PulseLARSEN Antennas

TECHNICAL DATA SHEET

Description: 2.4/5GHz FPC antenna

Series: Internal Antenna

PART NUMBER: W3917XXXX



Features:

- 2400-2500 / 4900-5925 MHz
- Size 42.6 X 8.6 X 0.15 mm
- Efficiency 60/70%
- VSWR < 2
- Nominal impedance 50 Ω
- Cable and connector can be customized

Applications:

- WiFi, Bluetooth, BLE, ZigBee
- DSRC
- ISM band radios
- IoT, M2M

All dimensions are in mm / inches

Issue: 1714

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Pulse (Suzhou) Wireless Products Co, Inc.
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Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998

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This document covers all product variants of the following product family:

W3917B0050	50mm 1.13mm OD cable	U.FL compatible connector
W3917B0100	100mm 1.13mm OD cable	U.FL compatible connector

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ELECTRICAL SPECIFICATIONS

Frequency	2400-2500, 4900-5925MHz
Nominal Impedance	50Ω
VSWR	< 2
Peak Gain	2dBi+/- 1dB@ 2.4GHz
	4dBi+/-1dB@5GHz
Efficiency(%)	60 / 70 %
Radiation Pattern	Omni
Polarization:	Linear
Power withstanding	2 W
Connector	U.FL compatible connector
Cable type	1.13mm coaxial cable black
Cable length	Optional

(*) All RF parameters measured on 2mm thick PC plate

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MECHANICAL SPECIFICATIONS

Radiator material	FPC	
Color	Black	
Adhesive	3M467	
Thickness(with adhesive, no liner)	0.15	mm
Weight	0.32	g
FPC size(L X W X T)	42.6 X 8.6 X 0.15	mm

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-40/+85	° C

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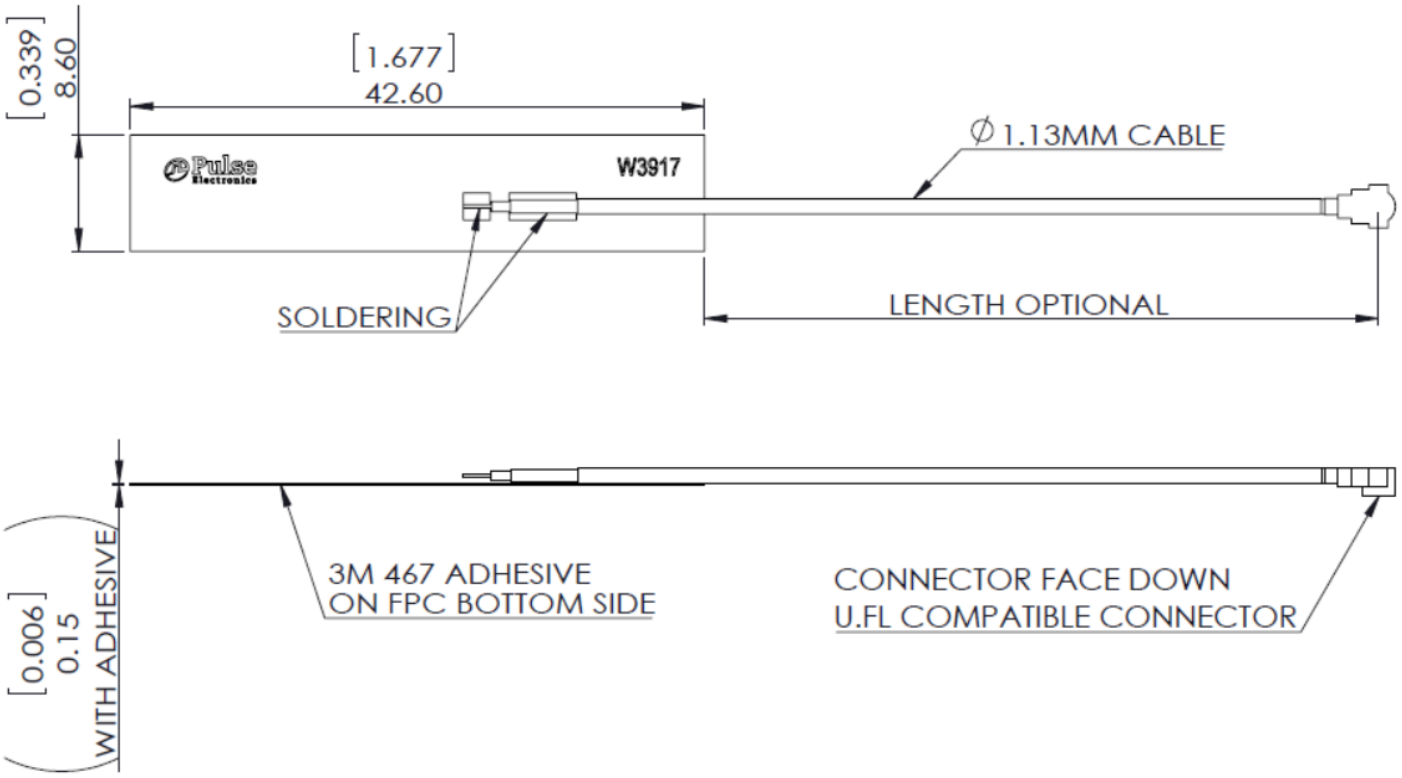
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MECHANICAL DRAWING



