



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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  $\Omega$
- 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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15255 Innovation Drive #100  
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USA  
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Pulse/Larsen Antennas  
18110 SE 34<sup>th</sup> St Bldg 2 Suite 250  
Vancouver, WA 98683  
USA  
Tel: 1-360-944-7551

Europe Headquarters  
Pulse GmbH & Do, KG  
Zeppelinstrasse 15  
Herrenberg, Germany  
Tel: 49 7032 7806 0

Pulse (Suzhou) Wireless Products Co, Inc.  
99 Huo Ju Road(#29 Bldg,4<sup>th</sup> Phase  
Suzhou New District  
Jiangsu Province, Suzhou 215009 PR China  
Tel: 86 512 6807 9998



**Description: 5GHz PCB antenna**

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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 $\Omega$
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***

Description: 5GHz PCB antenna

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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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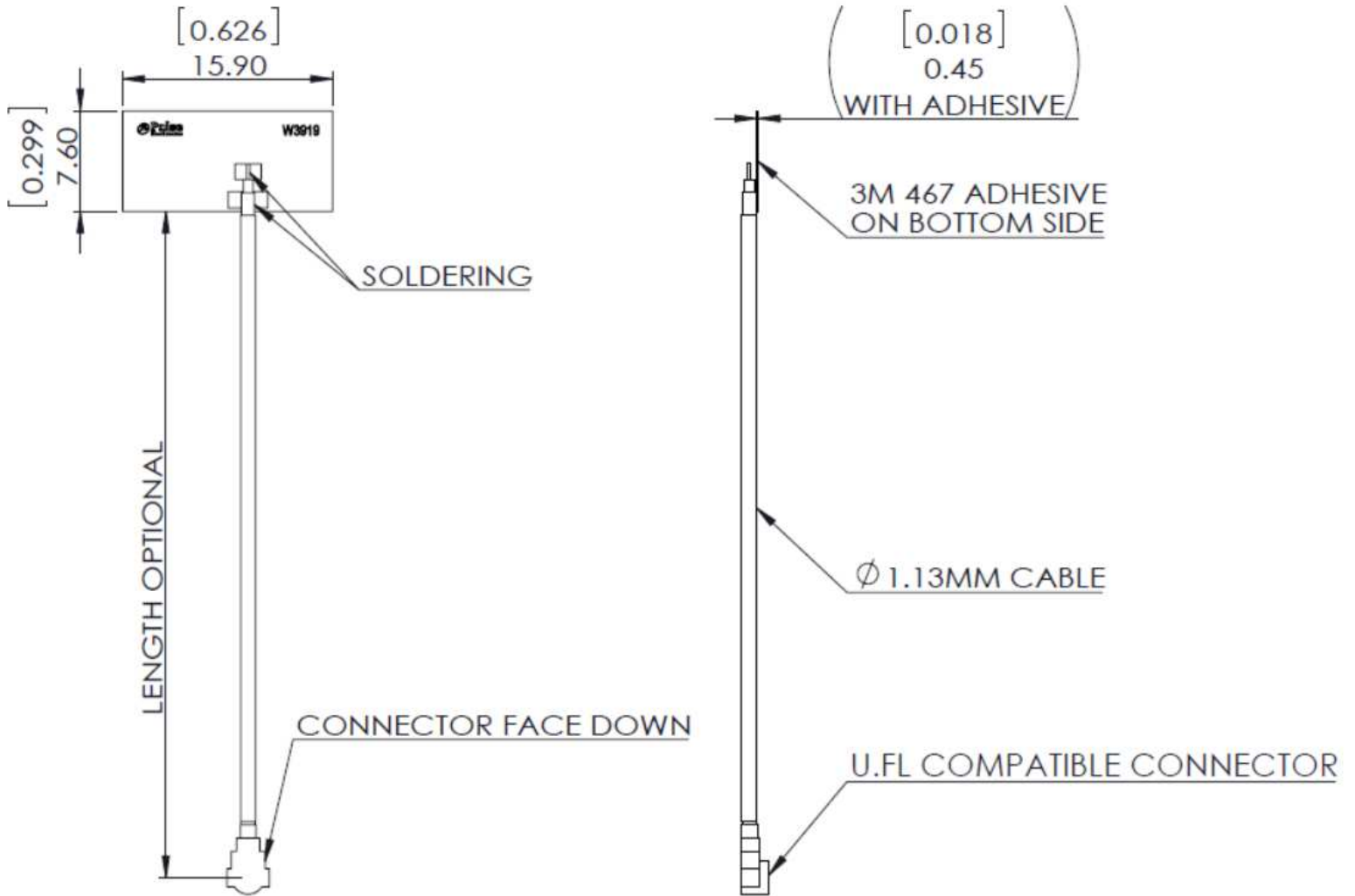
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Description: 5GHz PCB antenna

