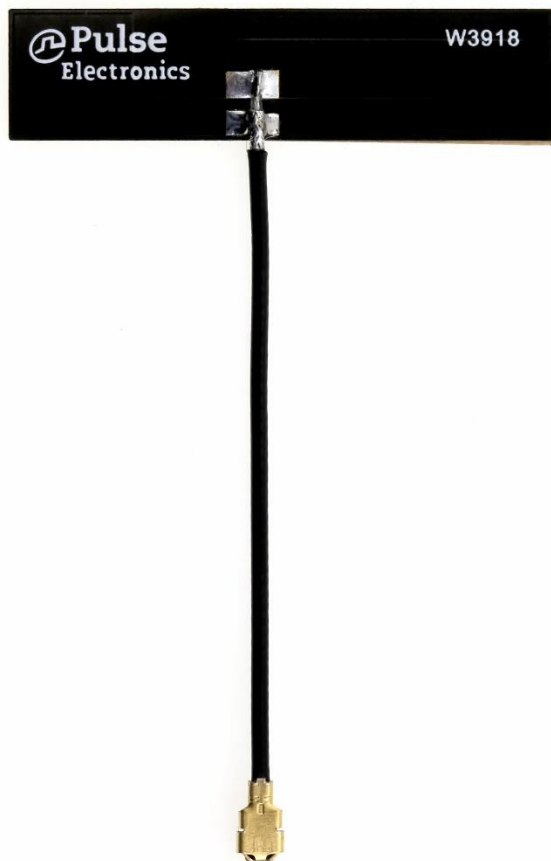


Description: 2.4/5GHz FPC antenna

Series: Internal Antenna

PART NUMBER: W3918XXXX



### Features:

- 2400-2500 / 4900-5925 MHz
- Size 35.2 X 8.5 X 0.15 mm
- Efficiency > 60/70%
- VSWR < 2
- Nominal impedance 50  $\Omega$
- 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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For more information:

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15255 Innovation Drive #100  
San Diego, CA 92128  
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Tel: 1-858-674-8100

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: 2.4/5GHz FPC antenna

Series: Internal Antenna

PART NUMBER: W3918XXXX

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

W3918B0050	50mm 1.13mm OD cable	U.FL compatible connector
W3918B0100	100mm 1.13mm OD cable	U.FL compatible connector
W3918T0050	50mm 1.13mm OD cable	RP-SMA MALE, straight connector

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Description: 2.4/5GHz FPC antenna

Series: Internal Antenna

PART NUMBER: W3918XXXX

**ELECTRICAL SPECIFICATIONS**

Frequency	2400-2500, 4900-5925MHz
Nominal Impedance	50Ω
VSWR	< 2
Gain	3dBi+/- 1dB @ 2.4GHz 4dBi+/-1dB@5GHz
Efficiency(%)	60/70%
Radiation Pattern	Omni
Polarization:	Linear
Power withstanding	2 W
Connector	Optional
Cable type	1.13mm coaxial cable black
Cable length	Optional

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

Description: 2.4/5GHz FPC antenna

Series: Internal Antenna

PART NUMBER: W3918XXXX

### MECHANICAL SPECIFICATIONS

Radiator material	FPC
Color	Black
Adhesive	3M467
Thickness(with adhesive, no liner)	0.15 mm
FPC size(L X W X T)	35.2 X 8.5 X 0.15 mm

### ENVIRONMENTAL SPECIFICATIONS

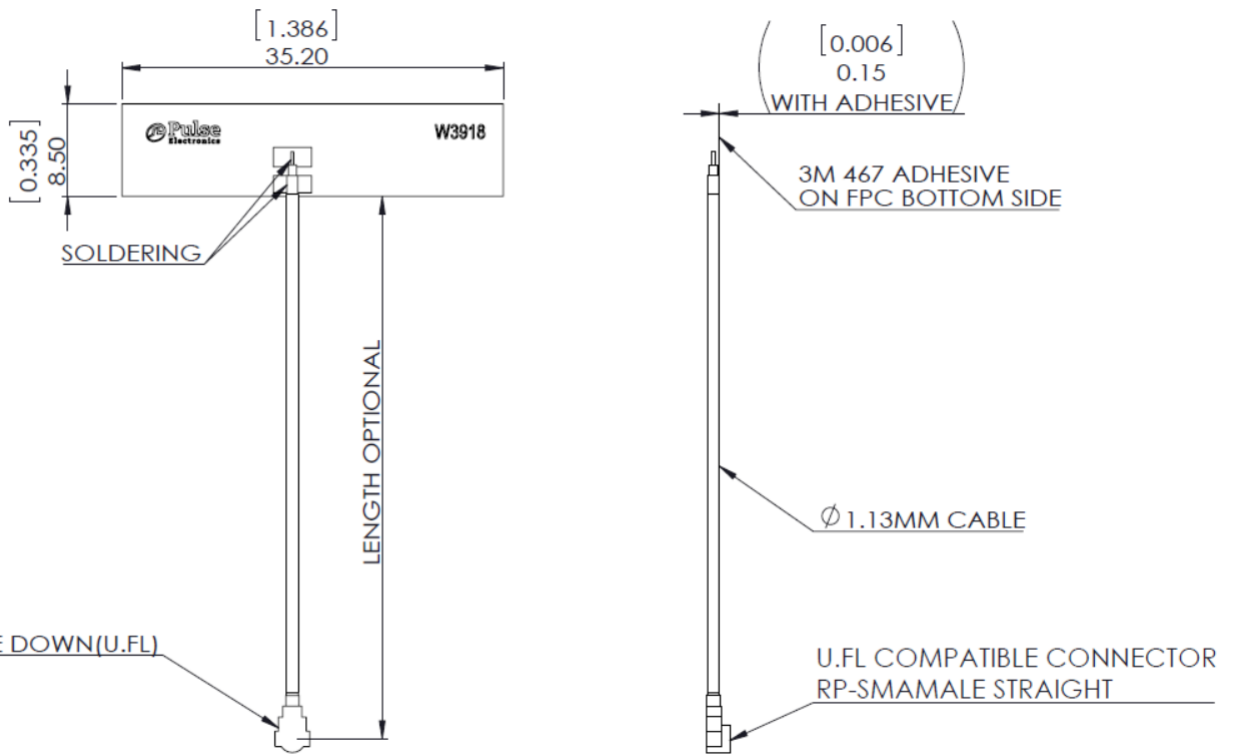
Operating temperature	-40/+85 ° C
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Description: 2.4/5GHz FPC antenna