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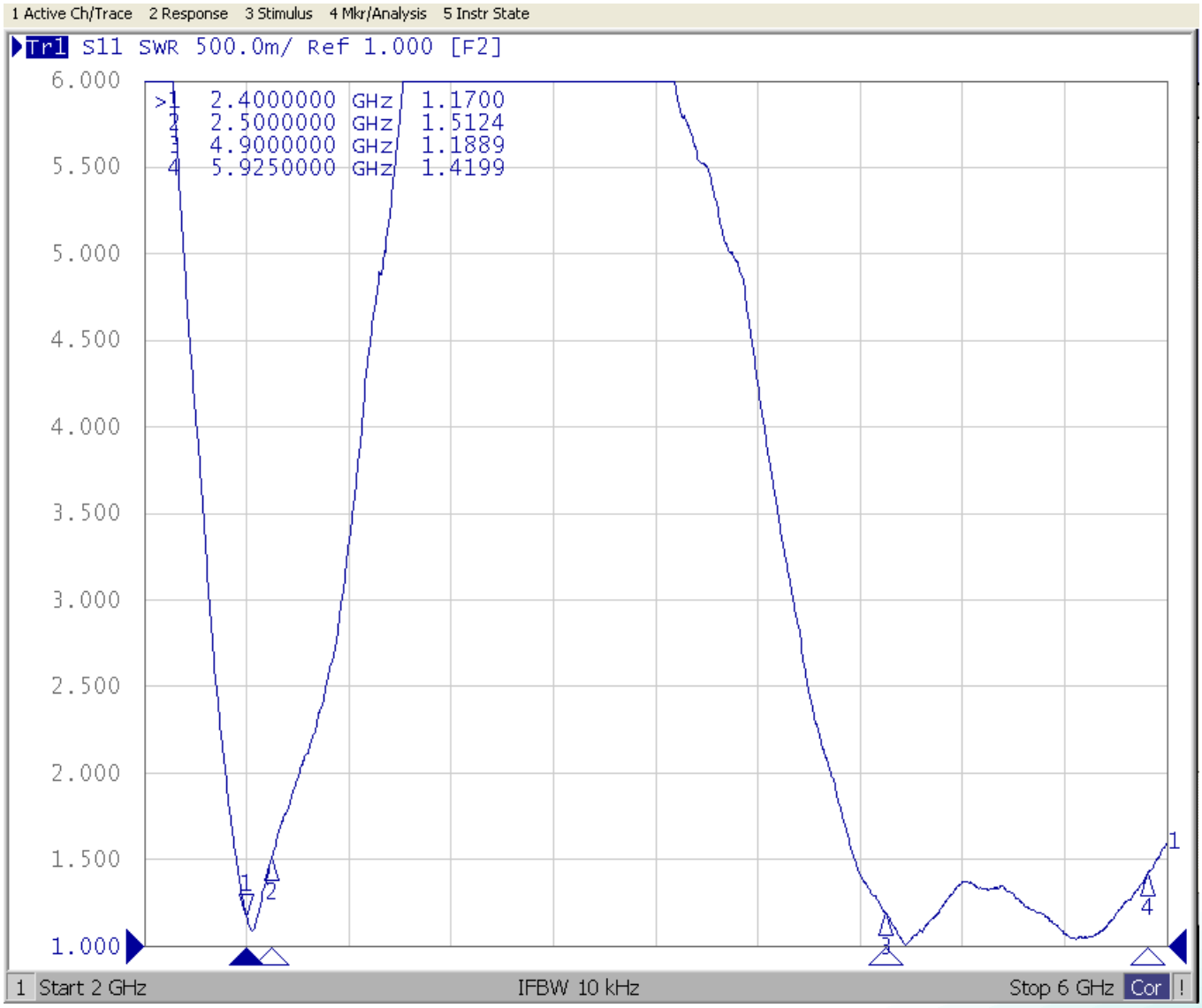
Series: Internal Antenna

