






## 2x2 MIMO WiFi 6E Antenna FPCB Antenna

W6109B0100 – 2.4 to 2.48 GHz/5.15 to 7.125GHz



### Features & Applications:

-  FPCB with adhesive
-  Size 34.6x7.6mm
-  1.13mm cable with U.FL Compatible
-  RoHS Compliant
-  WiFi 6E, WiFi 7

### ELECTRICAL SPECIFICATIONS @ 25°C

#### General Specifications

Antenna type	Nominal Impedance	Polarization	Radiation pattern	Power withstanding
Dipole	50Ω	Linear	Omni	1W
<b>Frequency (MHz)</b>		2400-2480		5150-7125
<b>Return Loss(dB)</b>		<7		<7
<b>Peak Gain (dBi)</b>		3.2		6.9
<b>Efficiency (%)</b>		49.9		86.9

### MECHANICAL SPECIFICATIONS

#### W6109B0100

Dimension (Length x Width)	Material	Color	Cable type	Connector Type	Cable length
34.6mm x 7.6mm	FPCB	Black	1.13 coaxial cable	U.FL Compatible	100mm
<b>Thickness</b>	<b>Weight</b>				
2.3mm	0.724g				

### ENVIRONMENTAL SPECIFICATIONS

#### W6109B0100

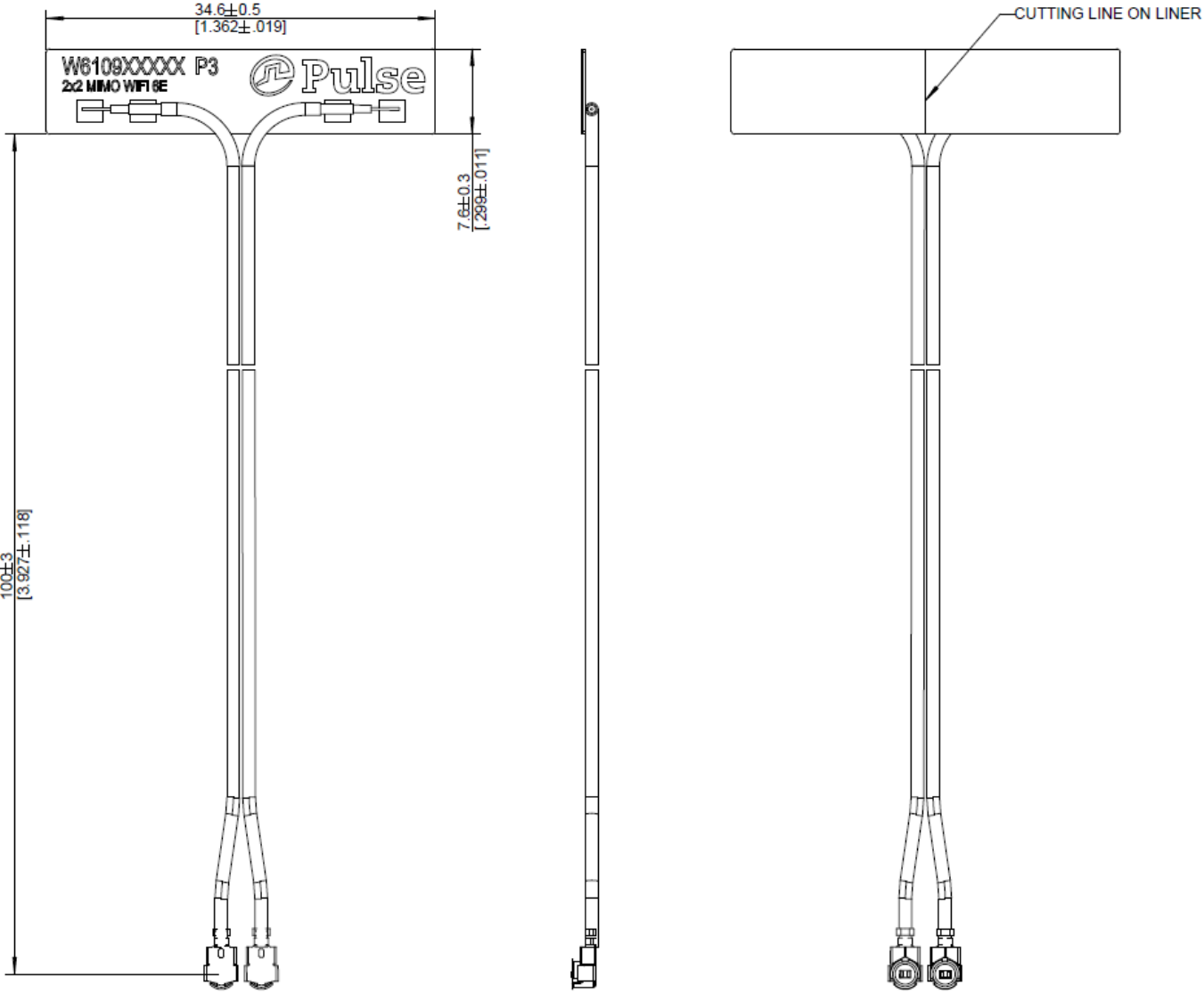
Storage Temperature	Operating Temperature	Ingress Protection	RoHS Compliant
-40/+85° C	-40/+85° C	N/A	Yes

