

## **CW-WZ-0054**

### **4G External Antenna**

#### **Key Features**

Frequency: 698-960MHz/1710-2700MHz

SMA Male Connector

External Rubber

Dimensions 221\*27 mm

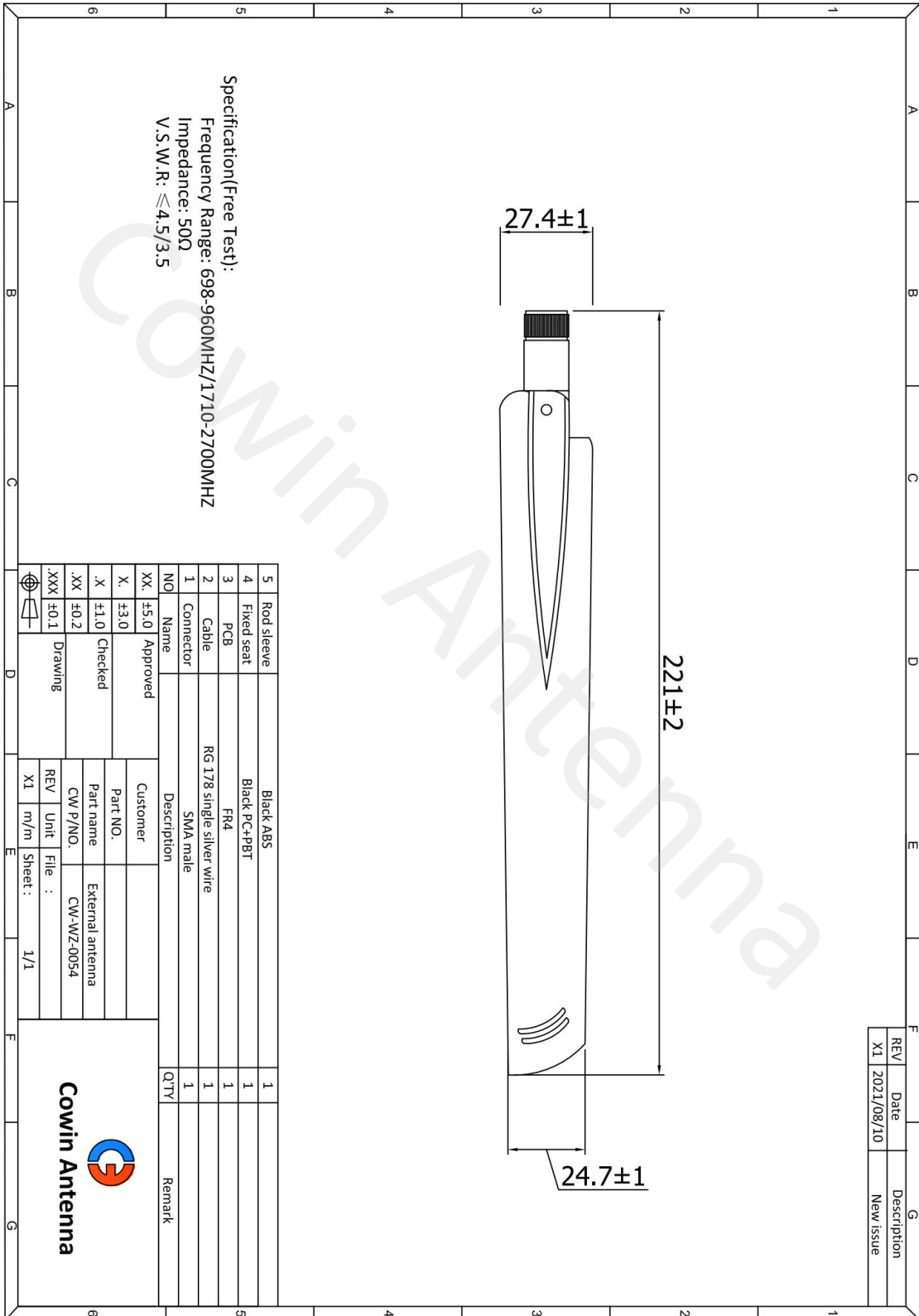


## 1. Antenna Electrical Characteristics

Band (MHz)		
Frequency (MHz)	698-960MHz	1710-2700MHz
VSWR	4.5:1	3.5:1
Efficiency (%)	69.9%	65.95%
Peak Gain (dBi)	1.84	3.57
Impedance (Ohm)		50
Polarisation		Vertical
Max. Input Power (W)		10
Connector Type		SMA male