PART NUMBER: W3917XXXX

CHARTS

(*) All RF parameters measured on 2mm thick PC plate

Return Loss



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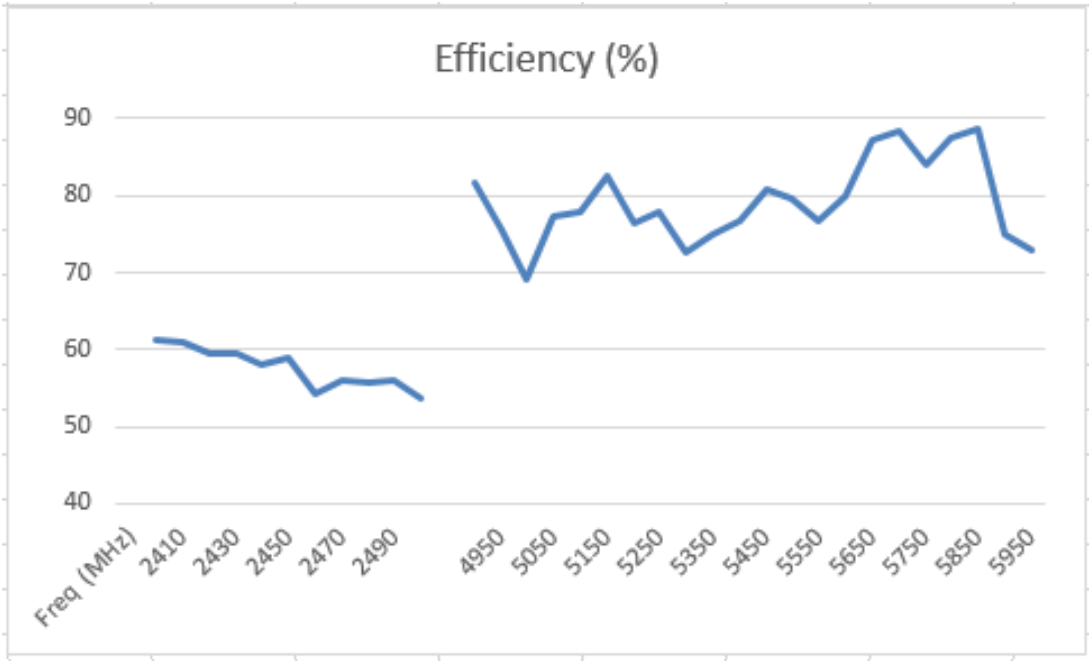
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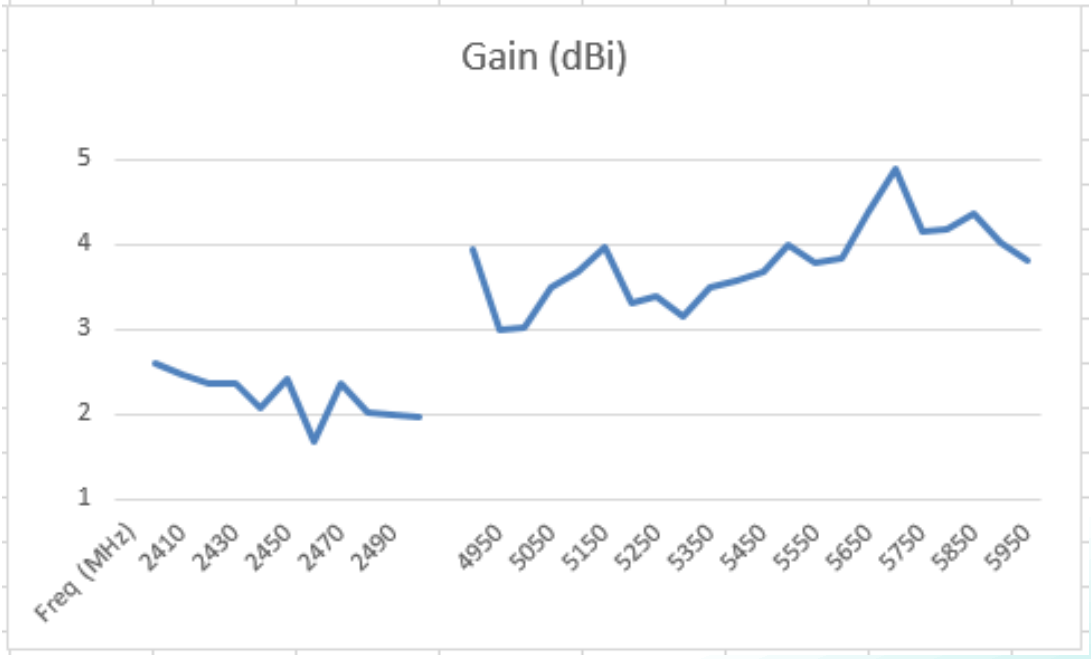
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CHARTS

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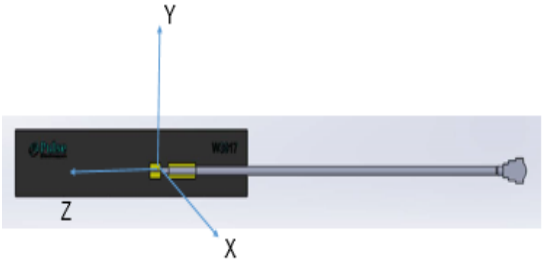
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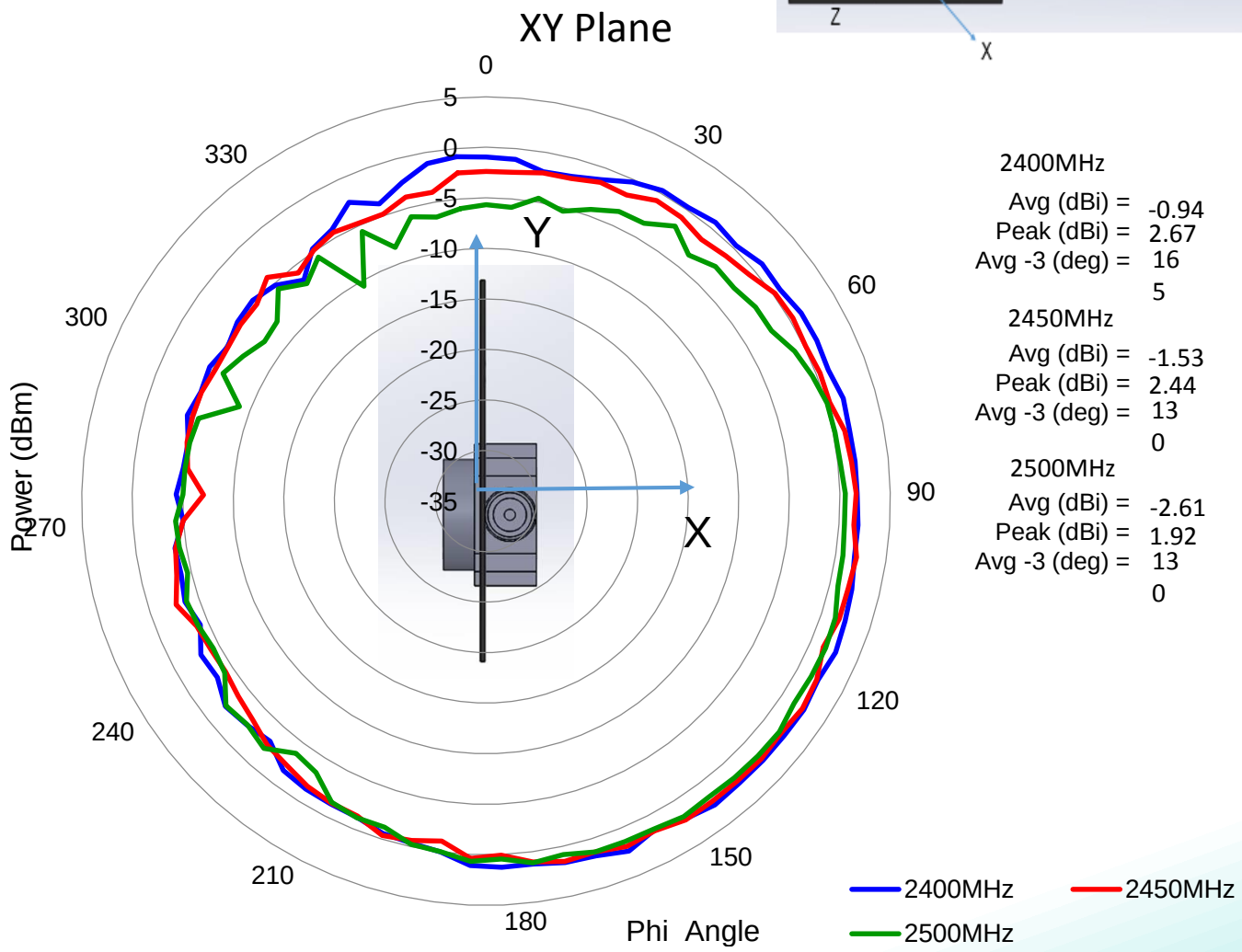
Series: Internal Antenna

