



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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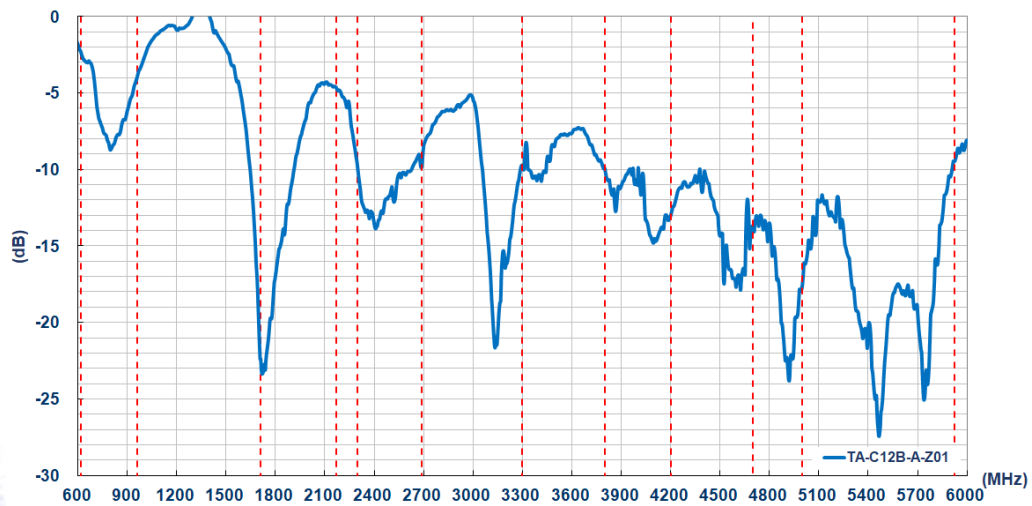
I. Specifications:

| Items | Specifications | | | | | | | | | |
|---------------------------------------|--------------------------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|
| 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 | 698 ~ 824 | 824 ~ 960 | 1710 ~ 1880 | 1850 ~ 1990 | 1920 ~ 2170 | 2300 ~ 2690 | 3300 ~ 3800 | 4200 ~ 4700 | 5000 ~ 5925 |
| Efficiency (%) | 54.28 | 52.03 | 58.29 | 70.04 | 79.27 | 78.75 | 56.77 | 61.80 | 89.84 | 72.43 |
| Average Gain (dBi) | -2.65 | -2.84 | -2.34 | -1.55 | -1.01 | -1.04 | -2.46 | -2.09 | -0.47 | -1.40 |
| Peak Gain (dBi) | 1.29 | 2.00 | 1.29 | 3.77 | 4.55 | 5.49 | 5.21 | 5.14 | 6.57 | 7.72 |
| V.S.W.R | < 7.5 | < 4.5 | < 4.4 | < 1.9 | < 2.7 | < 4.1 | < 2.1 | < 2.5 | < 1.9 | < 2.0 |
| Return Loss (dB) | < -2 | < -4 | < -4 | < -10 | < -7 | < -4 | < -9 | < -7 | < -10 | < -9 |
| Test Condition | 215 x 125 x 16.5 mm (With Box) | | | | | | | | | |
| Impedance | 50 Ω | | | | | | | | | |
| Polarization | Linear | | | | | | | | | |
| Physical Condition | | | | | | | | | | |
| Dimension (mm) | 196(L) x 26.9(W) x 14.4(T) | | | | | | | | | |
| Connector | 90° hinged SMA(Male) | | | | | | | | | |