Series: Internal Antenna

PART NUMBER: W3918XXXX

MECHANICAL DRAWING



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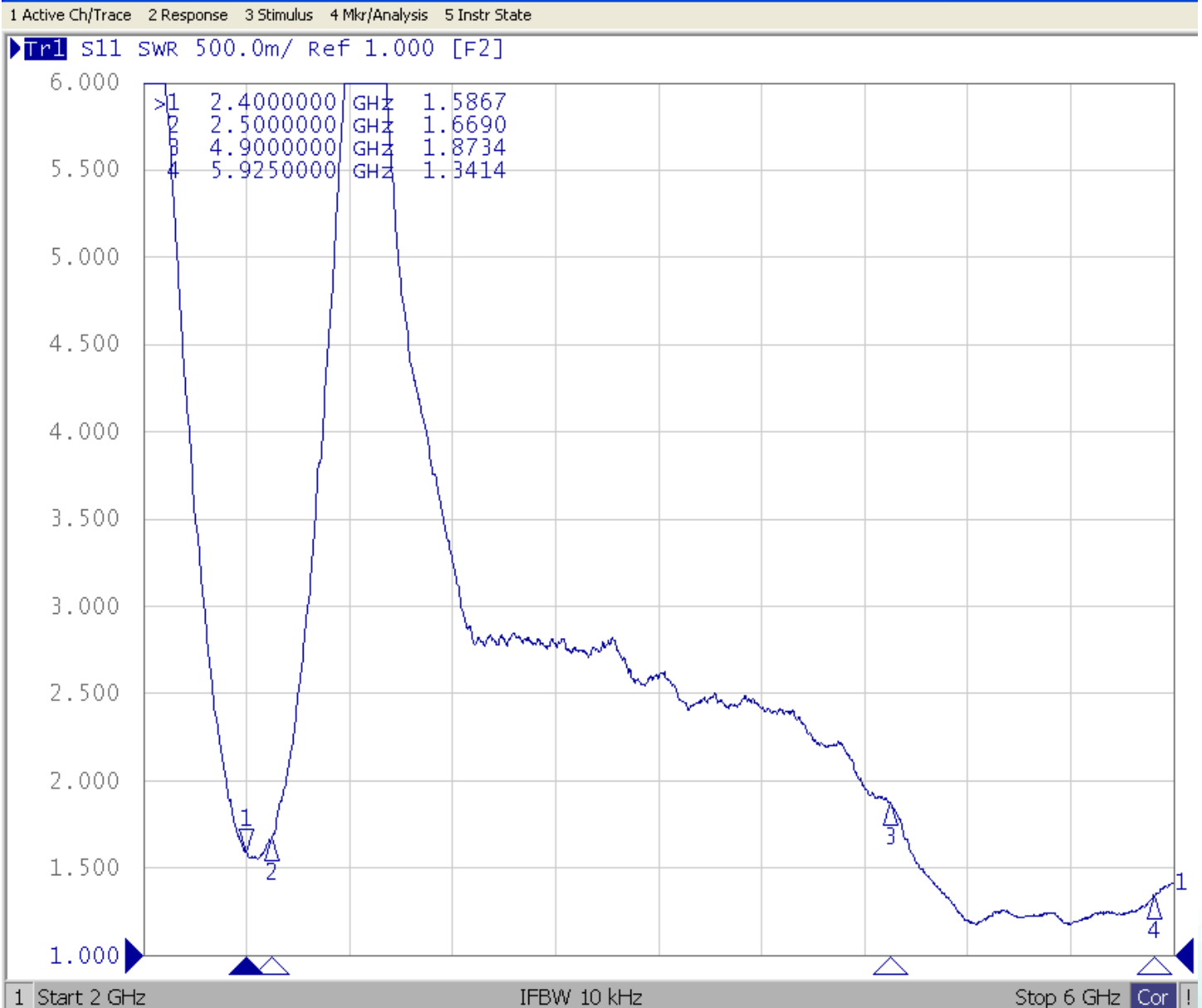
Description: 2.4/5GHz FPC antenna

