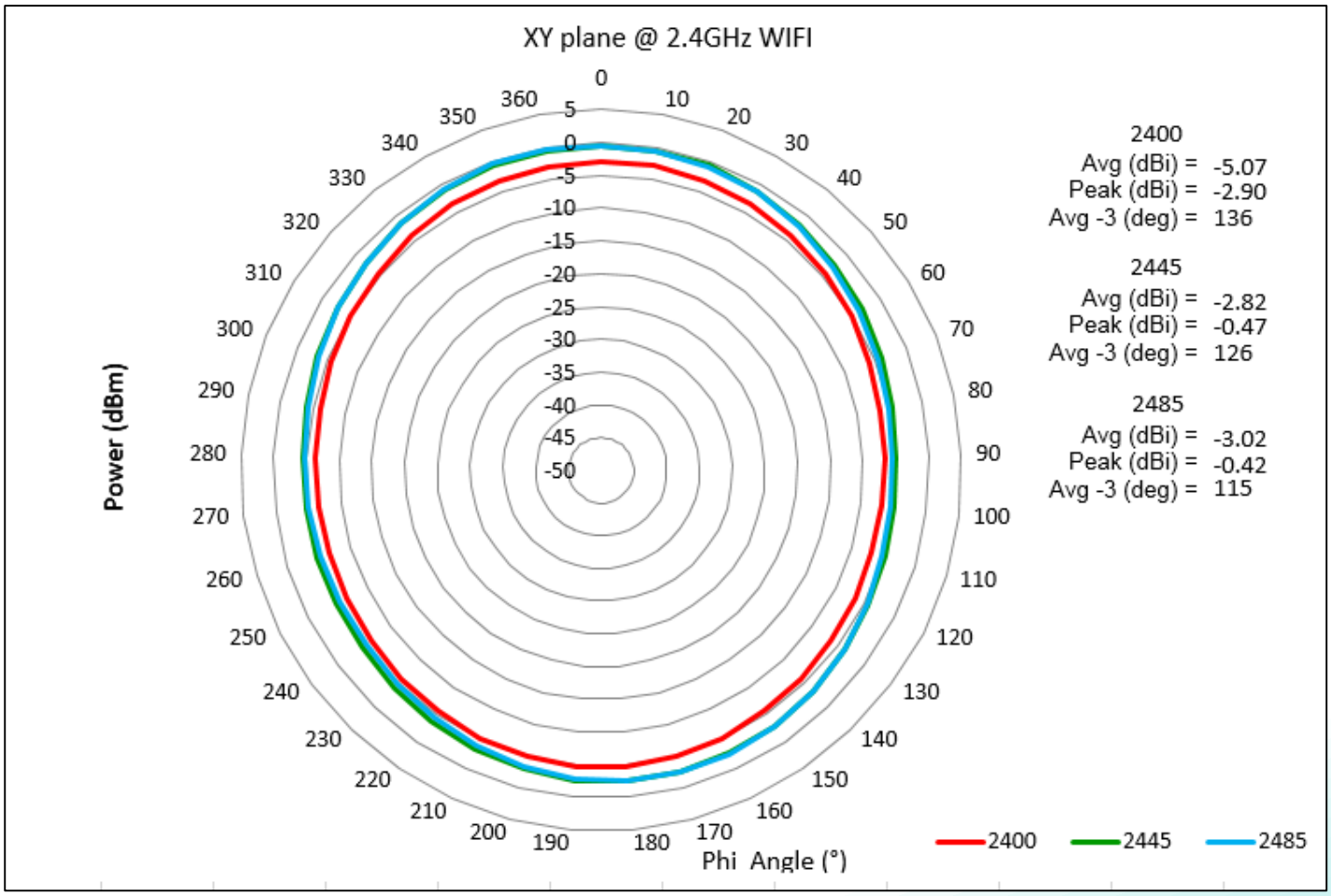


Radiation pattern



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