



**Product Name:** Flexible PCB Antenna

**Part Number:** FP-W18-01

**Features:**

- Support WiFi Dual Bands, 2400-2500MHz, 5150-5850MHz
- Flexible PCB with Double-Sided Adhesive
- IPEX MHF4L Connector
- Cable: 1.13 mm Mini-Coax
- Cable Length: 60 mm
- Customizable Cables and Connectors
- RoHS & REACH Compliant

**Applications:**

- IoT Application
- Portable Device Application

# Flexible PCB Antenna

**MODEL: FP-W18-01**

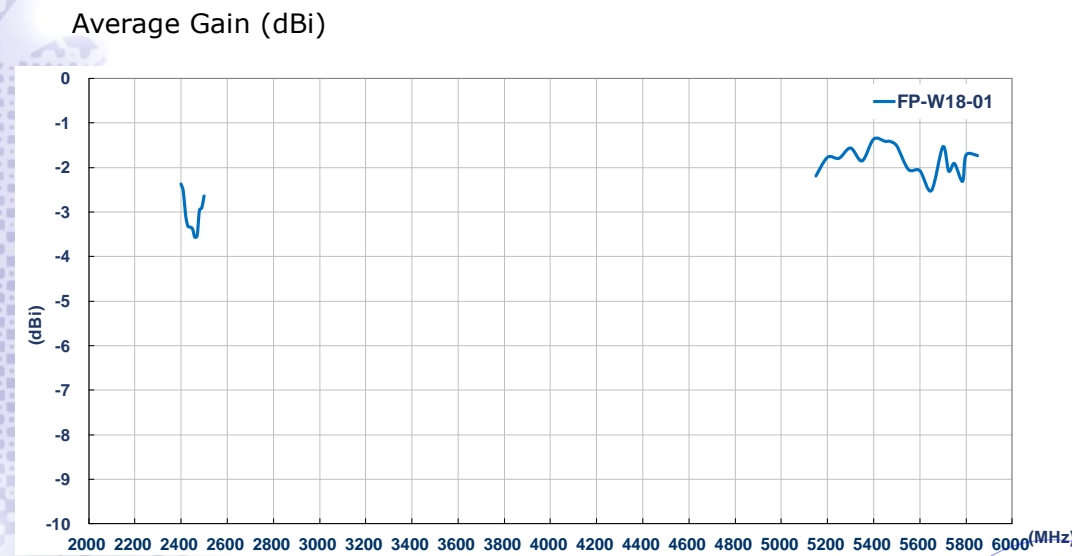
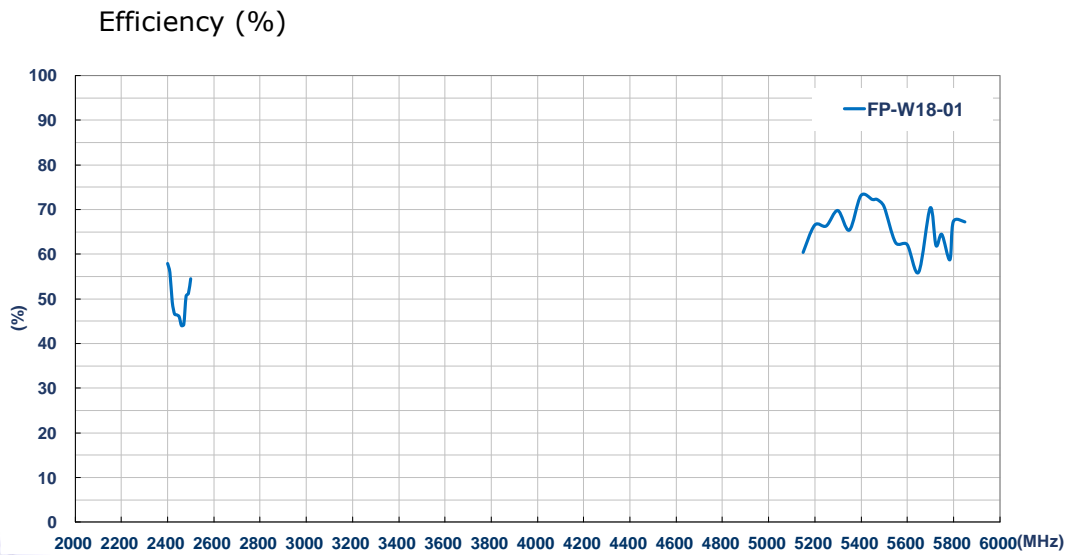
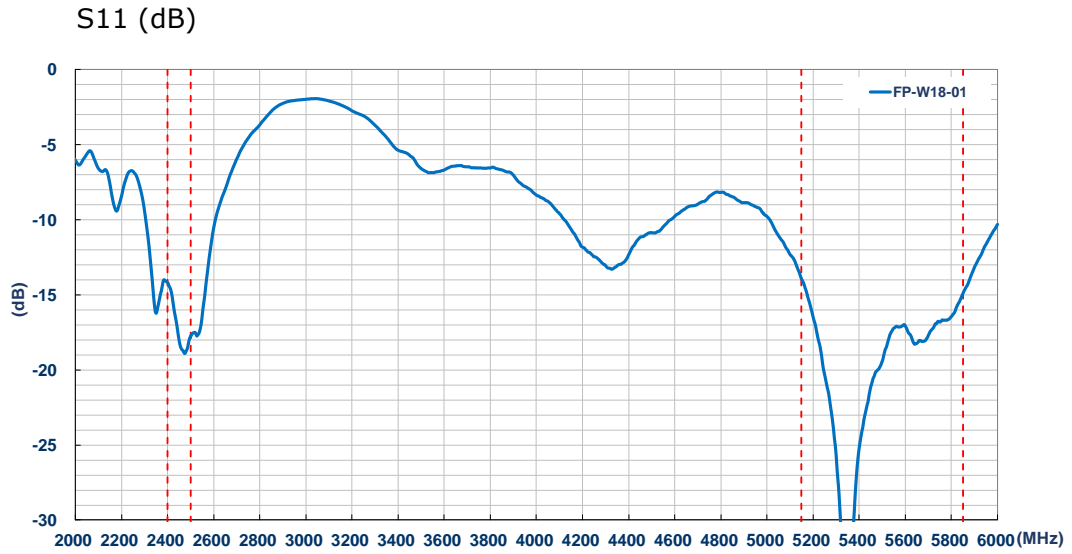
Rev.A