Series: Internal Antenna

PART NUMBER: W3918XXXX

CHARTS

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



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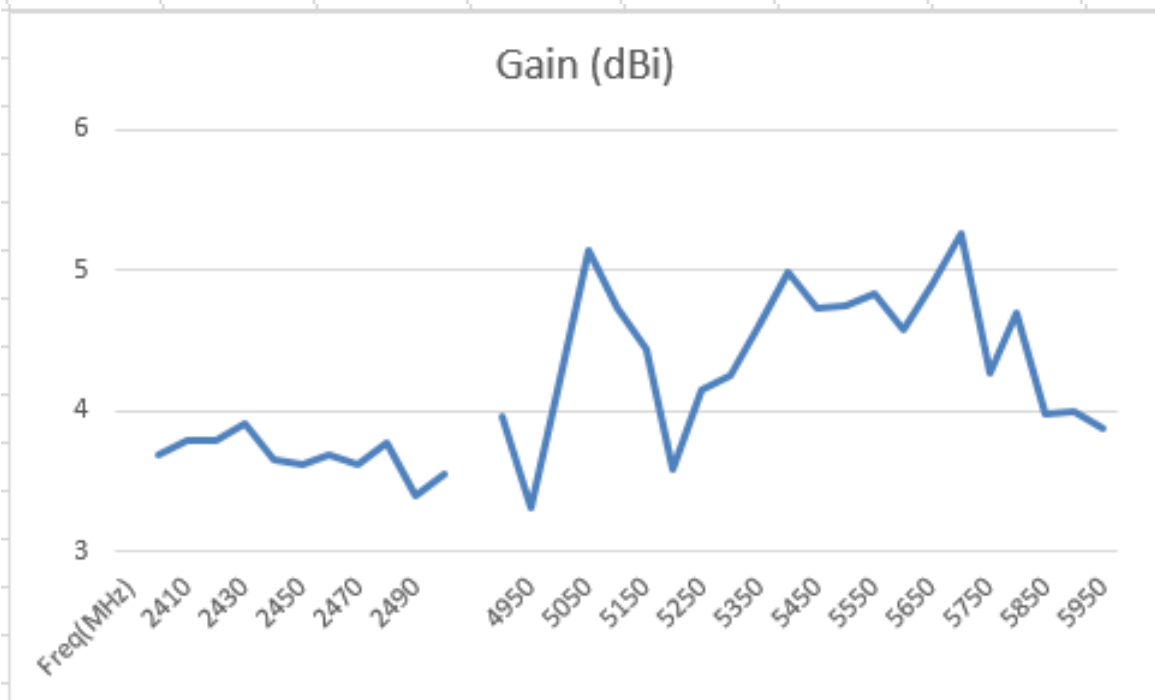
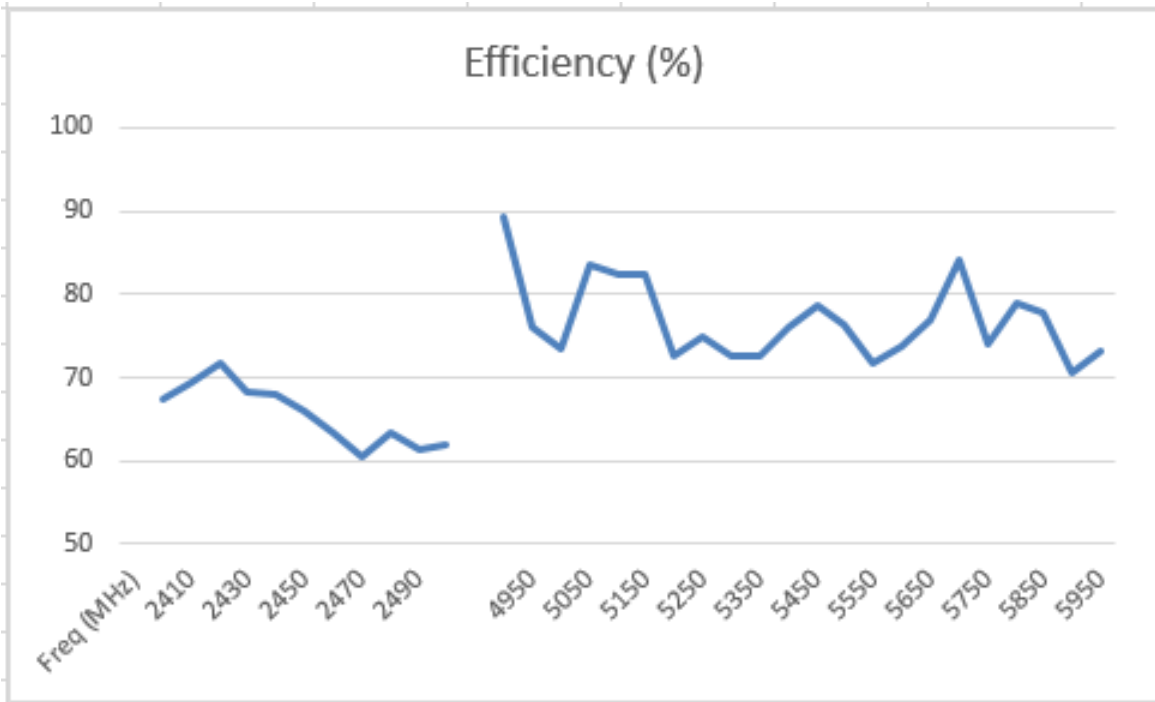
Description: 2.4/5GHz FPC antenna

Series: Internal Antenna

PART NUMBER: W3918XXXX

CHARTS

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



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Description: 2.4/5GHz FPC antenna

