

Product Name:

GPS/4G LTE/5G NR Flexible PCB Antenna, IPEX MHFI, 698Mhz-3800MHz

Part Number: FP-GL01-01

Feature:

- Support 4G LTE/5G NR 698-2690MHz, 3500-3800MHz
- Support GPS L1:1575.42MHz
- IPEX MHFI Connector

Application:

- Miniature IOT Sensors and Trackers
- Electric Vehicle Charging Station
- Remote Monitoring

GPS/4G LTE/5G NR Flexible PCB Antenna, IPEX MHFI, 698-3800MHz

MODEL: FP-GL01-01

Rev.A

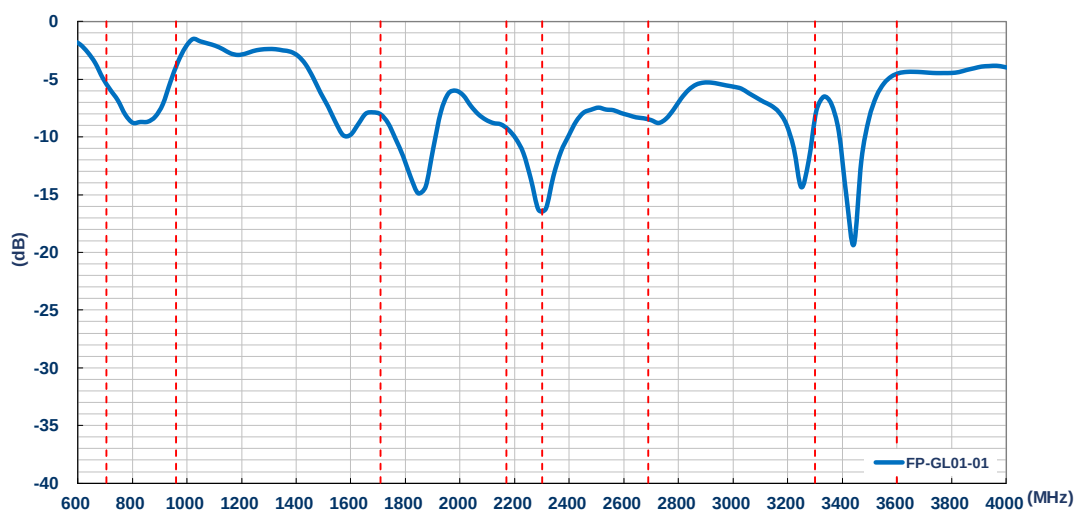
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I. Specifications:

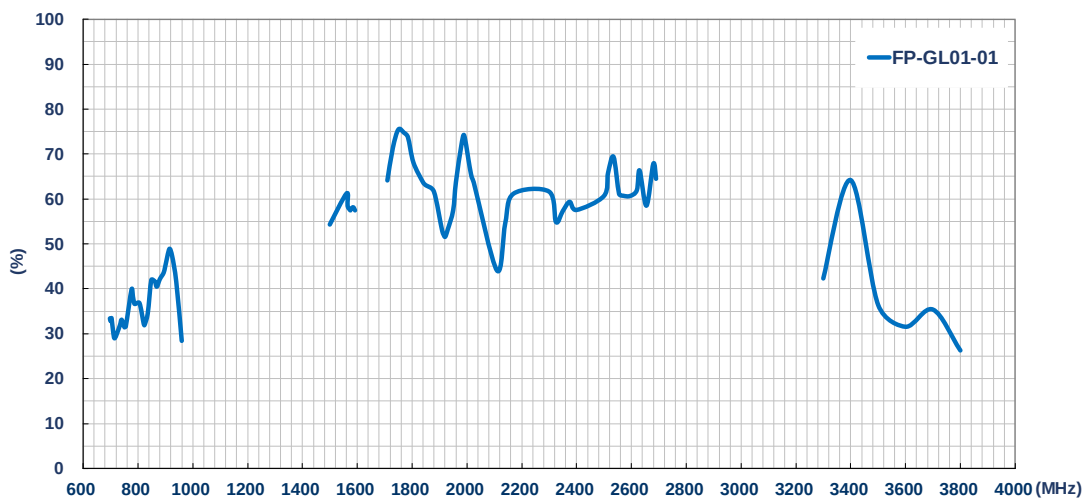
Items	Specifications							
Electrical Characteristics								
Application Bands	LTE 700	GSM 850/900	GPS L1	DCS	PCS	UMTS1	LTE2600	5G NR Band
Frequencies (MHz)	698 ~ 824	824 ~ 960	1575.42	1710 ~ 1880	1850 ~ 1990	1920 ~ 2170	2300 ~ 2690	3300 ~ 3500
Efficiency (%)	33.46	40.13	57.41	68.27	60.57	59.99	61.18	46.24
Average Gain (dBi)	-4.76	-3.97	-2.41	-1.66	-2.18	-2.22	-2.13	-3.35
Peak Gain (dBi)	1.24	1.86	1.17	4.84	6.34	6.34	3.38	5.27
V.S.W.R	< 3.5							
Return Loss (dB)	< -5							
Impedance (Ω)	50							
Polarization	Linear							
Physical Condition								
Dimension (mm)	66.5(L) x 20(W) x 0.25(T)							
Connector	IPEX MHFI							
Cable	1.37 mm Mini-Coax							
Cable Length (mm)	100							
Environmental Conditions								
Operation Temperature	-40 ~ +85 °C							
Storage Temperature	-40 ~ +85 °C							
Relative Humidity	95% non-condensing							

