



Product Name: LTE Hinge Rotatable Terminal Antenna

Part Number: TA-1B-A-L01

Features:

- Support LTE 617-960MHz, 1710-2690MHz, 3300-3800MHz, 3600-4600MHz, 5150-5850MHz
- Hinge Rotatable 90 degree
- Connector : SMA (Male)
- RoHS & REACH Compliant

Applications:

- LTE Router Application
- Smart Metering Application

LTE Hinge Terminal Antenna

MODEL: TA-1B-A-L01

Rev.A

I. Specifications:

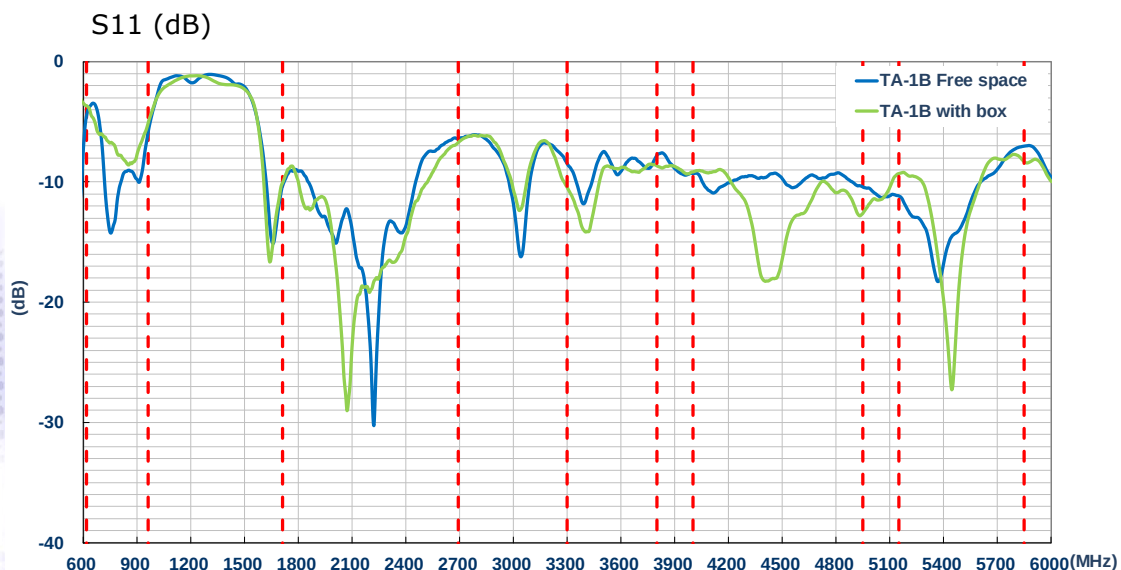
Items	Specifications									
LTE Electrical Characteristics										
Application Bands	5G NR Band 71	LTE 700	GSM 850/900	DCS	PCS	UMTS1	LTE2600	5G NR Band	Japan 5G NR	LTE5200 WiFi5800
Frequencies (MHz)	617	698	824	1710	1850	1920	2300	3300	3600	5150
	~	~	~	~	~	~	~	~	~	~
	698	824	960	1880	1990	2170	2690	3800	4600	5850
Efficiency (%)										
Free Space	64.57	62.29	51.88	71.29	63.63	59.20	73.09	61.68	64.98	57.10
With Box	49.97	58.24	42.54	68.50	60.43	65.06	69.37	54.55	58.13	45.09
Average Gain (dBi)										
Free Space	-1.90	-2.06	-2.85	-1.47	-1.96	-2.28	-1.36	-2.10	-1.87	-2.43
With Box	-3.01	-2.35	-3.71	-1.64	-2.19	-1.87	-1.59	-2.63	-2.36	-3.46
Peak Gain (dBi)										
Free Space	3.85	3.98	3.61	-0.16	0.67	0.85	2.41	5.67	1.91	2.70
With Box	2.32	2.78	1.54	0.01	0.97	2.46	2.50	6.62	2.62	1.80
V.S.W.R	< 5									
Return Loss (dB)	< -3									
Test Condition	Free Space									
	215 x 125 x 16.5 mm (With Box)									
Impedance	50 Ω									
Polarization	Linear									

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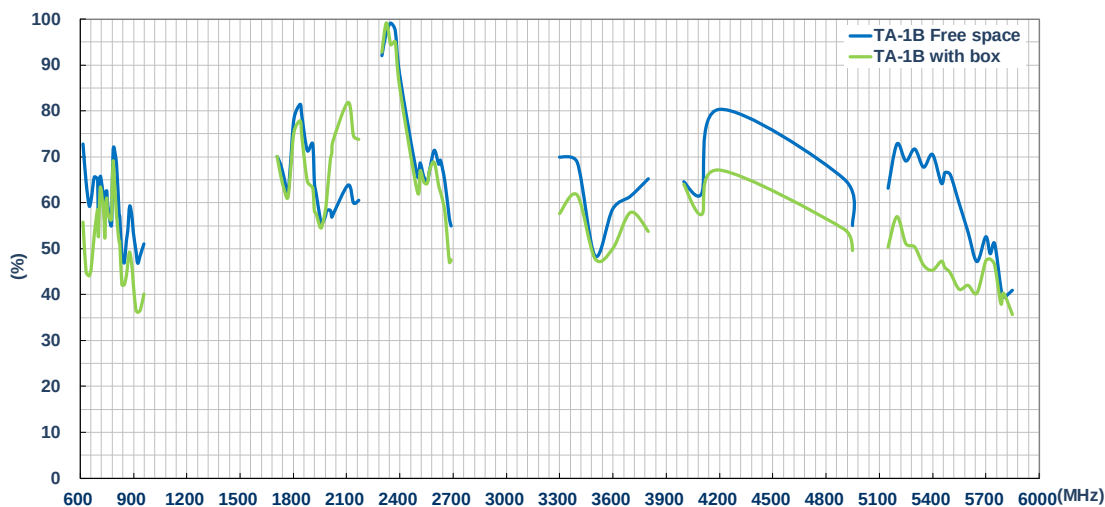
Physical Condition	
Dimension (mm)	169.0(L) x 18.0(W) x 13.7(T)
Connector	SMA (Male)
Environmental Conditions	
Operation Temperature	-40 ~ +85 °C
Storage Temperature	-40 ~ +85 °C
Relative Humidity	95% non-condensing

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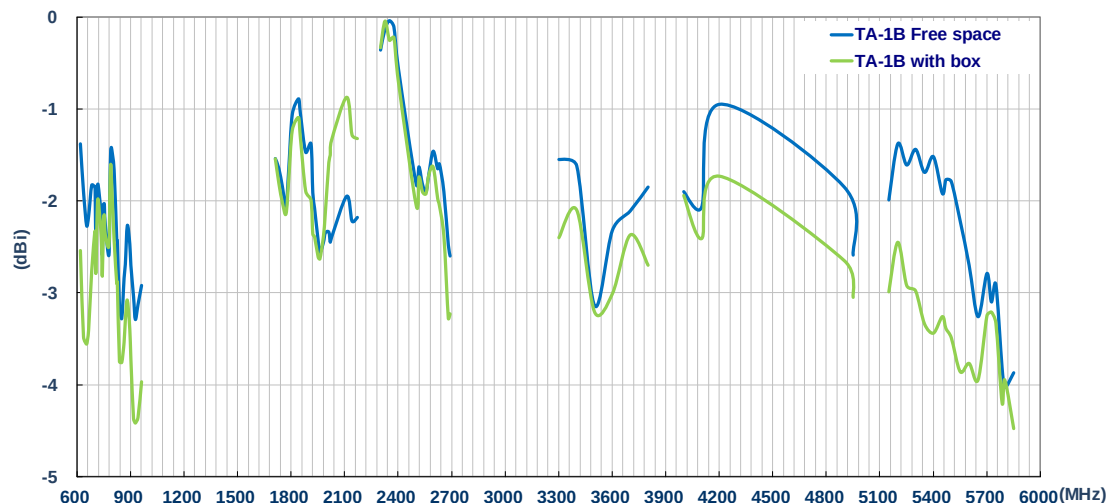
II. Electrical Properties:



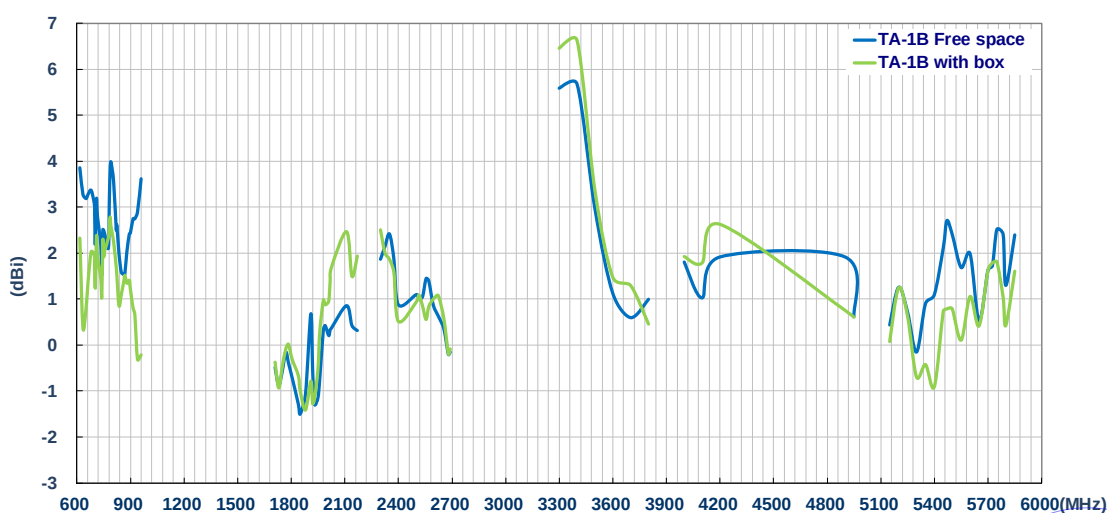
Efficiency (%)



Average Gain (dBi)



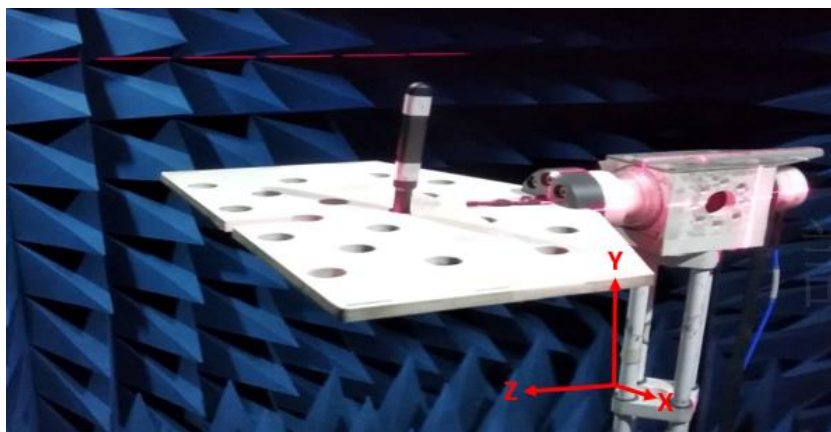
Peak Gain (dBi)



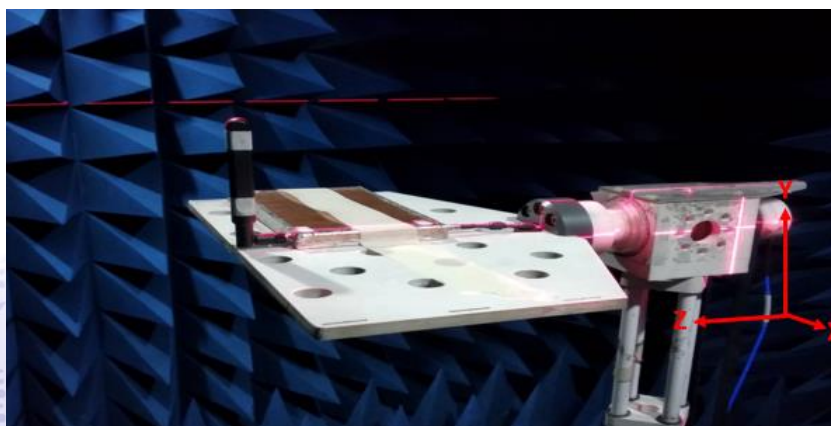
III. Antenna Radiation Pattern Measurement:

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

Free Space



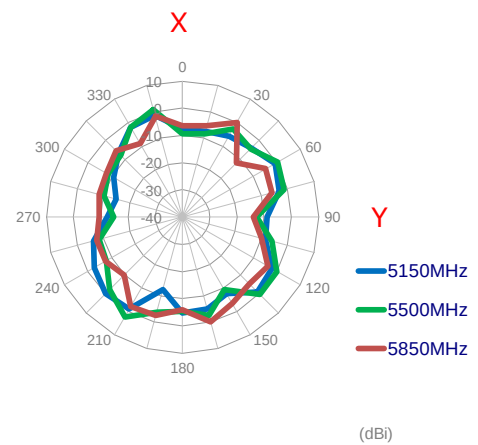
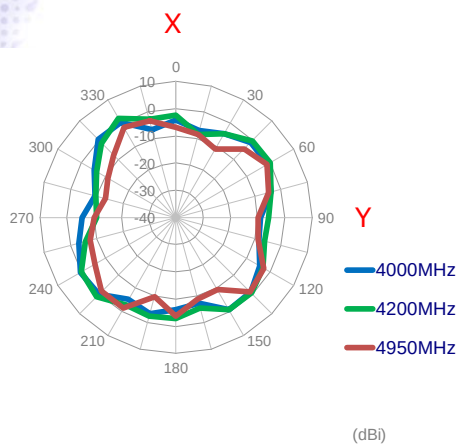
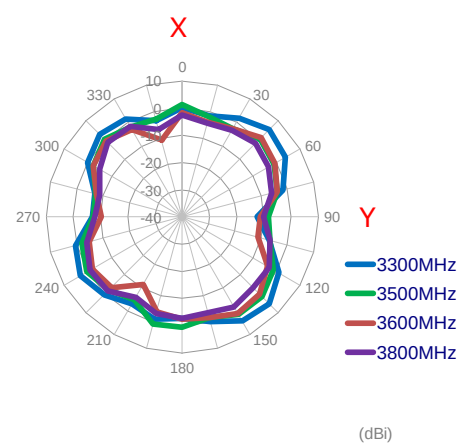
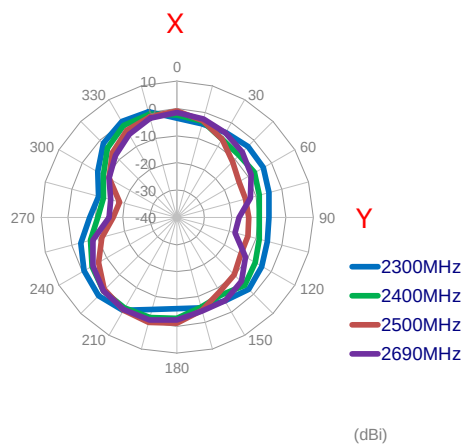
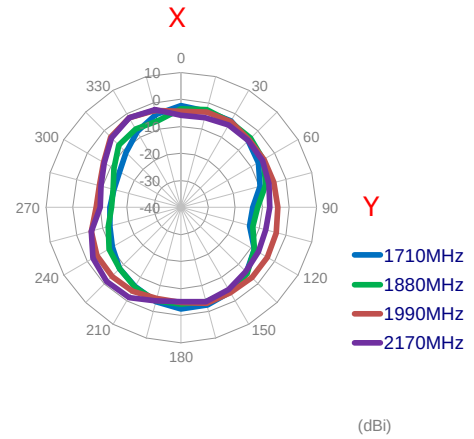
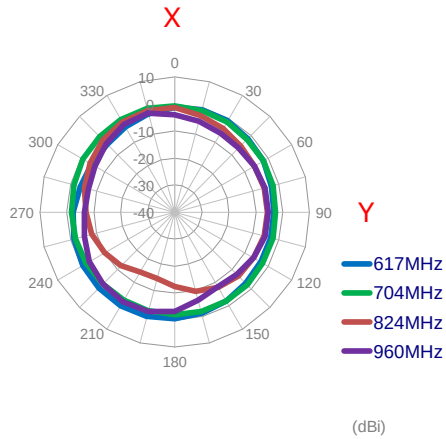
With Box