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Mechanical Drawing

W6109B0100



Test Setup

Dimensions: MM/inches Unless otherwise specified, all tolerances are  $\pm 0.010$  (0.25mm)

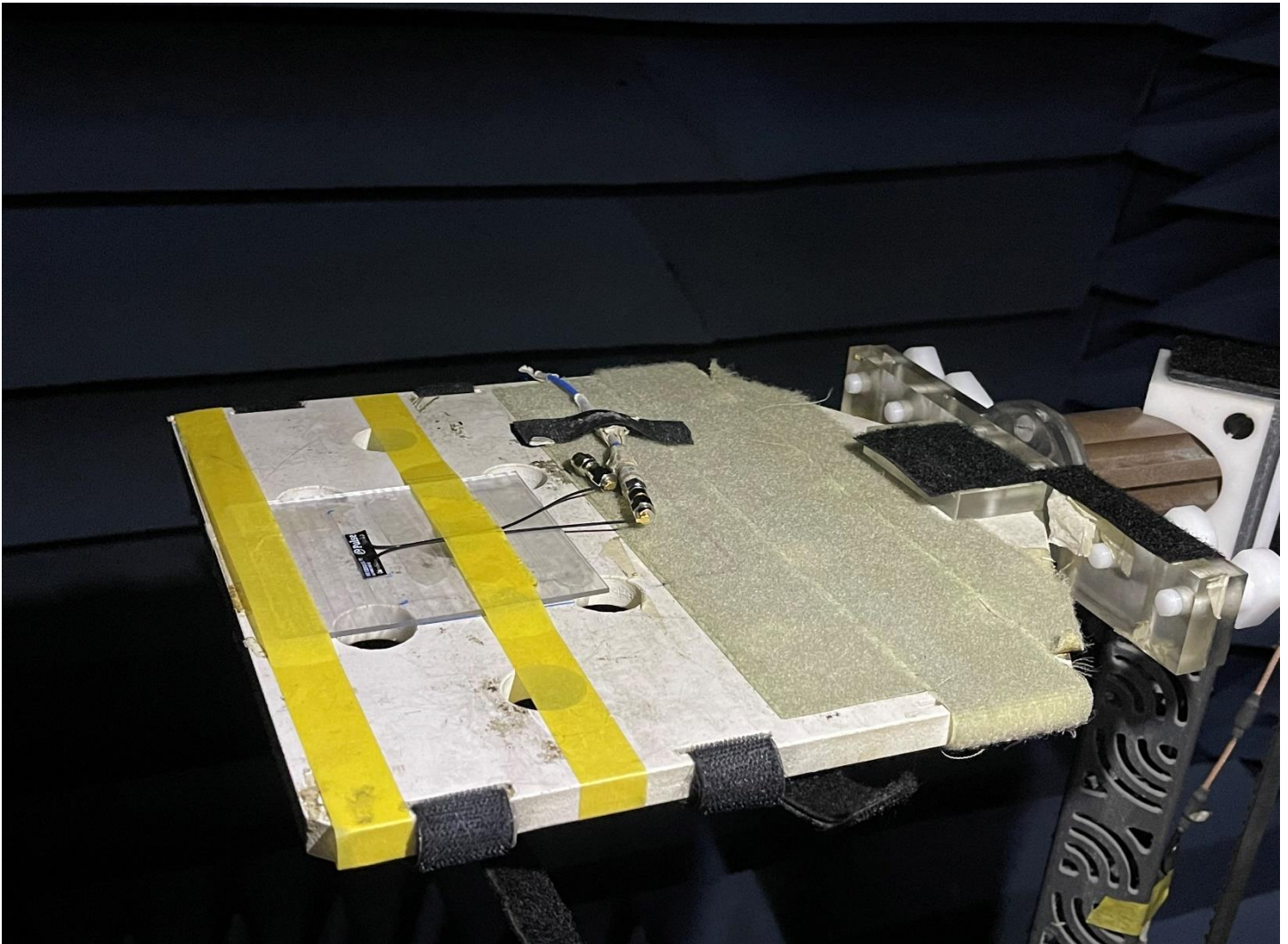
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### General / Chamber Setup