II. Antenna Technical Parameters:

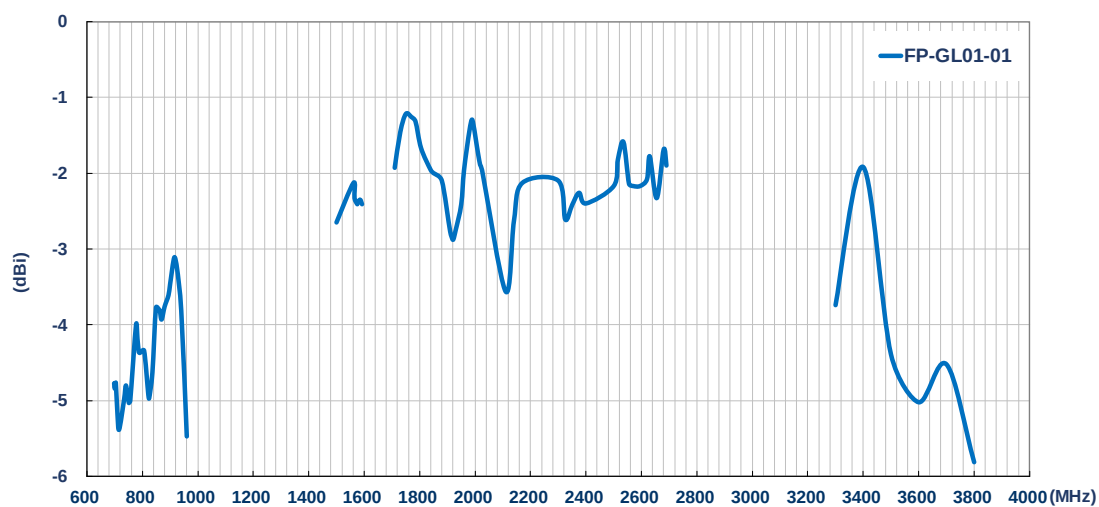
S11 (dB)