A) 2D Radiation Pattern:

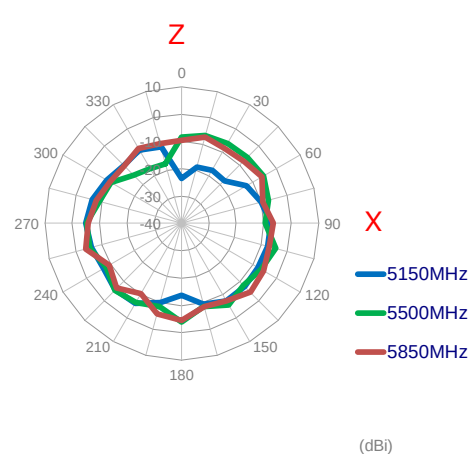
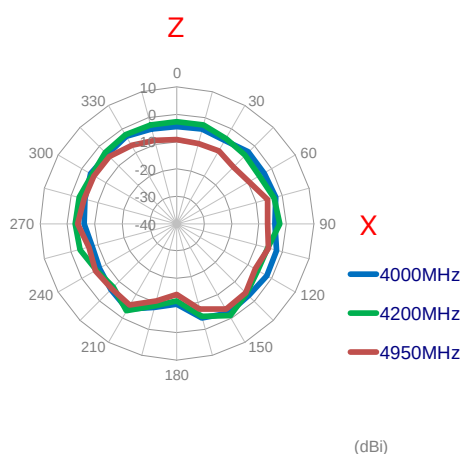
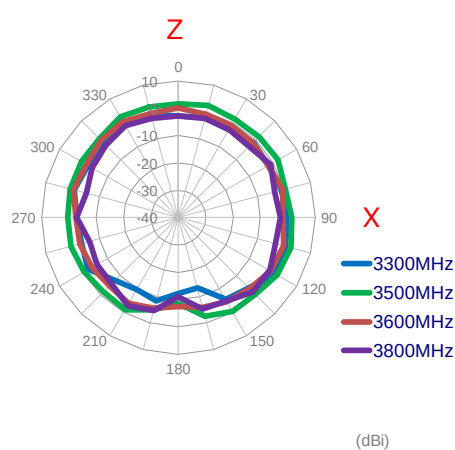
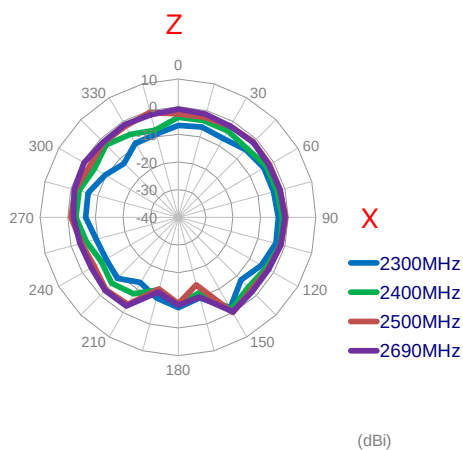
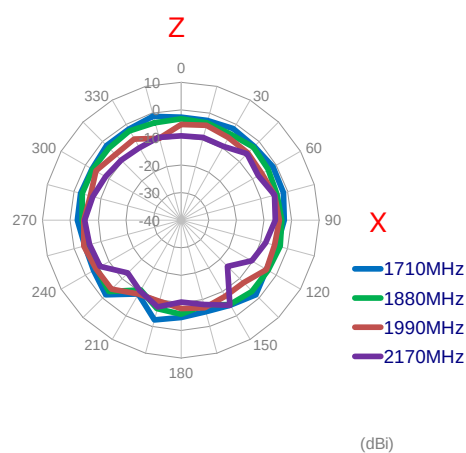
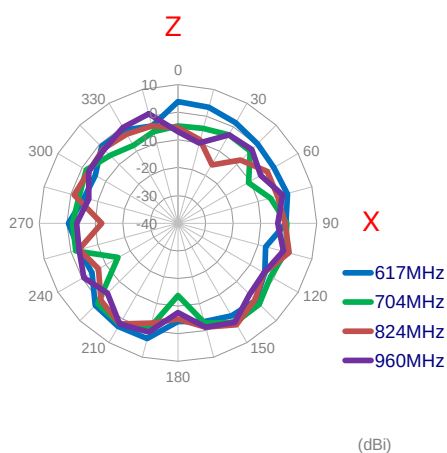
Free Space