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MECHANICAL DRAWING



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Description: 5GHz PCB antenna

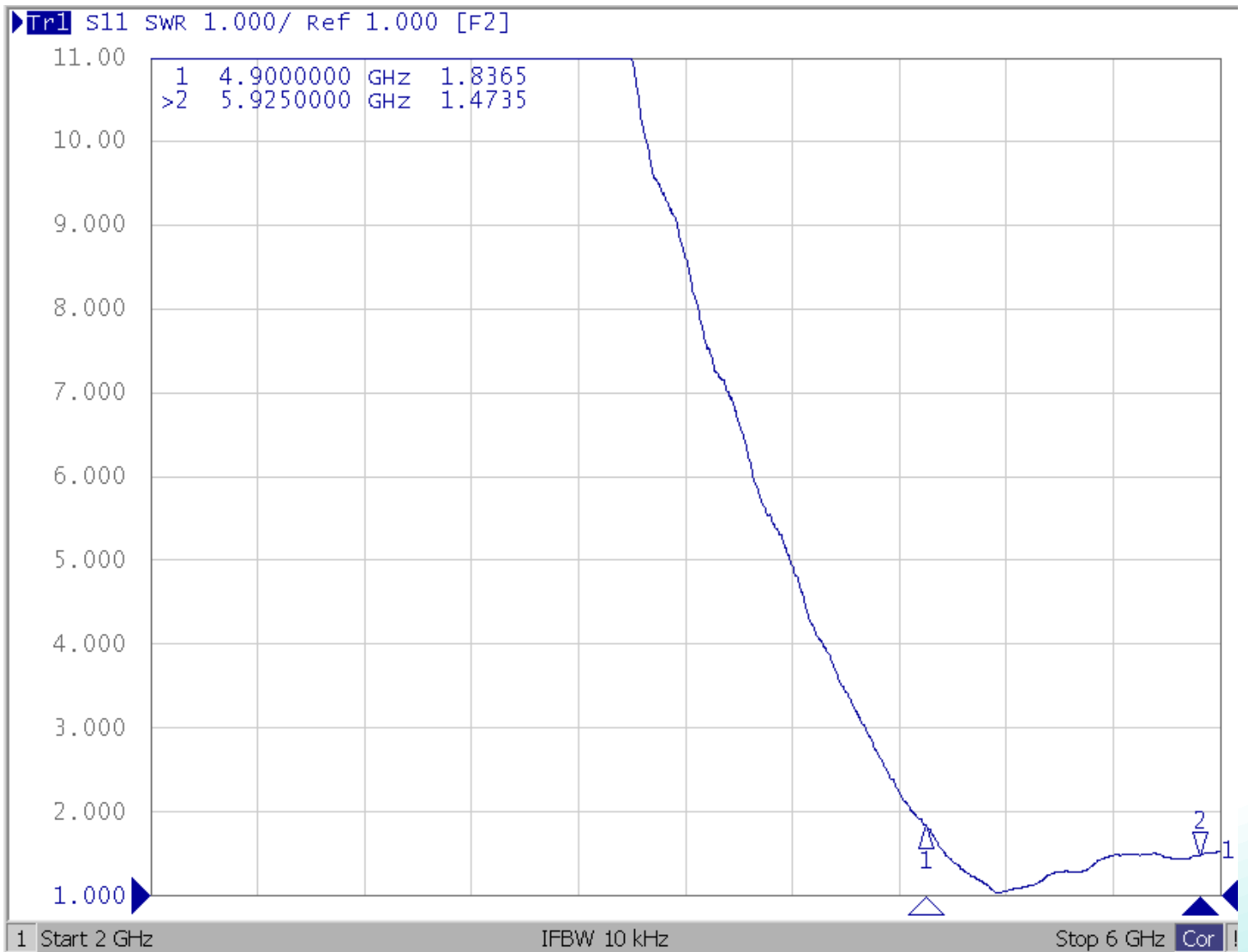
Series: Internal Antenna

PART NUMBER: W3919XXXX

CHARTS

