PulseLARSEN Antennas

TECHNICAL DATA SHEET

Description: 5GHz PCB antenna

Series: Internal Antenna

PART NUMBER: W3919XXXX



Features:

- 4900-5925 MHz
- Size 15.9 X 7.6 X 0.45 mm
- Efficiency > 60%
- VSWR < 2
- Nominal impedance 50 Ω
- Cable and connector can be customized

Applications:

- WiFi 5GHz
- DSRC
- ISM band 5GHz radios
- IoT, M2M

All dimensions are in mm / inches

Issue: 1714

RoHS COMPLIANT

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Tel: 49 7032 7806 0

Pulse (Suzhou) Wireless Products Co, Inc.
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Suzhou New District
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:

W3919B0050	50mm 1.13mm OD cable	U.FL compatible connector
W3919B0100	100mm 1.13mm OD cable	U.FL compatible connector

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ELECTRICAL SPECIFICATIONS

Frequency	4900-5925 MHz
Nominal Impedance	50 Ω
VSWR	< 2
Gain	3 dBi +/- 1 dB
Efficiency	60 %
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	FR4 PCB	
Color	Black	
Adhesive	3M467	
Thickness(with adhesive, no liner)	0.45	mm
PCB size(L X W X T)	15.9 X 7.6 X 0.45	mm

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-40/+85	° C

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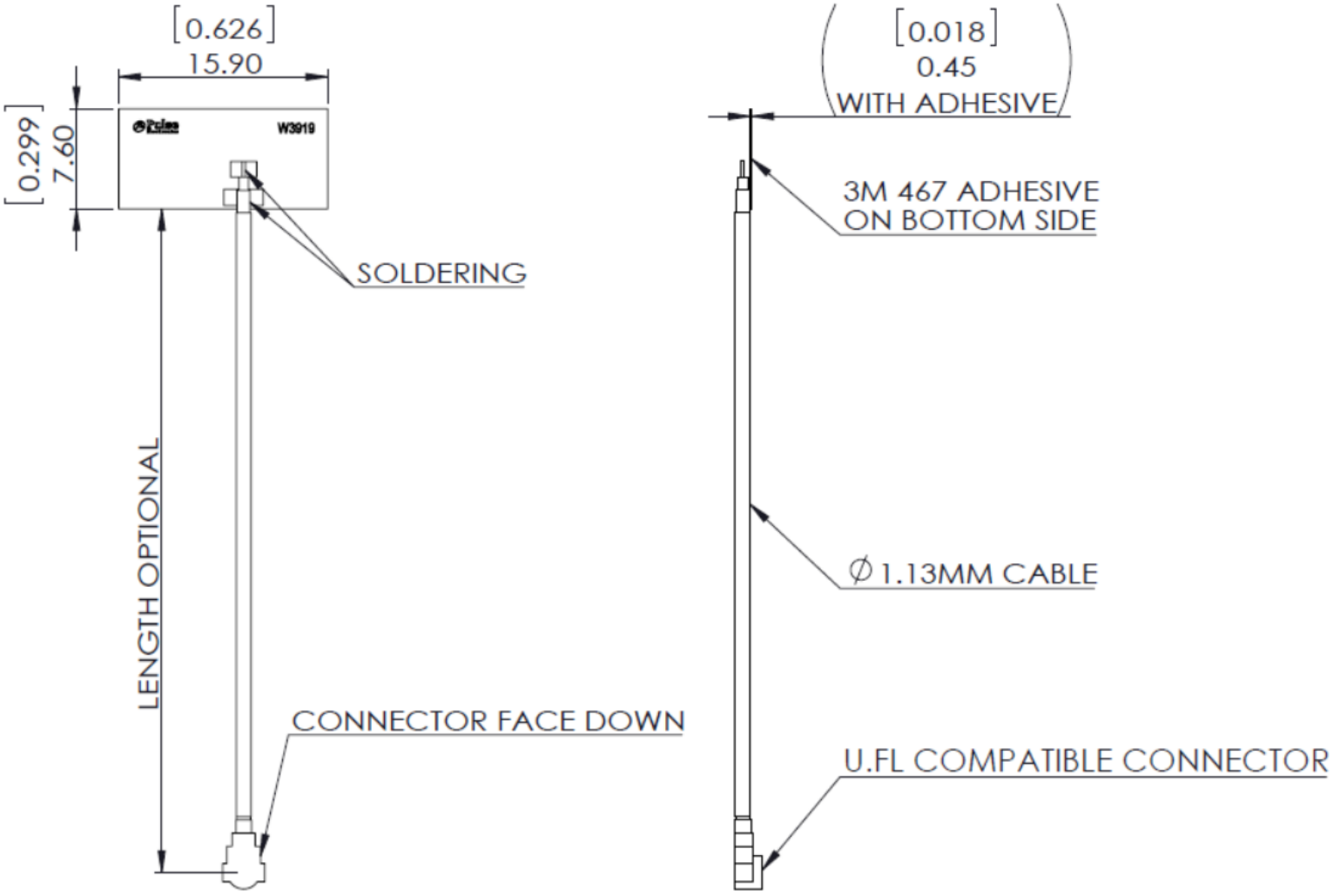
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MECHANICAL DRAWING