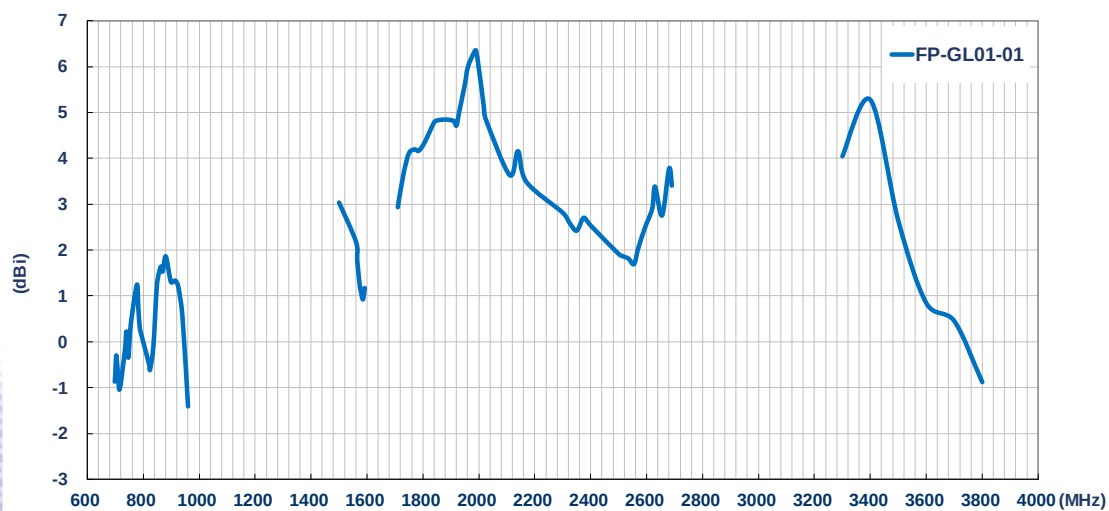
Efficiency (%)



Average Gain (dBi)

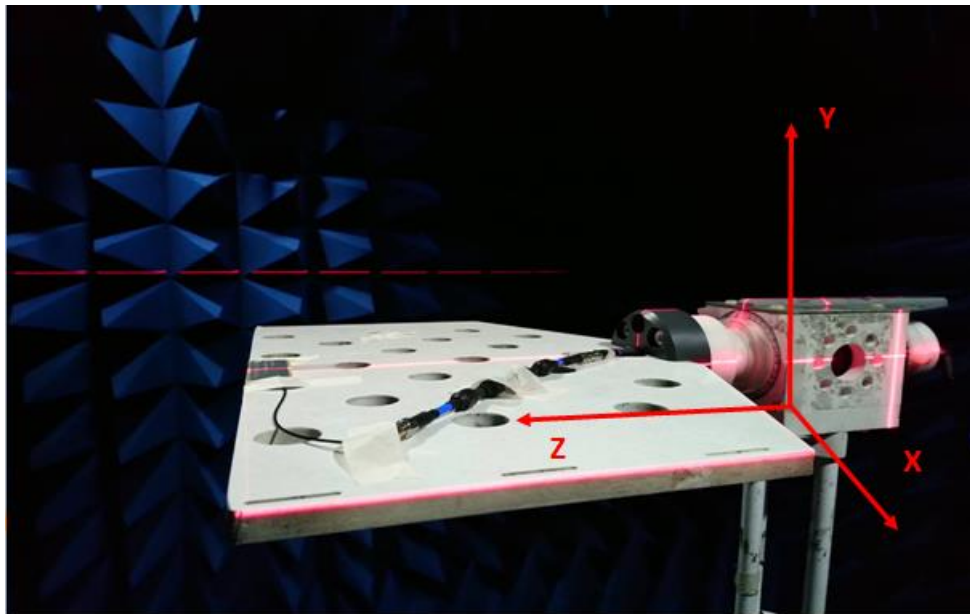


Peak Gain (dBi)



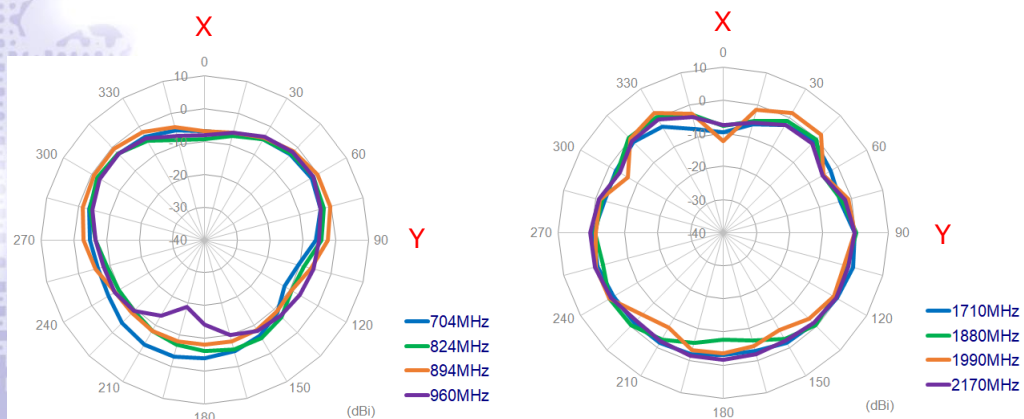
III. Antenna Radiation Pattern Measurement:

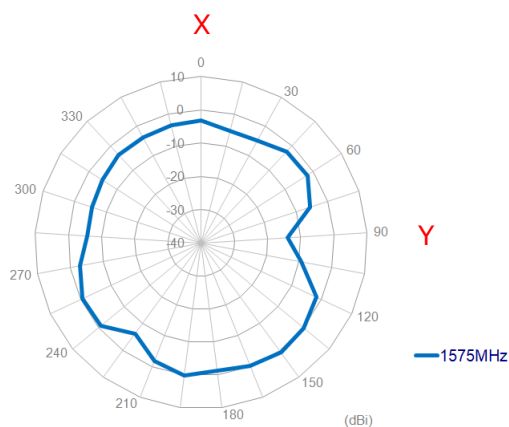
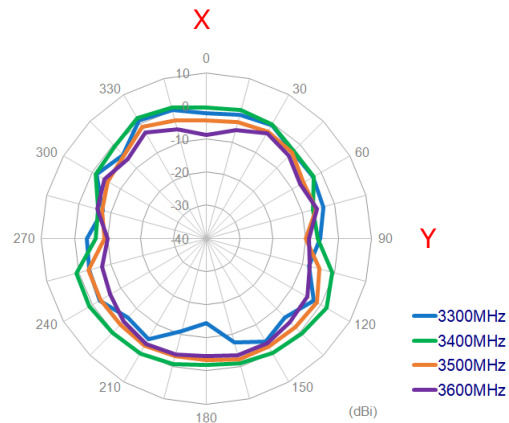
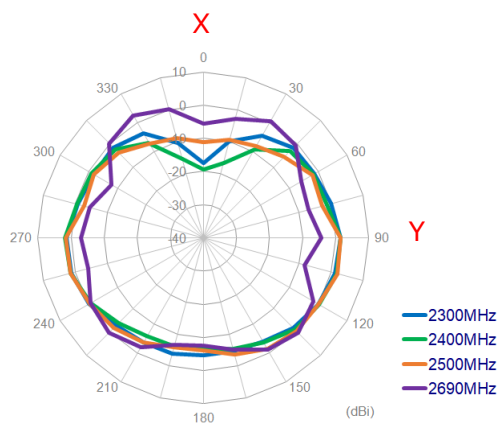
The antenna radiation patterns are measured in 3D Anechoic Chamber.
The measurement setup is as show below,



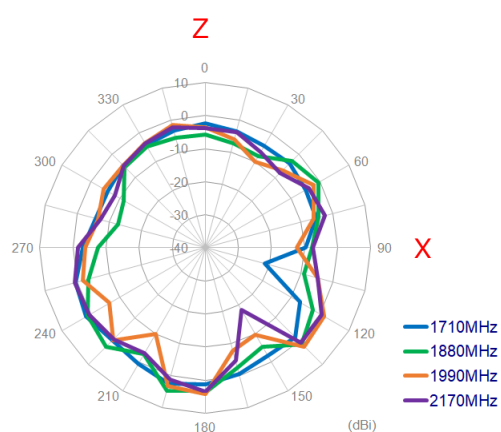
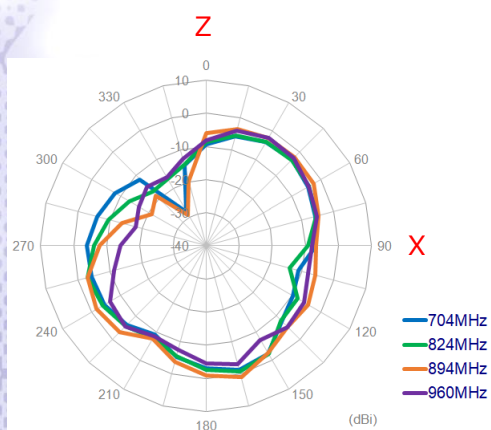
IV. 2D Radiation Pattern:

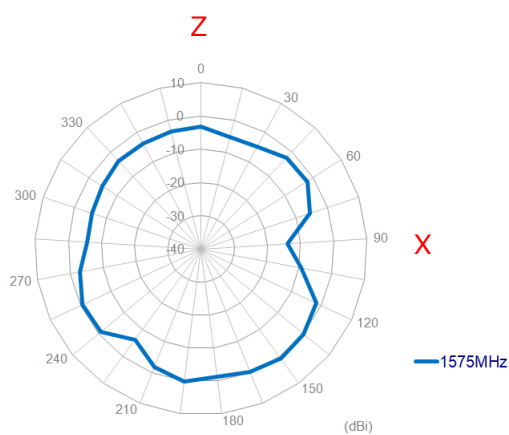
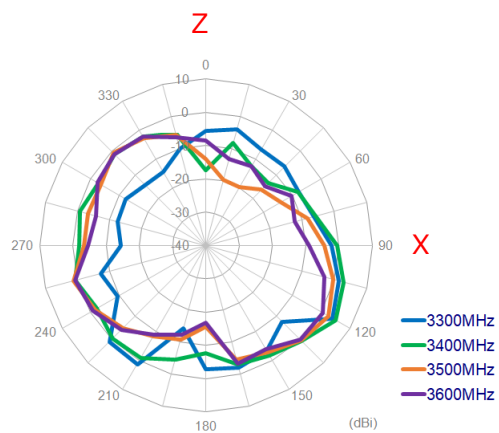
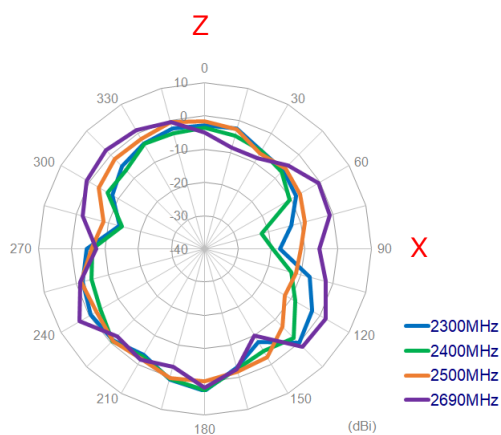
X-Y plane



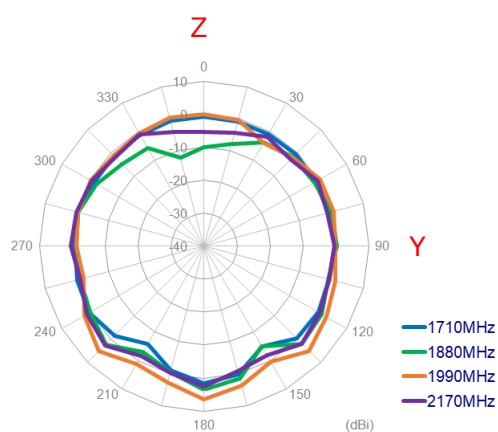
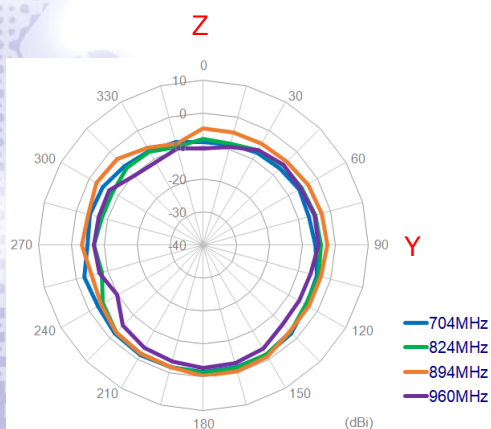