PART NUMBER: W3917XXXX

CHARTS

Typical free space radiation pattern
WIFI2.4GHz
(*) All RF parameters measured on 2mm thick PC plate





2400MHz
Avg (dBi) = -0.94
Peak (dBi) = 2.67
Avg -3 (deg) = 165

2450MHz
Avg (dBi) = -1.53
Peak (dBi) = 2.44
Avg -3 (deg) = 130

2500MHz
Avg (dBi) = -2.61
Peak (dBi) = 1.92
Avg -3 (deg) = 130

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RoHS COMPLIANT

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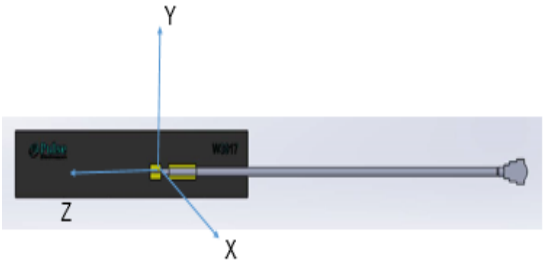
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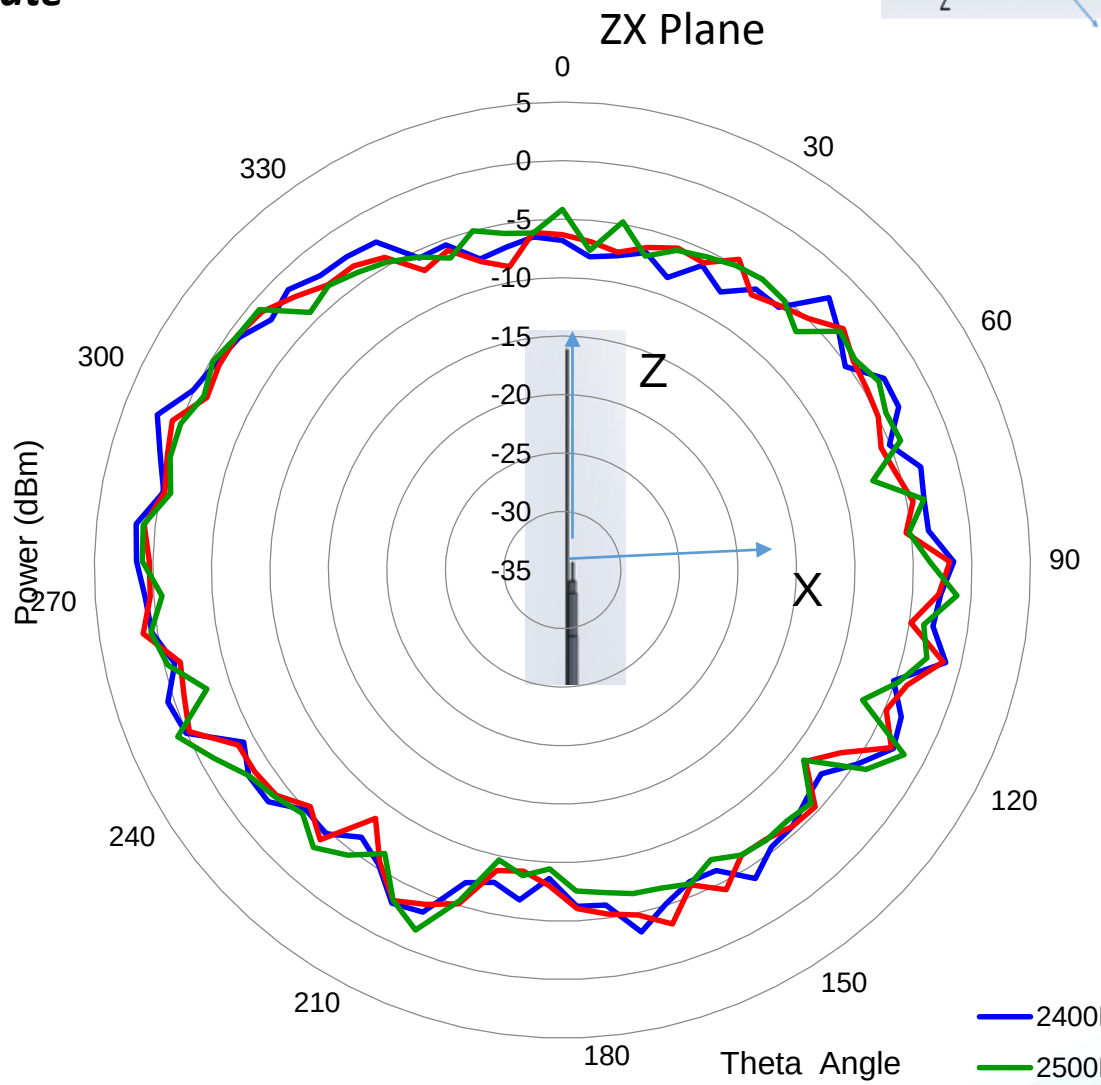
PART NUMBER: W3917XXXX