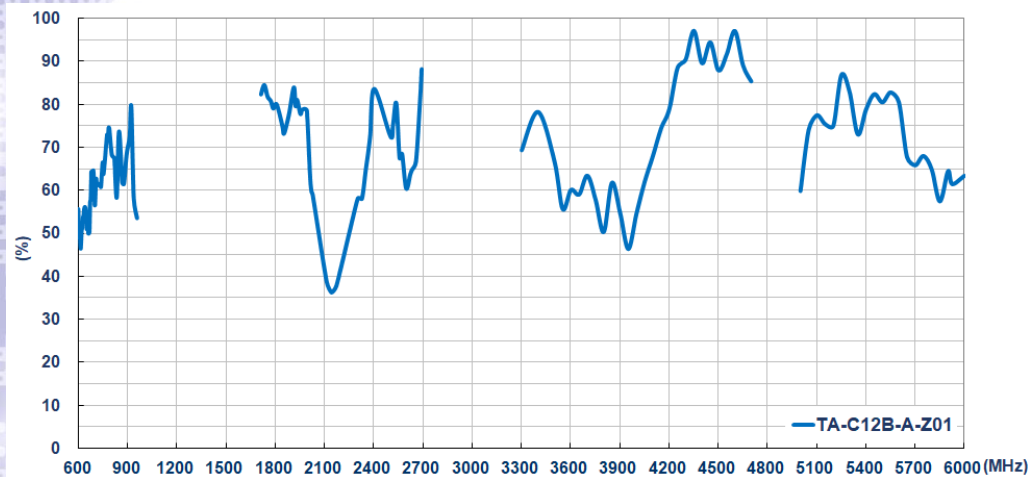
| Environmental Conditions | |
|--------------------------|--------------------|
| Operation Temperature | -40 ~ +85 °C |
| Storage Temperature | -40 ~ +85 °C |
| Relative Humidity | 95% non-condensing |

II. Antenna Technical Parameters:

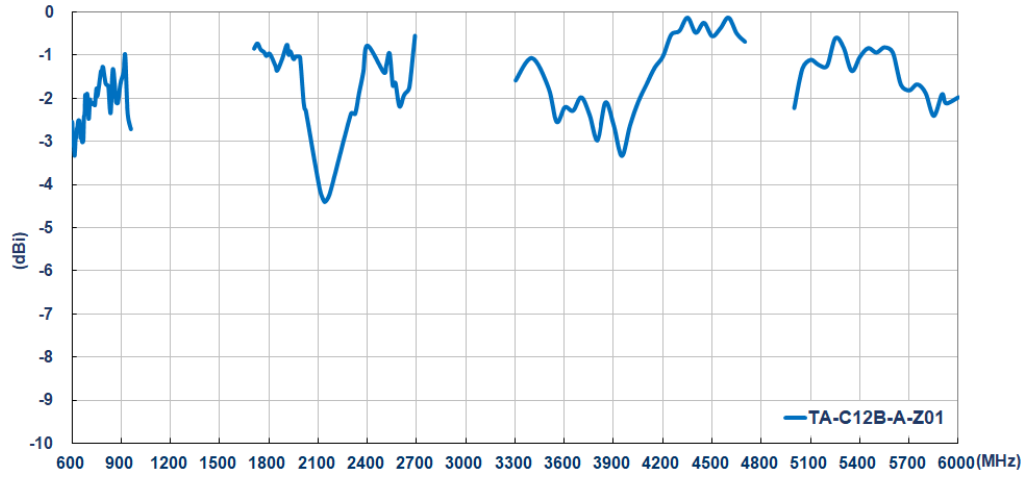
S11-parameters (dB)



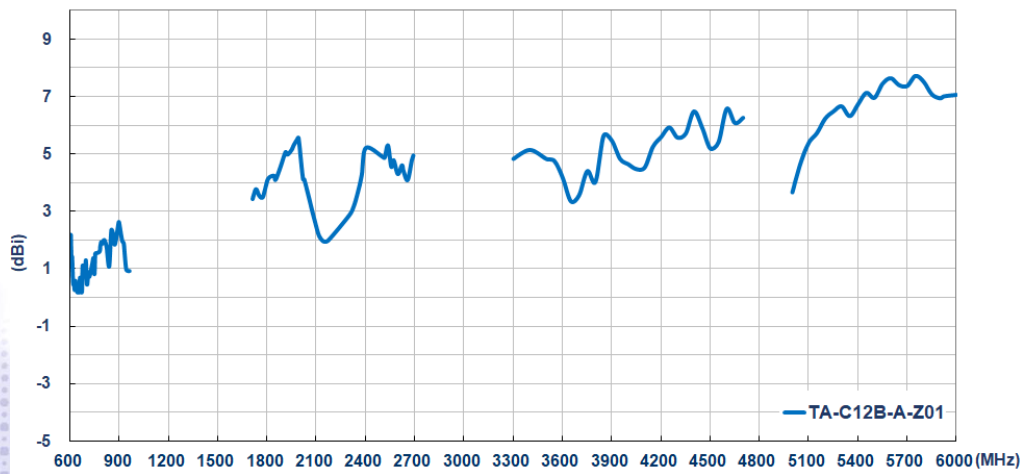
Efficiency (%)



Average Gain (dBi)