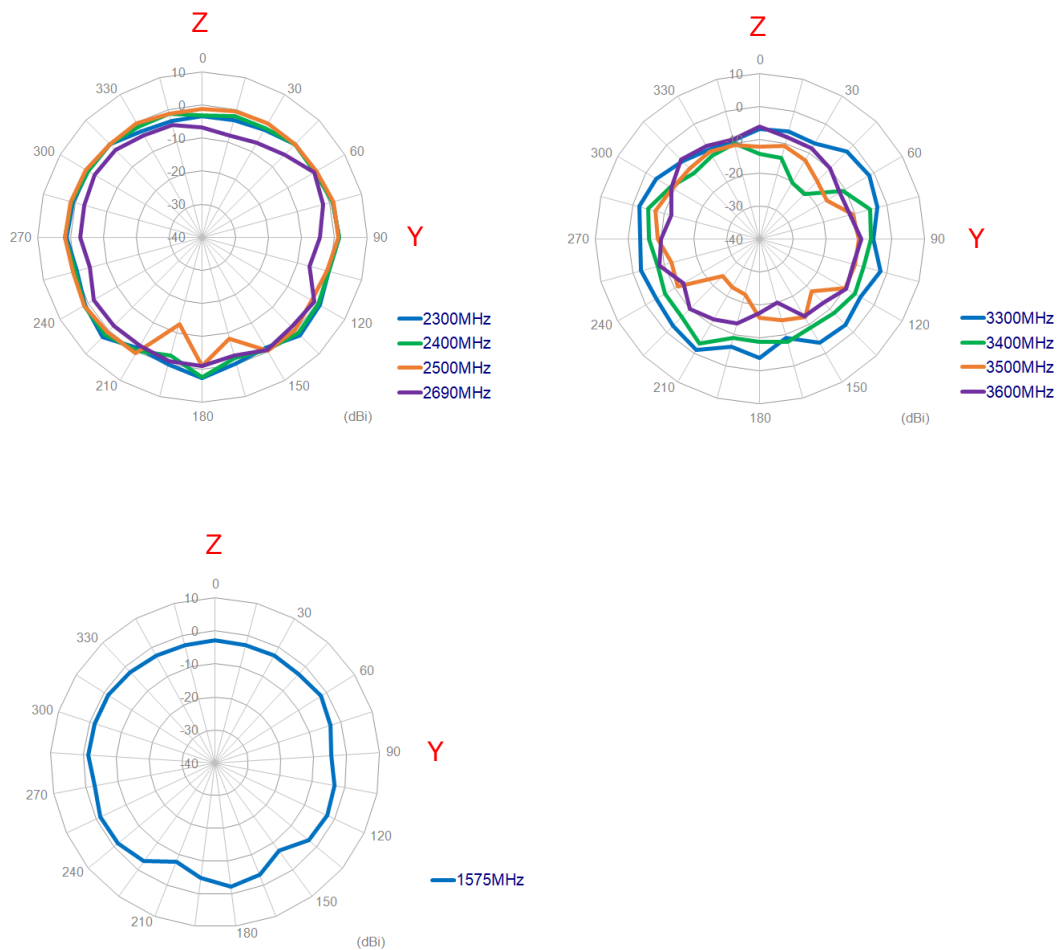
X-Z plane





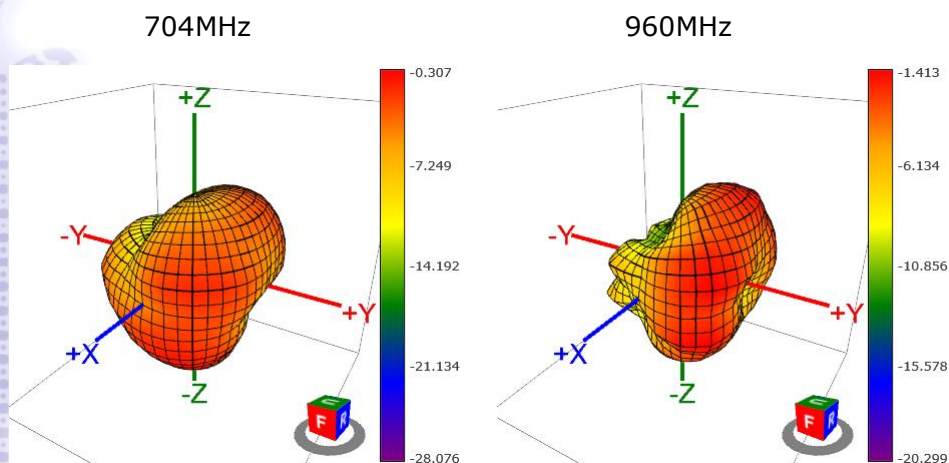
Y-Z plane

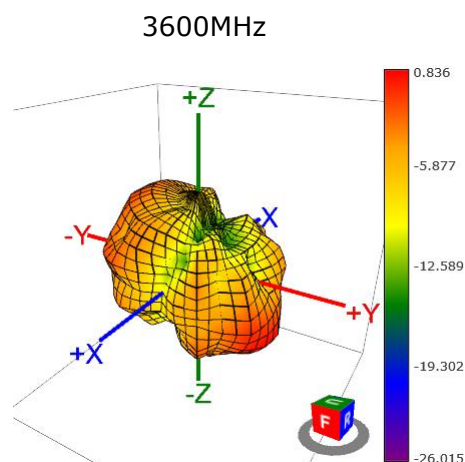
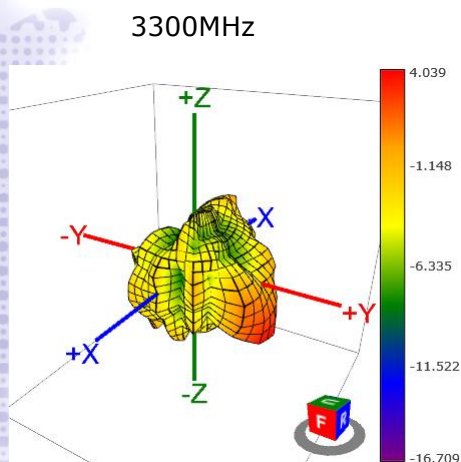