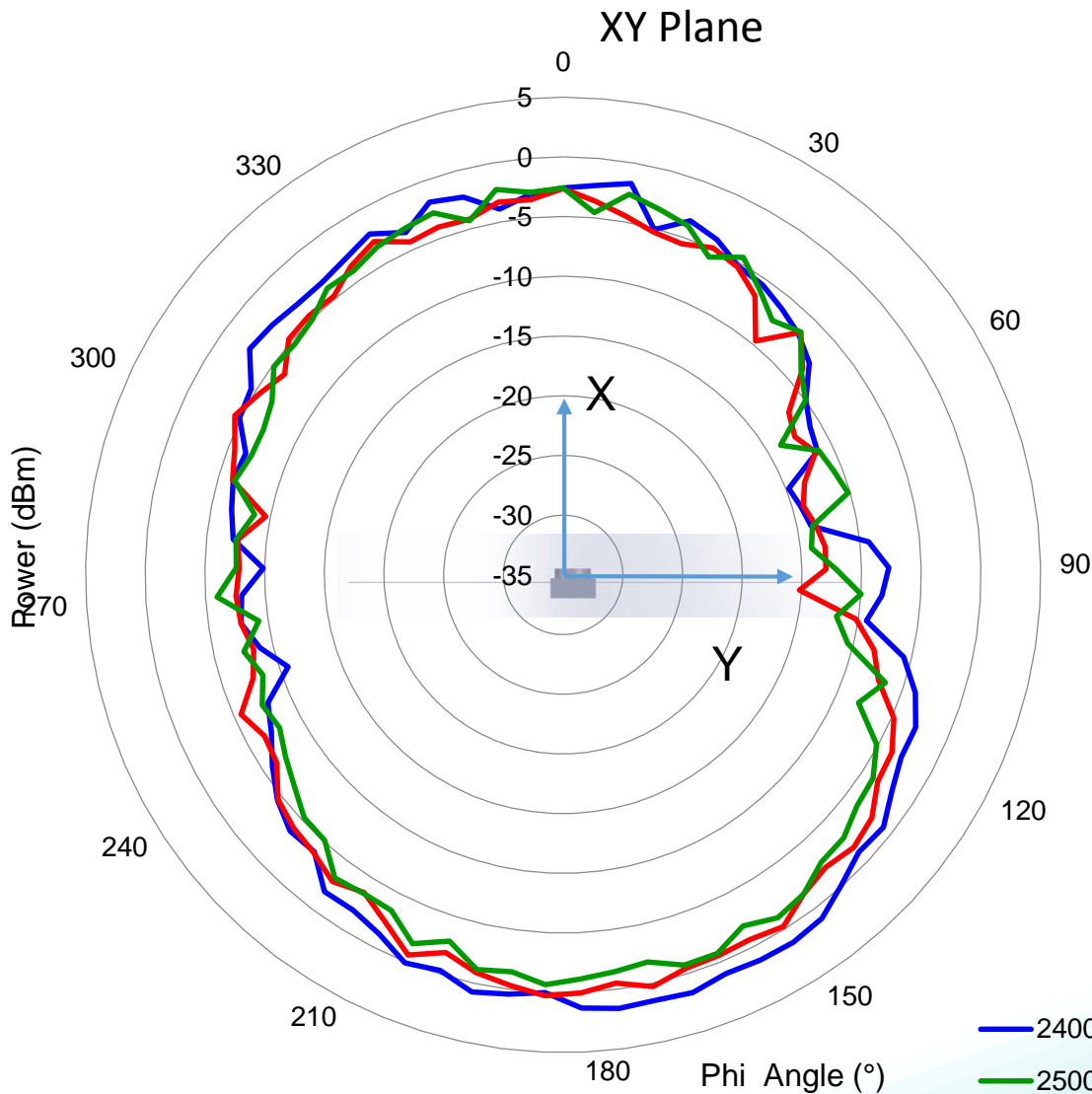
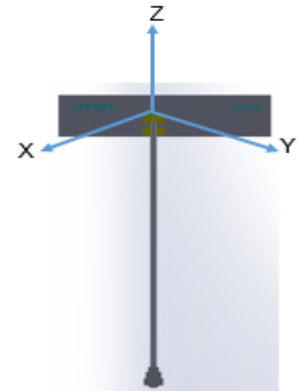
Series: Internal Antenna

PART NUMBER: W3918XXXX

CHARTS

Typical free space radiation pattern  
WIFI2.4GHz

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



2400MHz	Avg (dBi) = -4.37
	Peak (dBi) = 1.63
	Avg -3 (deg) = 80
2450MHz	Avg (dBi) = -5.41
	Peak (dBi) = 0.31
	Avg -3 (deg) = 55
2500MHz	Avg (dBi) = -5.61
	Peak (dBi) = -0.64
	Avg -3 (deg) = 125

— 2400MHz — 2450MHz  
— 2500MHz

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Description: 2.4/5GHz FPC antenna