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

Return Loss



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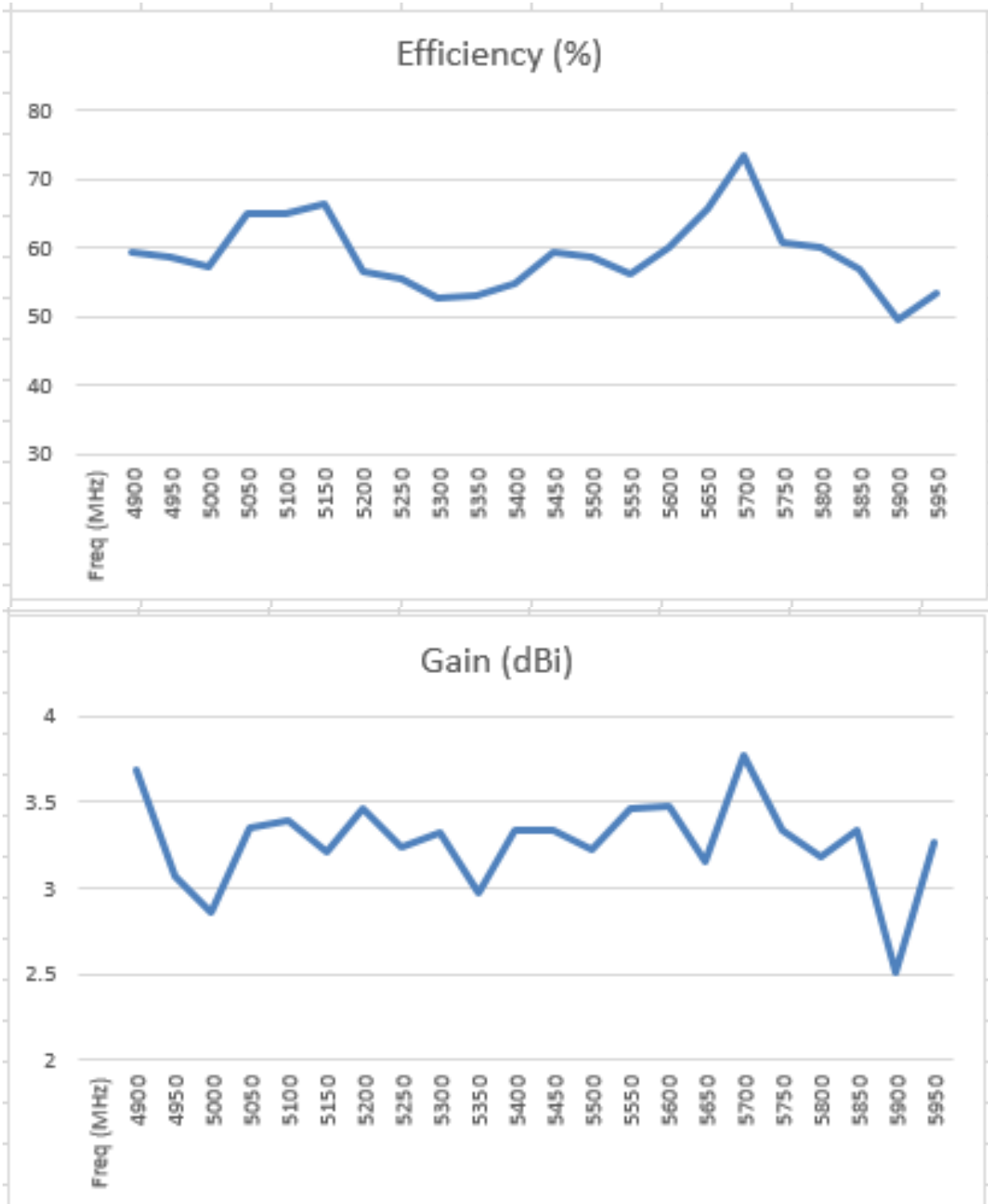
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CHARTS

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Description: 5GHz PCB antenna