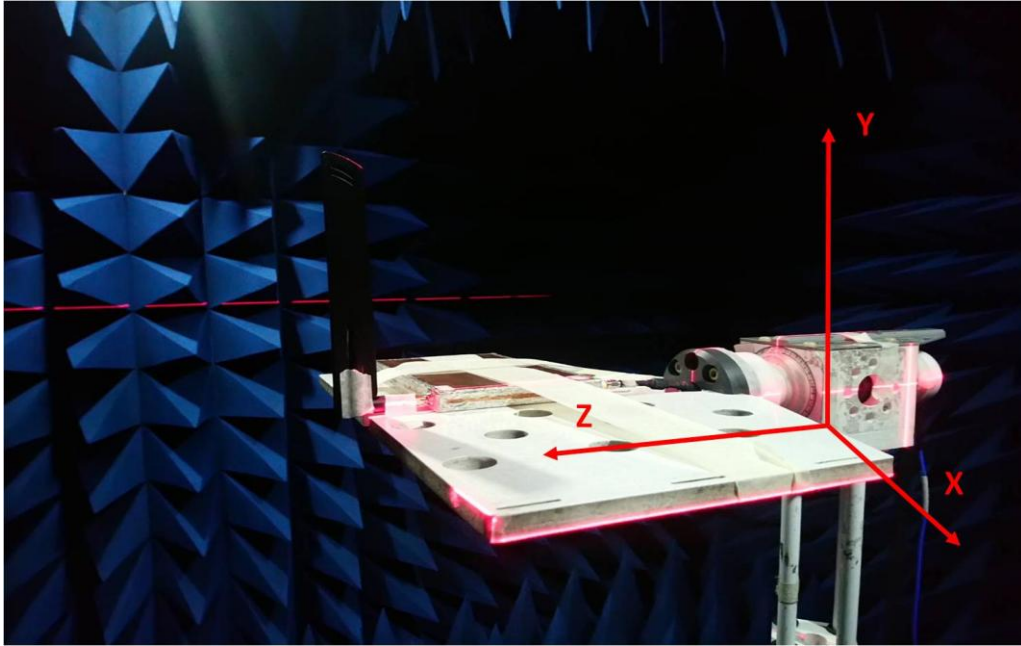
Peak Gain (dBi)



III. Antenna Radiation Pattern Measurement:

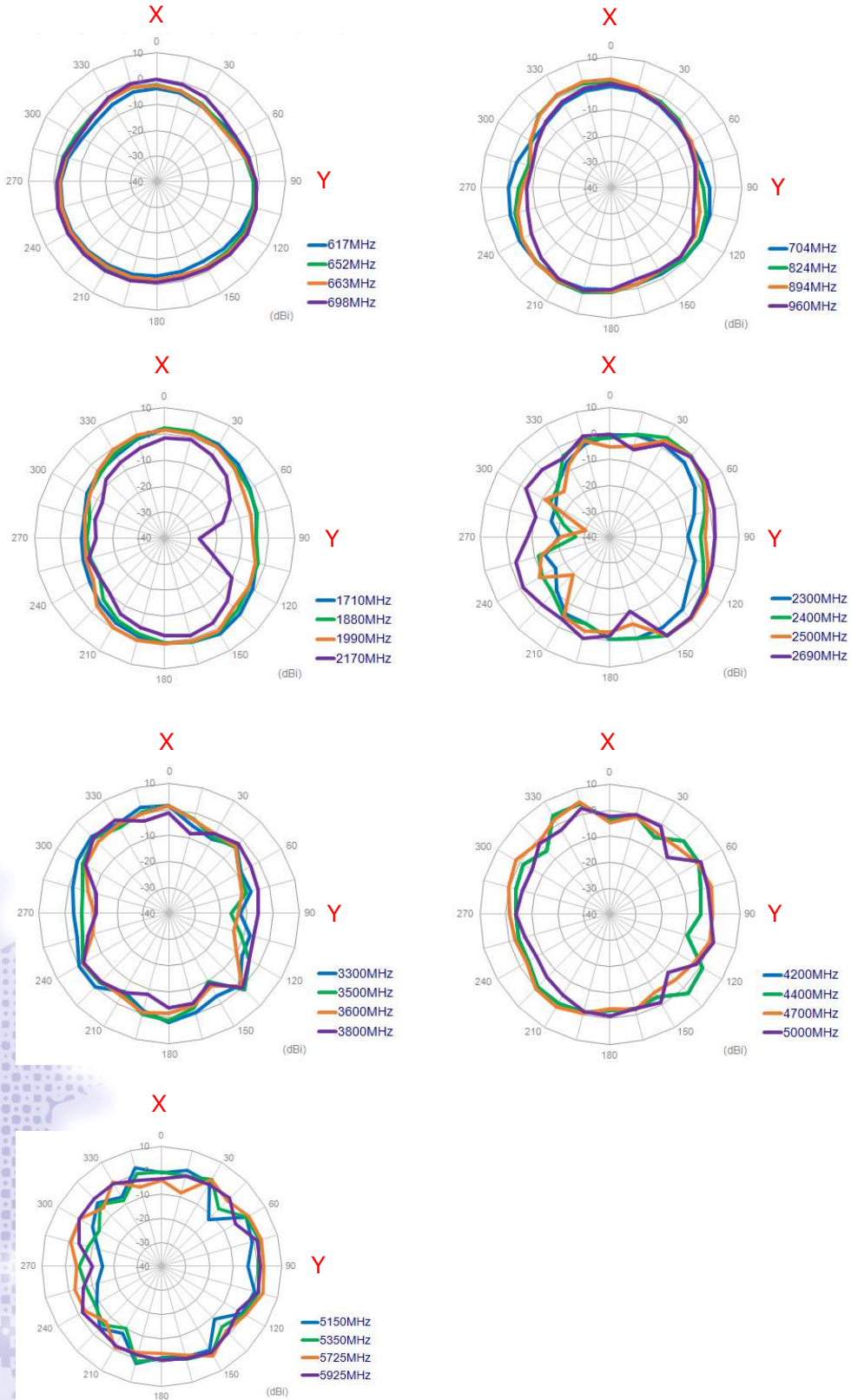
The antenna radiation patterns are measured in 3D Anechoic Chamber.