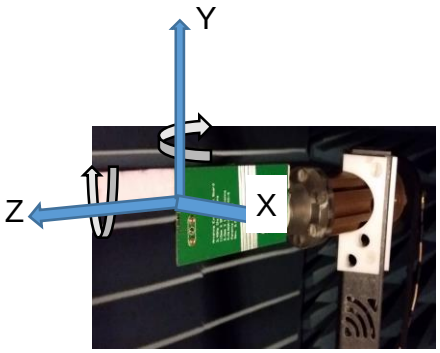
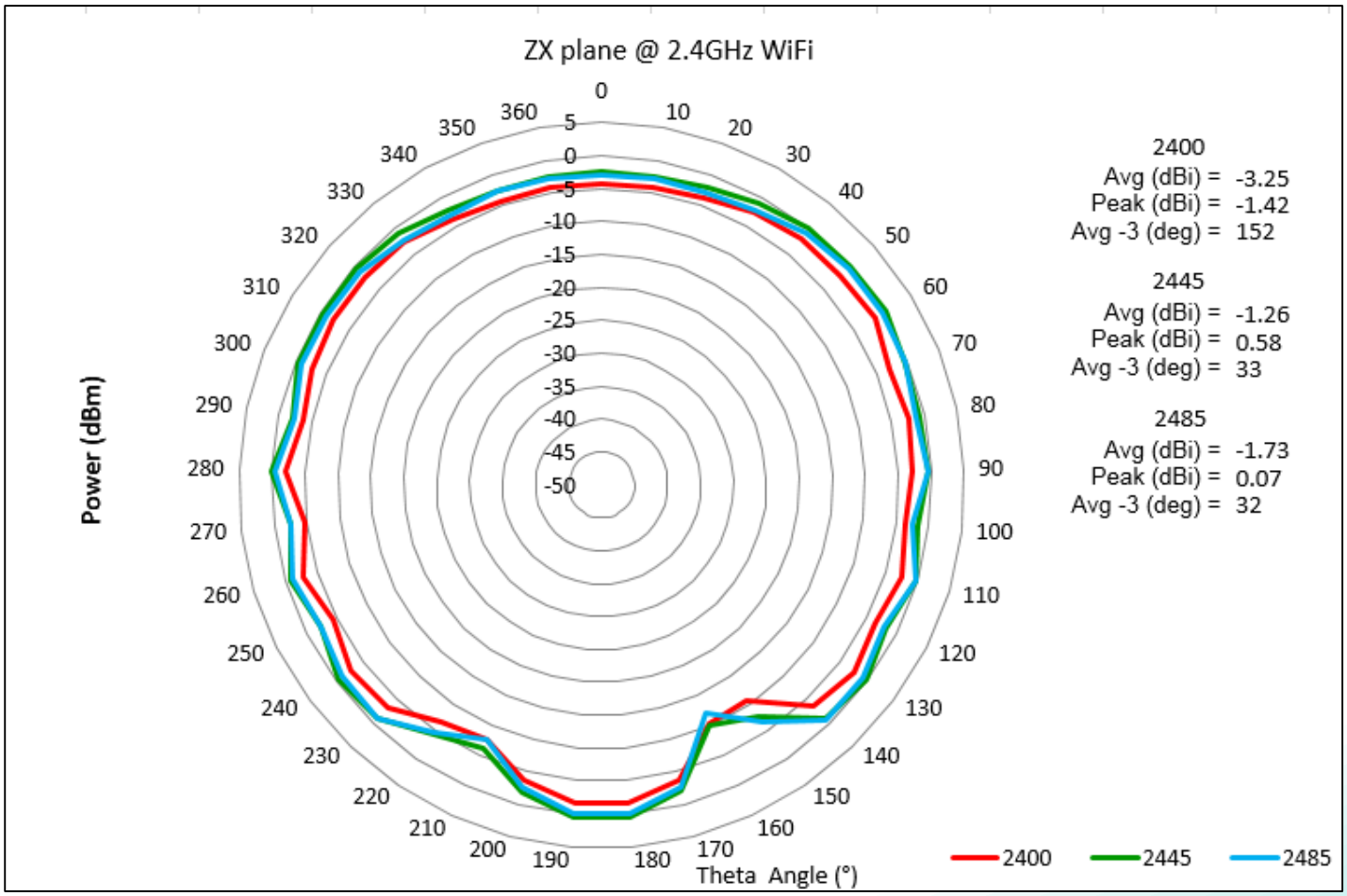


