



**Product Name:** 5G NR FR1 LTE Hinge Rotatable Terminal Antenna

**Part Number:** TA-C12B-A-Z01

**Features:**

- Support 5G NR FR1 LTE 617-960MHz, 1710-2690MHz, 3300-3800MHz, 4200MHz-4700MHz, 5000MHz-5925MHz
- Hinge Rotatable, 90 Degree
- Connector: SMA Male
- RoHS & REACH Compliant

**Applications:**

- LTE Router Application
- Smart Metering Application
- IoT Device Application

# 5G NR FR1 LTE Hinge Terminal Antenna

**MODEL: TA-C12B-A-Z01**

WI-RD-D-280 V1.1

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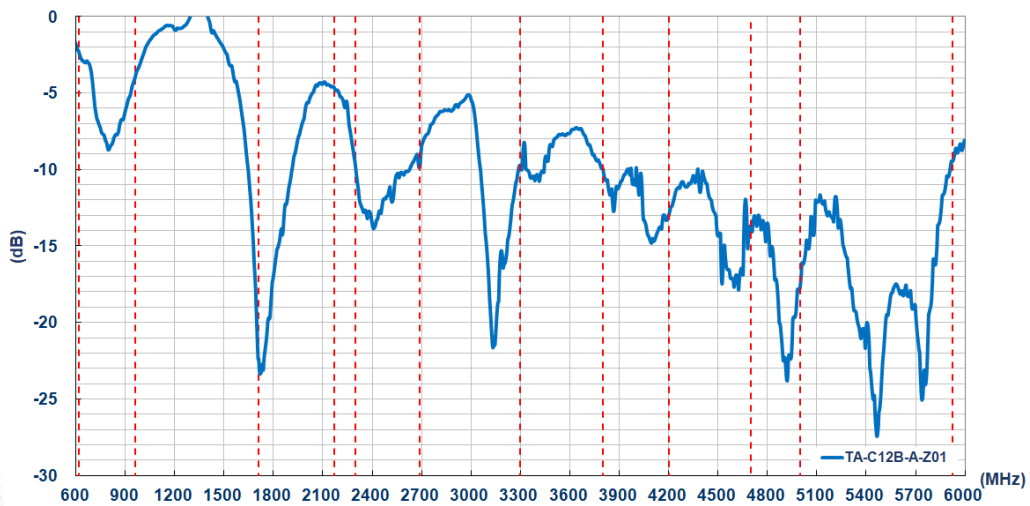
## I. Specifications:

Items	Specifications									
<b>LTE Electrical Characteristics</b>										
<b>Application Bands</b>	5G NR Band 71	LTE 700	GSM 850/900	DCS	PCS	UMTS1	LTE2600	5G NR Band	Japan 5G NR	LTE5200 WiFi5800
<b>Frequencies (MHz)</b>	617 ~ 698	698 ~ 824	824 ~ 960	1710 ~ 1880	1850 ~ 1990	1920 ~ 2170	2300 ~ 2690	3300 ~ 3800	4200 ~ 4700	5000 ~ 5925
<b>Efficiency (%)</b>	54.28	52.03	58.29	70.04	79.27	78.75	56.77	61.80	89.84	72.43
<b>Average Gain (dBi)</b>	-2.65	-2.84	-2.34	-1.55	-1.01	-1.04	-2.46	-2.09	-0.47	-1.40
<b>Peak Gain (dBi)</b>	1.29	2.00	1.29	3.77	4.55	5.49	5.21	5.14	6.57	7.72
<b>V.S.W.R</b>	< 7.5	< 4.5	< 4.4	< 1.9	< 2.7	< 4.1	< 2.1	< 2.5	< 1.9	< 2.0
<b>Return Loss (dB)</b>	< -2	< -4	< -4	< -10	< -7	< -4	< -9	< -7	< -10	< -9
<b>Test Condition</b>	215 x 125 x 16.5 mm (With Box)									
<b>Impedance</b>	50 Ω									
<b>Polarization</b>	Linear									
<b>Physical Condition</b>										
<b>Dimension (mm)</b>	196(L) x 26.9(W) x 14.4(T)									
<b>Connector</b>	90° hinged SMA(Male)									