The measurement setup is as show below,



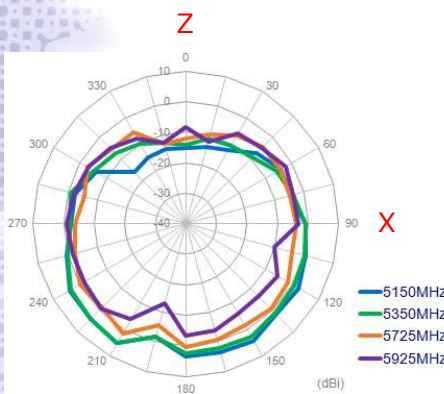
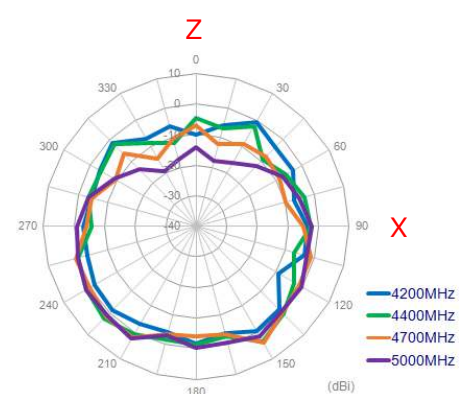
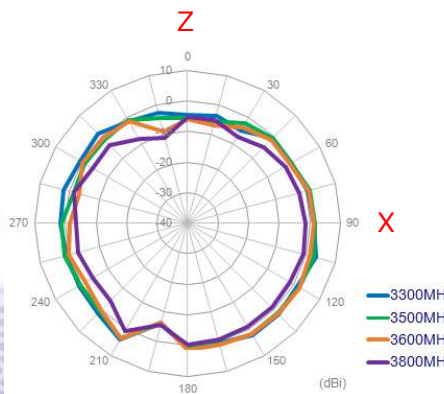
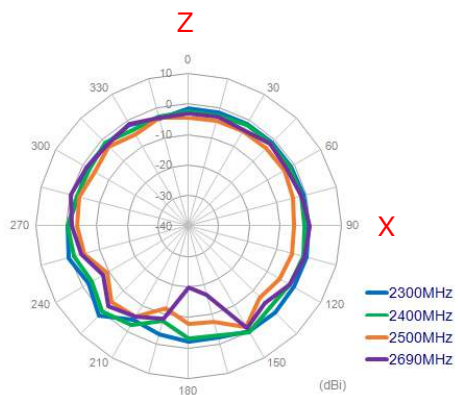
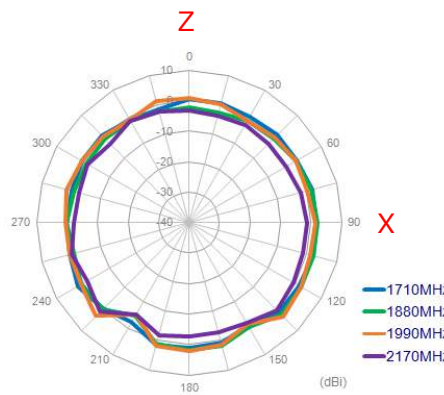
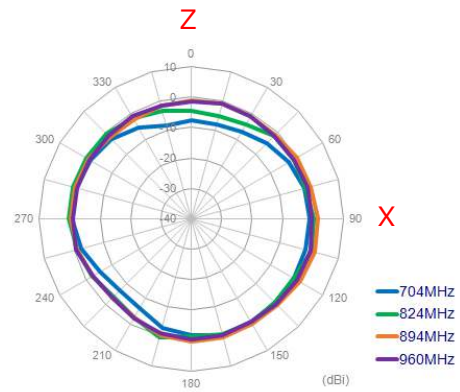
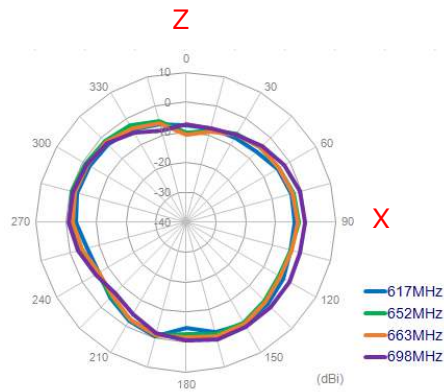
IV. 2D Radiation Pattern:

X-Y plane



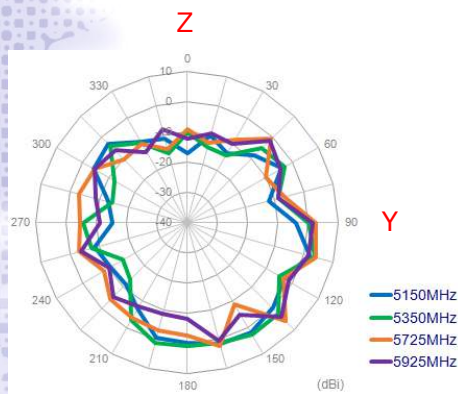
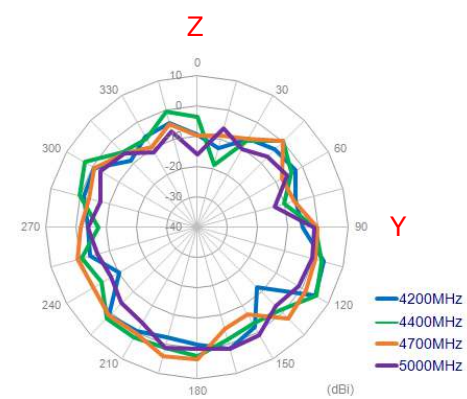
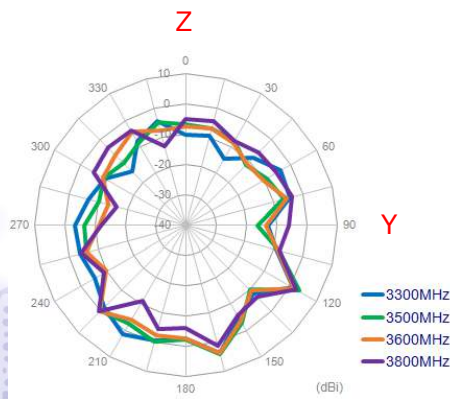
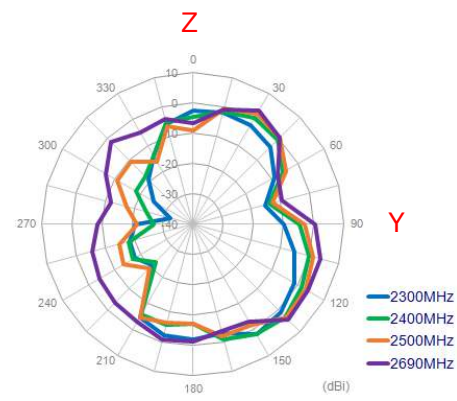
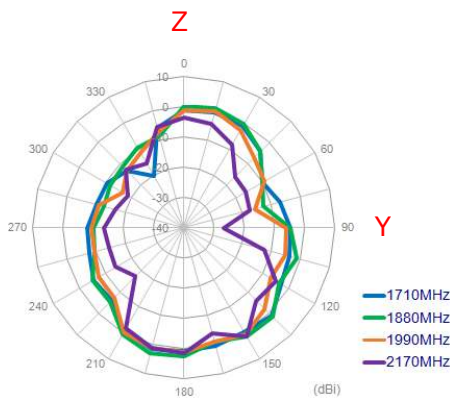
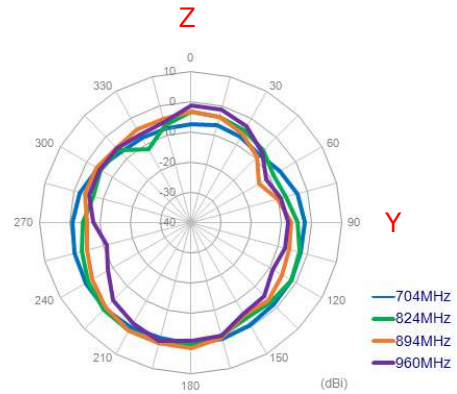
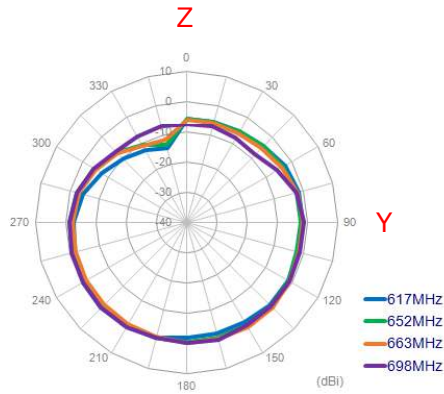
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X-Z plane