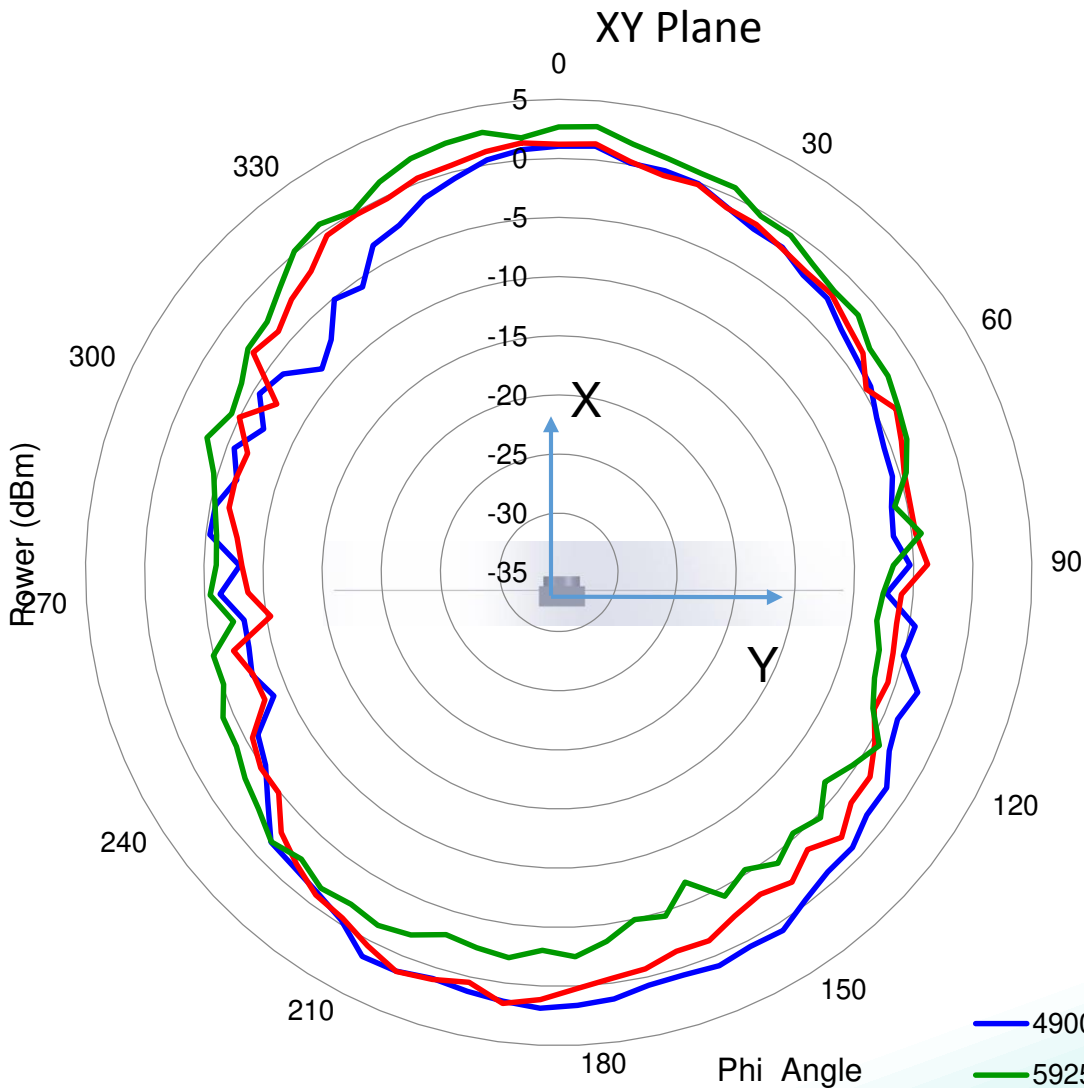
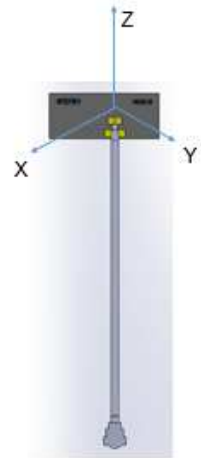
Series: Internal Antenna

