

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

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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For more information:

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San Diego, CA 92128
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Pulse/Larsen Antennas
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Vancouver, WA 98683
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Europe Headquarters
Pulse GmbH & Do, KG
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Herrenberg, Germany
Tel: 49 7032 7806 0

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



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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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Description: 5GHz PCB antenna**Series: Internal Antenna****PART NUMBER: W3919XXXX****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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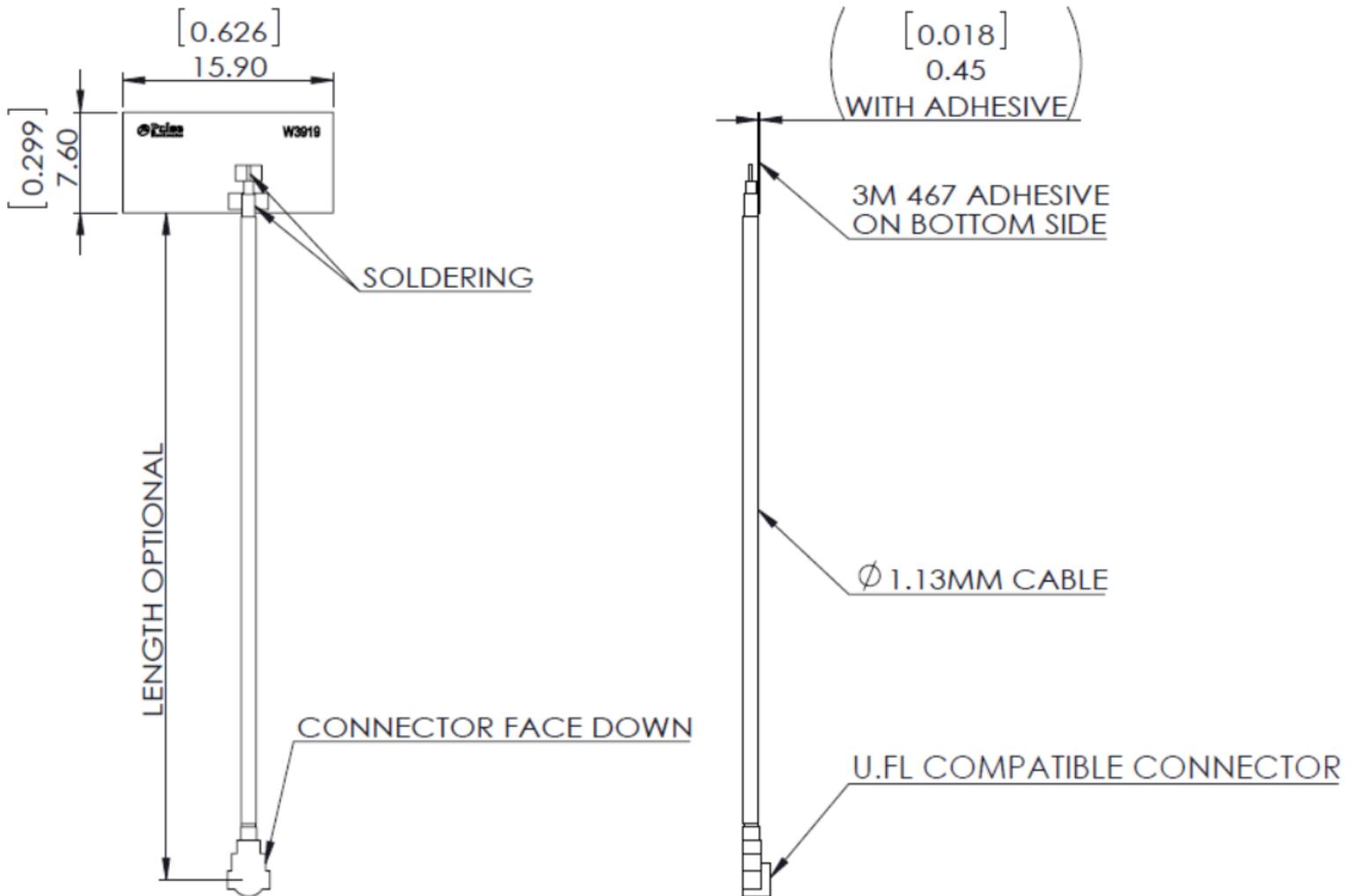
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MECHANICAL DRAWING