X-Y plane



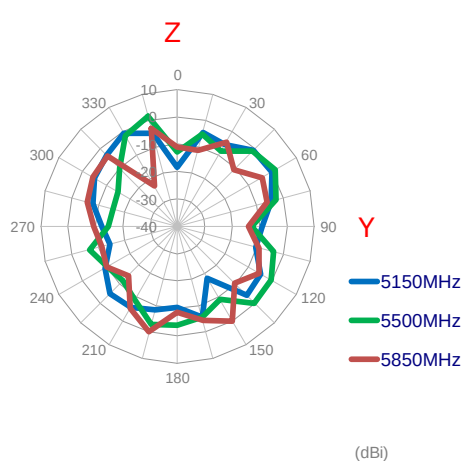
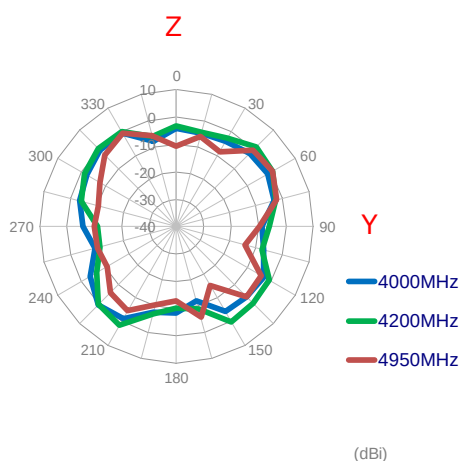
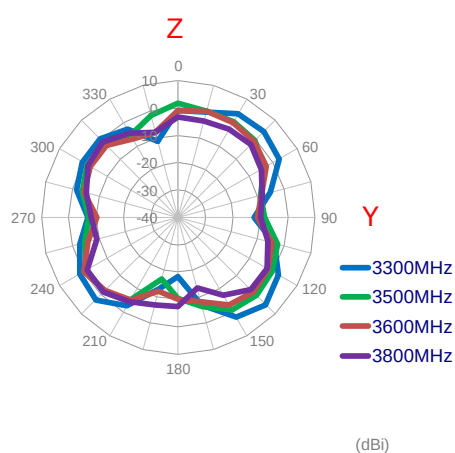
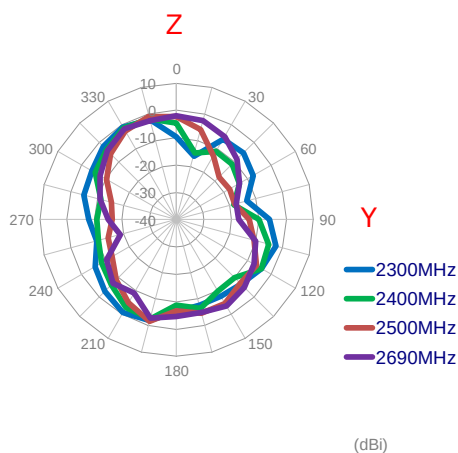
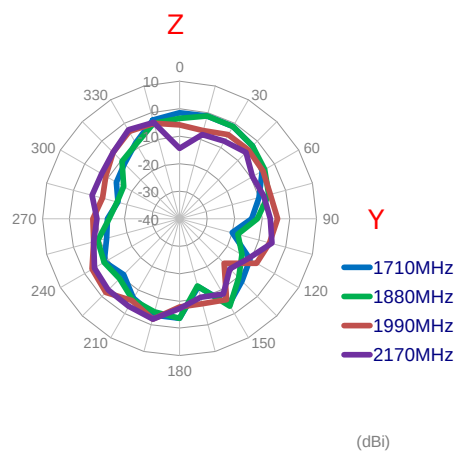
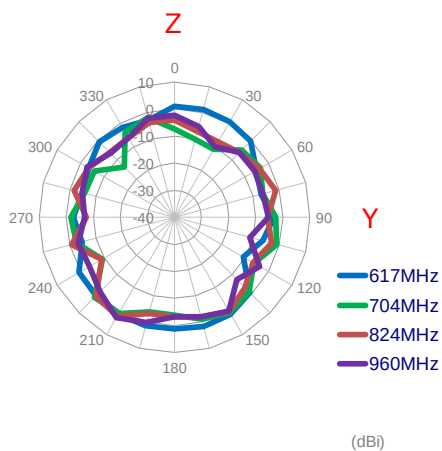
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X-Z plane



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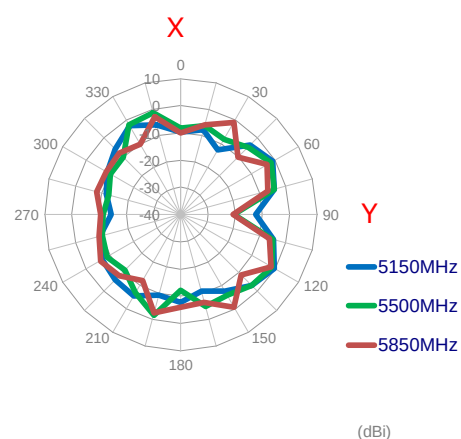
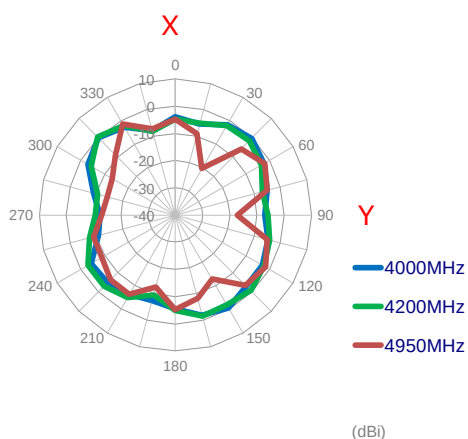
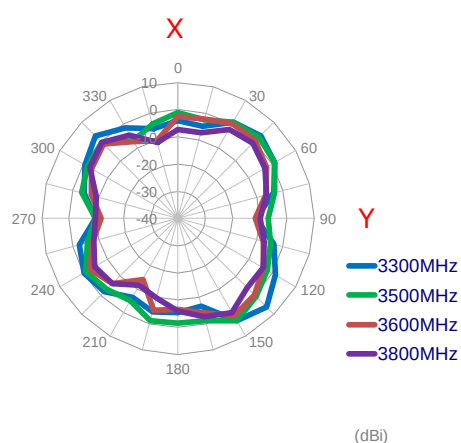
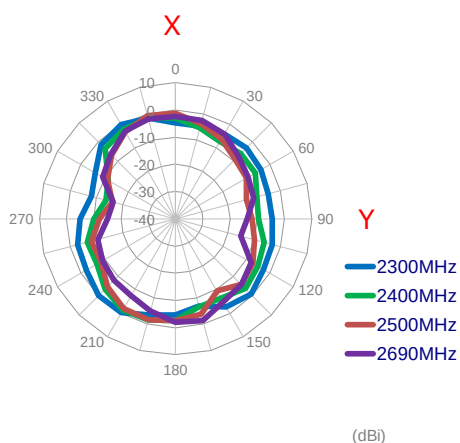
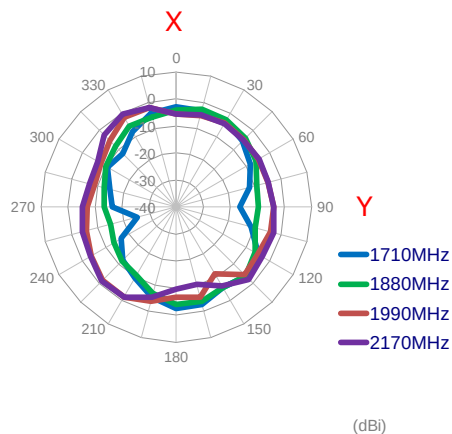
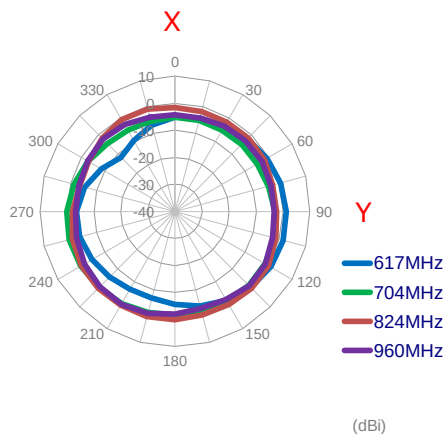
Y-Z plane