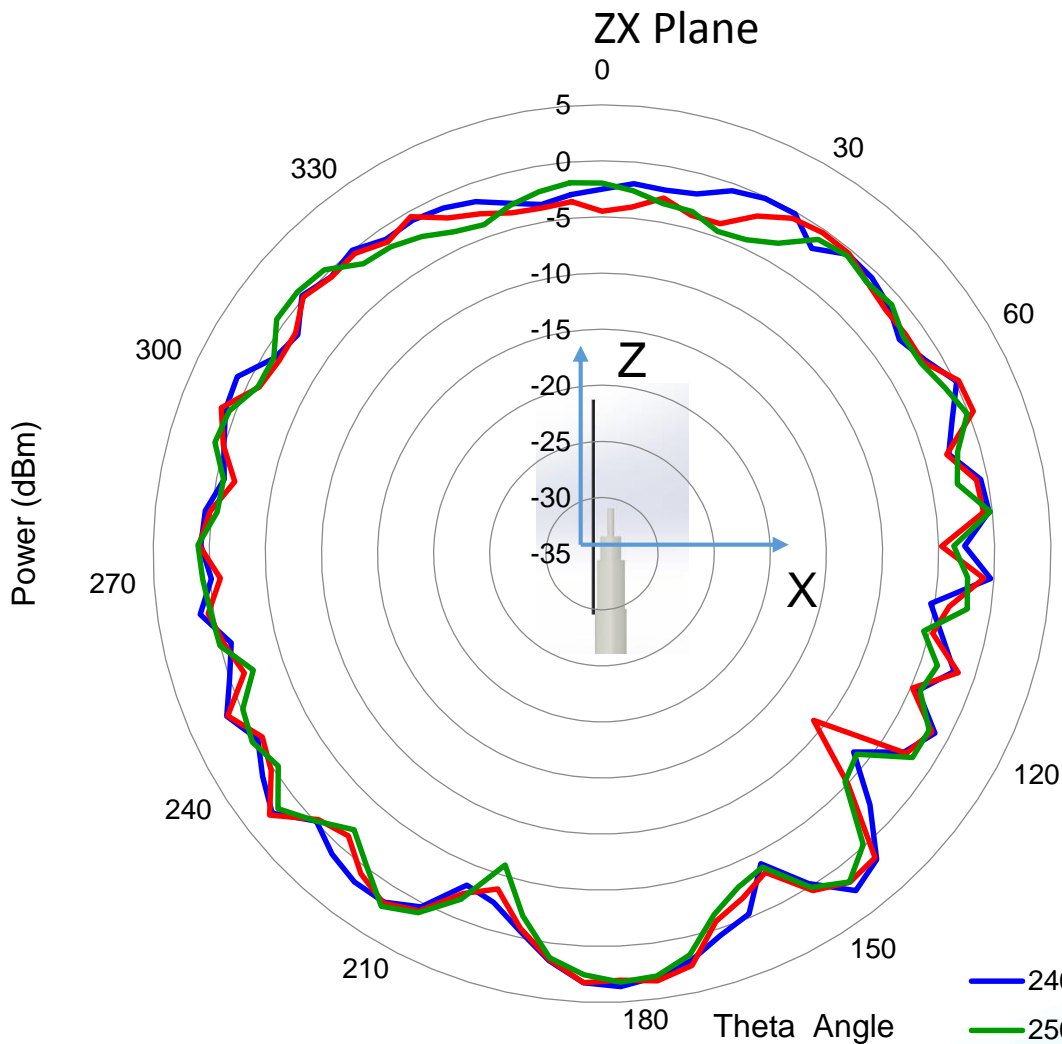
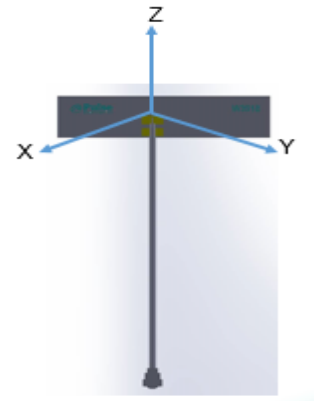
Series: Internal Antenna

PART NUMBER: W3918XXXX

CHARTS

Typical free space radiation pattern  
WIFI2.4GHz

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



2400MHz	Avg (dBi) = -0.69
	Peak (dBi) = 3.61
	Avg -3 (deg) = 42.5
2450MHz	Avg (dBi) = -1.18
	Peak (dBi) = 3.38
	Avg -3 (deg) = 40
2500MHz	Avg (dBi) = -1.31
	Peak (dBi) = 3.22
	Avg -3 (deg) = 42.5

— 2400MHz — 2450MHz  
— 2500MHz

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Description: 2.4/5GHz FPC antenna