## I. Specifications:

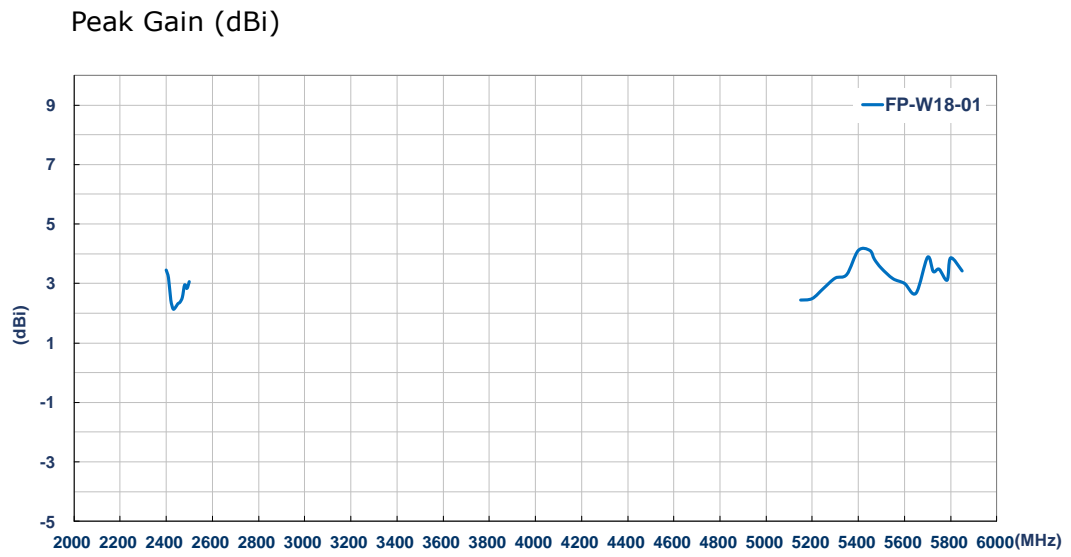
Items	Specifications						
<b>WiFi Electrical Characteristics</b>							
<b>Frequencies (MHz)</b>	2400	2450	2500	5150	5350	5725	5850
<b>Efficiency (%)</b>	57.94	45.92	54.45	60.39	65.31	61.94	67.14
<b>Average Gain (dBi)</b>	-2.37	-3.38	-2.64	-2.19	-1.85	-2.08	-1.73
<b>Peak Gain (dBi)</b>	3.45	2.31	3.06	2.44	3.30	3.40	3.42
<b>V.S.W.R</b>	<2						
<b>Return Loss (dB)</b>	<-10						
<b>Impedance (<math>\Omega</math>)</b>	50						
<b>Polarization</b>	Linear						
<b>Physical Condition</b>							
<b>Dimensions (mm)</b>	30.2(L) x 15.3(W) x 0.25(T)						
<b>Connector</b>	IPEX MHF4L						
<b>Cable</b>	1.13 mm Mini-Coax						
<b>Cable Length (mm)</b>	60						
<b>Environmental Conditions</b>							
<b>Operation Temperature (<math>^{\circ}</math>C)</b>	-40 ~ +85						
<b>Storage Temperature (<math>^{\circ}</math>C)</b>	-40 ~ +85						
<b>Relative Humidity</b>	95% non-condensing						

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## II. Antenna Technical Parameters:



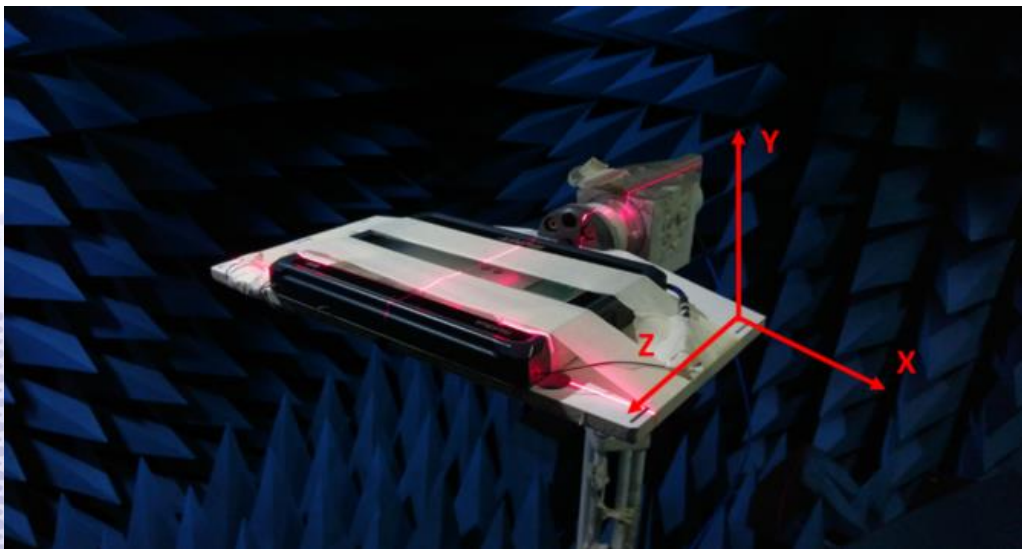
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### III. Antenna Radiation Pattern Measurement:

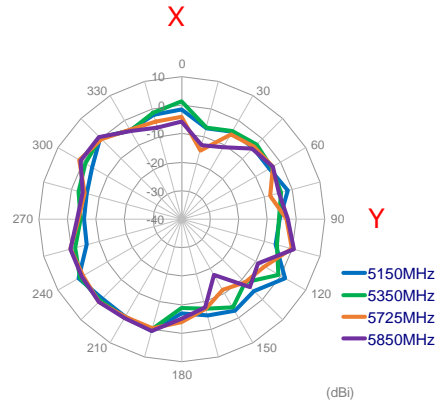
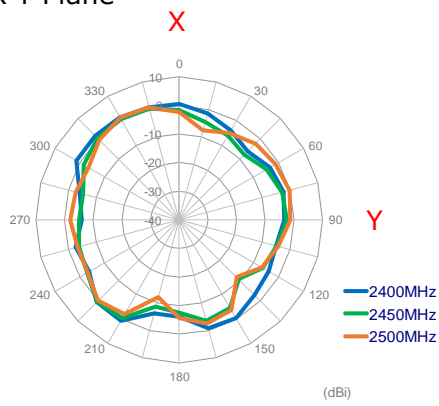
The antenna radiation patterns are measured in 3D Anechoic Chamber.

The measurement is setup as show below,

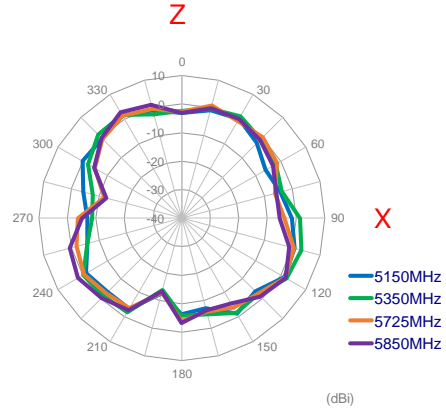
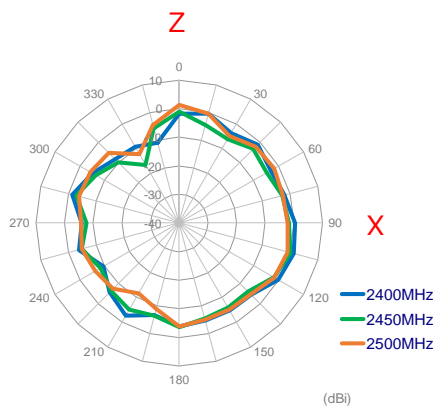


## IV. 2D Radiation Pattern:

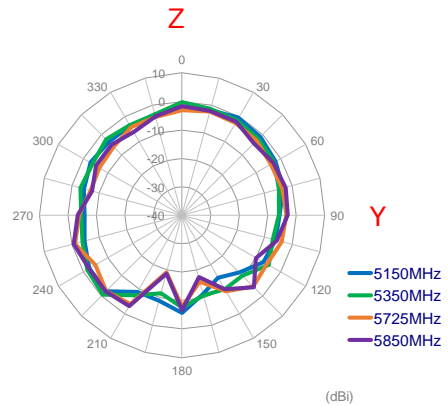
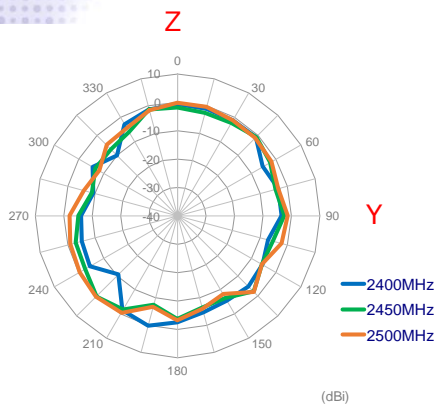
X-Y Plane