- Measured at Pulse YP (ETS Lindgren Chamber)
- Test data measured with 100mm cable W6109B0100
- Antenna mounted on 2mm thick PC plate
- 

*Measurement setup*

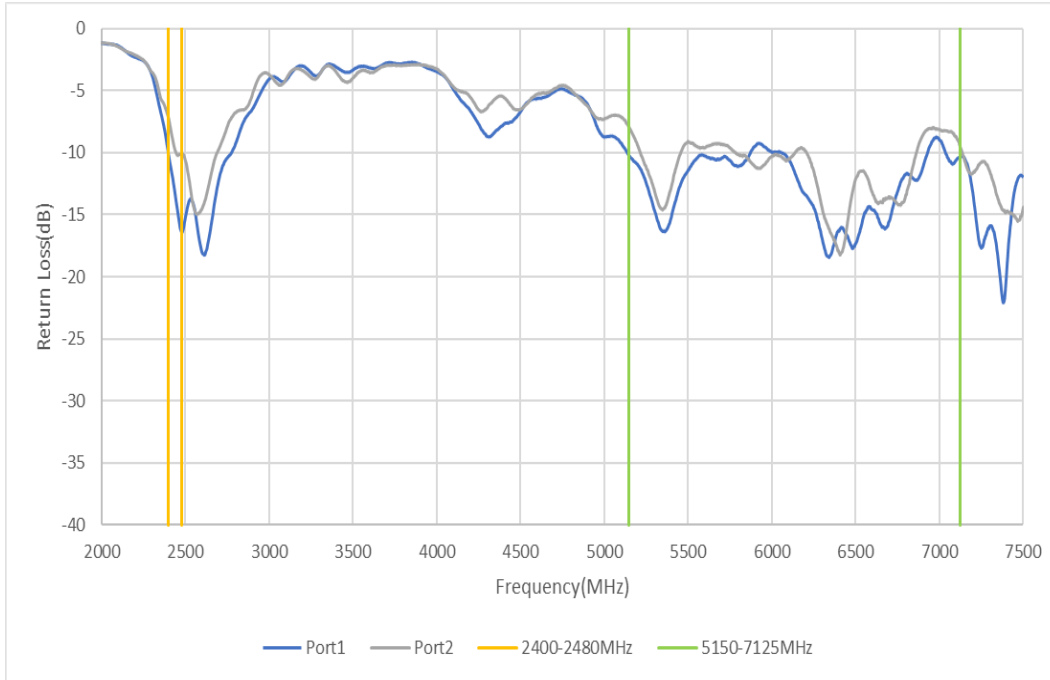


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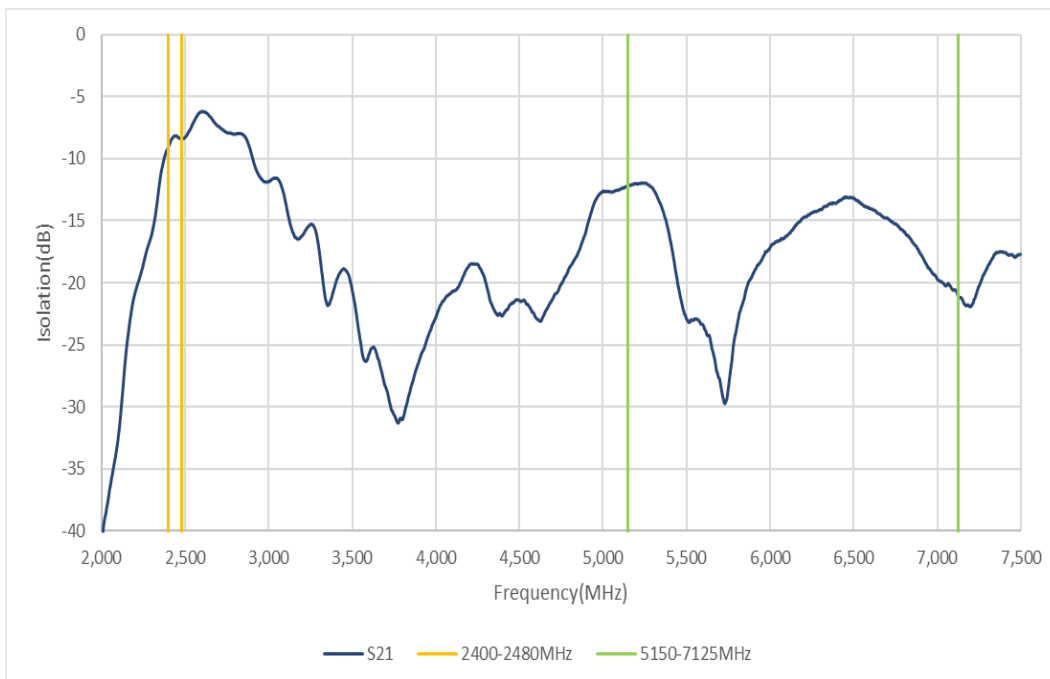
## Charts – Return Loss