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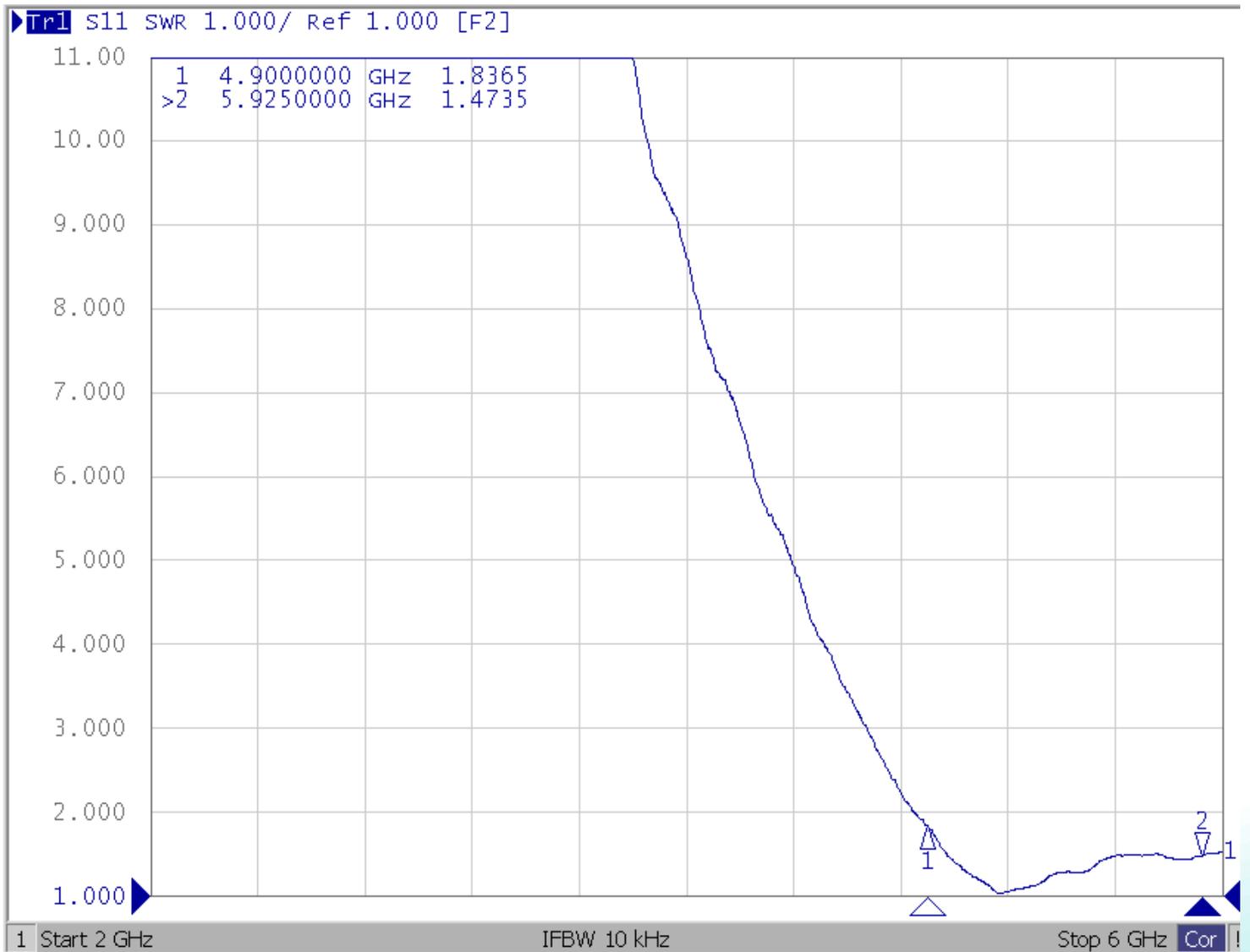
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CHARTS