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Description: 5GHz PCB antenna

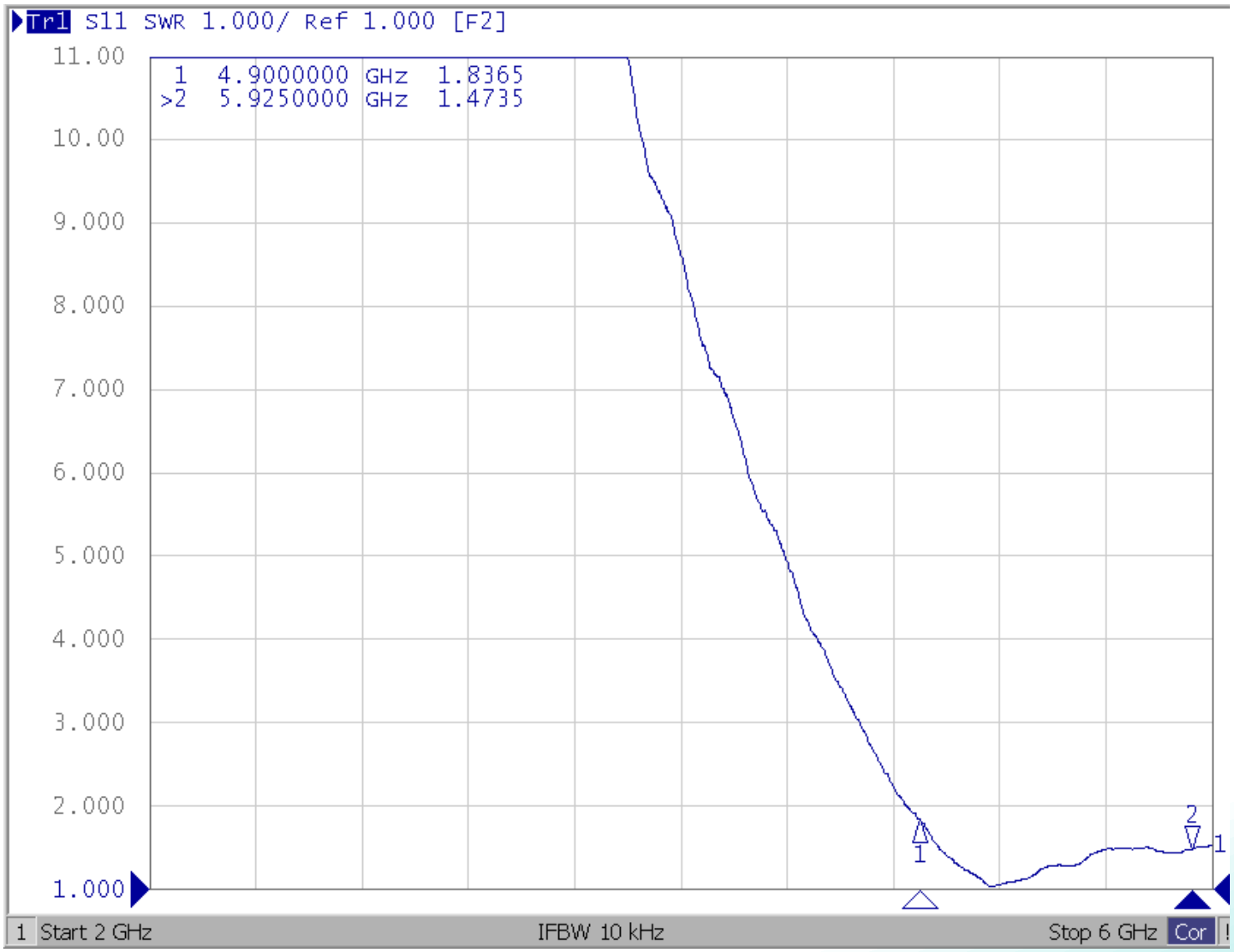
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CHARTS