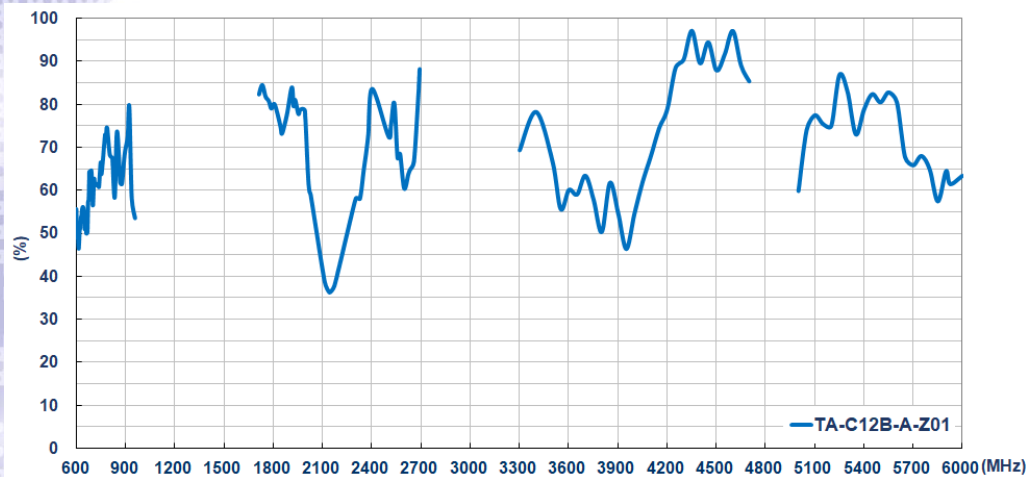
Environmental Conditions	
Operation Temperature	-40 ~ +85 °C
Storage Temperature	-40 ~ +85 °C
Relative Humidity	95% non-condensing

## II. Antenna Technical Parameters:

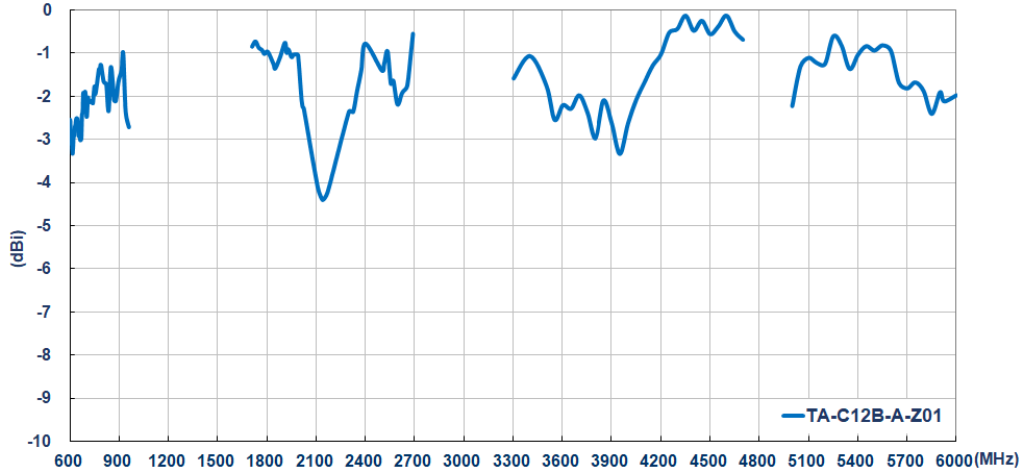
S11-parameters (dB)



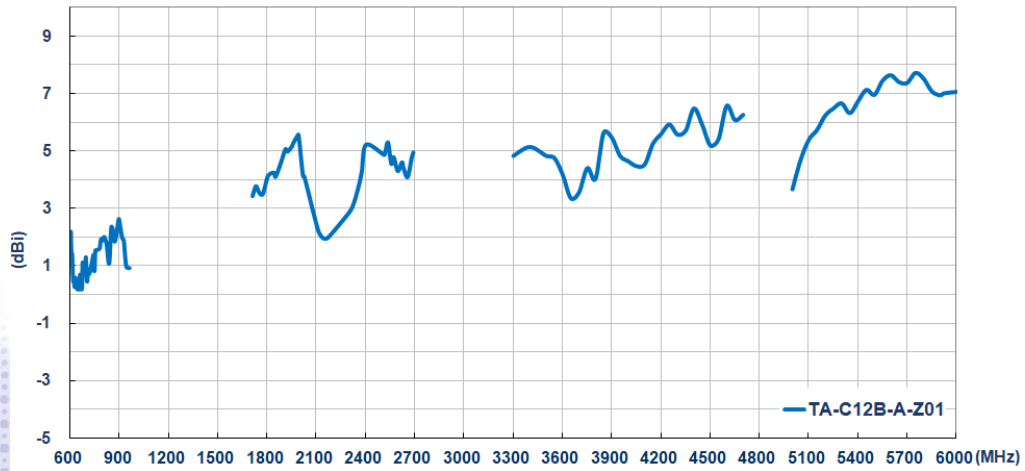
Efficiency (%)