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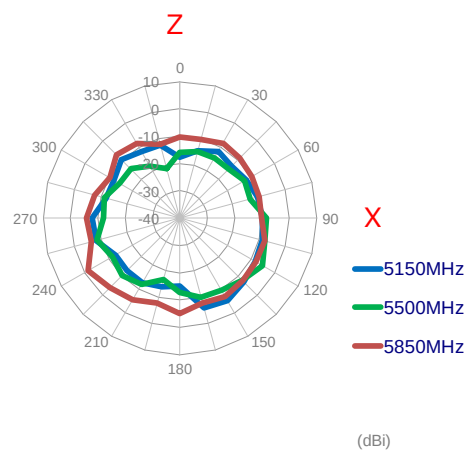
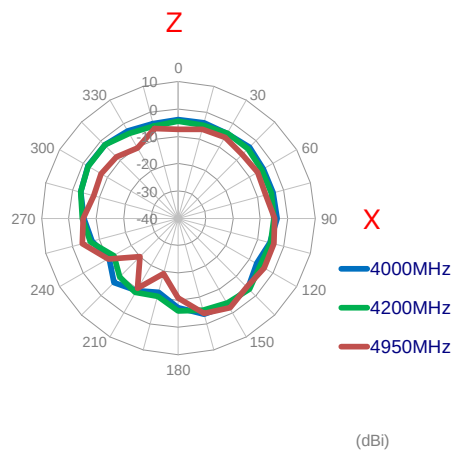
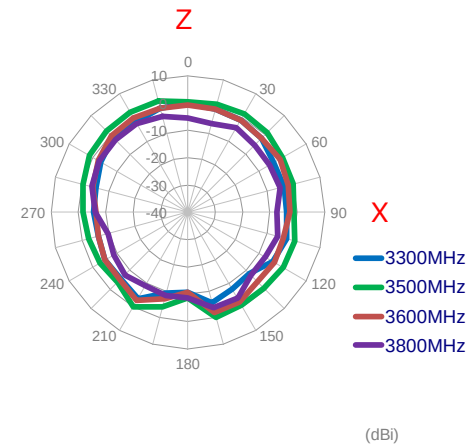
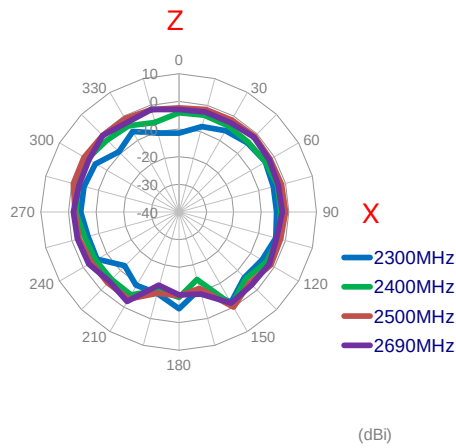
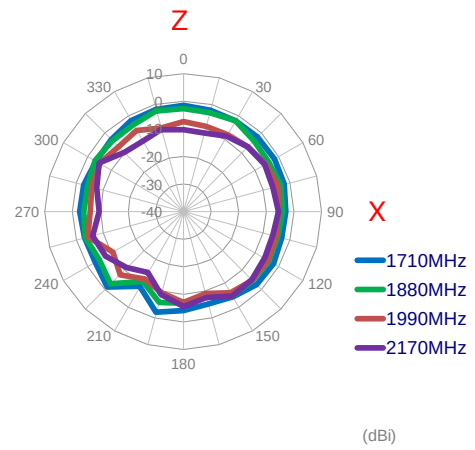
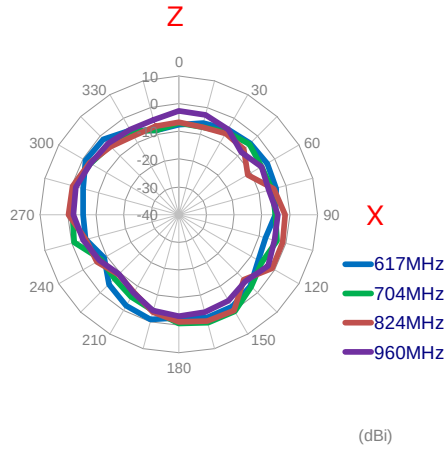
With Box

X-Y plane



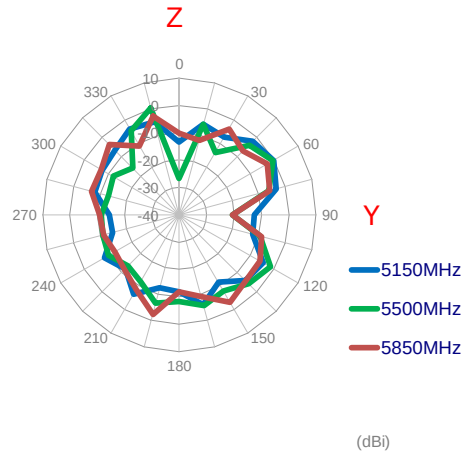
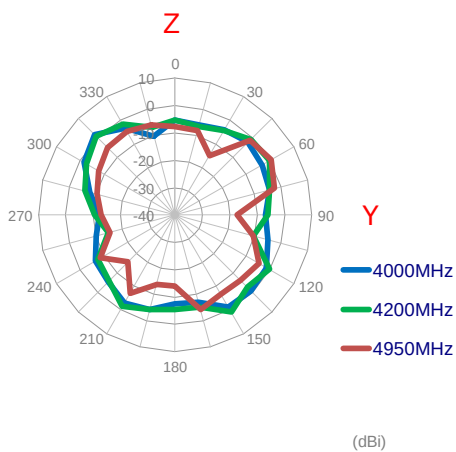
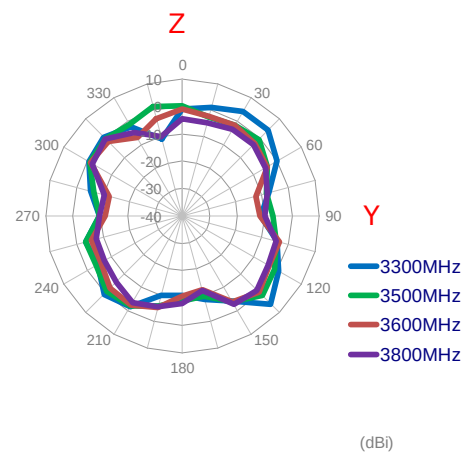
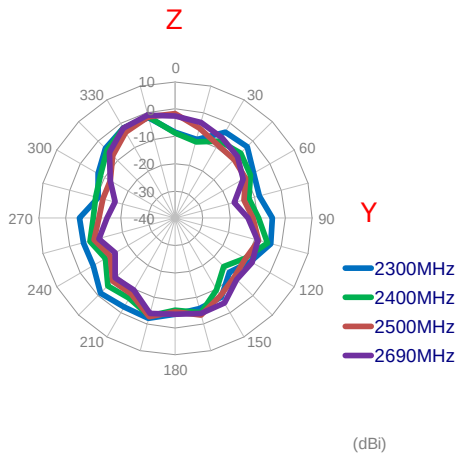
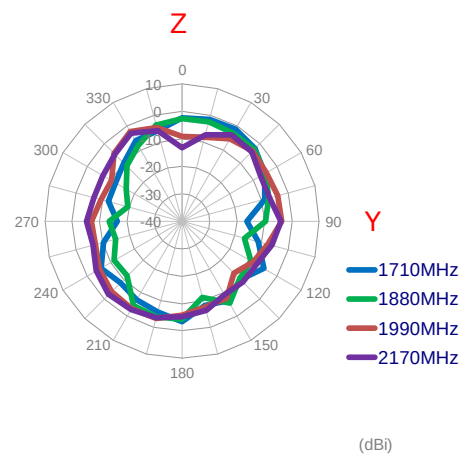
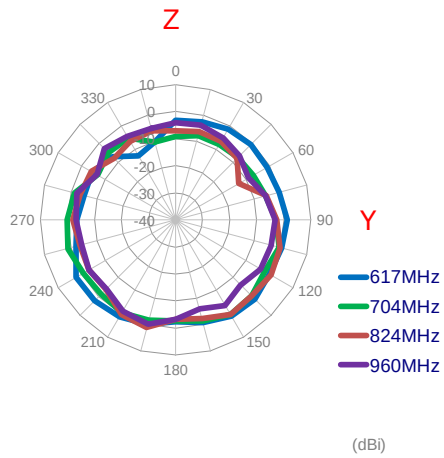
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X-Z plane