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

Return Loss



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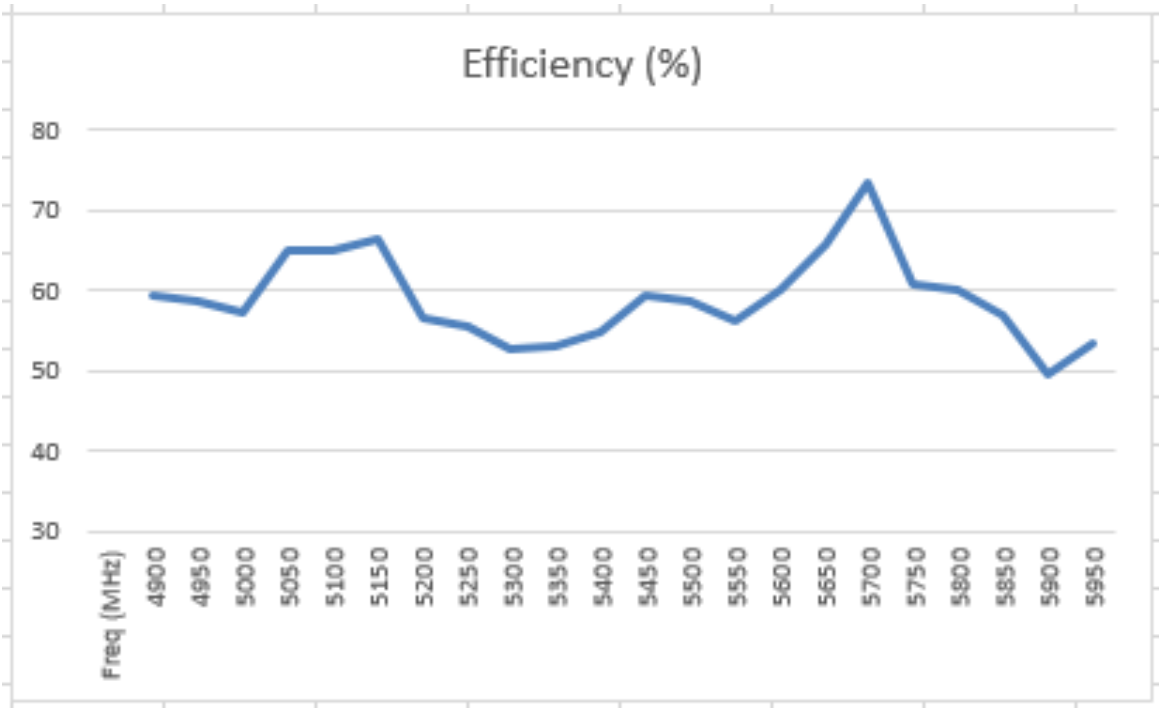
