

Product Name:

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

Part Number: FP-GL01-01

Feature:

- 4G LTE/5G NR 698-2690MHz, 3500-3800MHz Supported
- GPS L1:1575.42MHz Supported
- 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

WI-RD-D-188 V1.0

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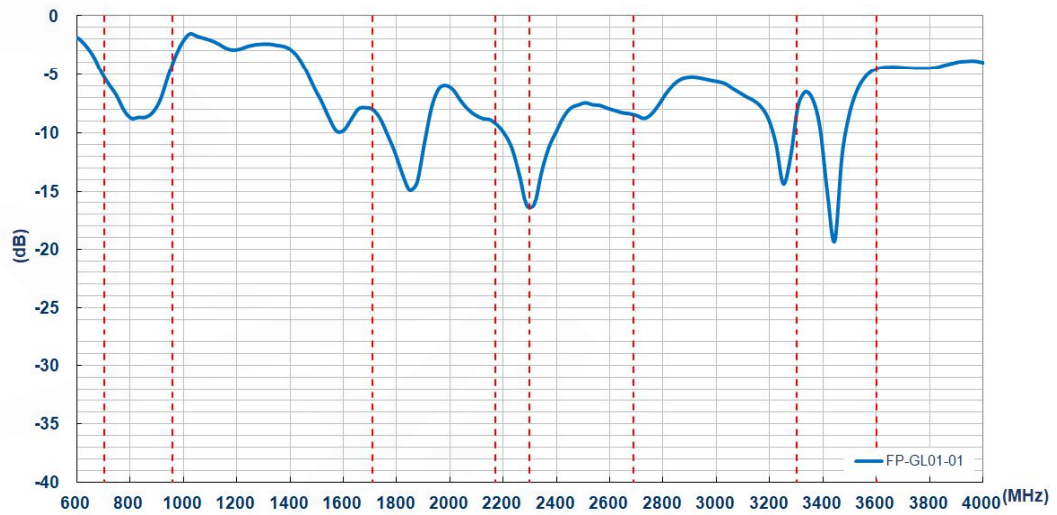
I. Specifications:

Category	Specifications							
Electrical Characteristics								
Polarization	Linear							
Application Band	LTE 700	GSM 850/900	GPS L1	DCS	PCS	UMTS1	LTE2600	5G NR Band
Frequency (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							
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							