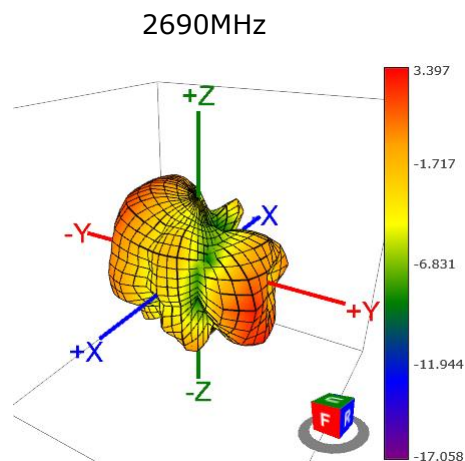
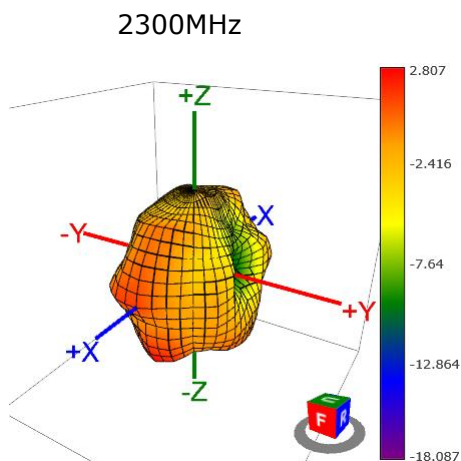
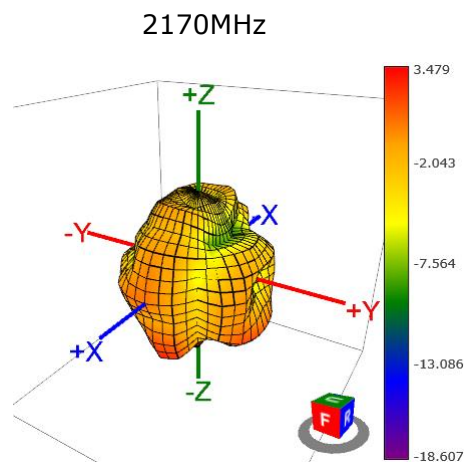
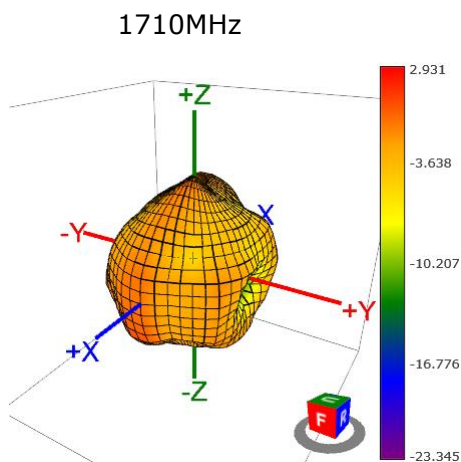