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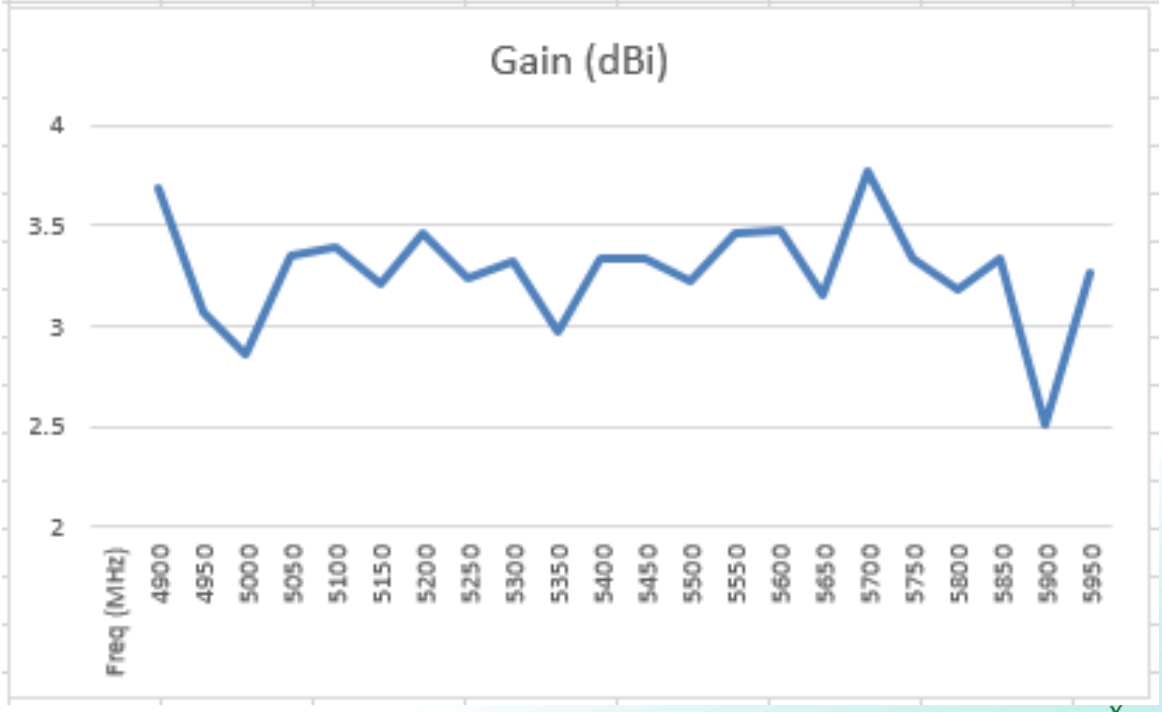
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