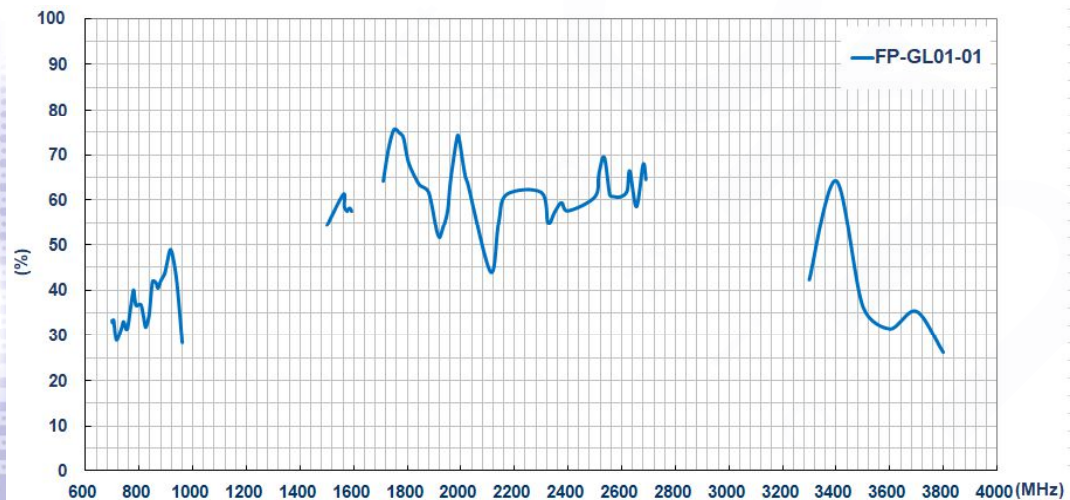


II. Antenna Technical Parameters:

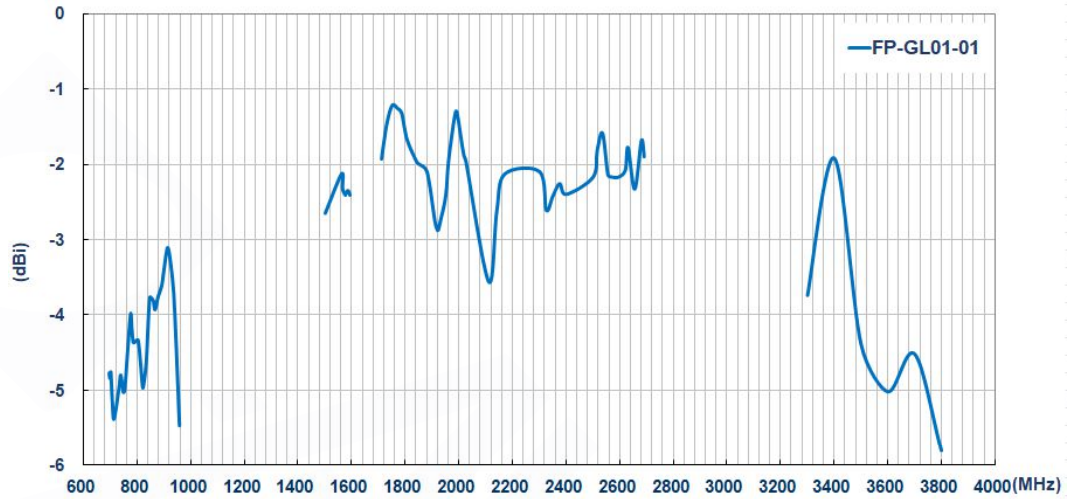
S11-parameters (dB)



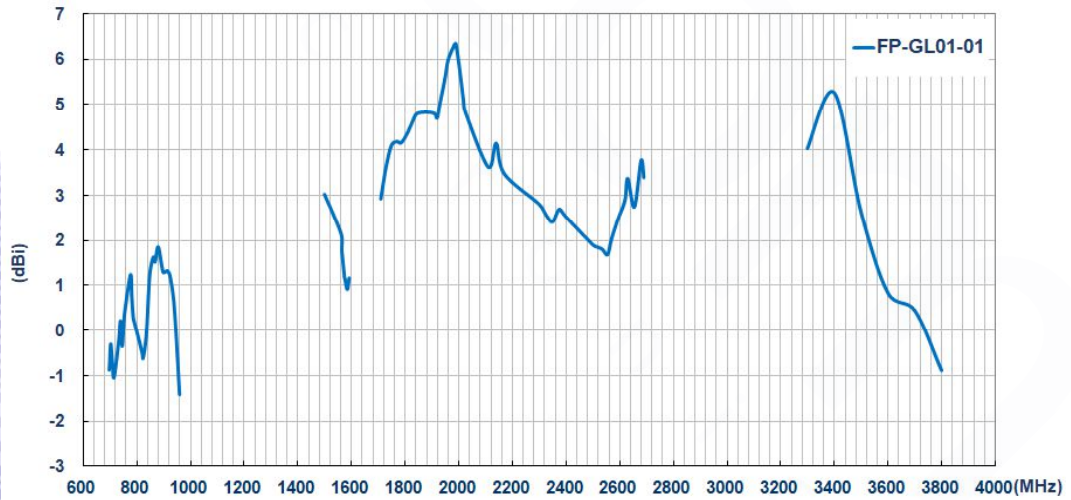
Efficiency (%)



Average Gain (dBi)