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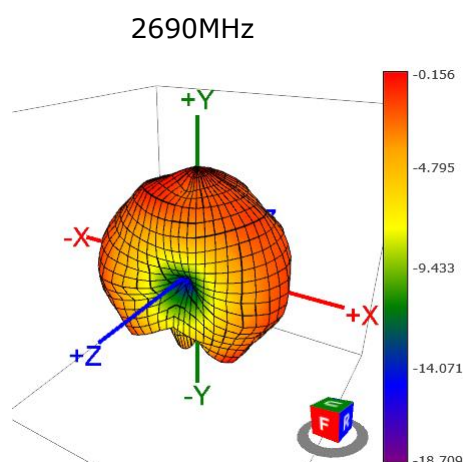
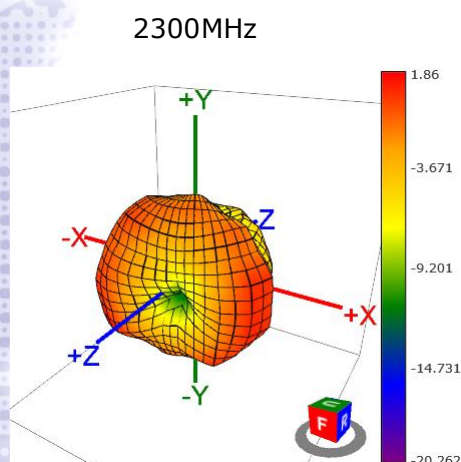
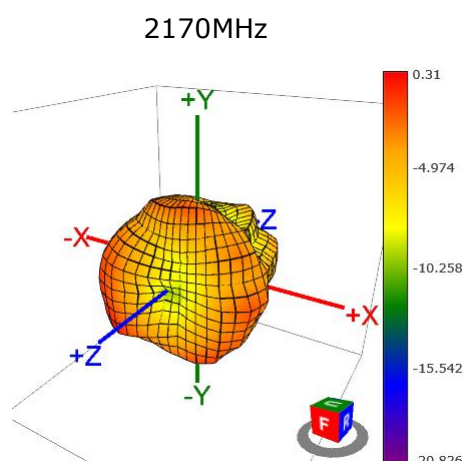
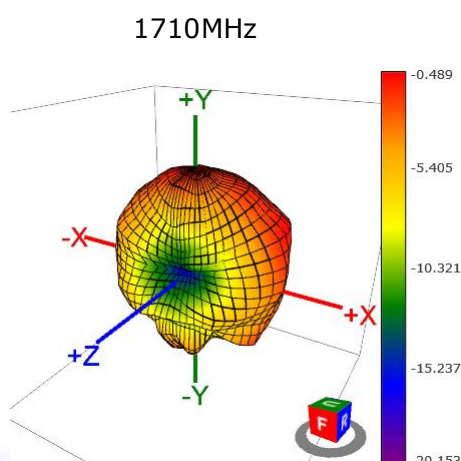
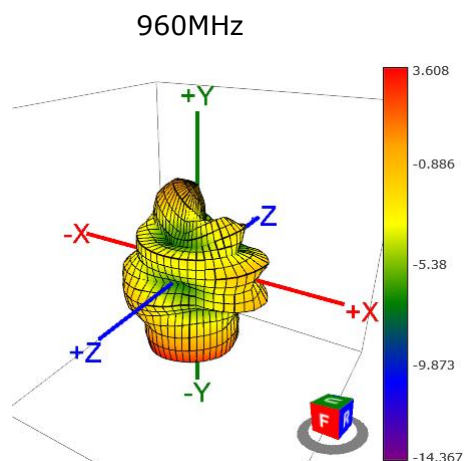
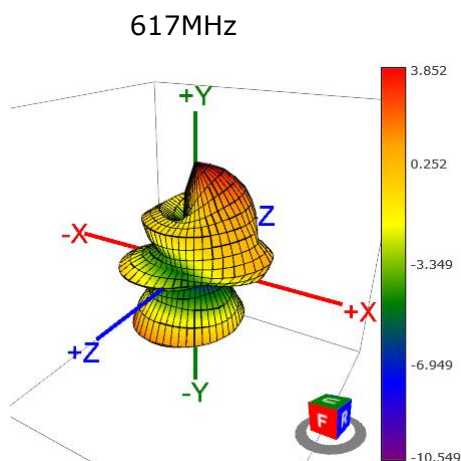
Y-Z plane



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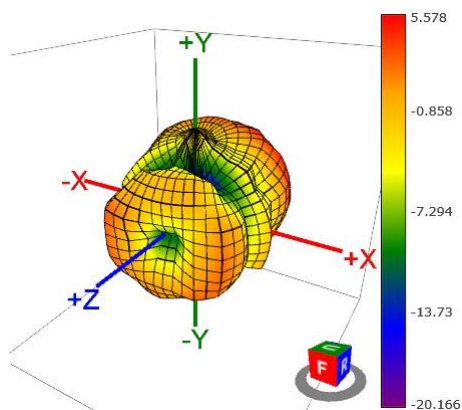
B) 3D Radiation Pattern:

Free Space

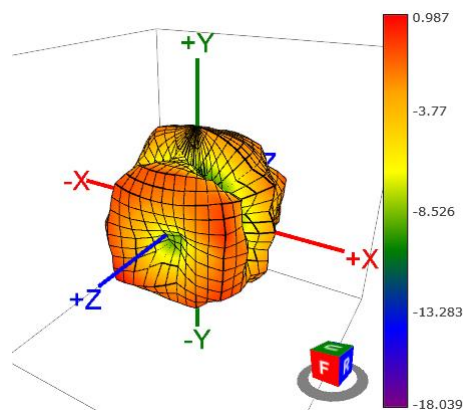


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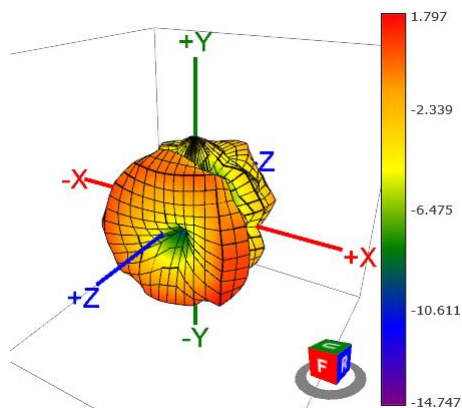
3300MHz