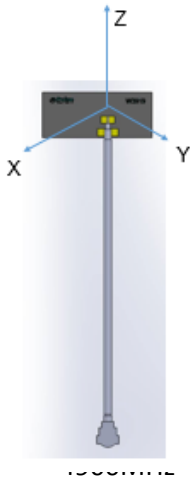
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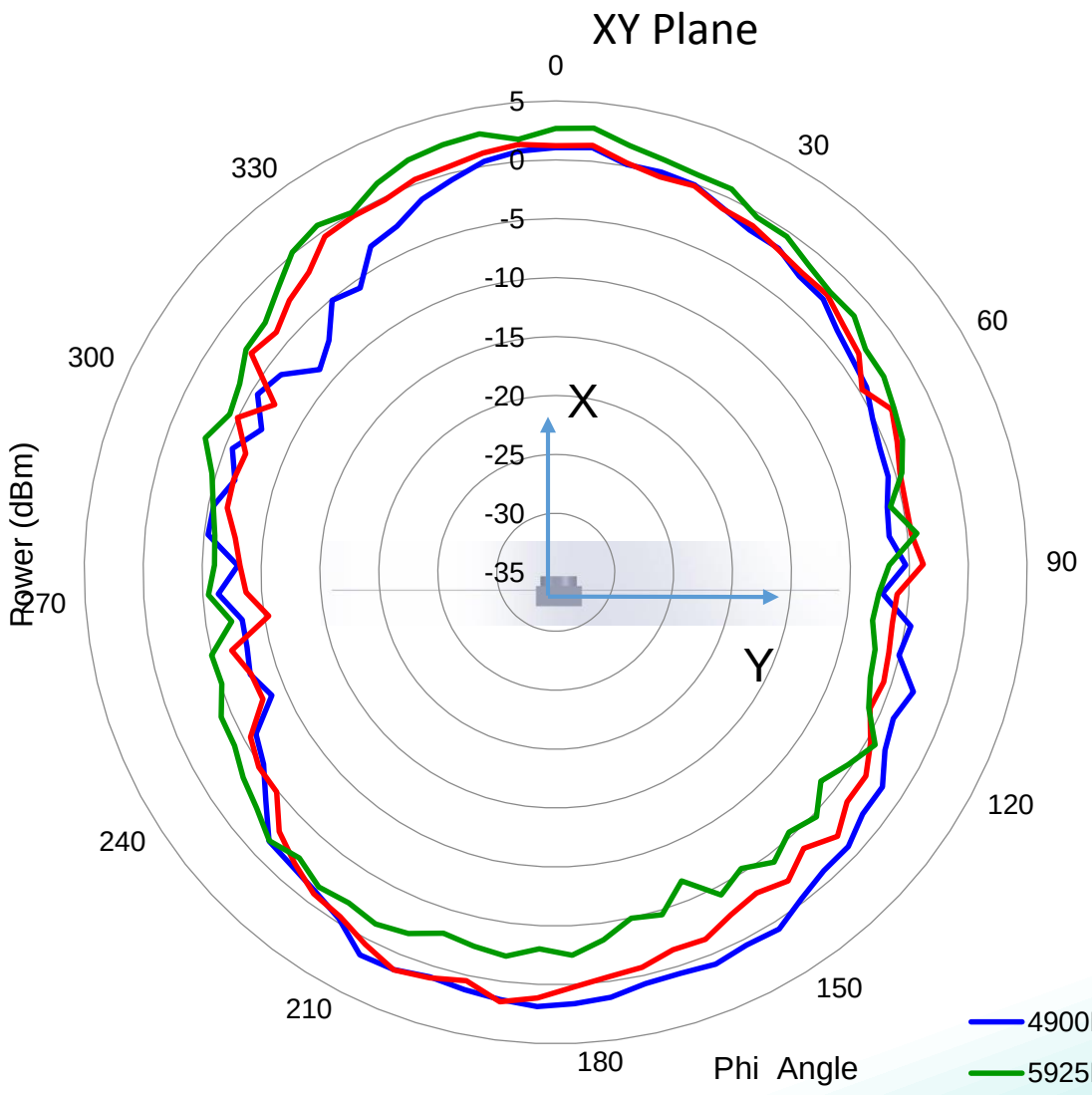
Series: Internal Antenna