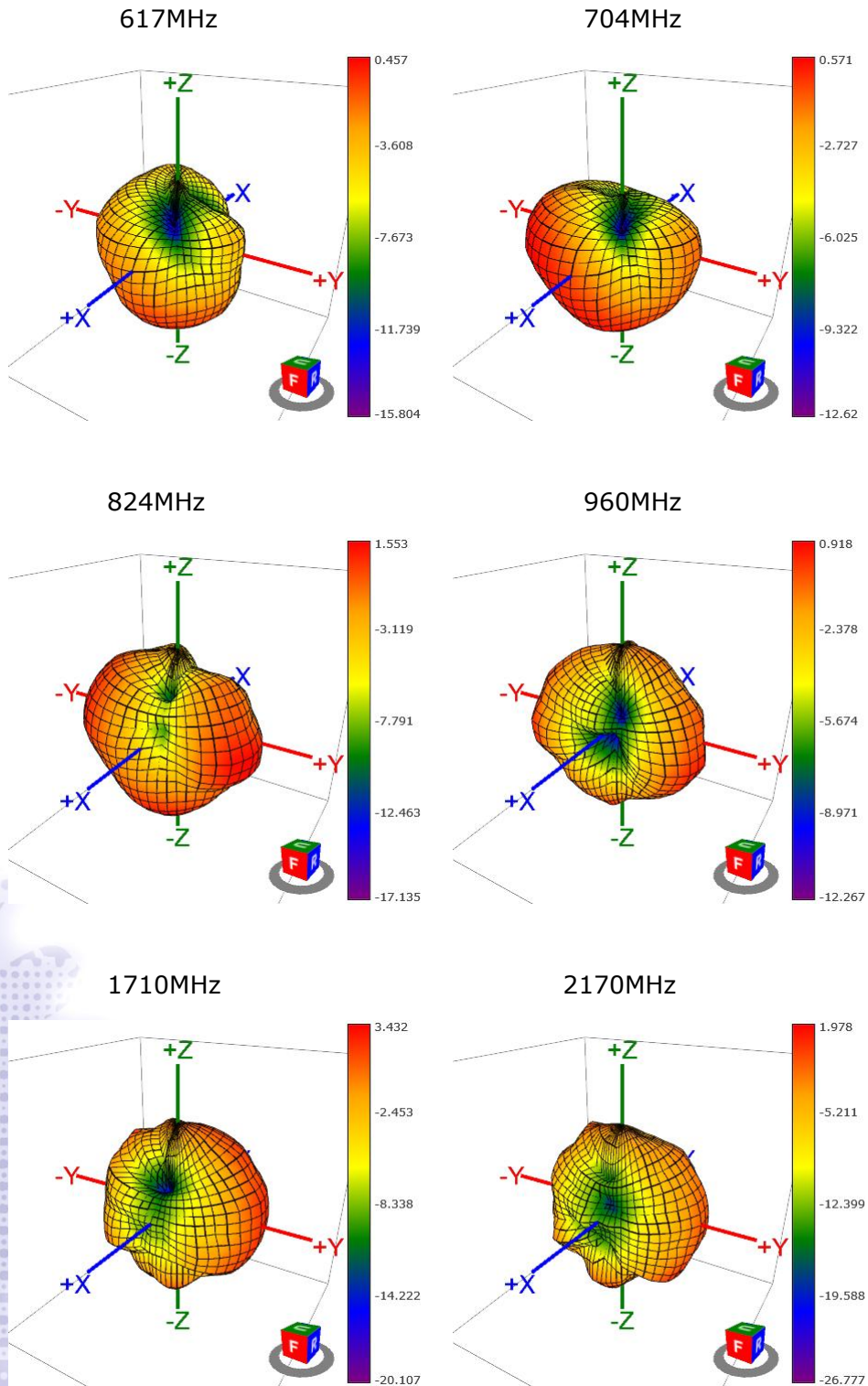
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Y-Z plane