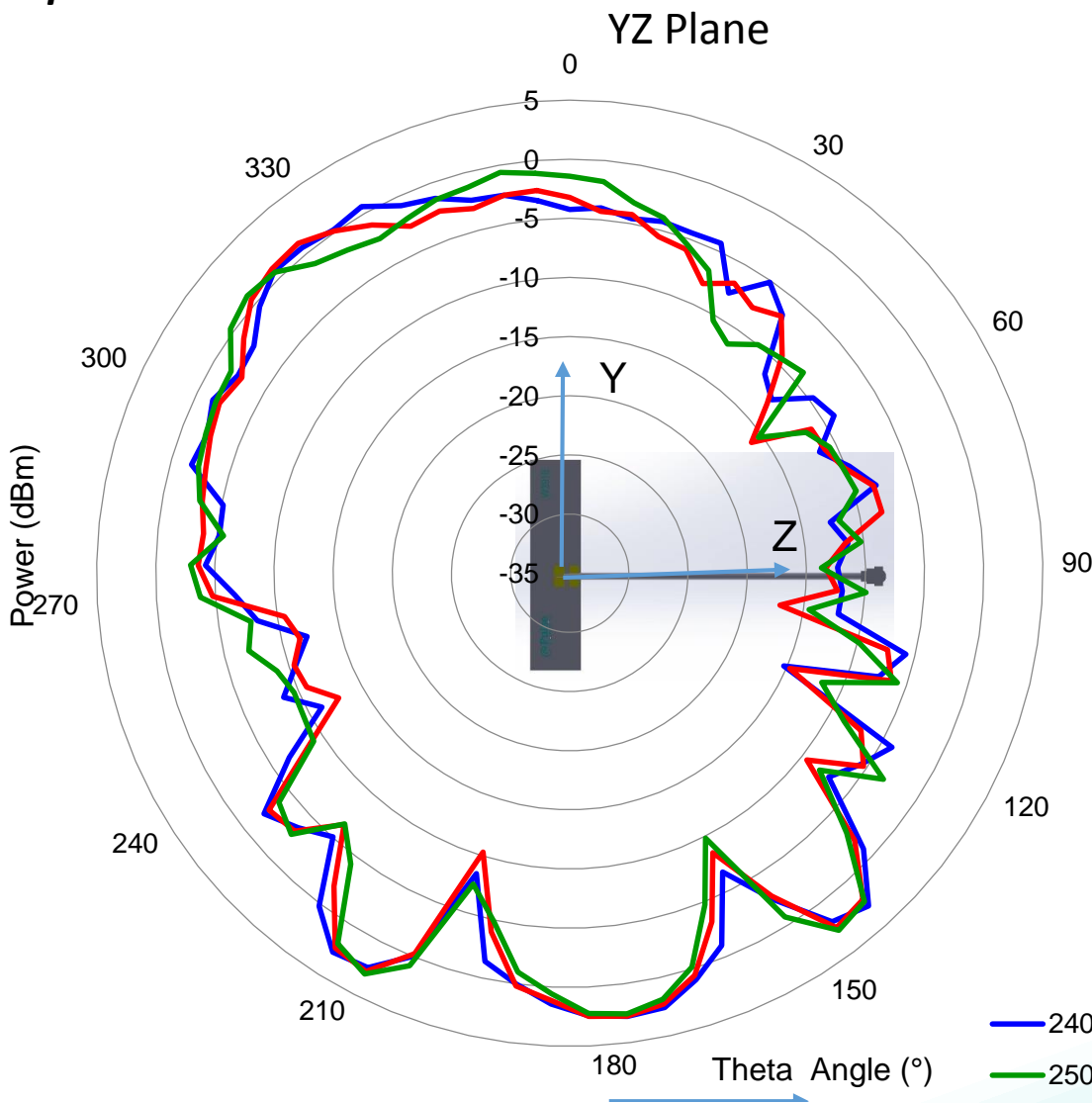
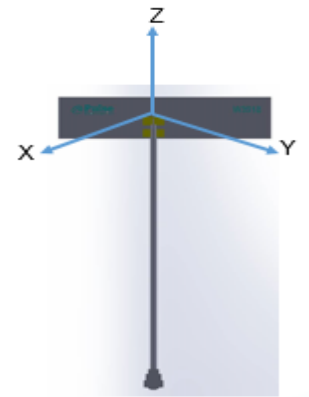
Series: Internal Antenna

PART NUMBER: W3918XXXX

CHARTS

Typical free space radiation pattern  
WIFI 2.4GHz

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



Avg (dBi) =	-4.54
Peak (dBi) =	2.80
Avg -3 (deg) =	37.5
2450MHz	
Avg (dBi) =	-5.12
Peak (dBi) =	2.8
Avg -3 (deg) =	32.5
2500MHz	
Avg (dBi) =	-4.86
Peak (dBi) =	3.05
Avg -3 (deg) =	27.5

— 2400MHz — 2450MHz  
— 2500MHz

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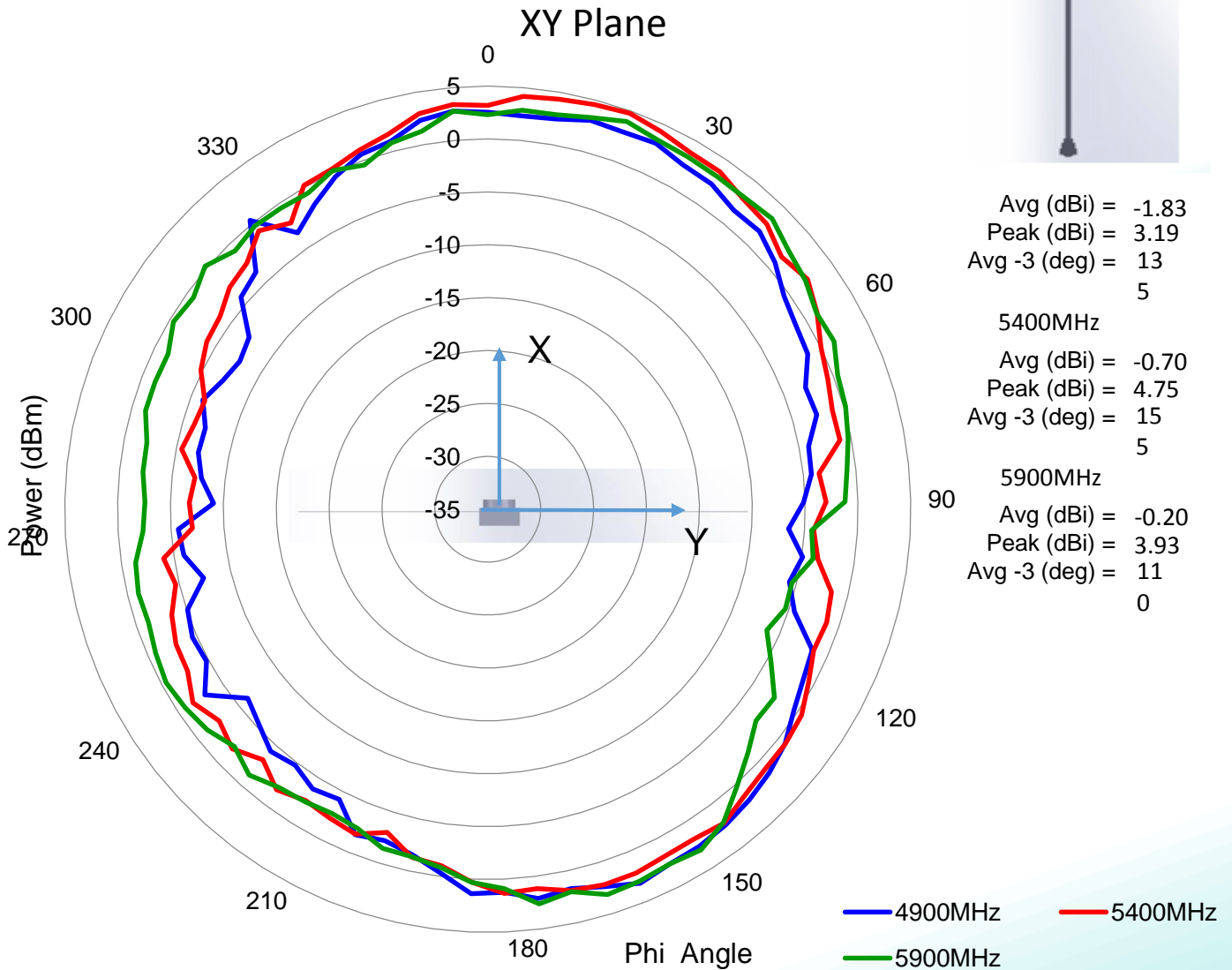
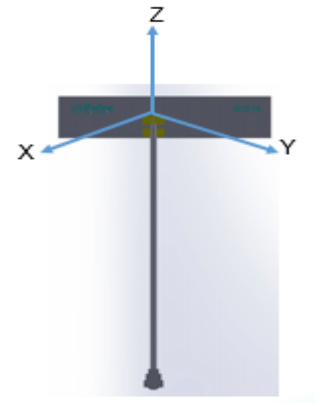
Series: Internal Antenna