PART NUMBER: W3919XXXX

CHARTS

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





Avg (dBi) = -2.93
Peak (dBi) = 1.86
Avg -3 (deg) = 130

5500MHz

Avg (dBi) = -2.93
Peak (dBi) = 1.75
Avg -3 (deg) = 115

5925MHz

Avg (dBi) = -2.92
Peak (dBi) = 2.81
Avg -3 (deg) = 65

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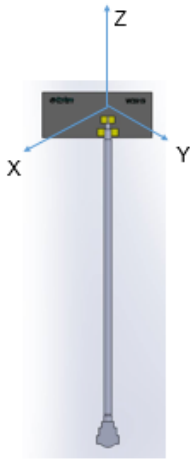
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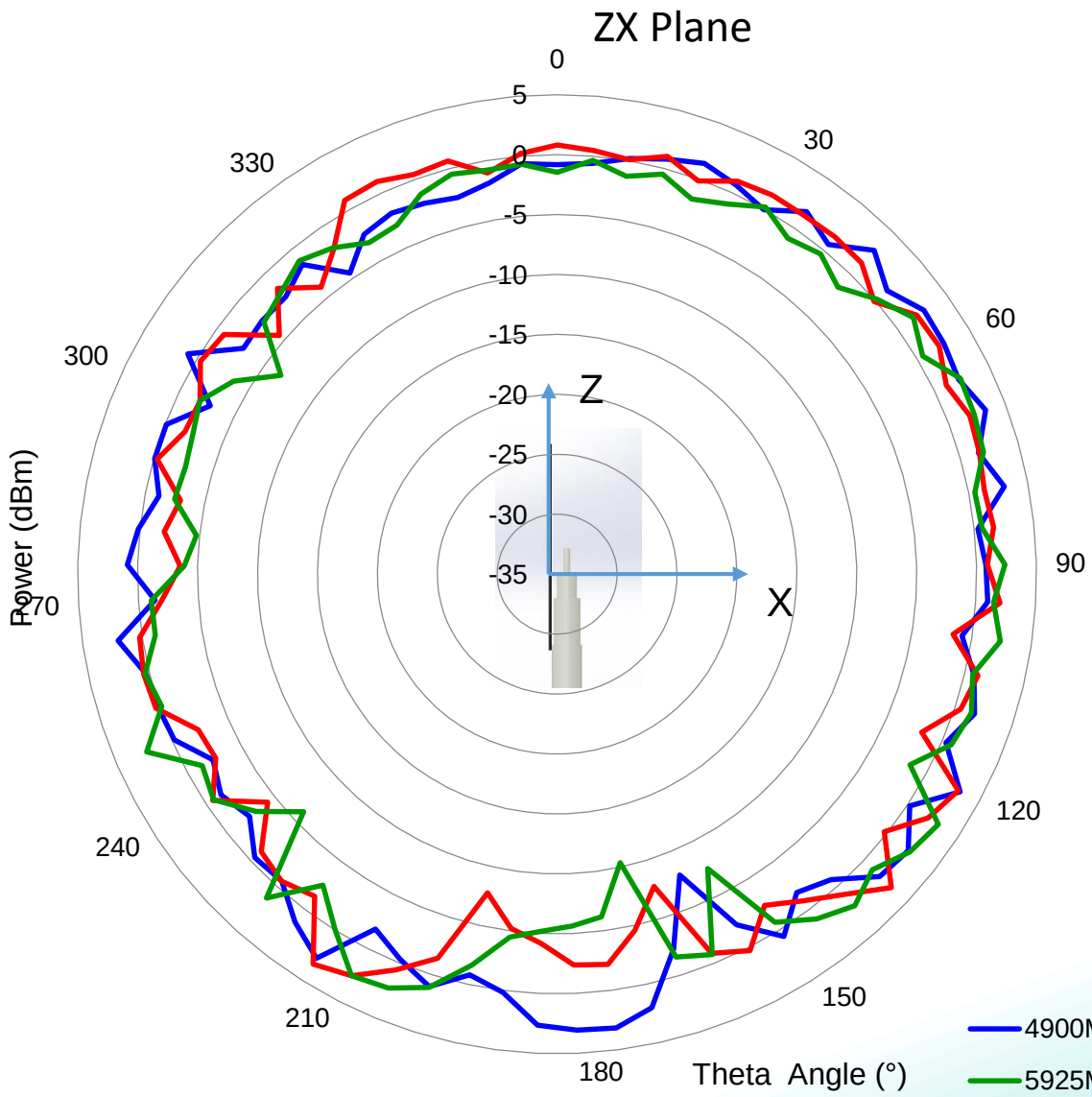
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CHARTS