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

Return Loss



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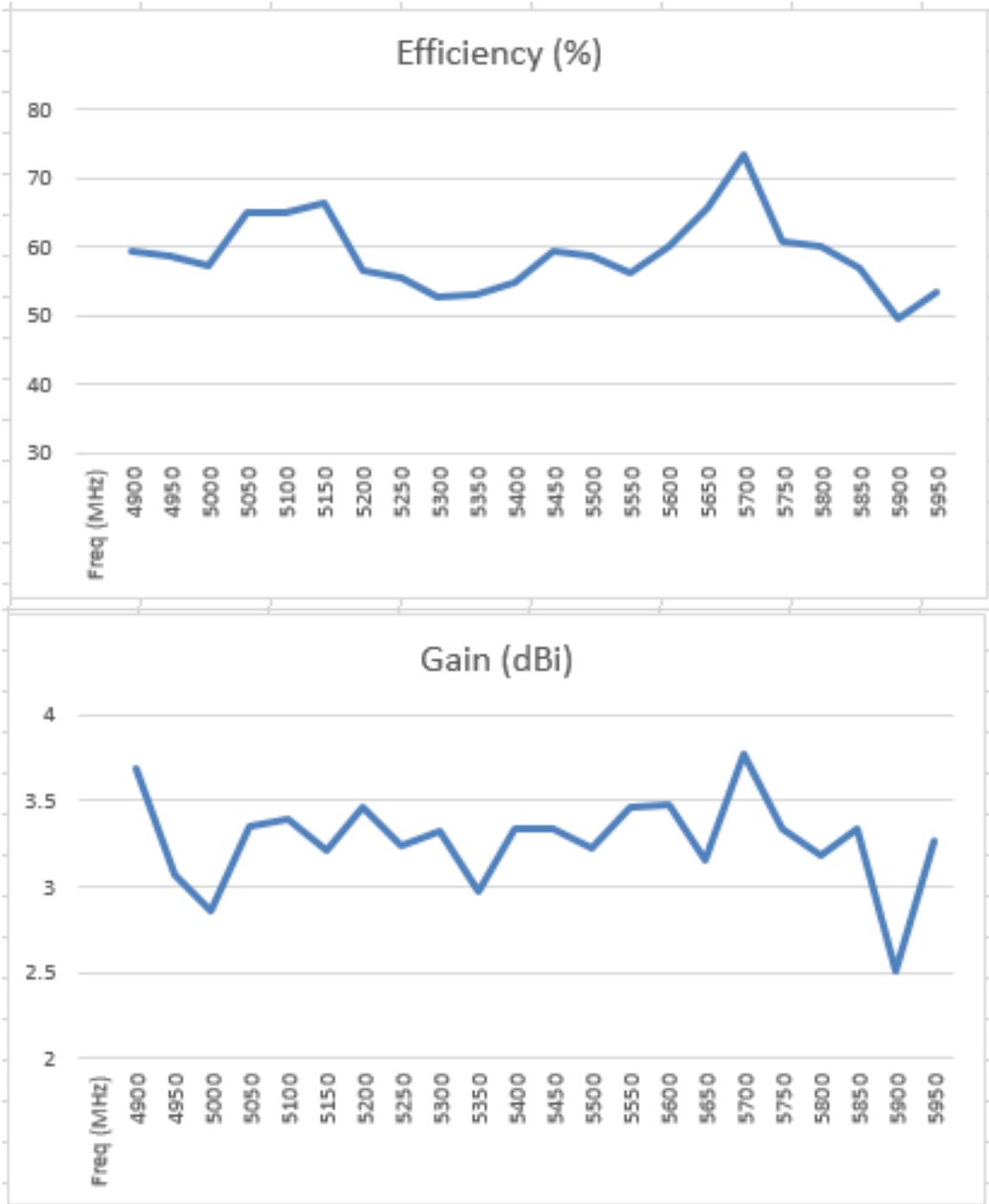