Radiation pattern



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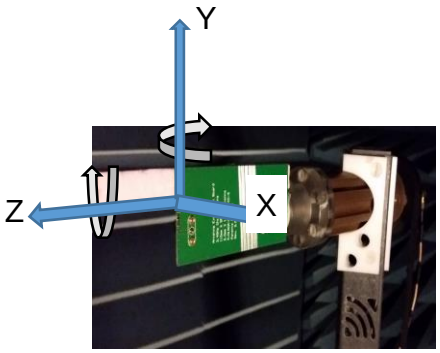

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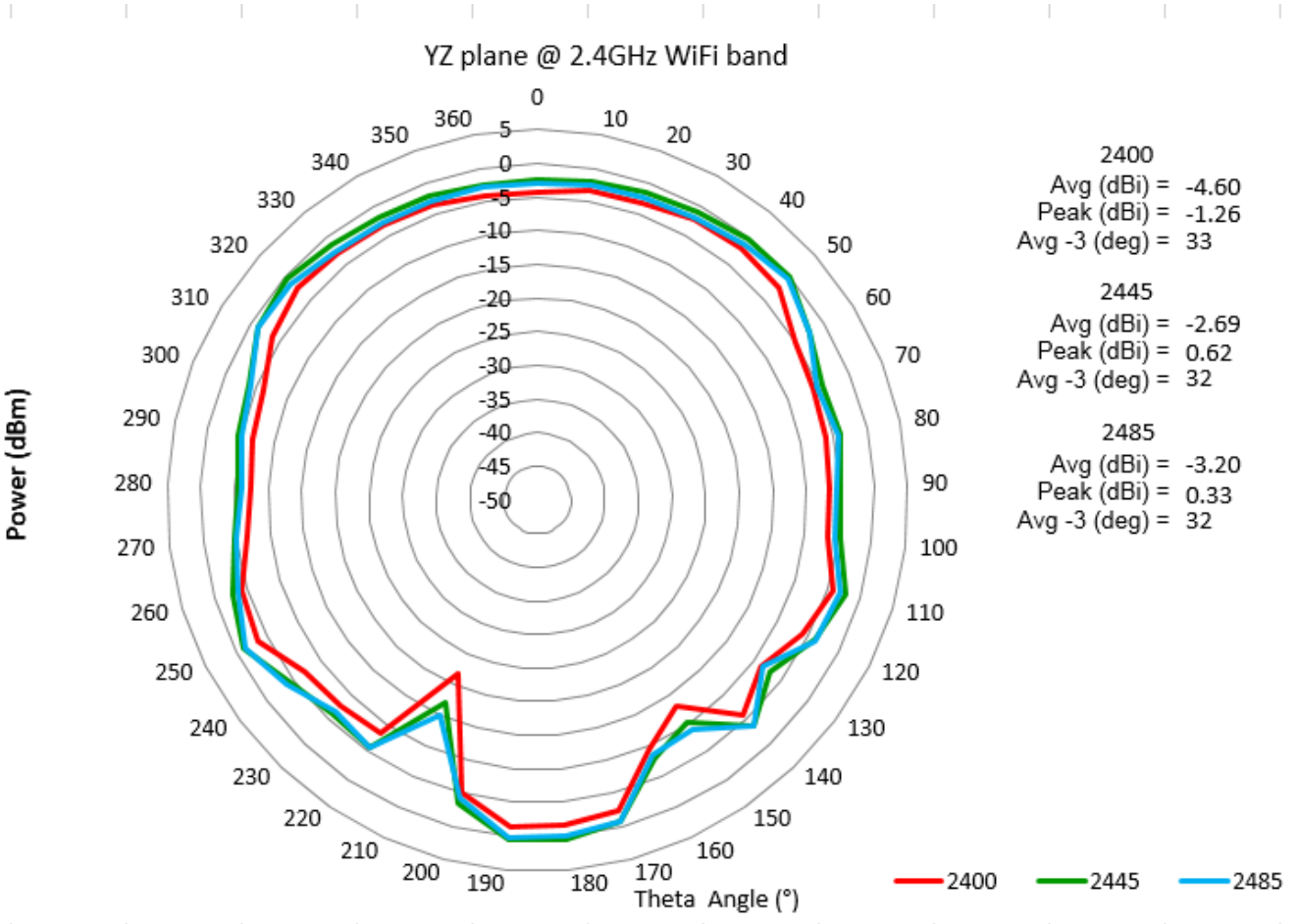