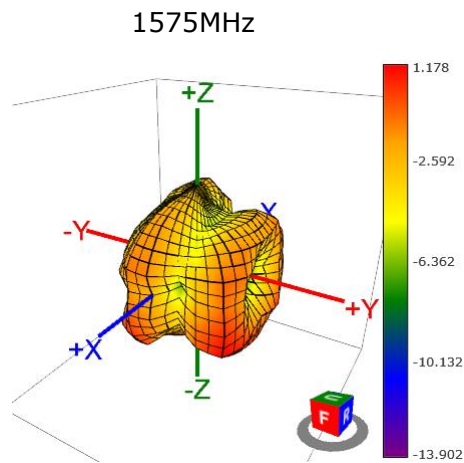


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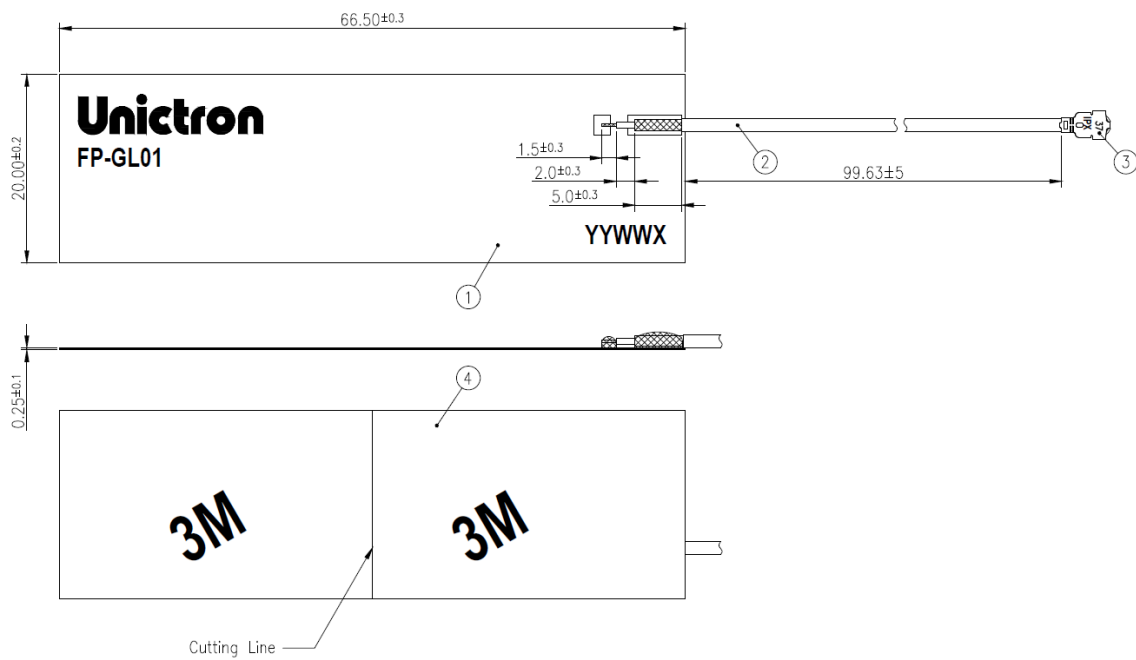
V. 3D Radiation Pattern:







VI. Mechanical Drawing (Unit:mm):



4	Double-Sided Adhesive	3M 467	Brown Liner	1
3	IPEX MHF(20351-112R-37)	Brass	Au Plated	1
2	1.37 Coaxial Cable	FEP	Black	1
1	FP-GL01 FPCB	Polymer 0.25t	Black	1
No	NAME	MATERIAL	FINISH	Q'TY