CHARTS

Typical free space radiation pattern
WIFI2.4GHz

(*) All RF parameters measured on 2mm thick PC plate





2400MHz

Avg (dBi) =	-3.95
Peak (dBi) =	2.09
Avg -3 (deg) =	25

2450MHz

Avg (dBi) =	-4.31
Peak (dBi) =	1.23
Avg -3 (deg) =	35

2500MHz

Avg (dBi) =	-4.26
Peak (dBi) =	1.04
Avg -3 (deg) =	40

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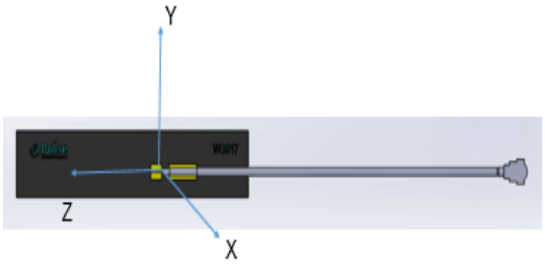
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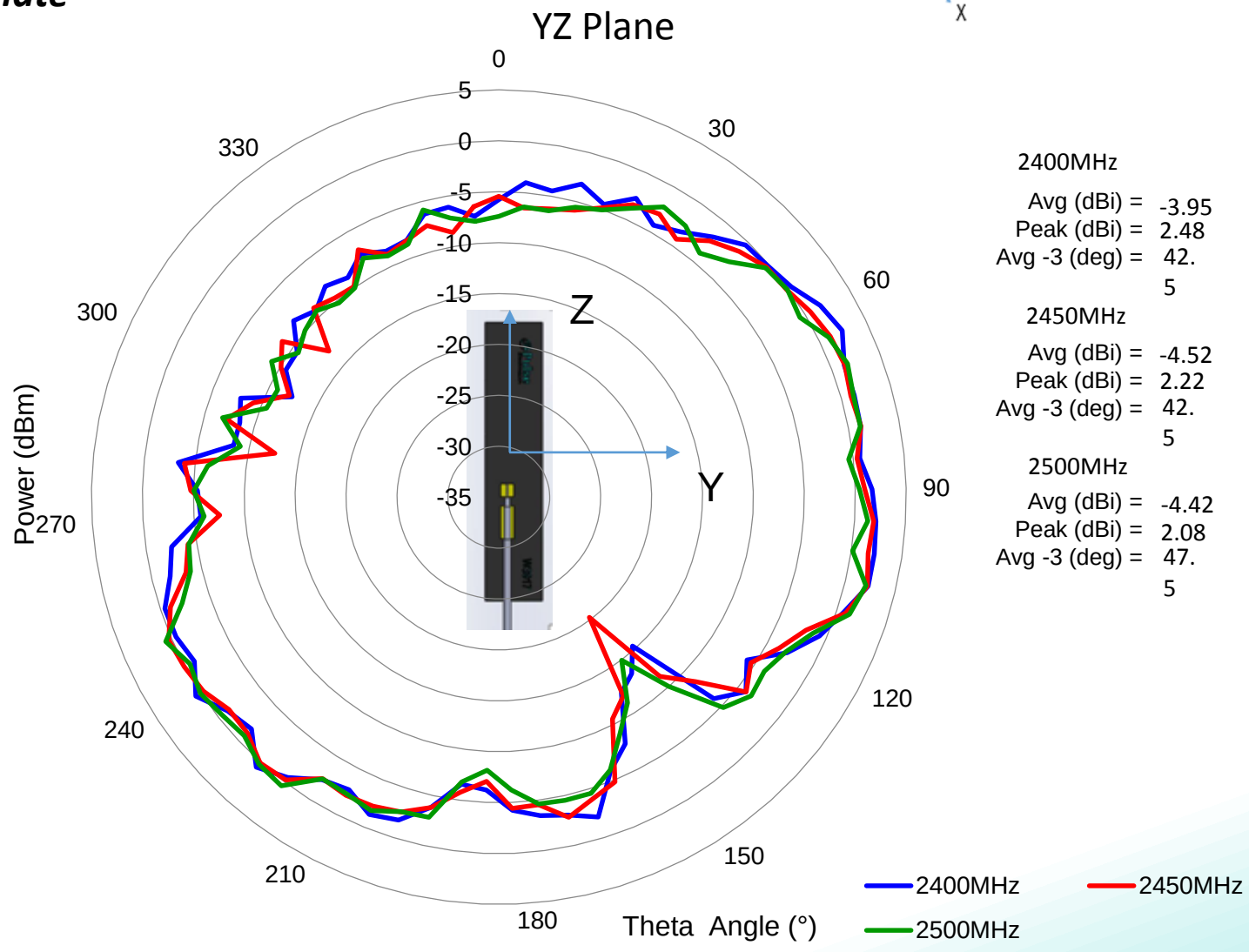
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CHARTS