PART NUMBER: W3918XXXX

CHARTS

Typical free space radiation pattern  
WIFI 5GHz

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



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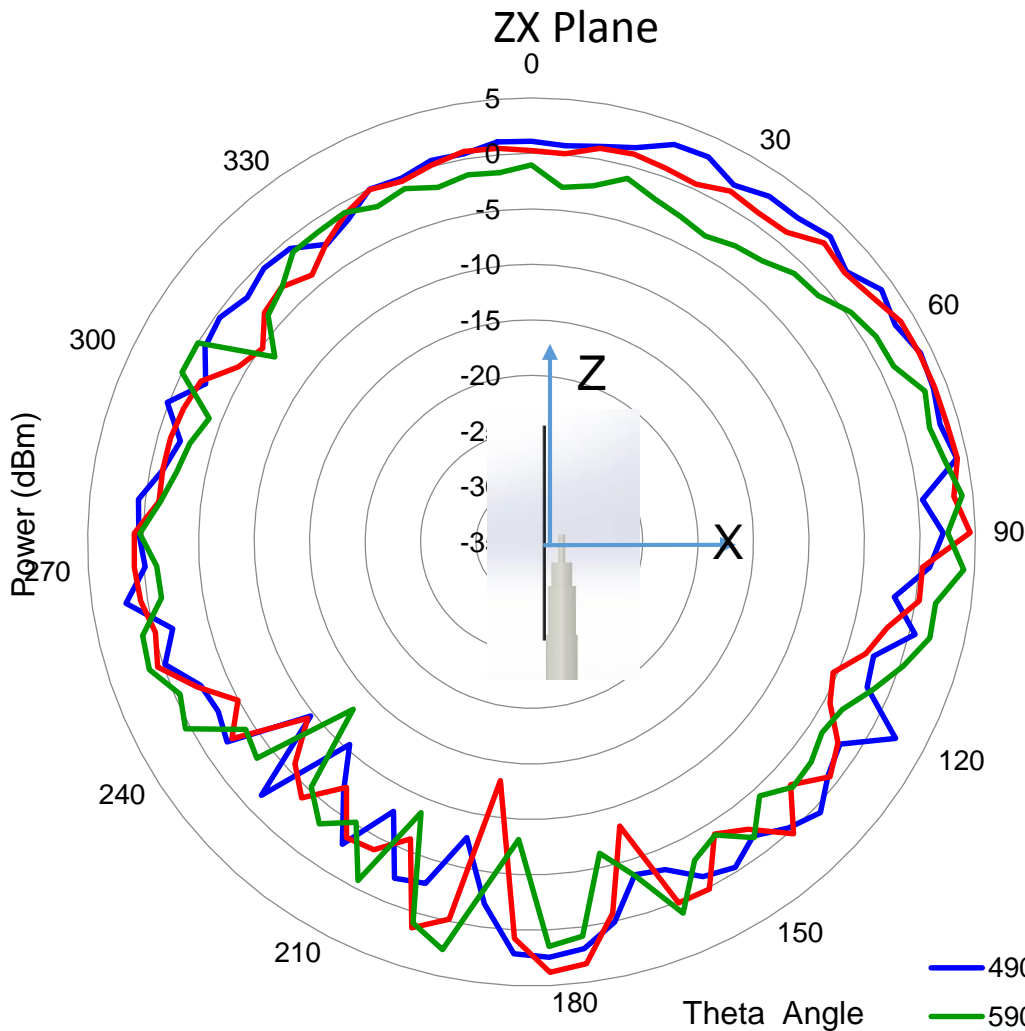
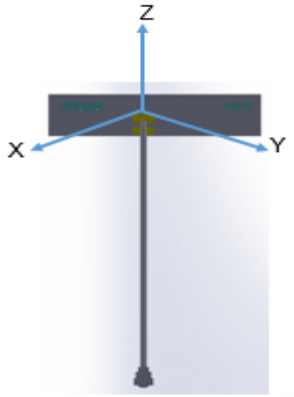
Series: Internal Antenna