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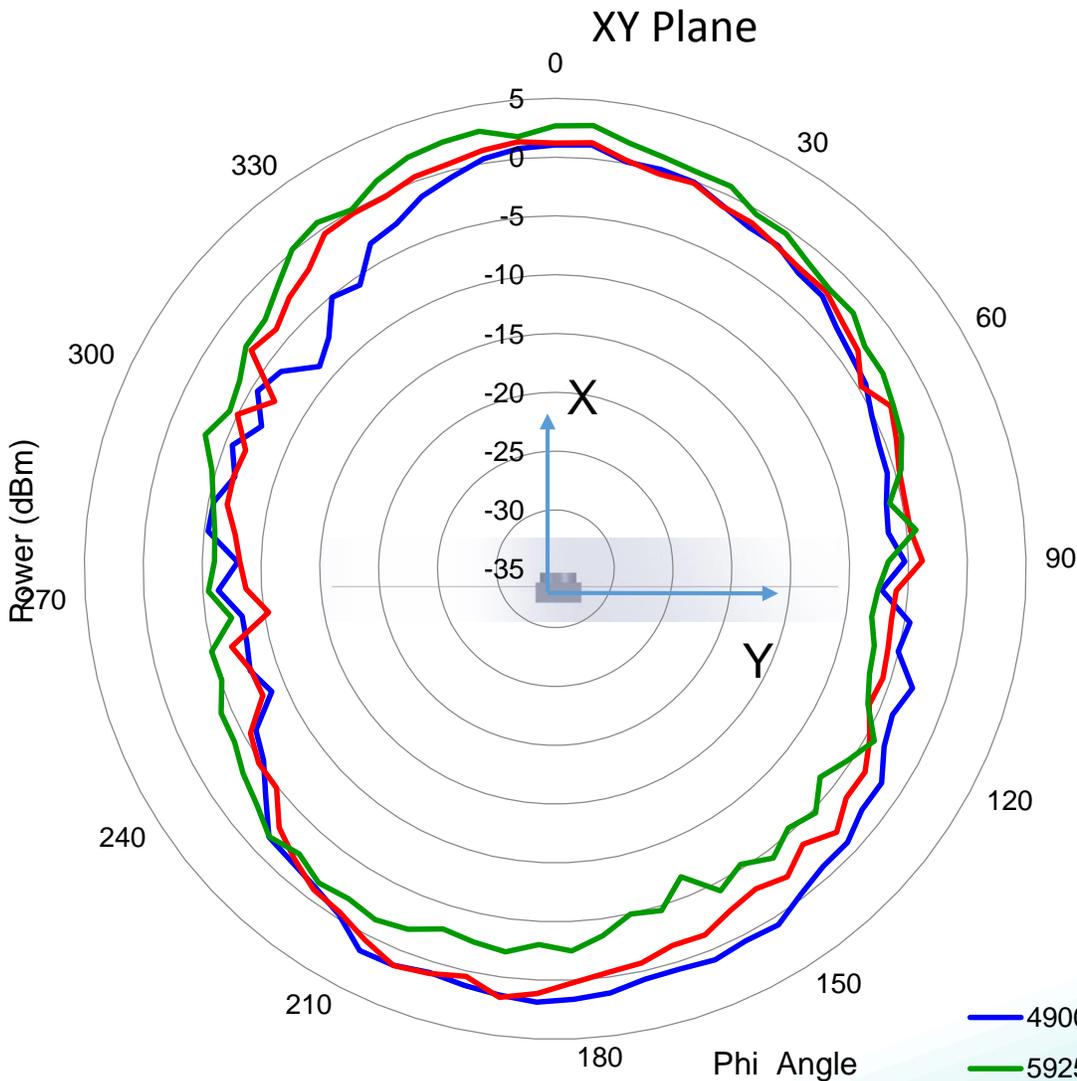
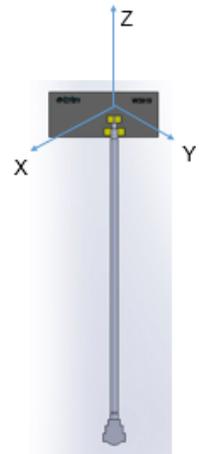
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CHARTS