Typical free space radiation pattern
WIFI2.4GHz
(*) All RF parameters measured on 2mm thick PC plate





2400MHz

Avg (dBi) =	-3.95
Peak (dBi) =	2.48
Avg -3 (deg) =	42.5

2450MHz

Avg (dBi) =	-4.52
Peak (dBi) =	2.22
Avg -3 (deg) =	42.5

2500MHz

Avg (dBi) =	-4.42
Peak (dBi) =	2.08
Avg -3 (deg) =	47.5

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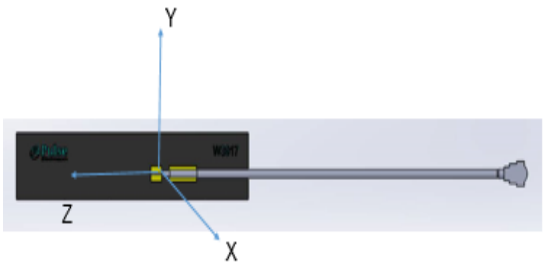
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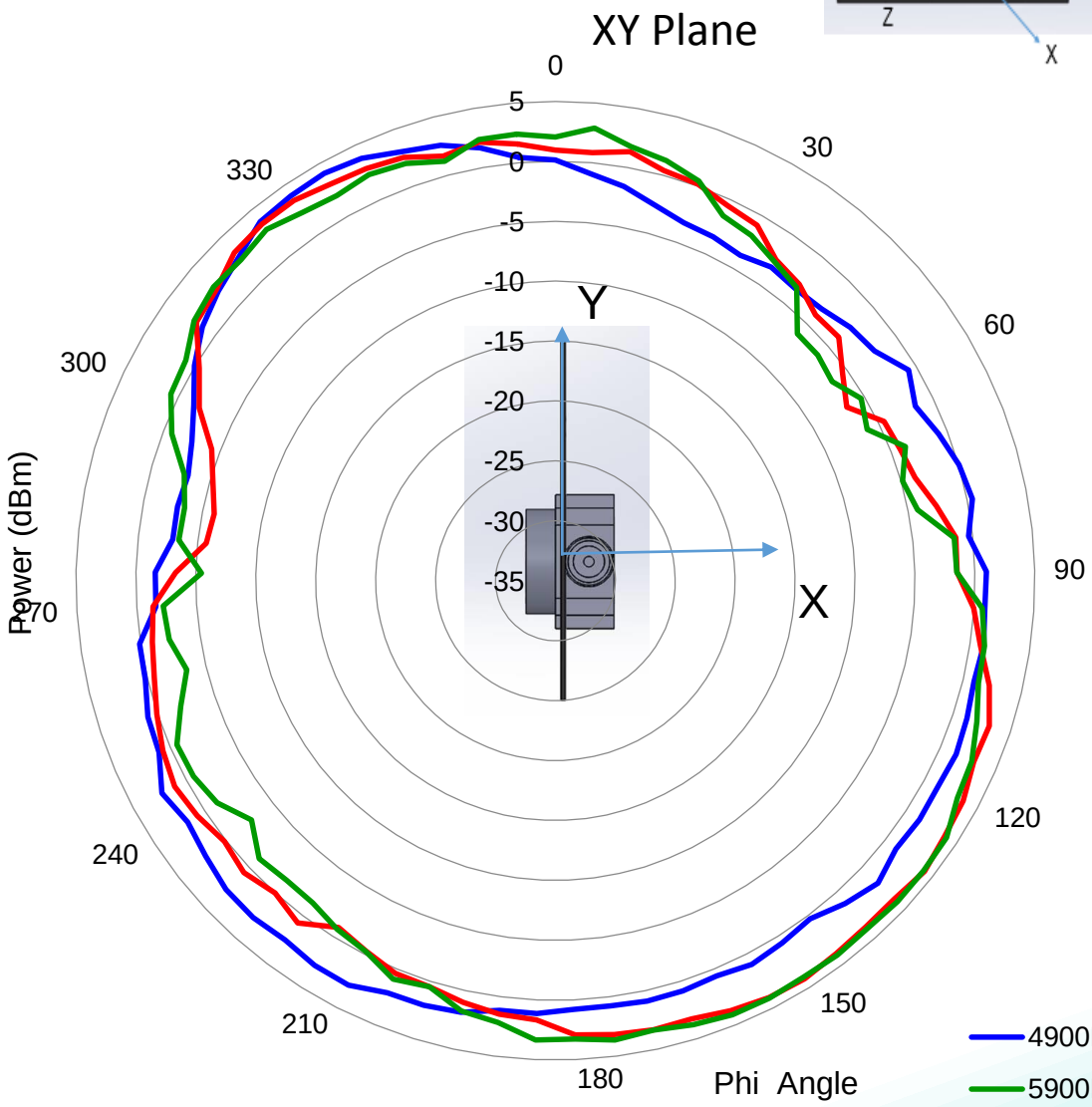
Series: Internal Antenna