PART NUMBER: W3918XXXX

CHARTS

Typical free space radiation pattern  
WIFI 5GHz

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



4900MHz	Avg (dBi) = -0.44
	Peak (dBi) = 4.03
	Avg -3 (deg) = 55
5400MHz	Avg (dBi) = -1.00
	Peak (dBi) = 4.52
	Avg -3 (deg) = 27.
	5
5900MHz	Avg (dBi) = -1.64
	Peak (dBi) = 4.02
	Avg -3 (deg) = 40

— 4900MHz — 5400MHz  
— 5900MHz

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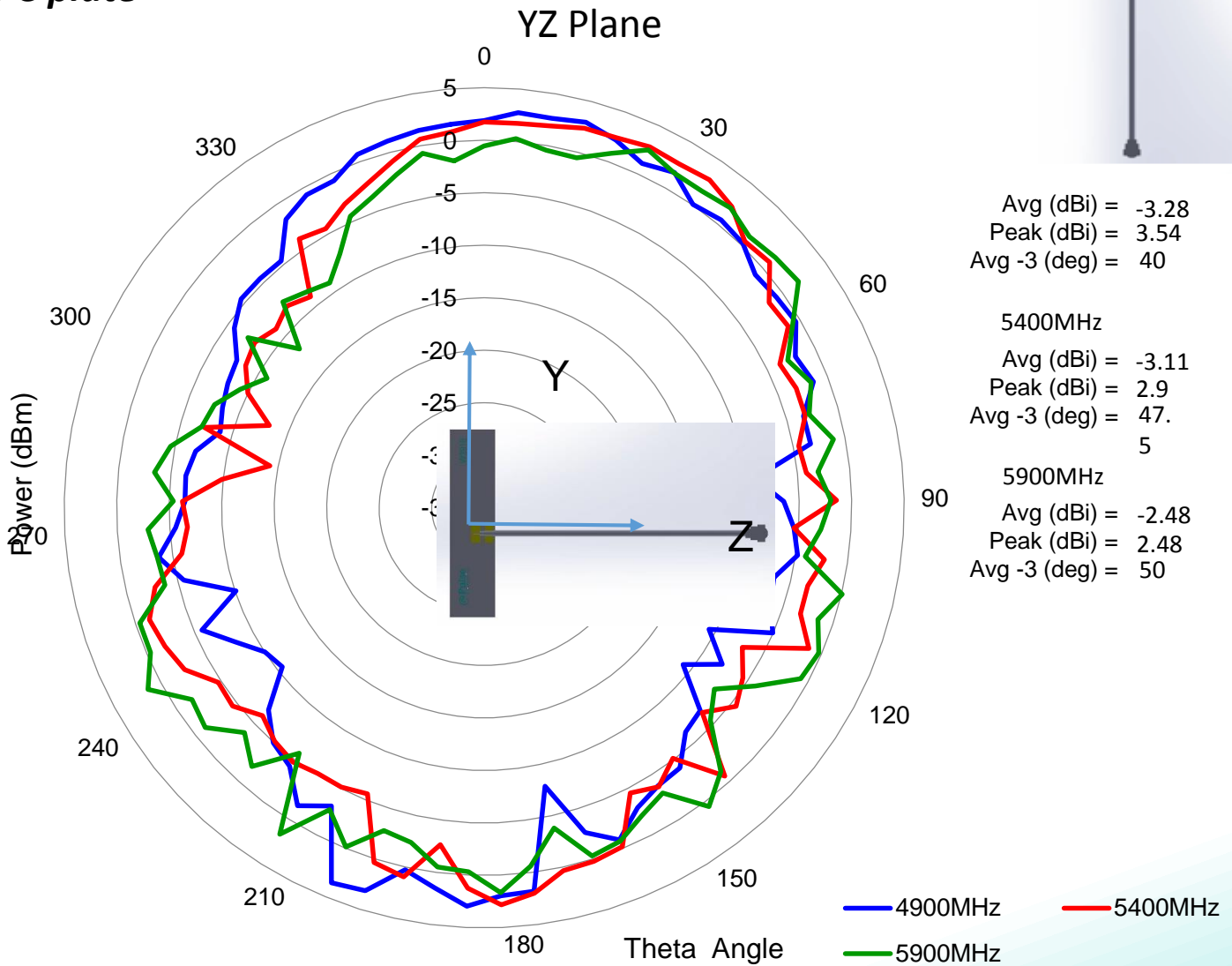
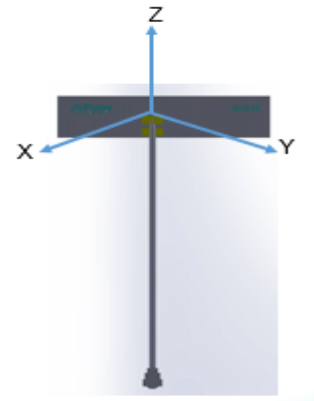
Description: 2.4/5GHz FPC antenna

Series: Internal Antenna

PART NUMBER: W3918XXXX

CHARTS

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



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