Typical free space radiation pattern
WIFI 5GHz

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



4900MHz	Avg (dBi) = -2.93
4900MHz	Peak (dBi) = 1.86
4900MHz	Avg -3 (deg) = 130
5500MHz	Avg (dBi) = -2.93
5500MHz	Peak (dBi) = 1.75
5500MHz	Avg -3 (deg) = 115
5925MHz	Avg (dBi) = -2.92
5925MHz	Peak (dBi) = 2.81
5925MHz	Avg -3 (deg) = 65

4900MHz 5500MHz 5925MHz

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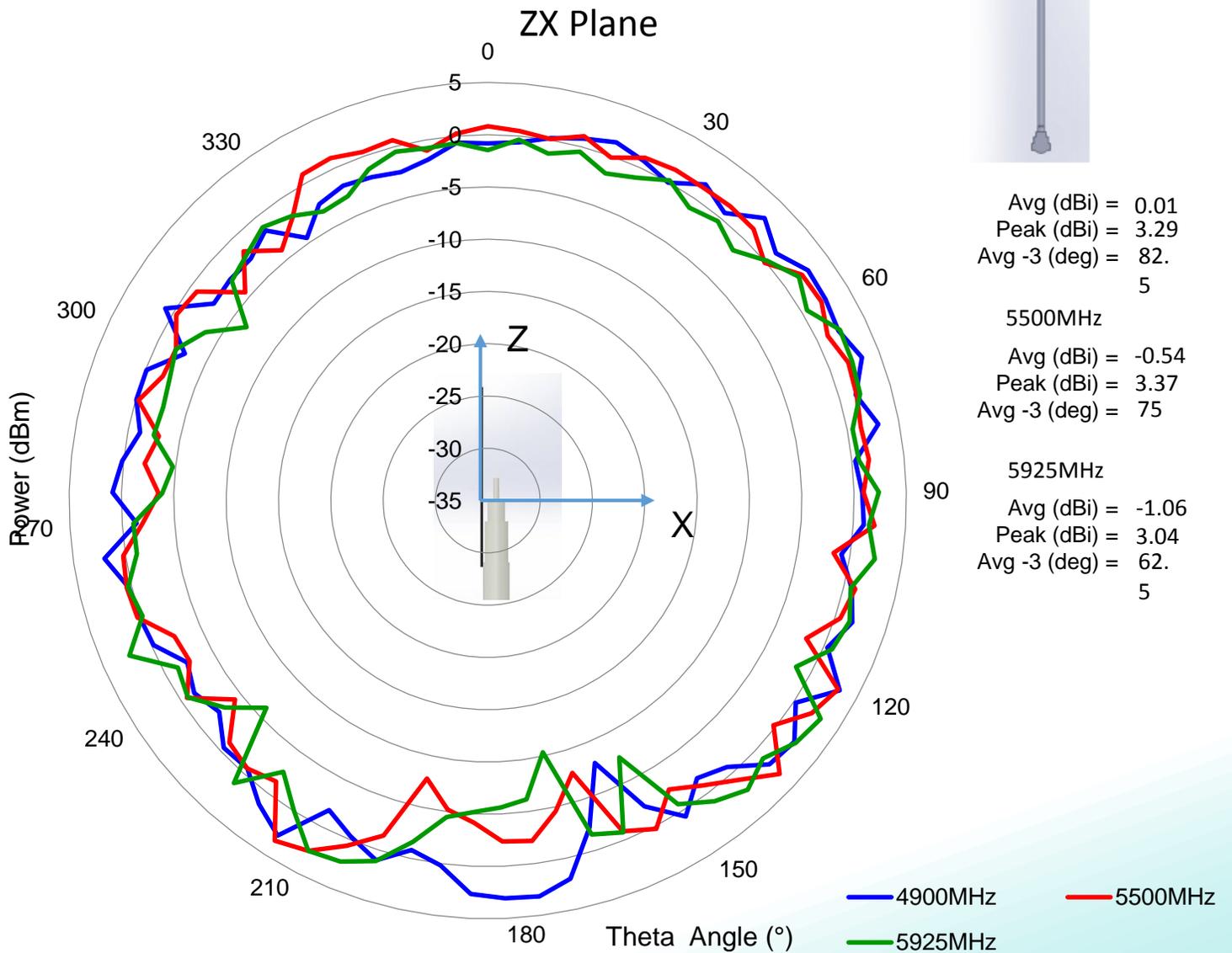
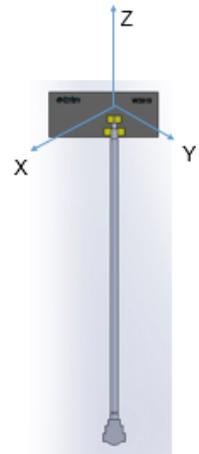
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CHARTS