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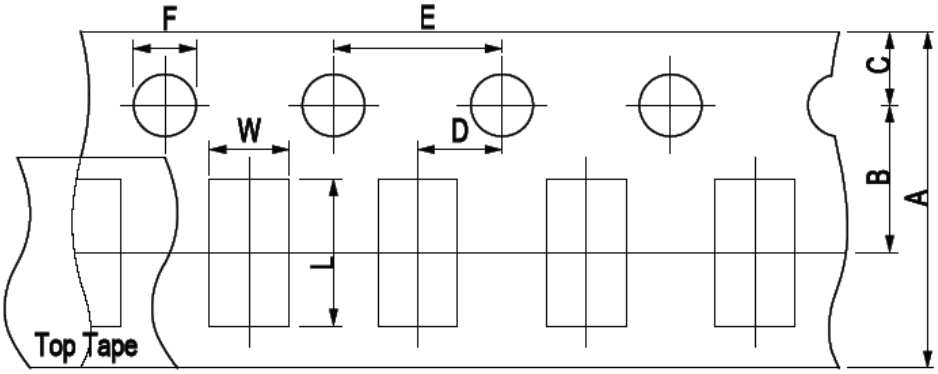
PACKAGING

Taping Package and Label Marking: (unit: mm)

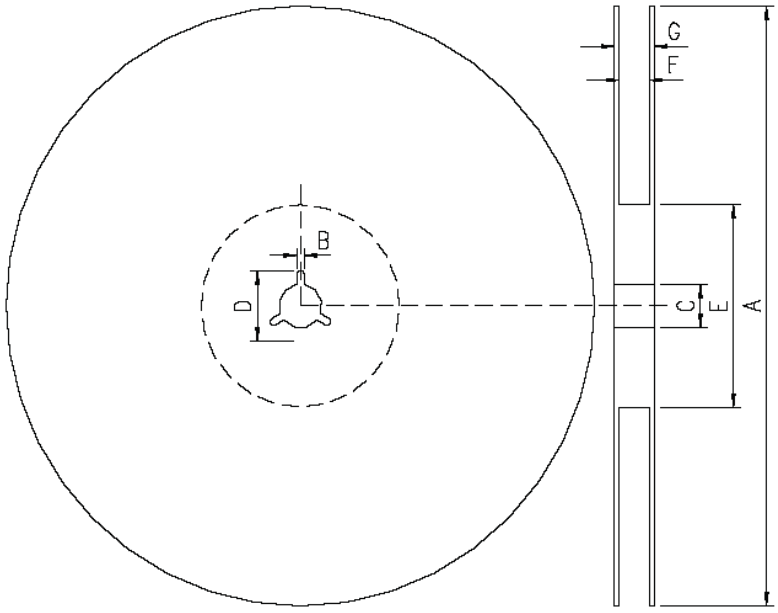
(1) Quantity/Reel: 5000pcs/Reel

(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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