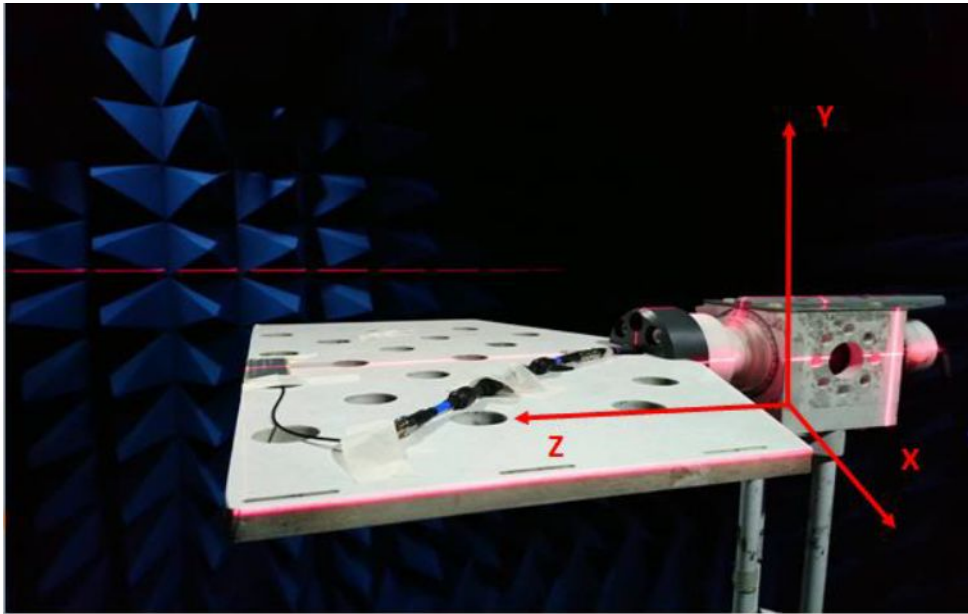


Peak Gain (dBi)



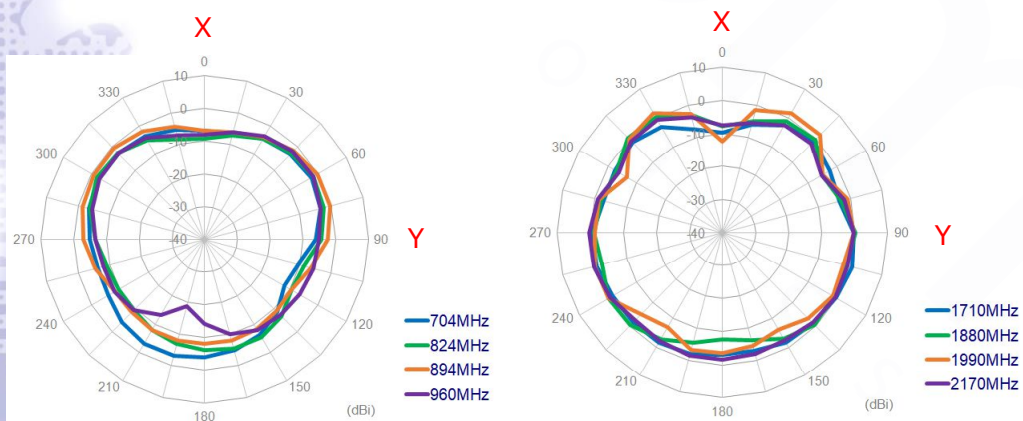
III. Antenna Radiation Pattern Measurement:

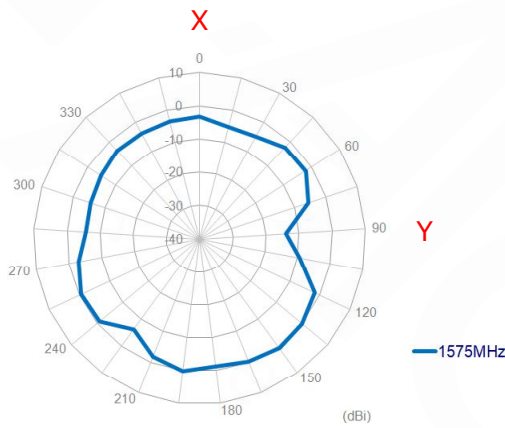
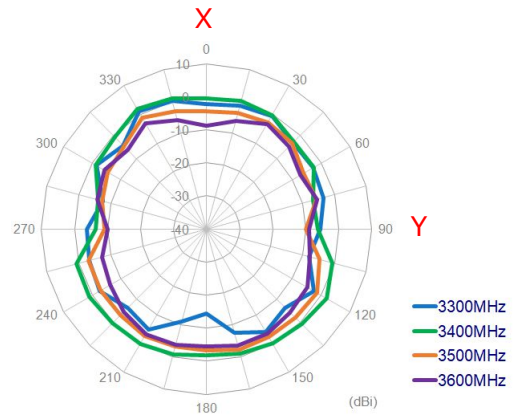
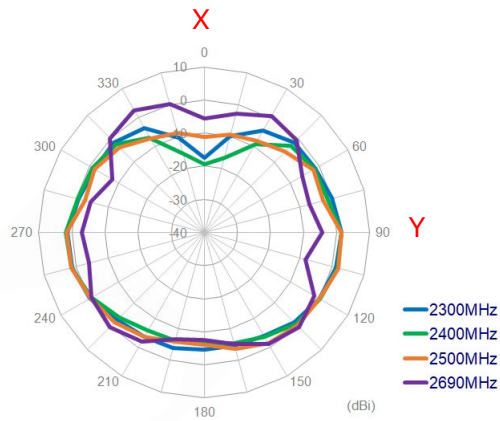
The antenna radiation patterns were measured in Anechoic Chamber. The measurement setup as below,



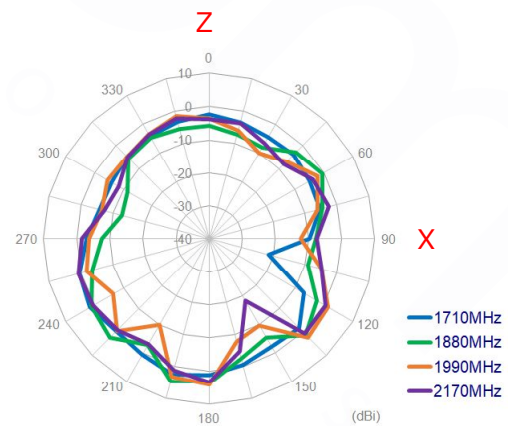
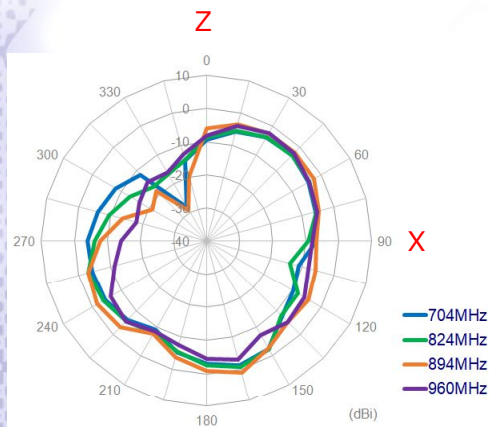
IV. 2D Radiation Pattern:

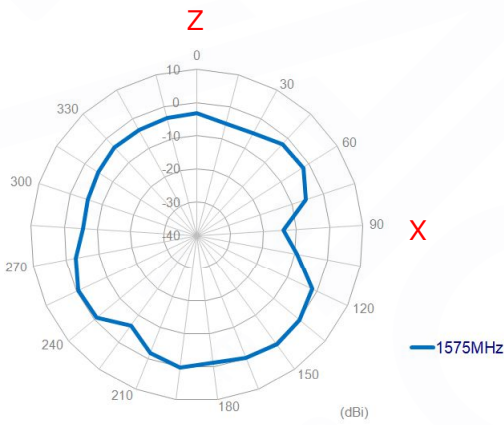
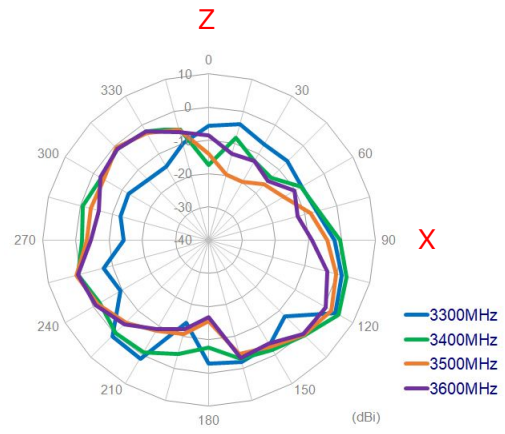
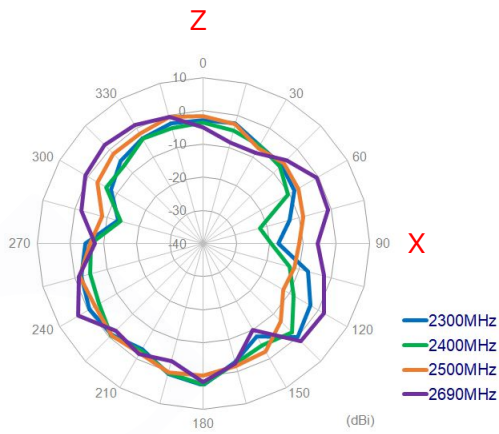
X-Y plane



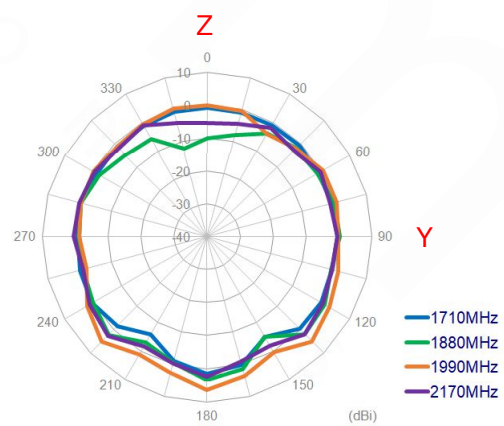
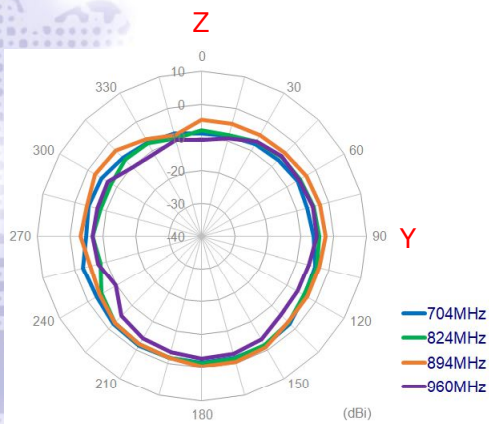