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





Avg (dBi) = 0.01
Peak (dBi) = 3.29
Avg -3 (deg) = 82.5

5500MHz

Avg (dBi) = -0.54
Peak (dBi) = 3.37
Avg -3 (deg) = 75

5925MHz

Avg (dBi) = -1.06
Peak (dBi) = 3.04
Avg -3 (deg) = 62.5

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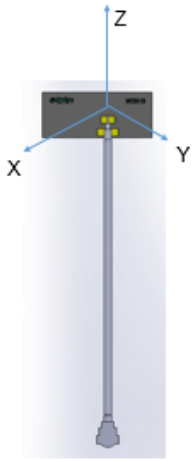
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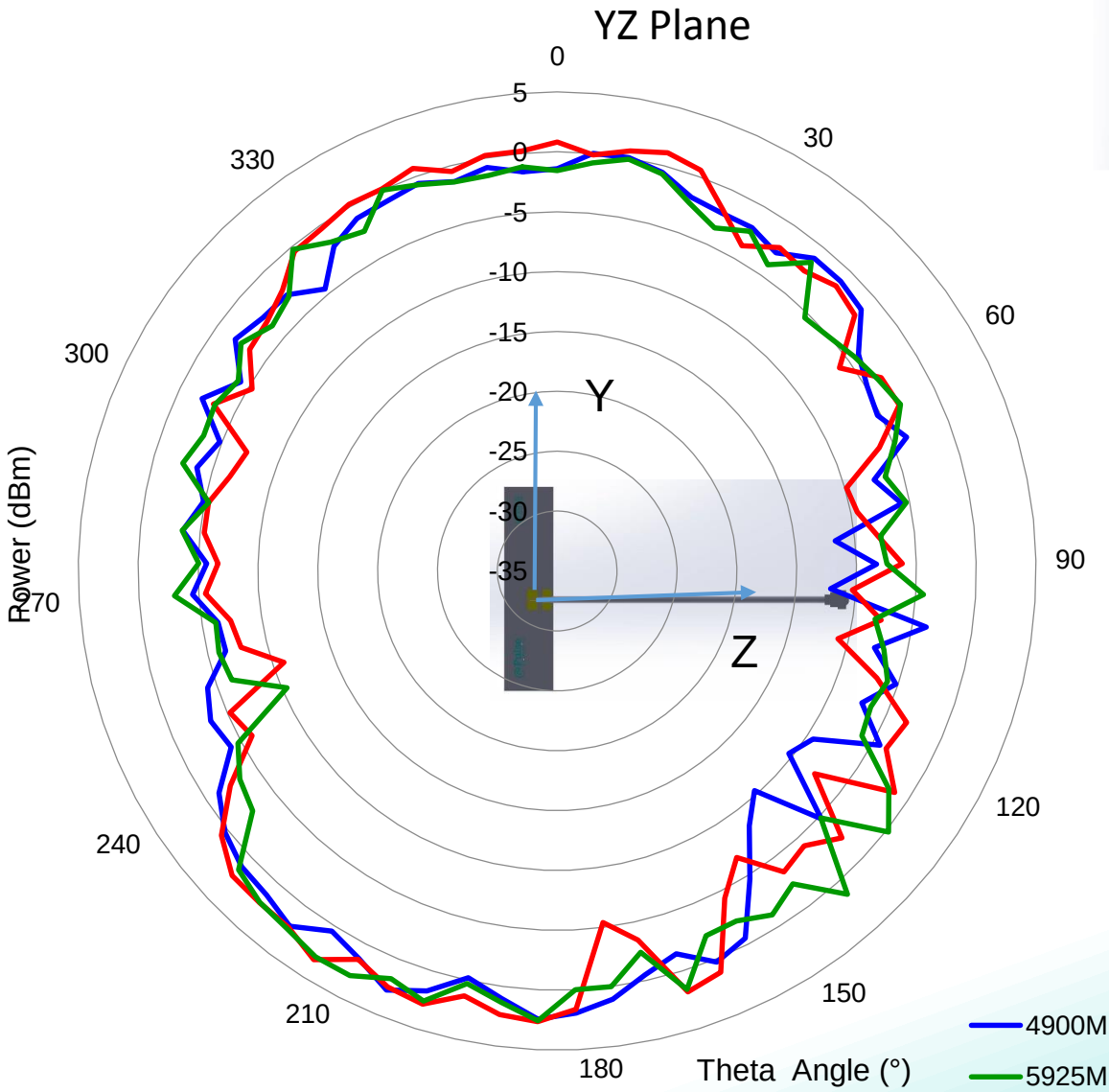
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CHARTS

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





4900MHz

Avg (dBi) = -2.99
Peak (dBi) = 2.79
Avg -3 (deg) = 35

5500MHz

Avg (dBi) = -2.88
Peak (dBi) = 3.3
Avg -3 (deg) = 45

5925MHz

Avg (dBi) = -2.62
Peak (dBi) = 3.03
Avg -3 (deg) = 32.5

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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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