X-Z Plane

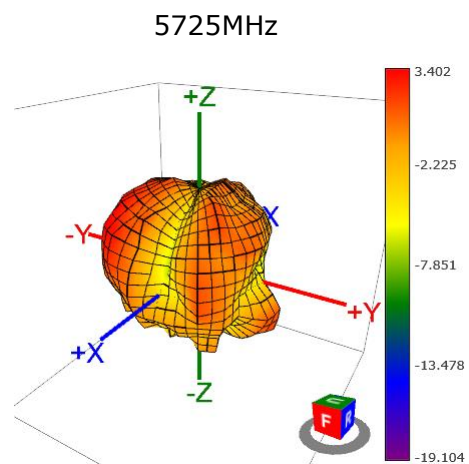
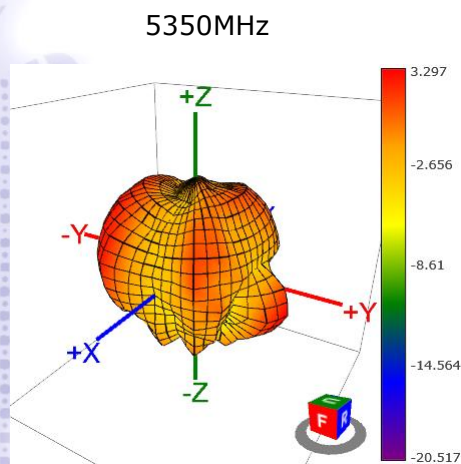
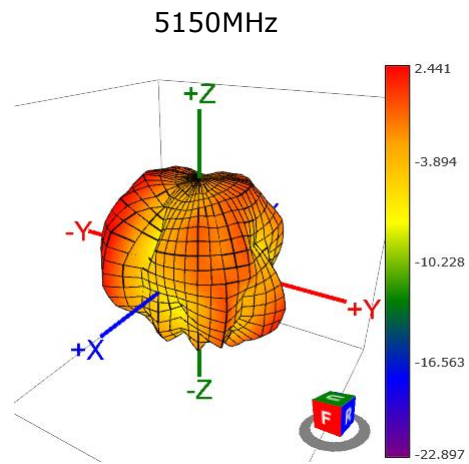
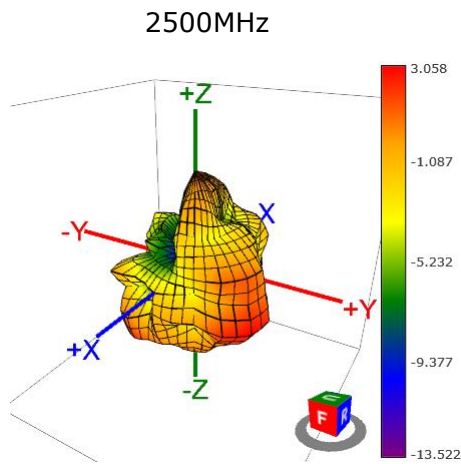
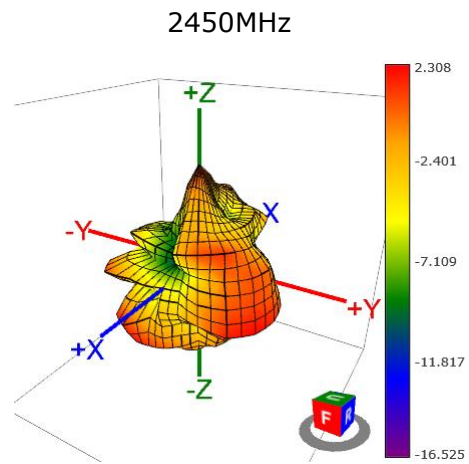
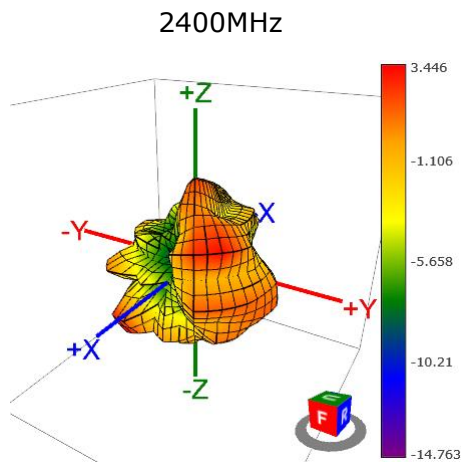