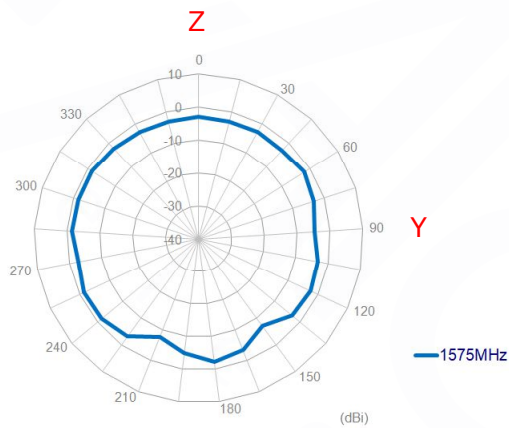
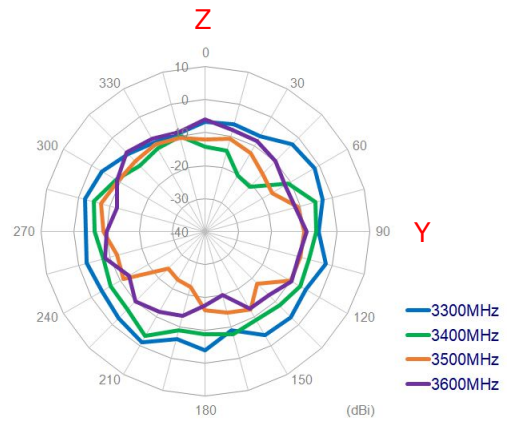
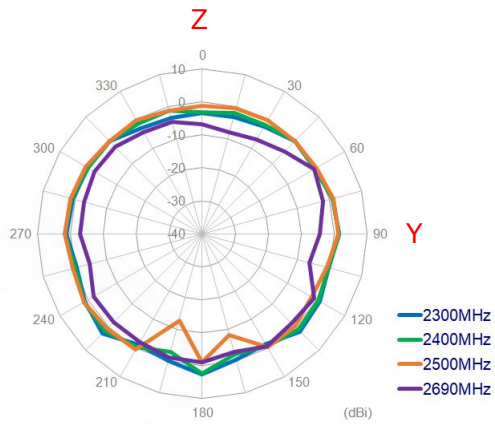
X-Z plane



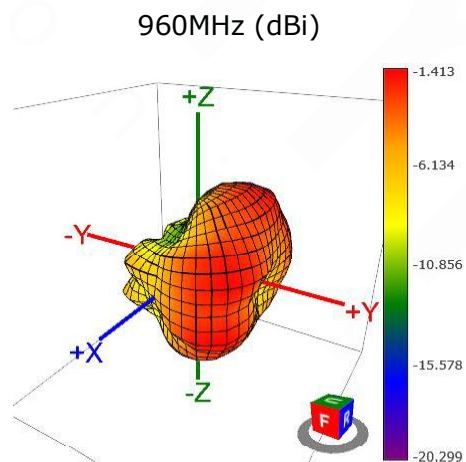
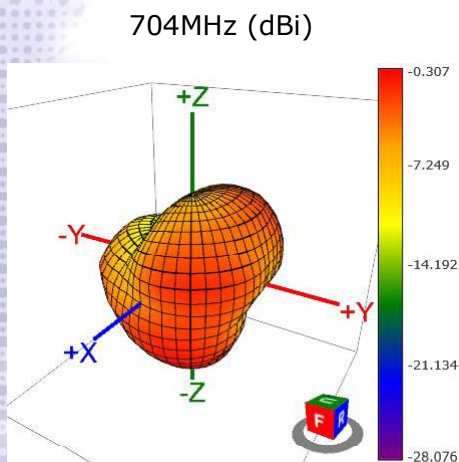