Test data



## Charts - Isolation

Test data

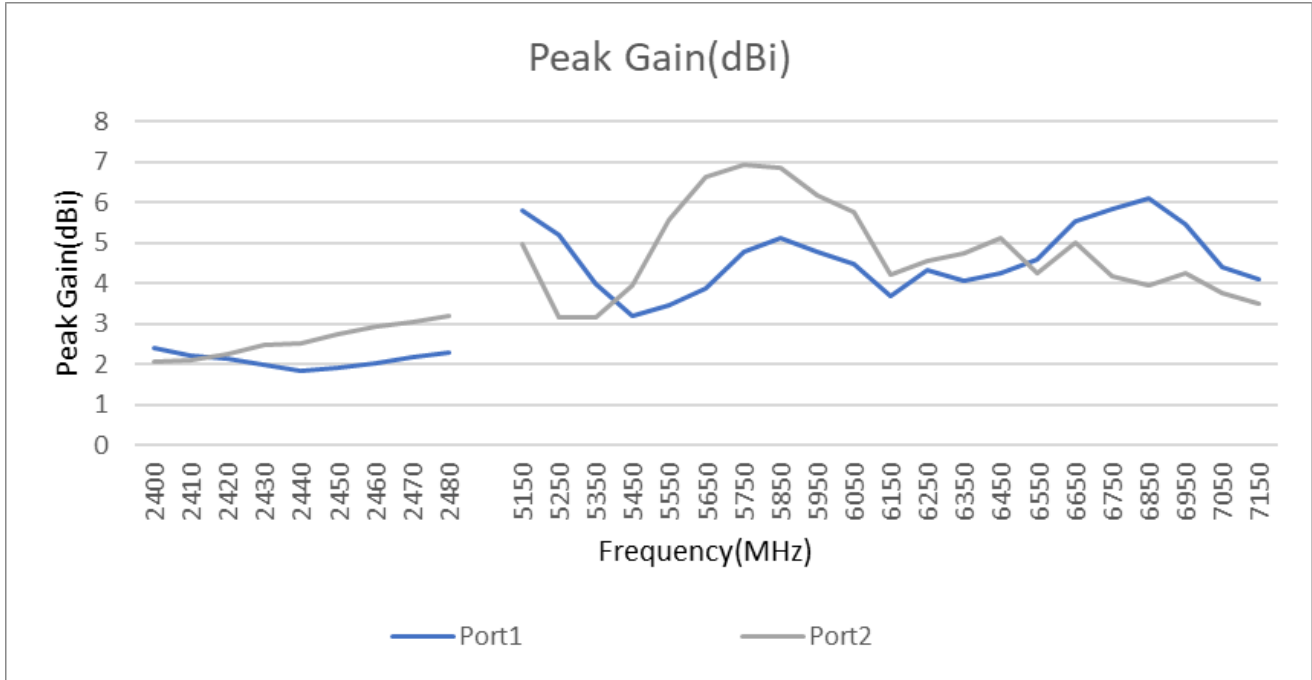


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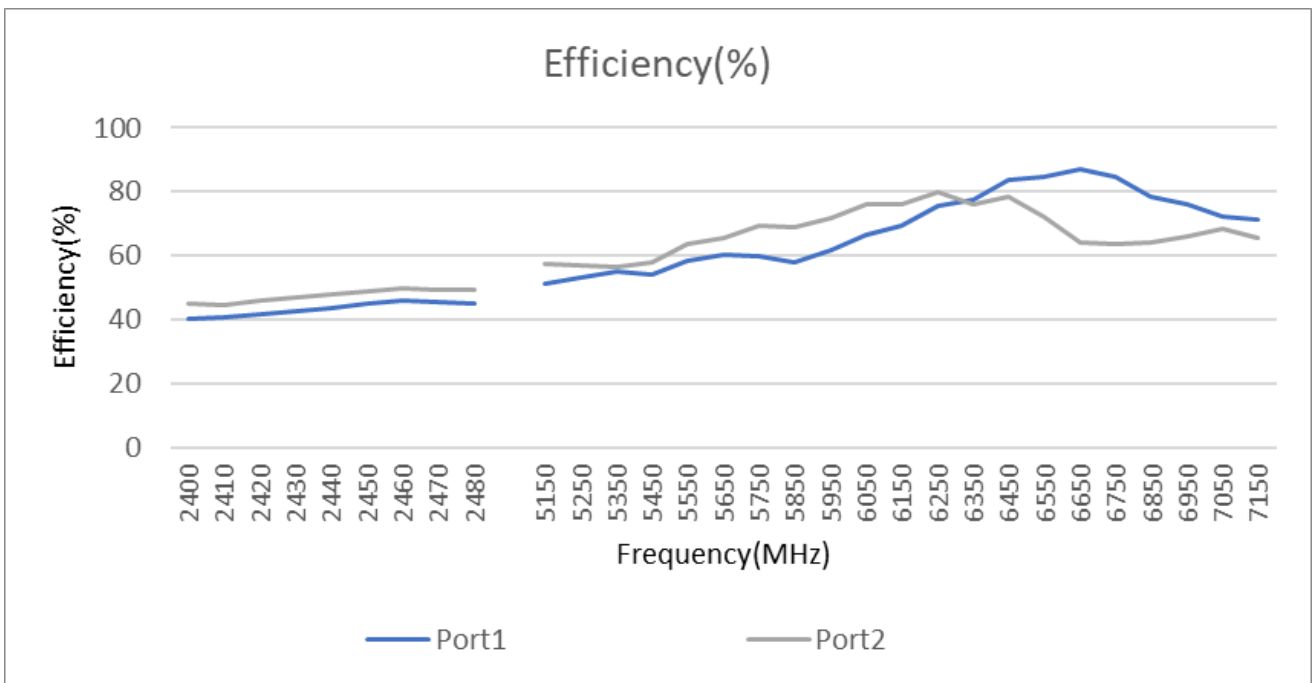
## Charts – Peak Gain(dBi)

Test data



## Charts – Efficiency(%)

Test data