Average Gain (dBi)



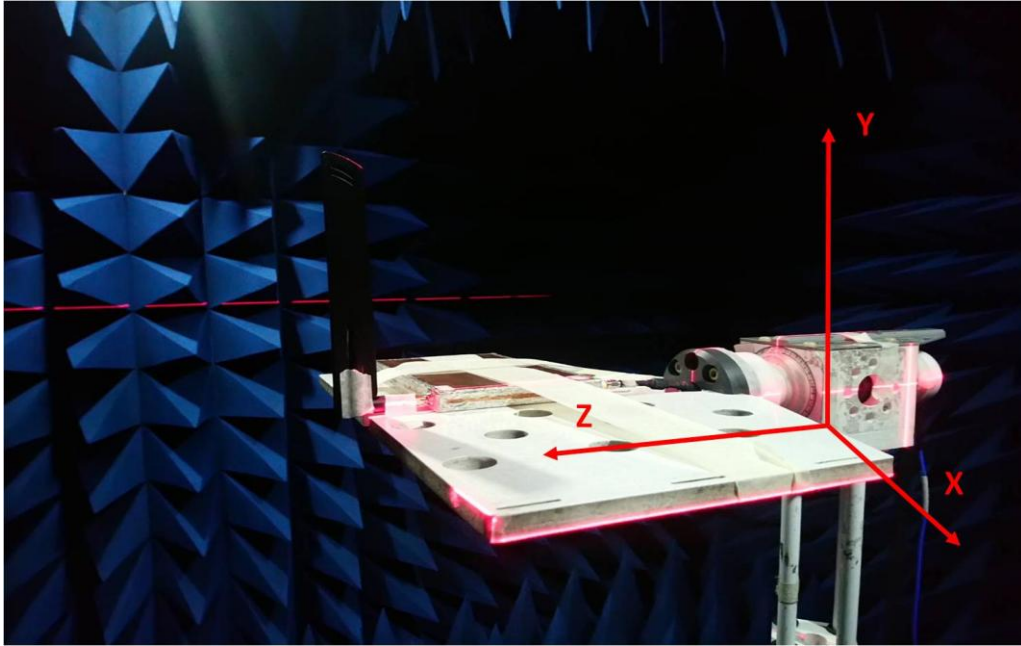
Peak Gain (dBi)