Y-Z plane



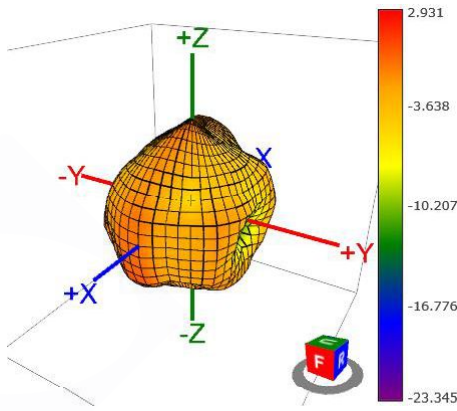


V. 3D Radiation Pattern:

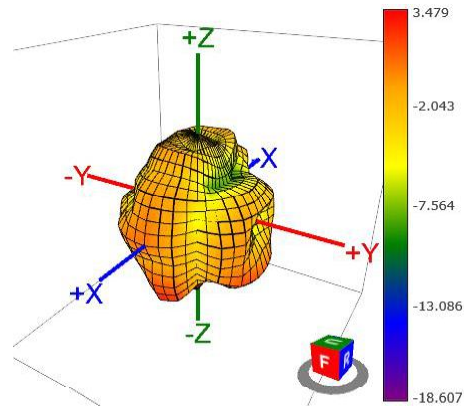


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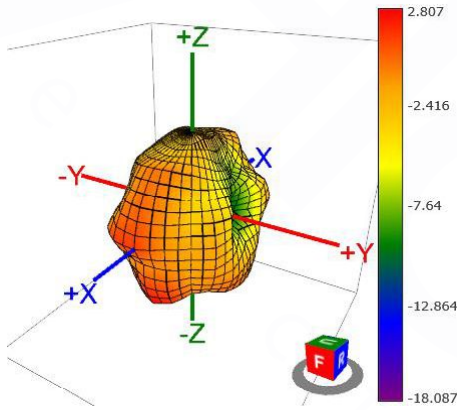
1710MHz (dBi)



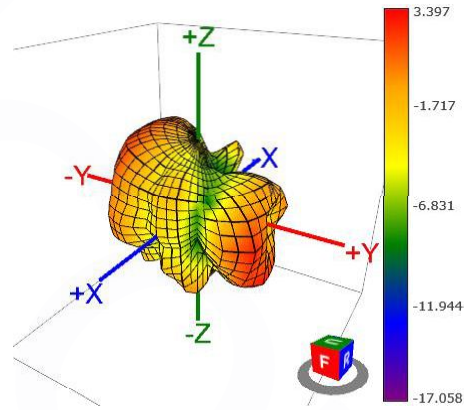
2170MHz (dBi)



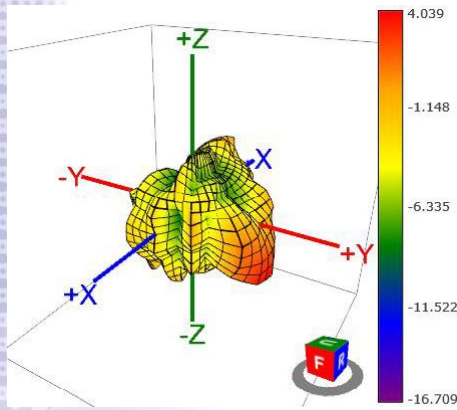
2300MHz (dBi)



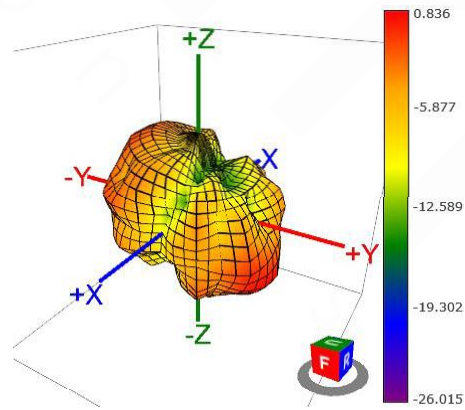
2690MHz (dBi)



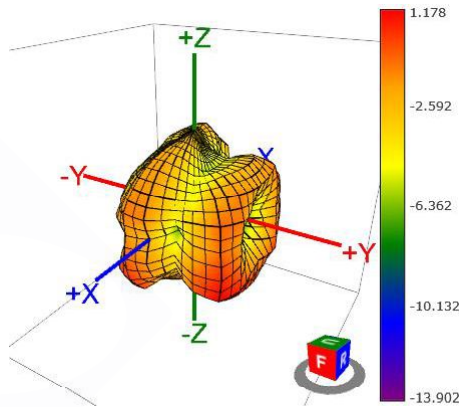
3300MHz (dBi)



3600MHz (dBi)



1575MHz (dBi)



VI. Mechanical Drawing (Unit:mm):