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

— 4900MHz — 5500MHz  
— 5925MHz

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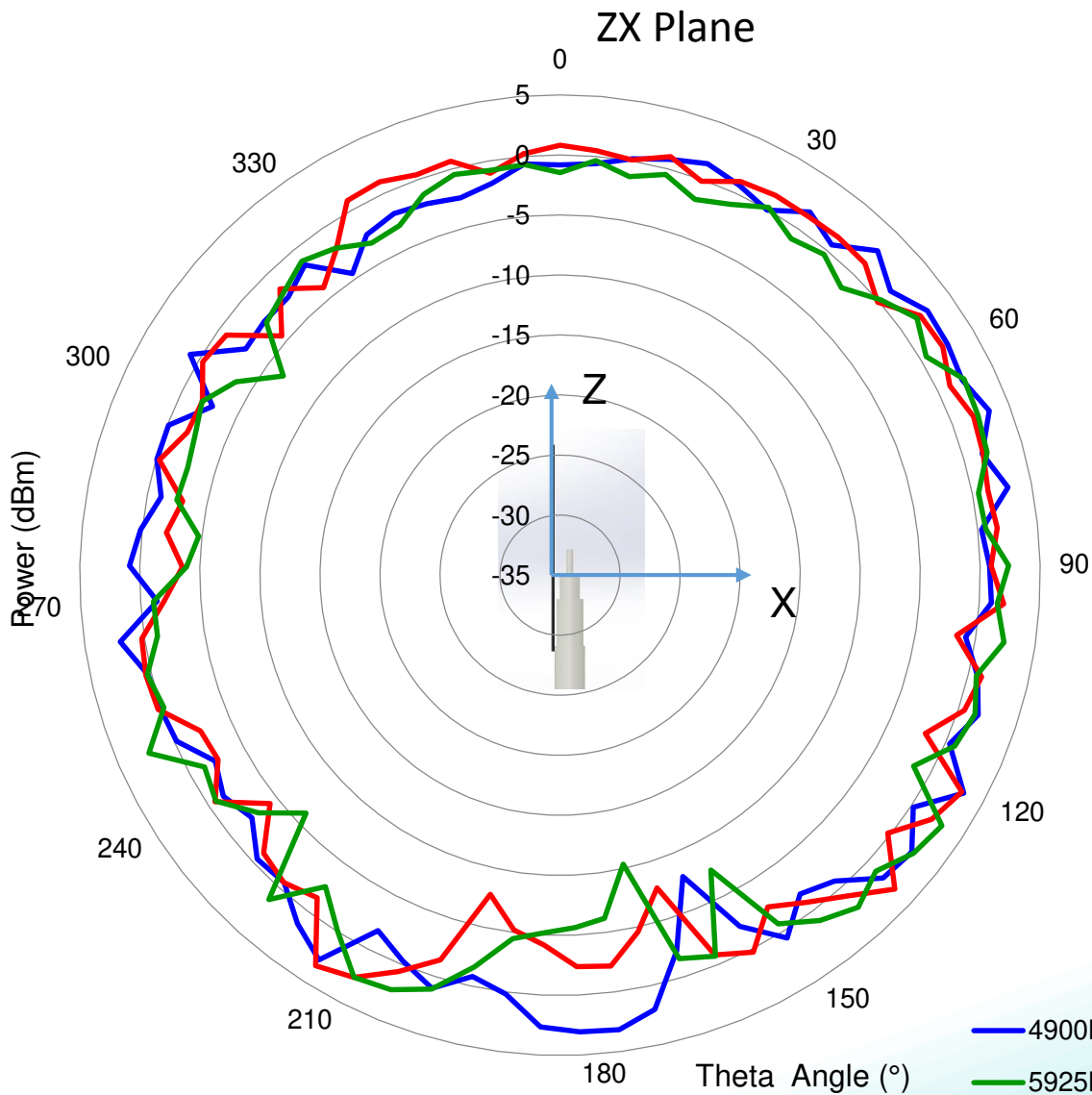
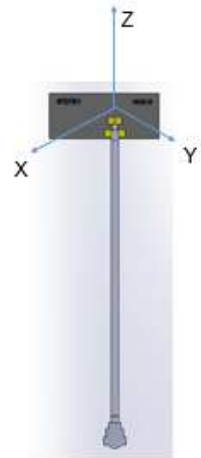
Series: Internal Antenna