### III. Antenna Radiation Pattern Measurement:

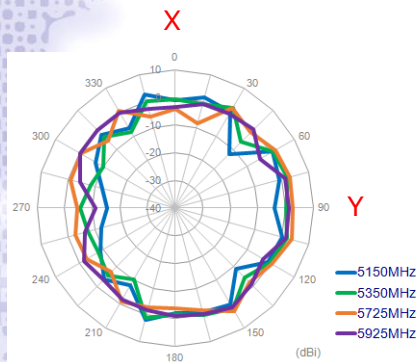
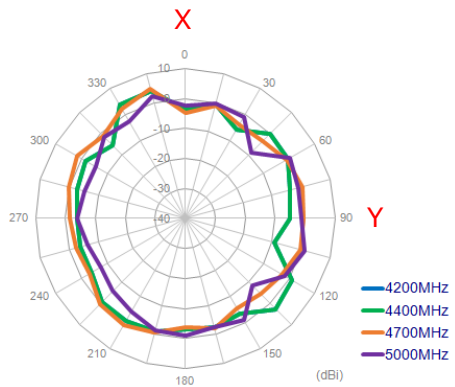
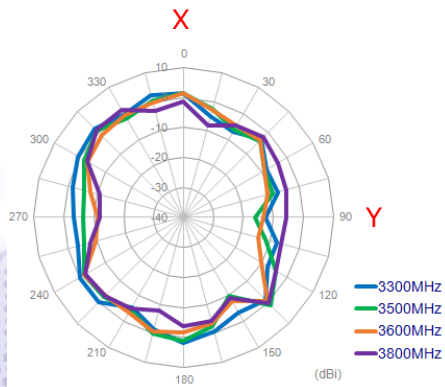
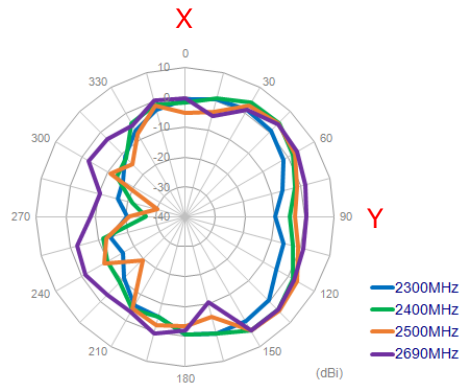
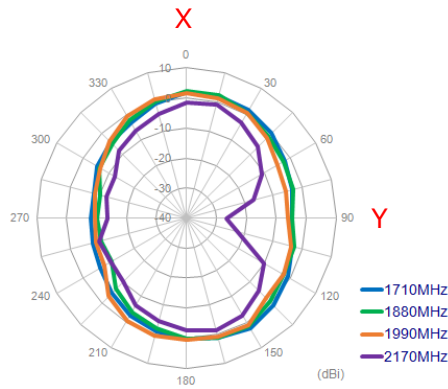
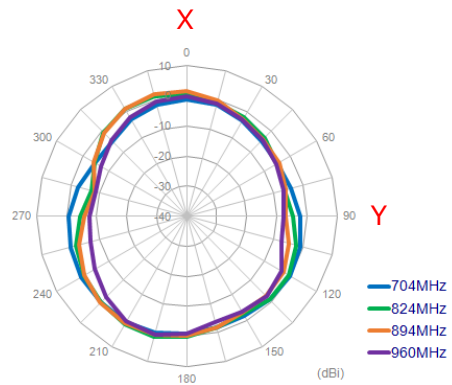
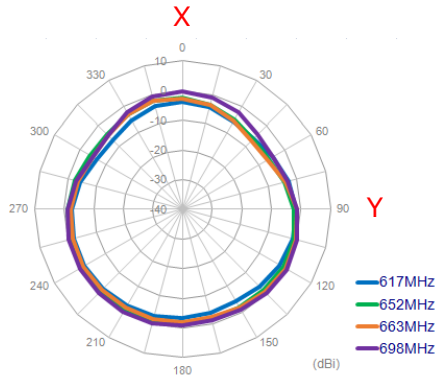
The antenna radiation patterns are measured in 3D Anechoic Chamber.