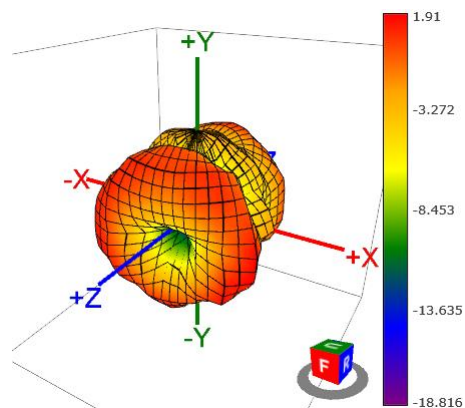
3800MHz



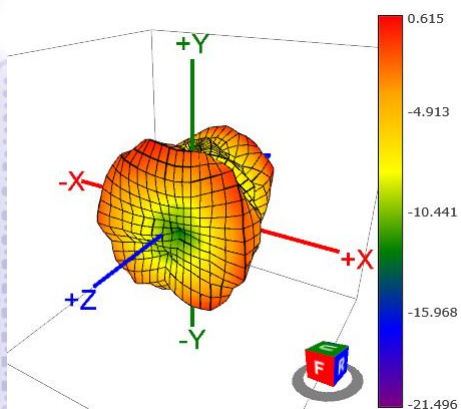
4000MHz



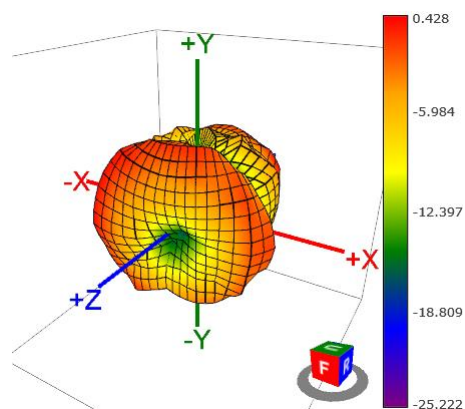
4200MHz



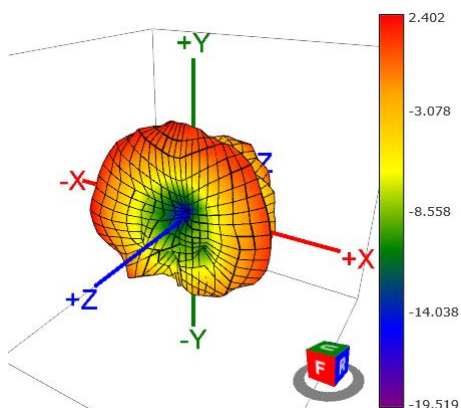
4950MHz



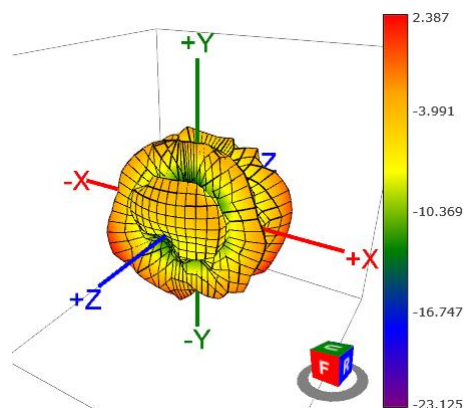
5150MHz



5500MHz

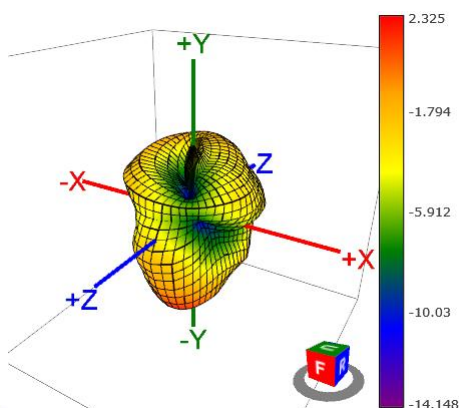


5850MHz

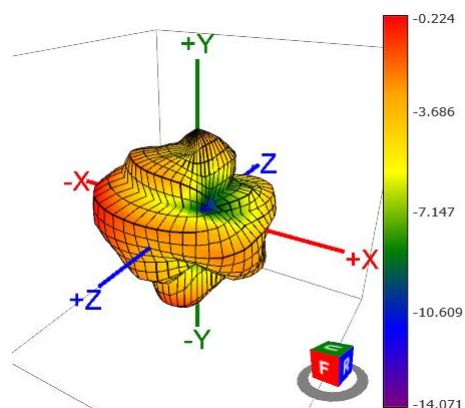


With Box

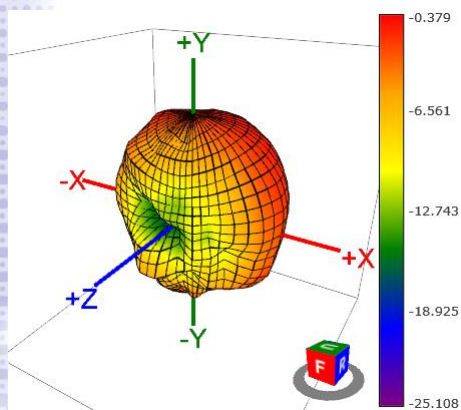
617MHz



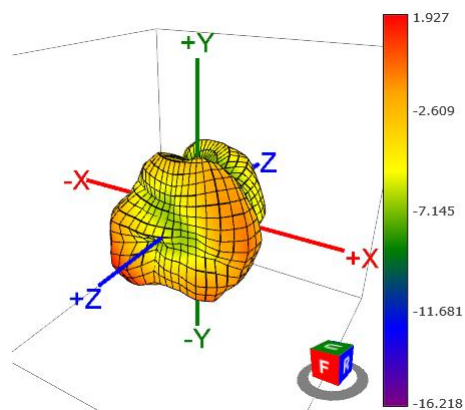
960MHz



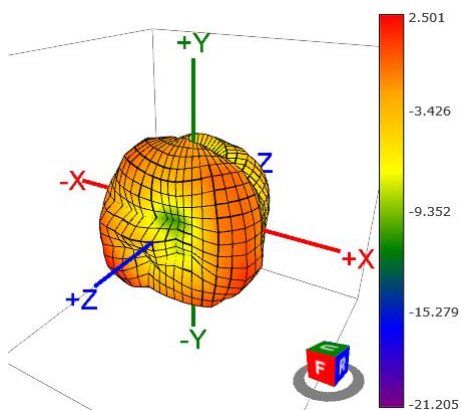
1710MHz



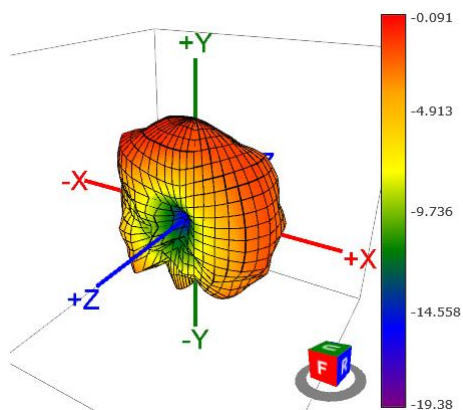
2170MHz



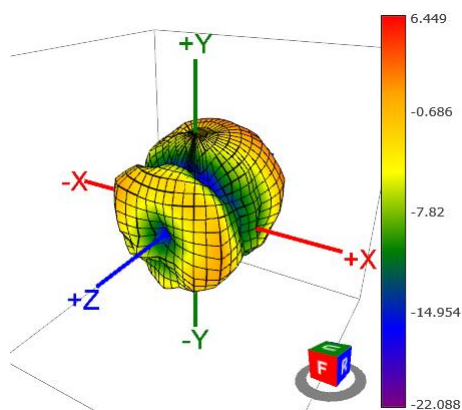
2300MHz