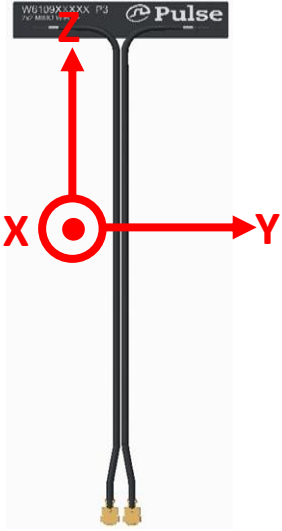


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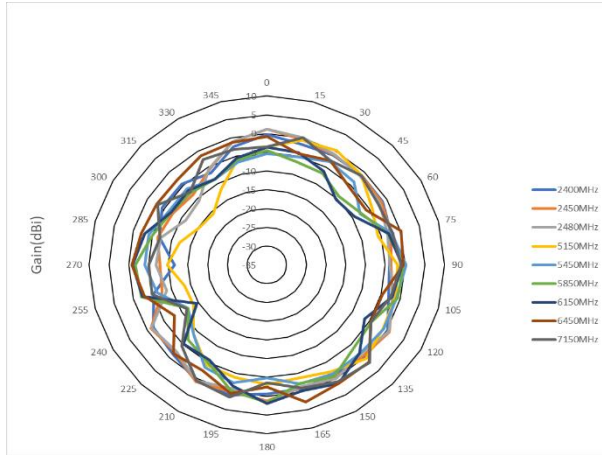
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## Radiation Pattern – XY and XZ Gain Plots