The measurement setup is as show below,



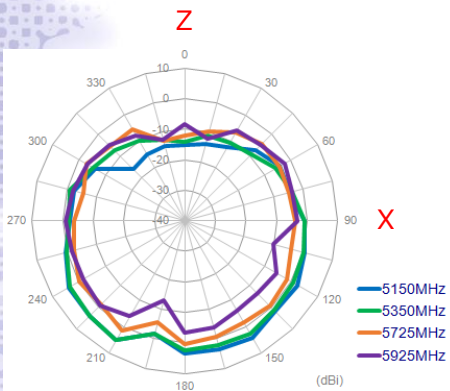
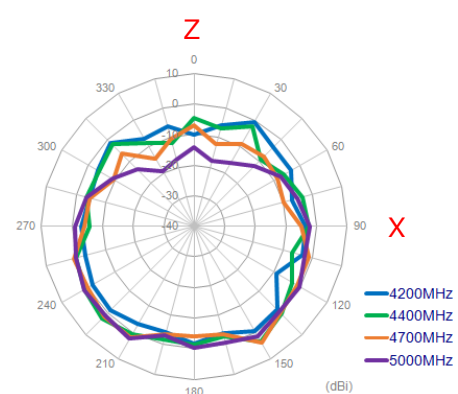
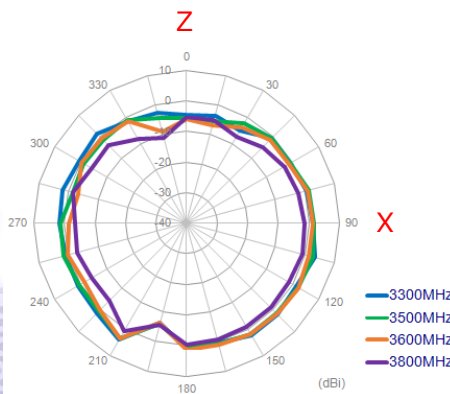
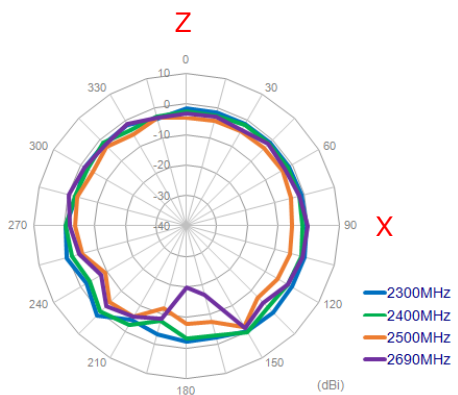
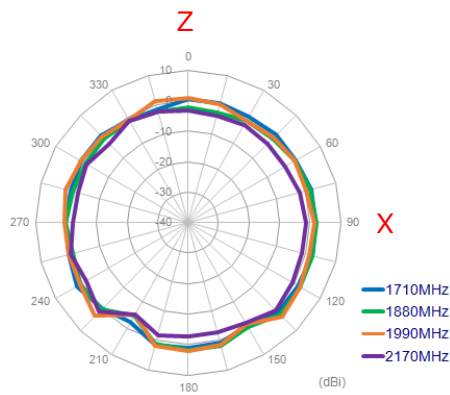
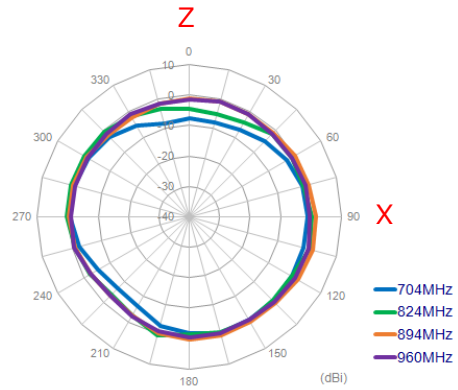
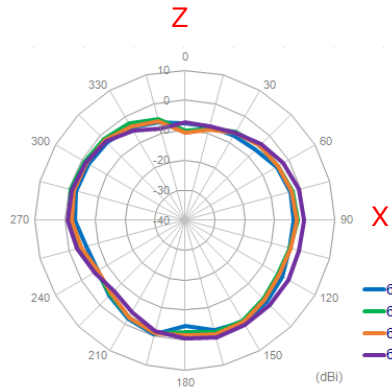
## IV. 2D Radiation Pattern:

X-Y plane



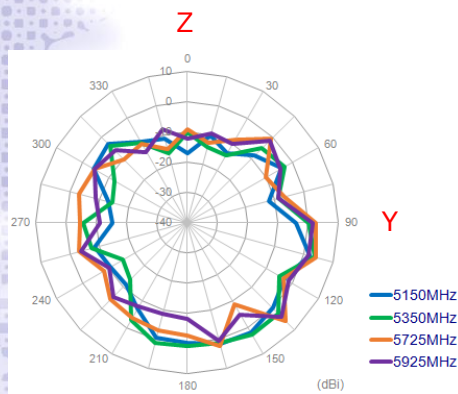
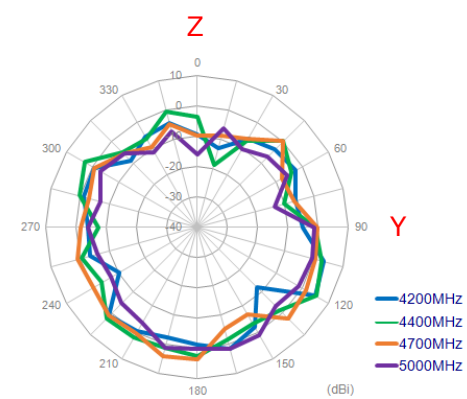
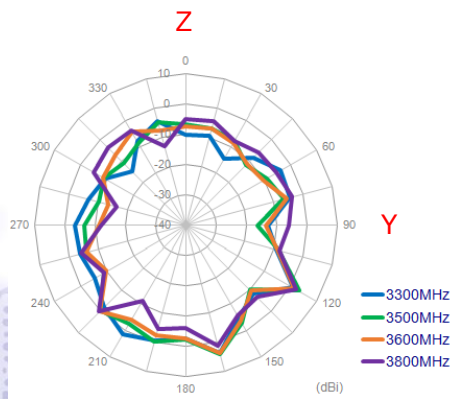
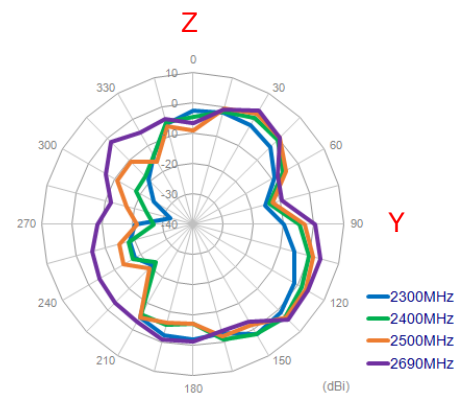
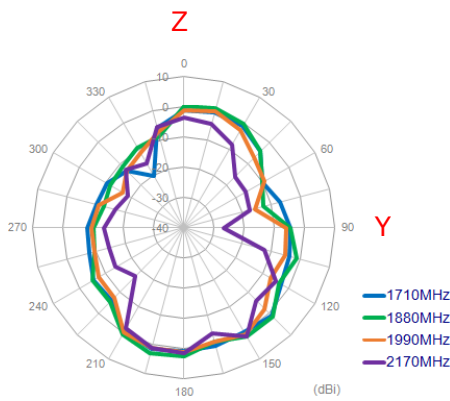
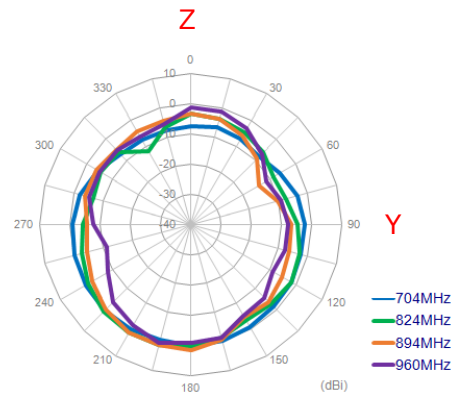
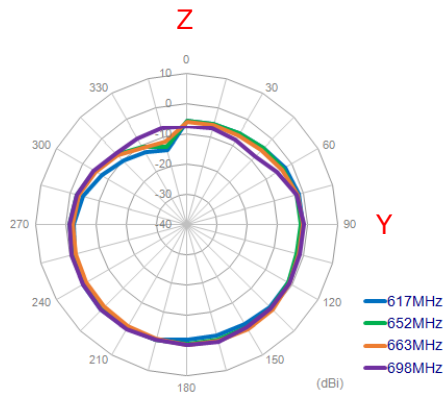
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X-Z plane



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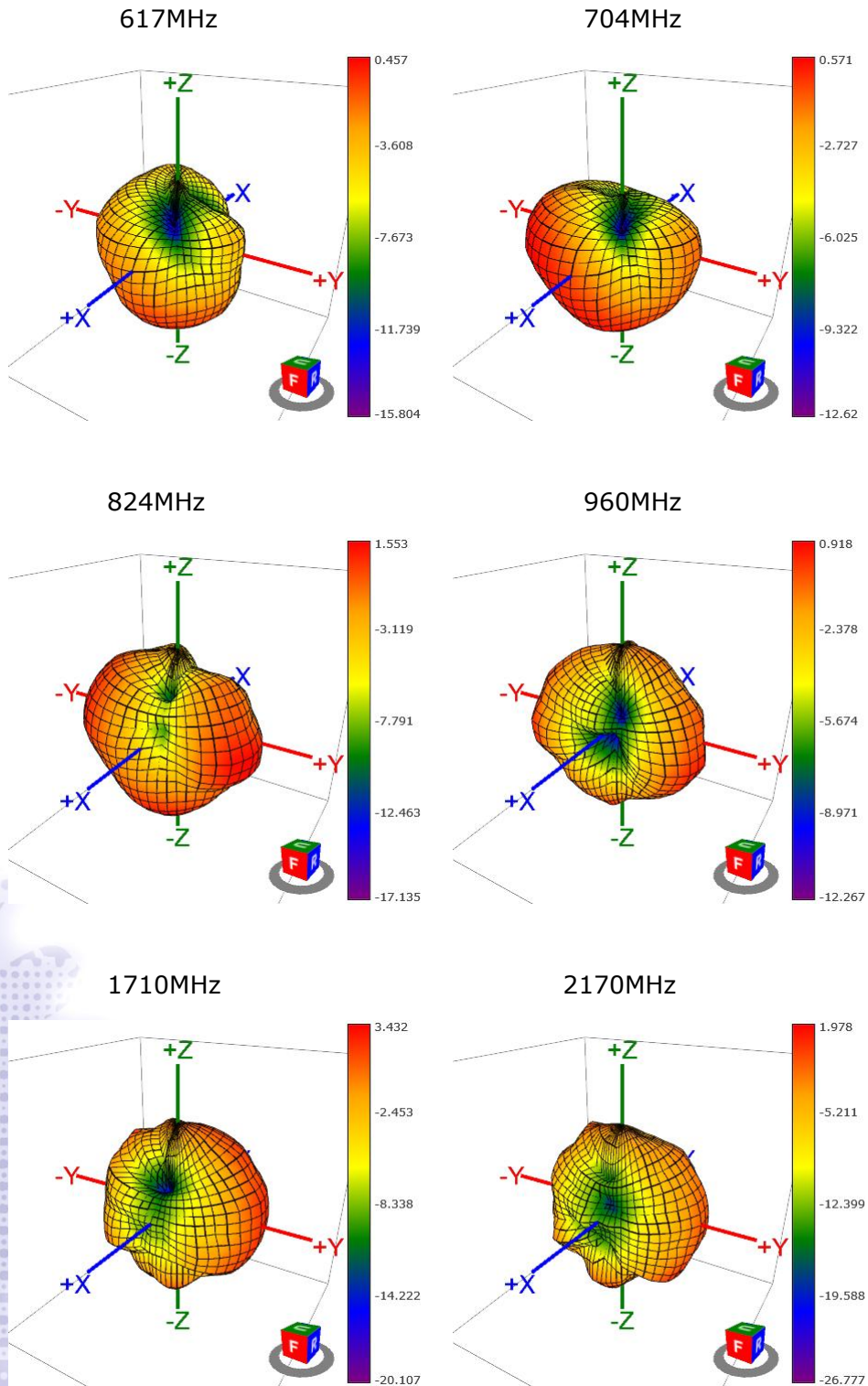
Y-Z plane