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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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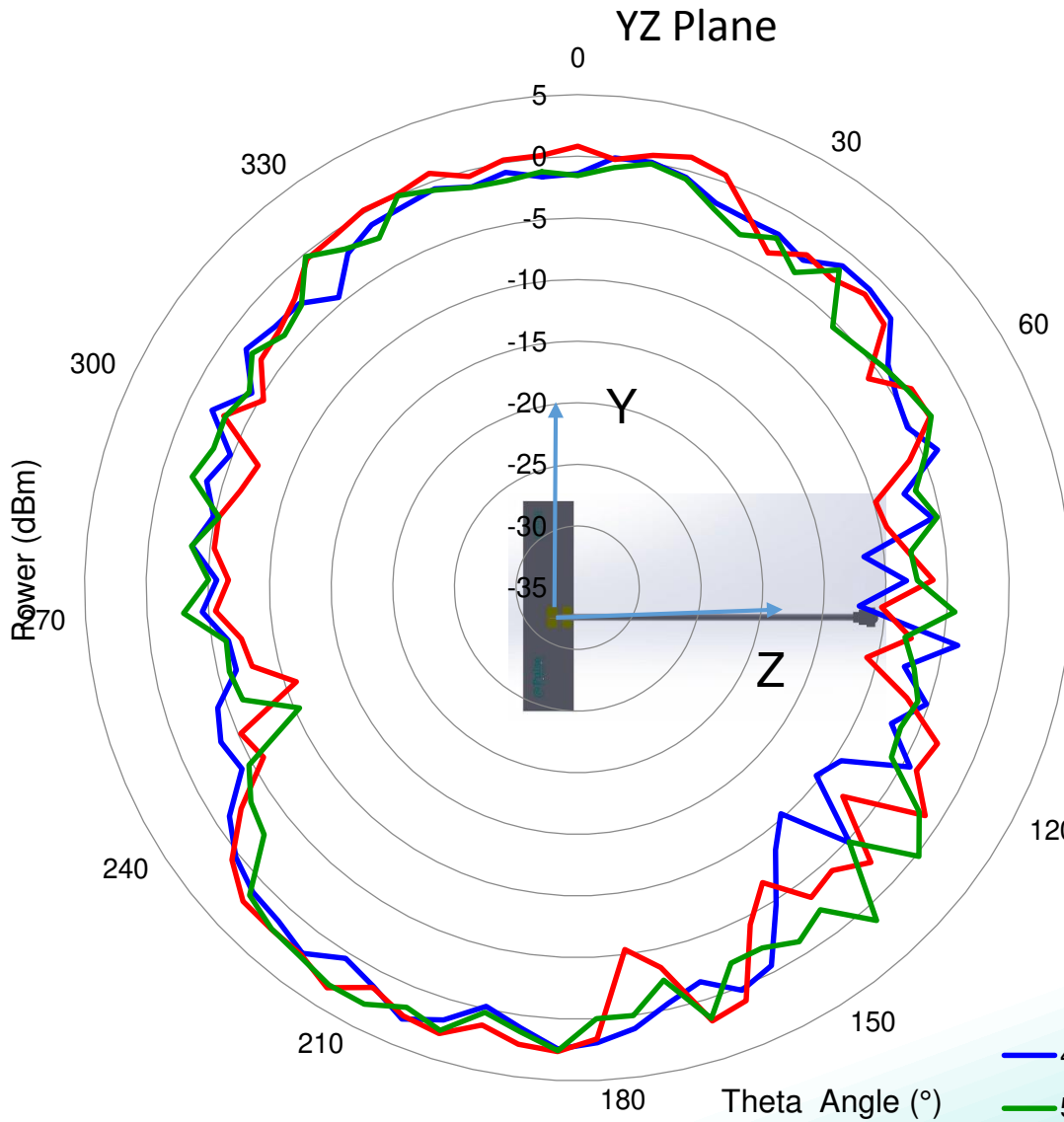
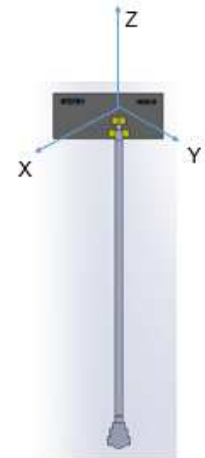
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CHARTS

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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