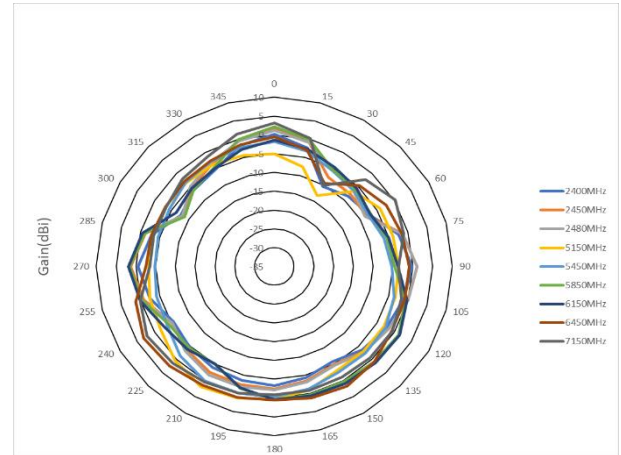
Test data



### XY Plane



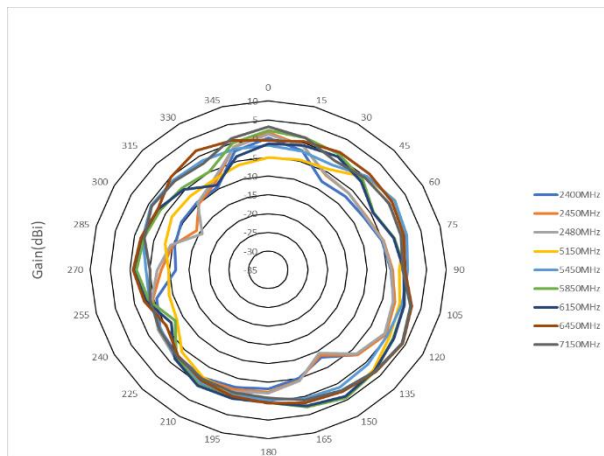
### XZ Plane



## Radiation Pattern – YZ Gain Plots

Test data

### YZ Plane



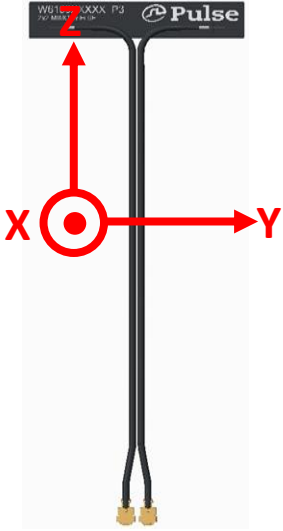


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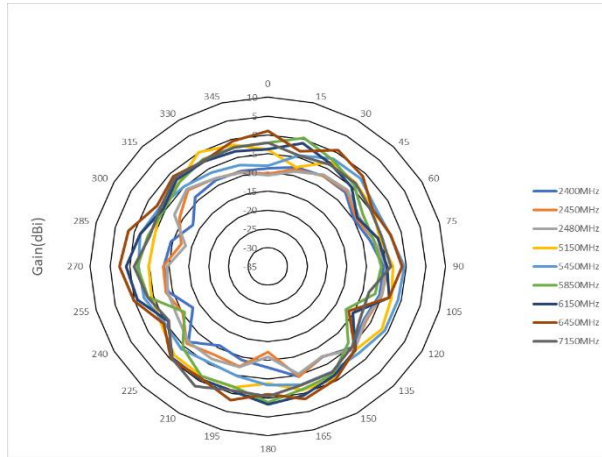
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## Radiation Pattern – XY and XZ Gain Plots

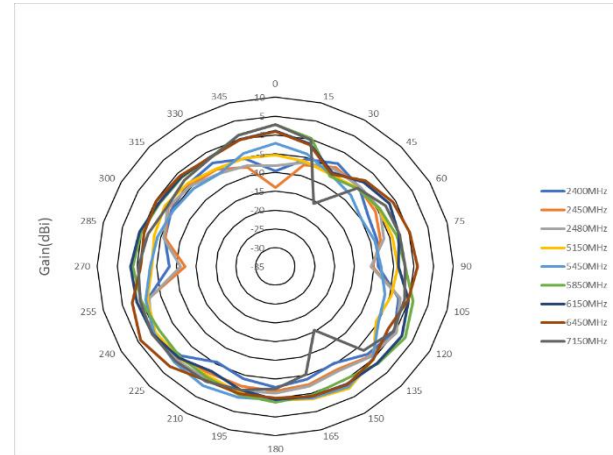
Test data



### XY Plane



### XZ Plane



## Radiation Pattern – YZ Gain Plots

Test data

### YZ Plane