PART NUMBER: W3917XXXX

CHARTS

Typical free space radiation pattern
WIFI 5GHz
(*) All RF parameters measured on 2mm thick PC plate





4900MHz
Avg (dBi) = 0.41
Peak (dBi) = 4.08
Avg -3 (deg) = 150

5400MHz
Avg (dBi) = 0.32
Peak (dBi) = 4.19
Avg -3 (deg) = 150

5900MHz
Avg (dBi) = 0.16
Peak (dBi) = 4.13
Avg -3 (deg) = 170

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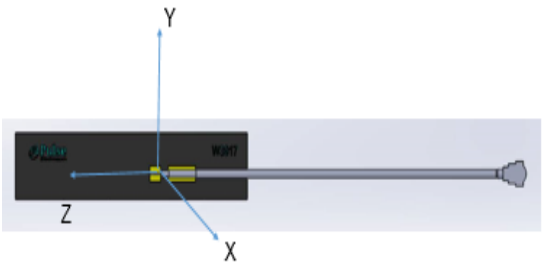
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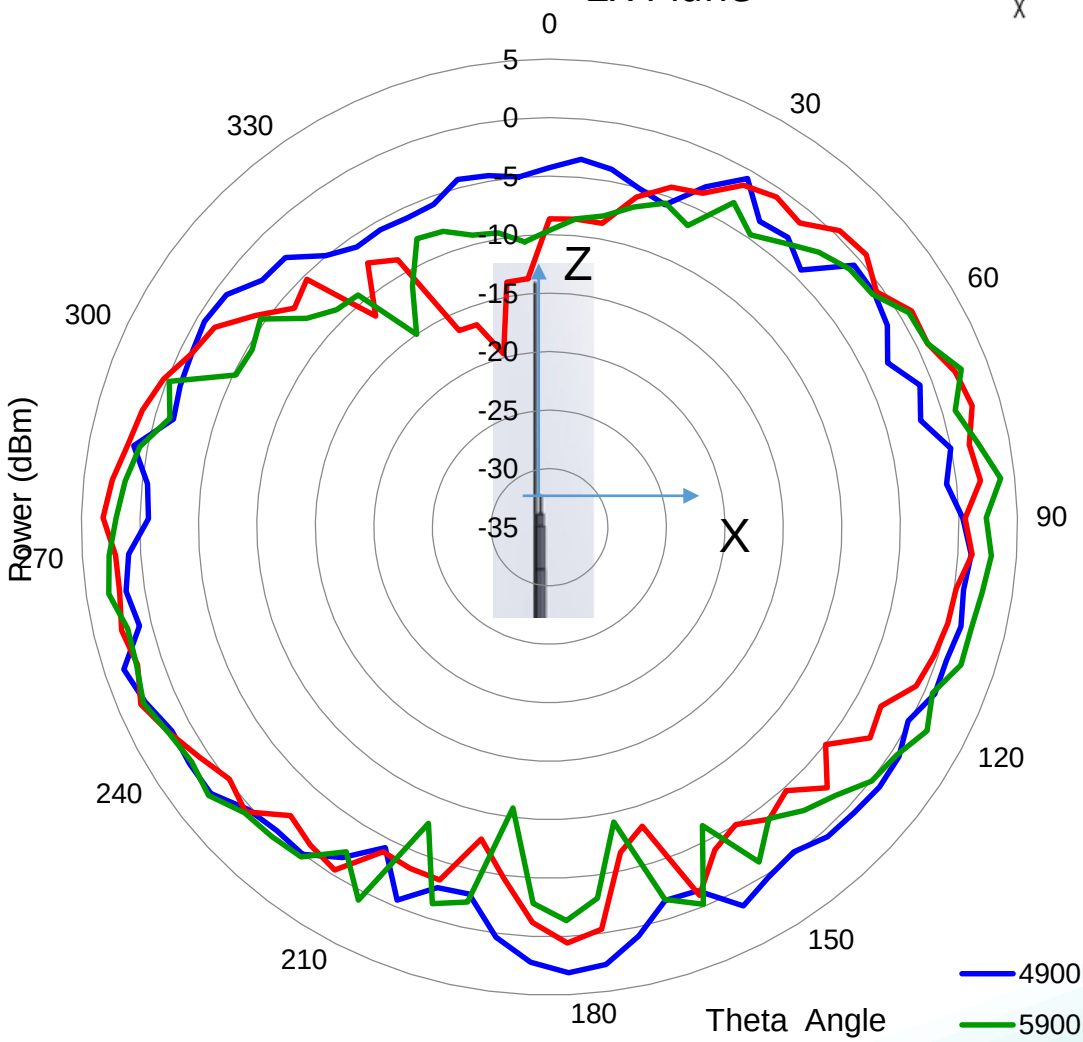
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CHARTS