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



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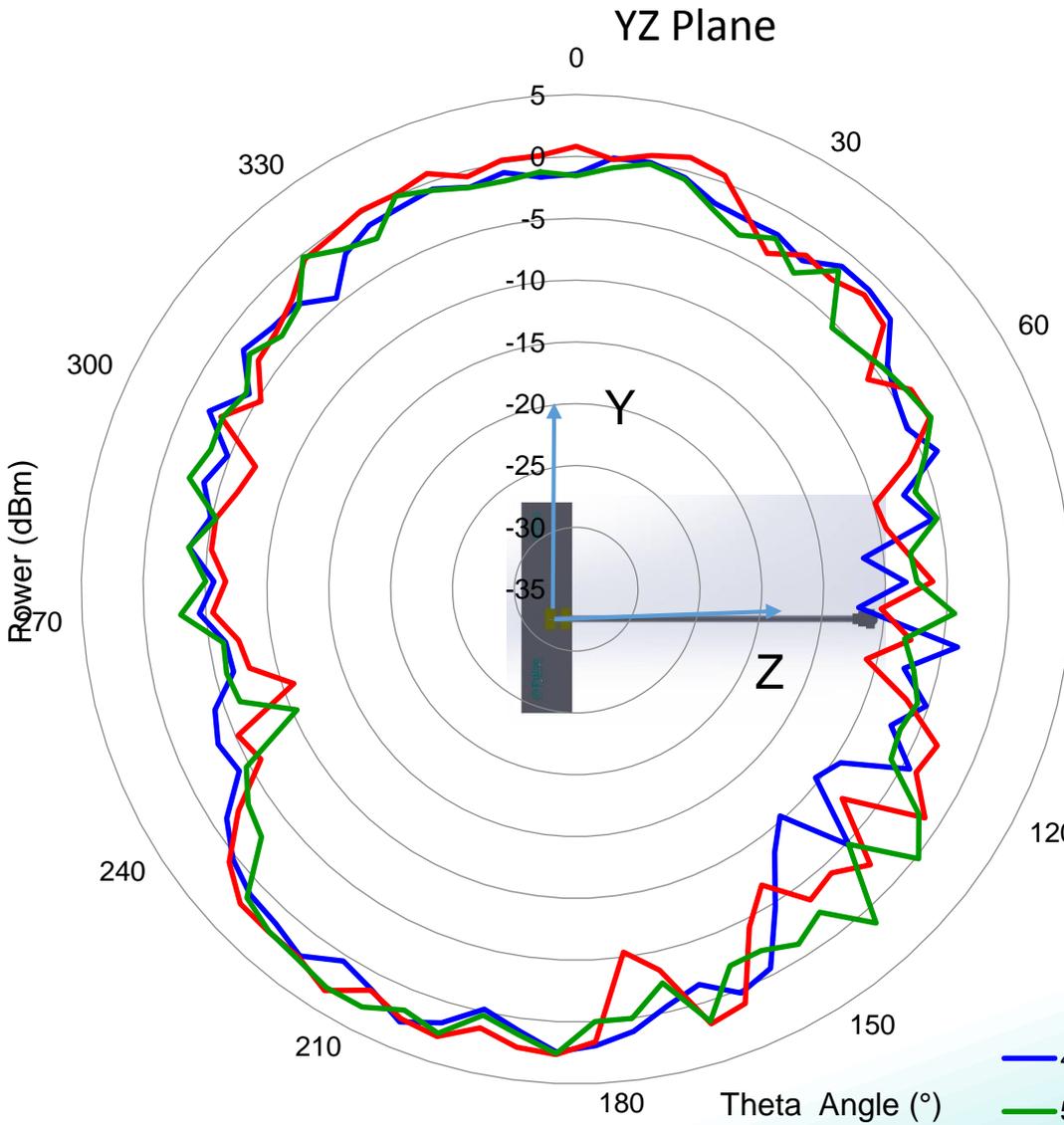
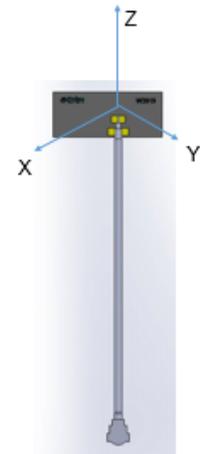
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CHARTS

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

— 4900MHz — 5500MHz
 — 5925MHz

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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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