Y-Z Plane



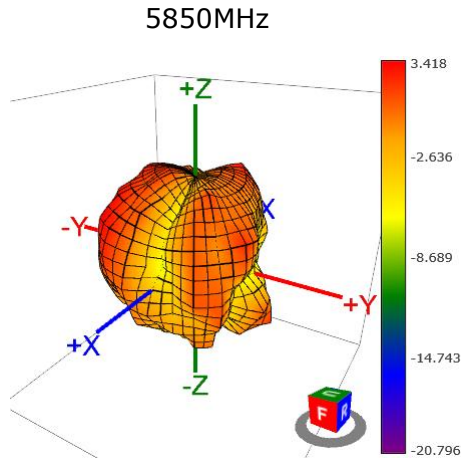
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## V. 3D Radiation Pattern:

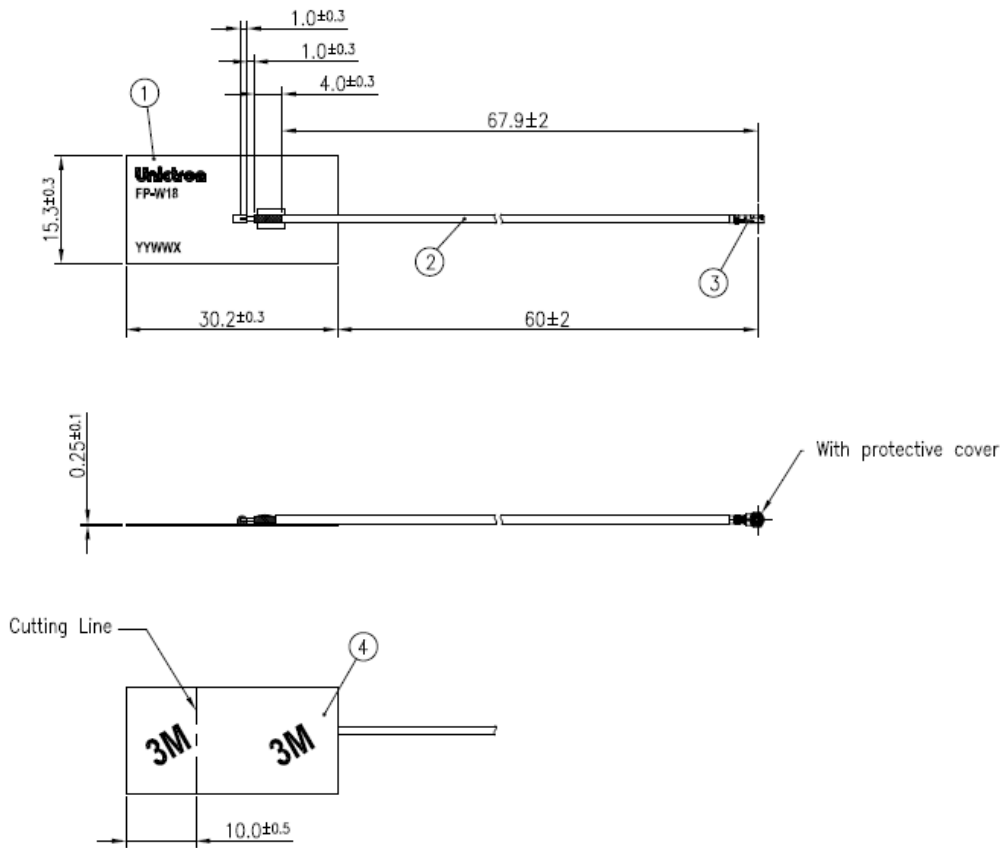


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## VI. Mechanical Drawing (Unit:mm):



4	Double-Sided Adhesive	3M 467MP	Brown Liner	1
3	IPEX MHF4L (20565-001R-13)	Brass	Au Plated	1
2	OD1.13 Coaxial Cable	FEP	Black	1
1	Antenna FPCB	Polymer 0.25t	Black	1
No	NAME	MATERIAL	FINISH	QTY