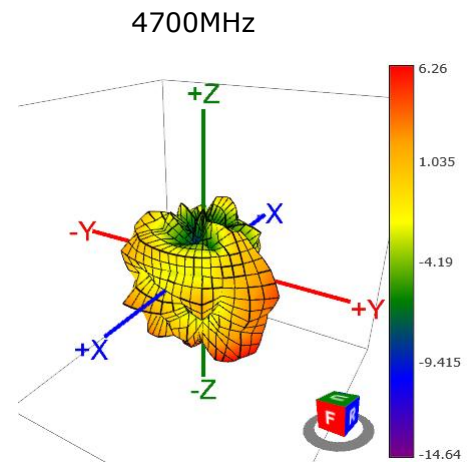
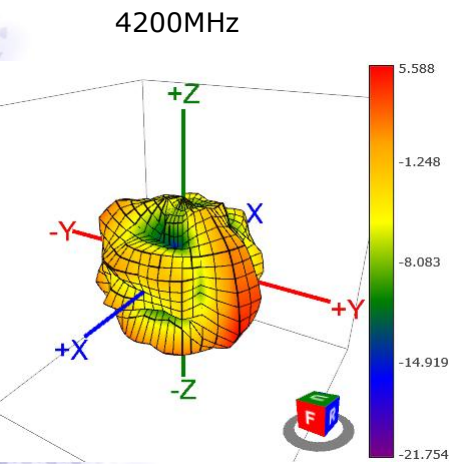
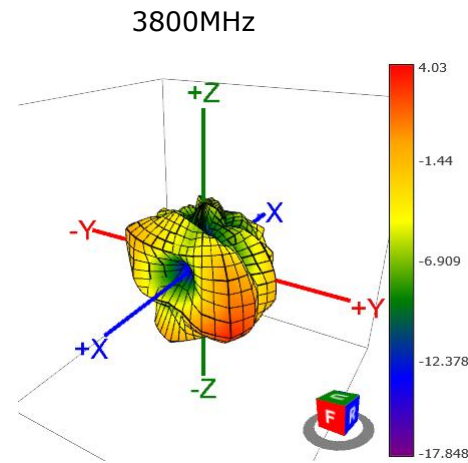
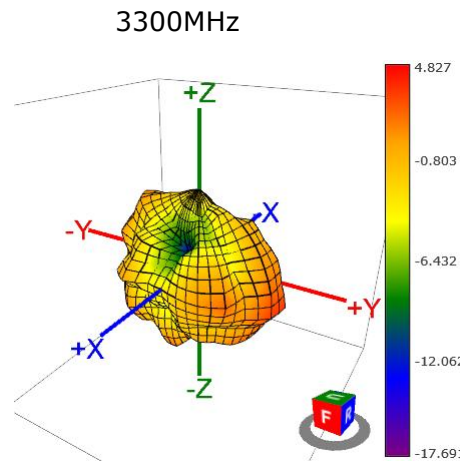
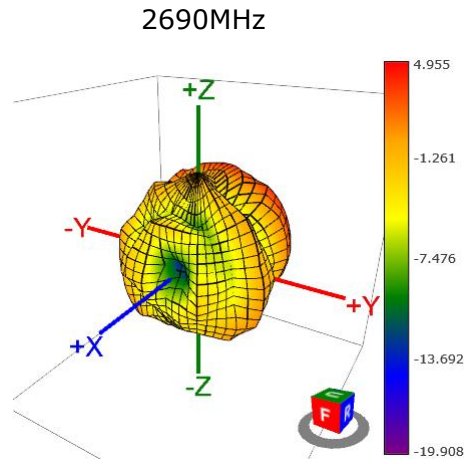
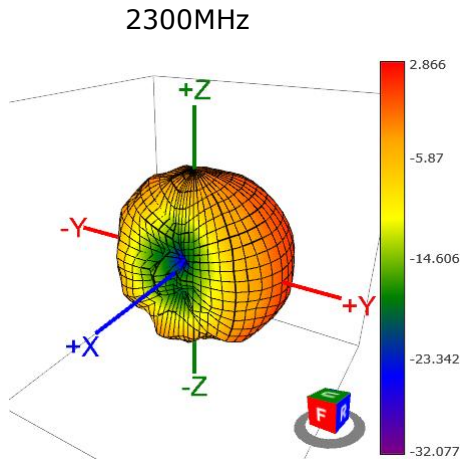