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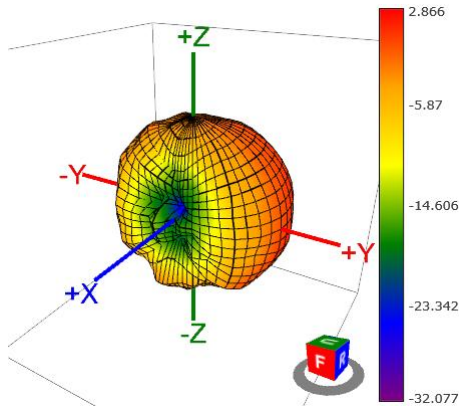


## V. 3D Radiation Pattern:

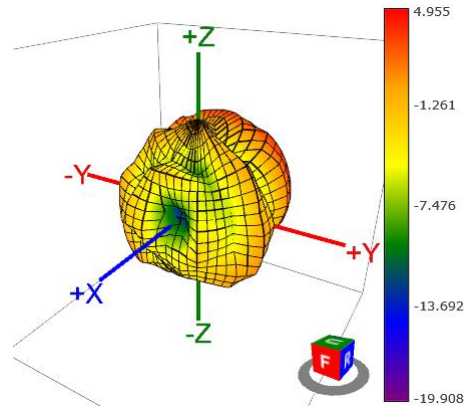


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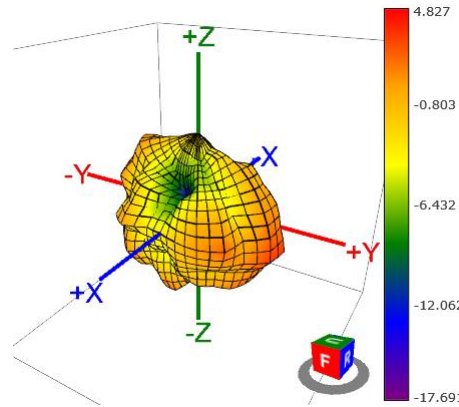
2300MHz