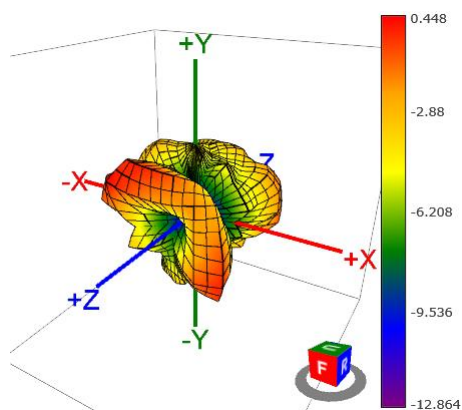
2690MHz



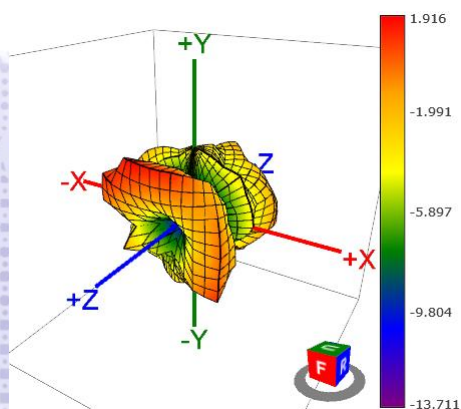
3300MHz



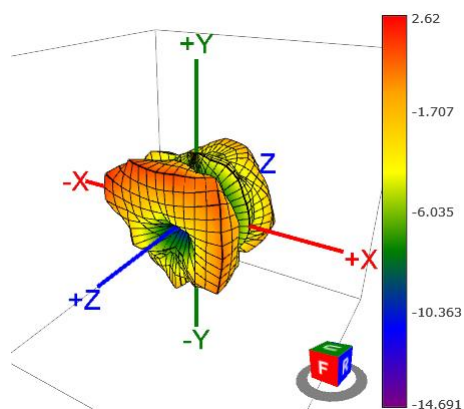
3800MHz



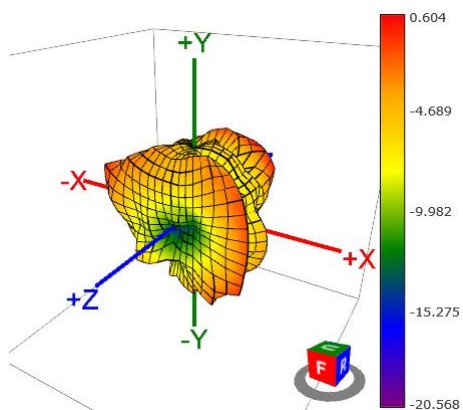
4000MHz



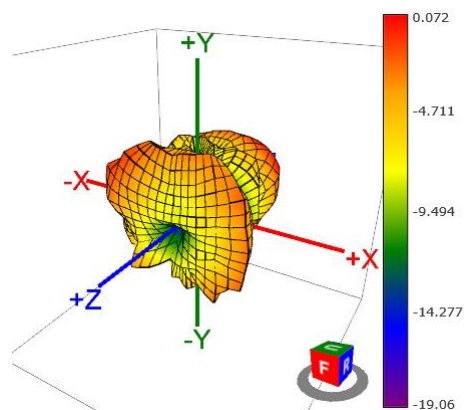
4200MHz



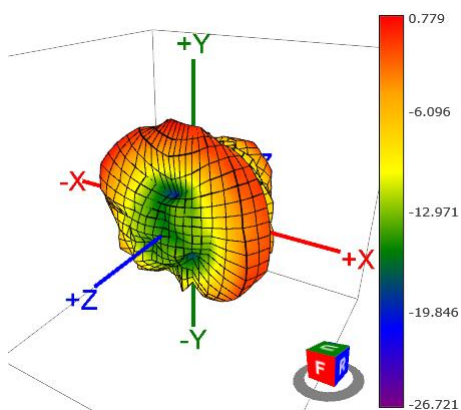
4950MHz



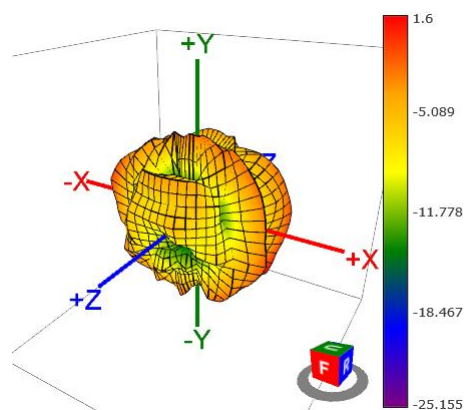
5150MHz



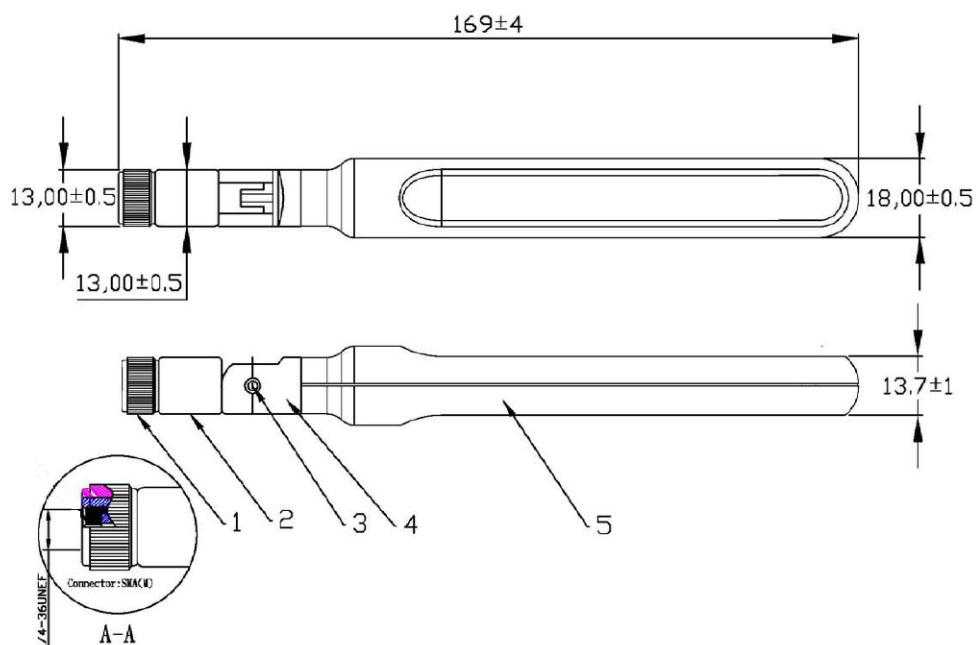
5500MHz



5850MHz



IV. Mechanical Drawing (Unit:mm):



5	ANT. COVER	ABS	BLACK
4	BASE-I	PC+PBT	BLACK
3	ROTARY SHAFT	ABS	BLACK
2	BASE-II	PC+PBT	BLACK
1	SMA CONN. P-P	BOM	BLACK
ITEM	DESCRIPTION	MAT'L	FINISH

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