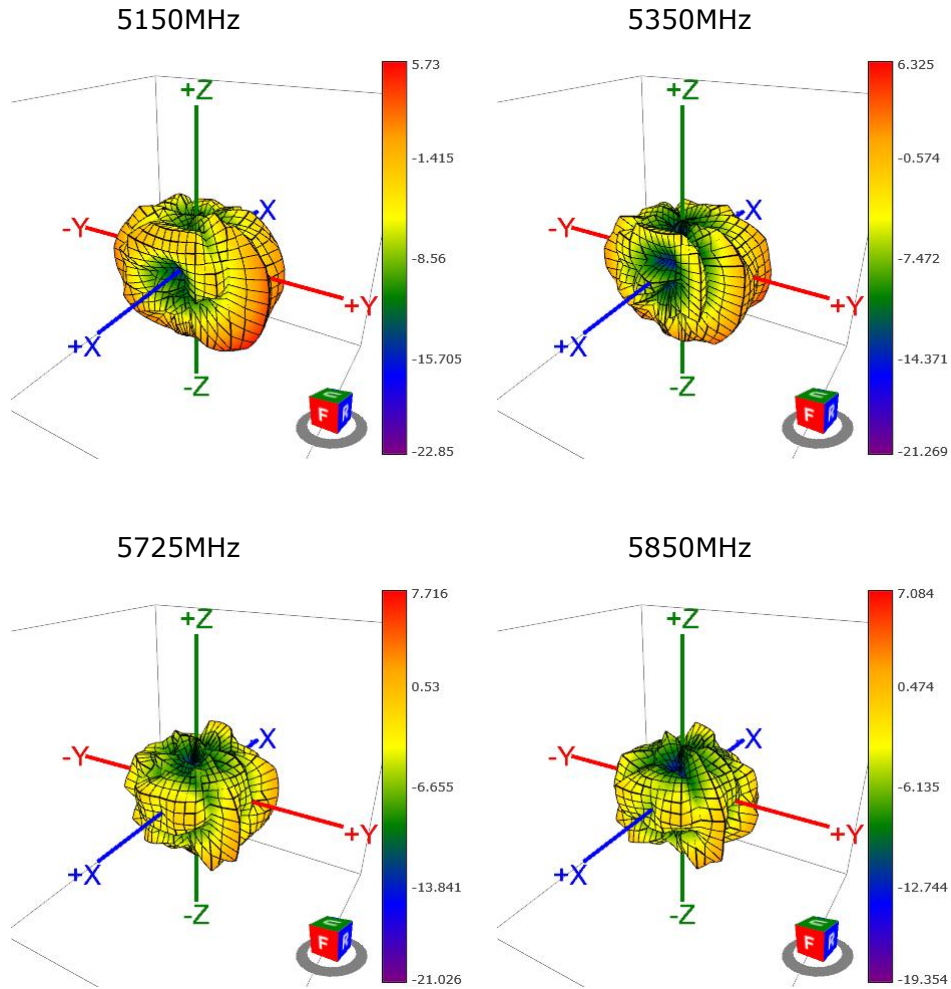
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V. 3D Radiation Pattern:



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VI. Mechanical Drawing (Unit:mm):