Typical free space radiation pattern
WIFI 5GHz
(*) All RF parameters measured on 2mm thick PC plate





4900MHz

Avg (dBi) =	-1.11
Peak (dBi) =	3.35
Avg -3 (deg) =	57.5

5400MHz

Avg (dBi) =	-2.83
Peak (dBi) =	3.16
Avg -3 (deg) =	57.5

5900MHz

Avg (dBi) =	-2.48
Peak (dBi) =	3.79
Avg -3 (deg) =	52.5

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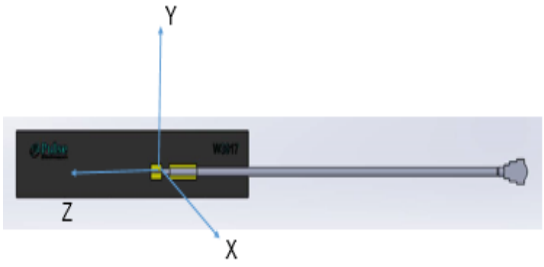
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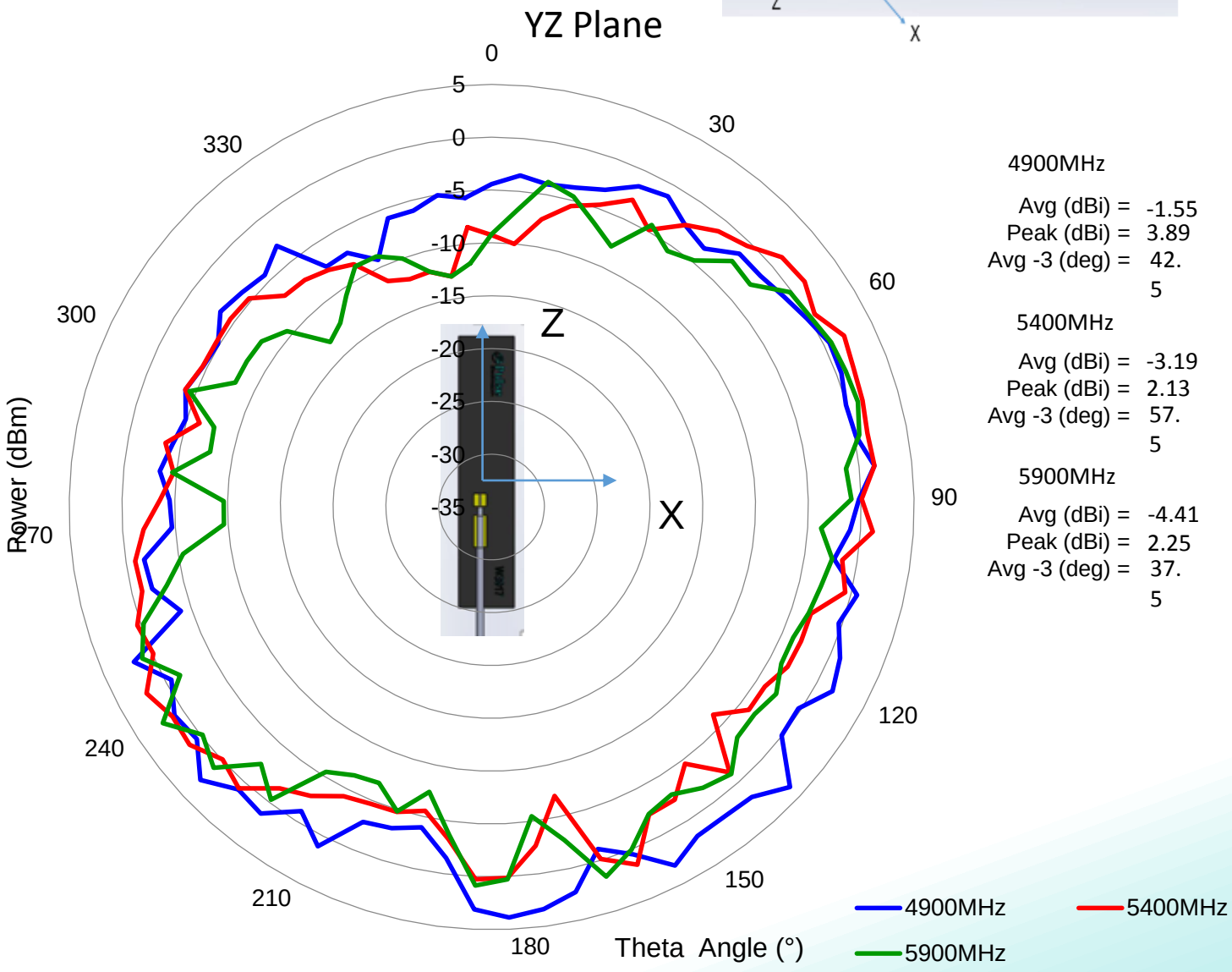
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WIFI 5GHz
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4900MHz

Avg (dBi) =	-1.55
Peak (dBi) =	3.89
Avg -3 (deg) =	42.5

5400MHz

Avg (dBi) =	-3.19
Peak (dBi) =	2.13
Avg -3 (deg) =	57.5

5900MHz

Avg (dBi) =	-4.41
Peak (dBi) =	2.25
Avg -3 (deg) =	37.5

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PACKAGING

10PCS/PE bag
10 PE bag/foam bag
50 foam bag/ carton box

Total 5000PCS/Carton box





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