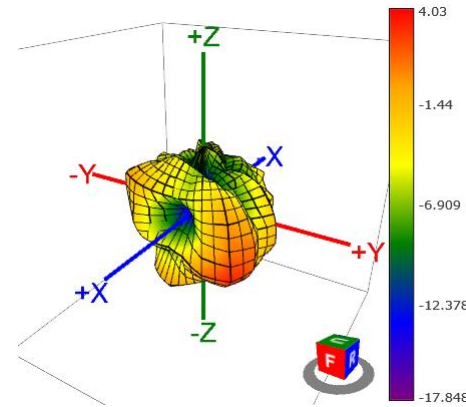
2690MHz



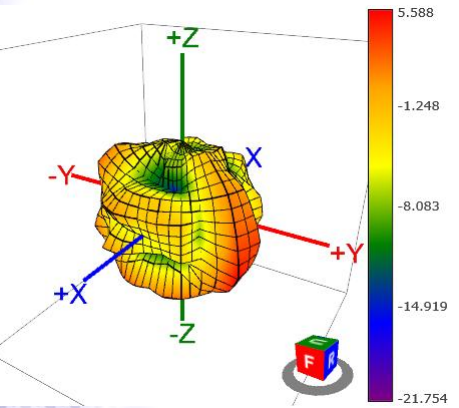
3300MHz



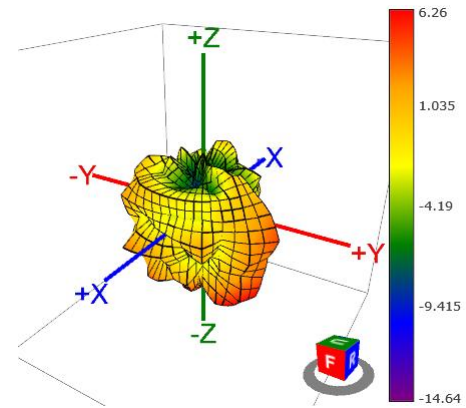
3800MHz

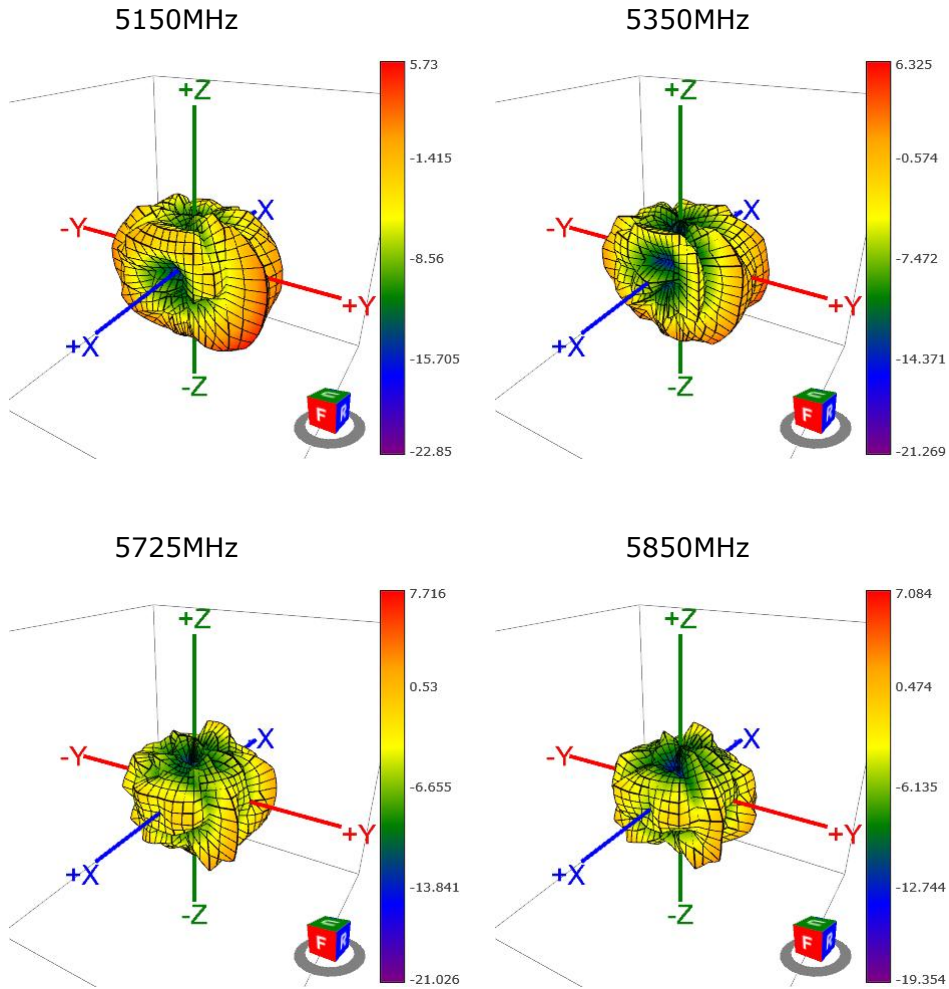


4200MHz



4700MHz





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