## 2. Material and environmental characteristics

Material of PCB	FR4
Material of Plastic	PC+PBT/ABS
Cable Type	RG178
Connector Type	SMA male
Dimensions (mm)	221*27
Antenna color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS



## 4. Antenna test parameters

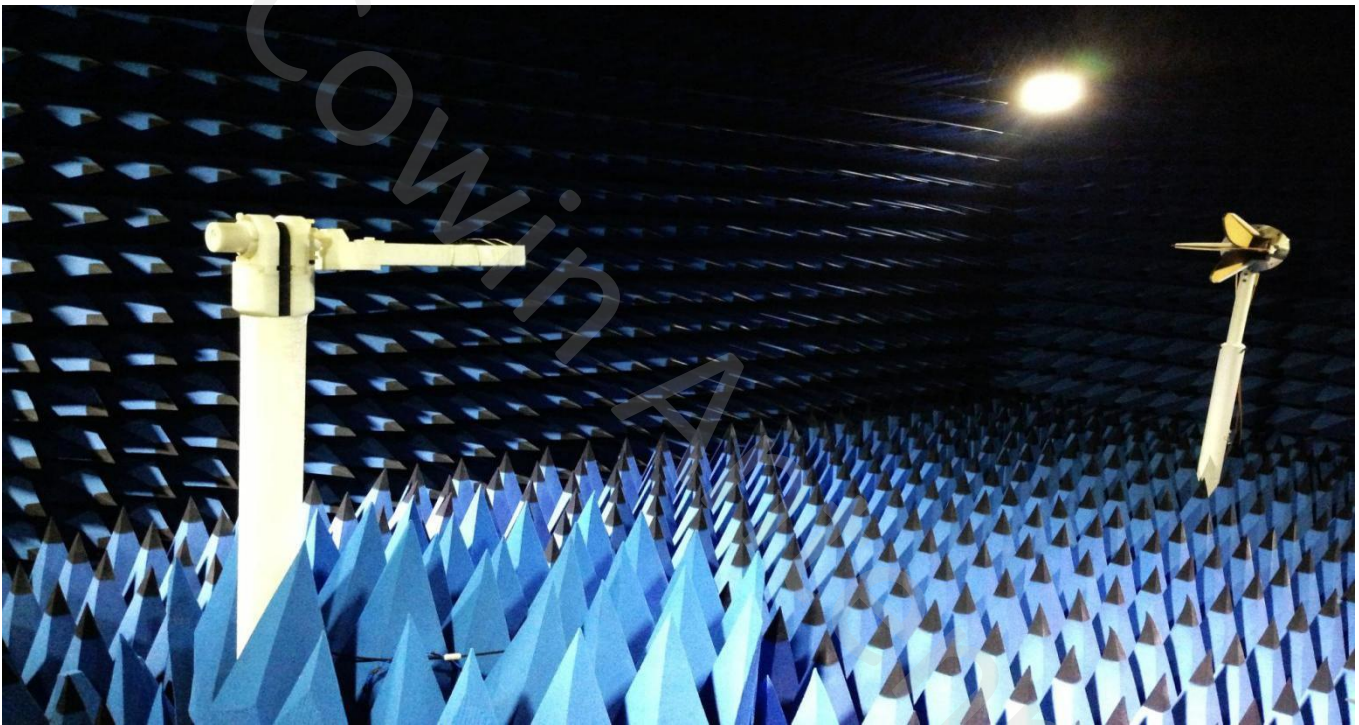
### Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

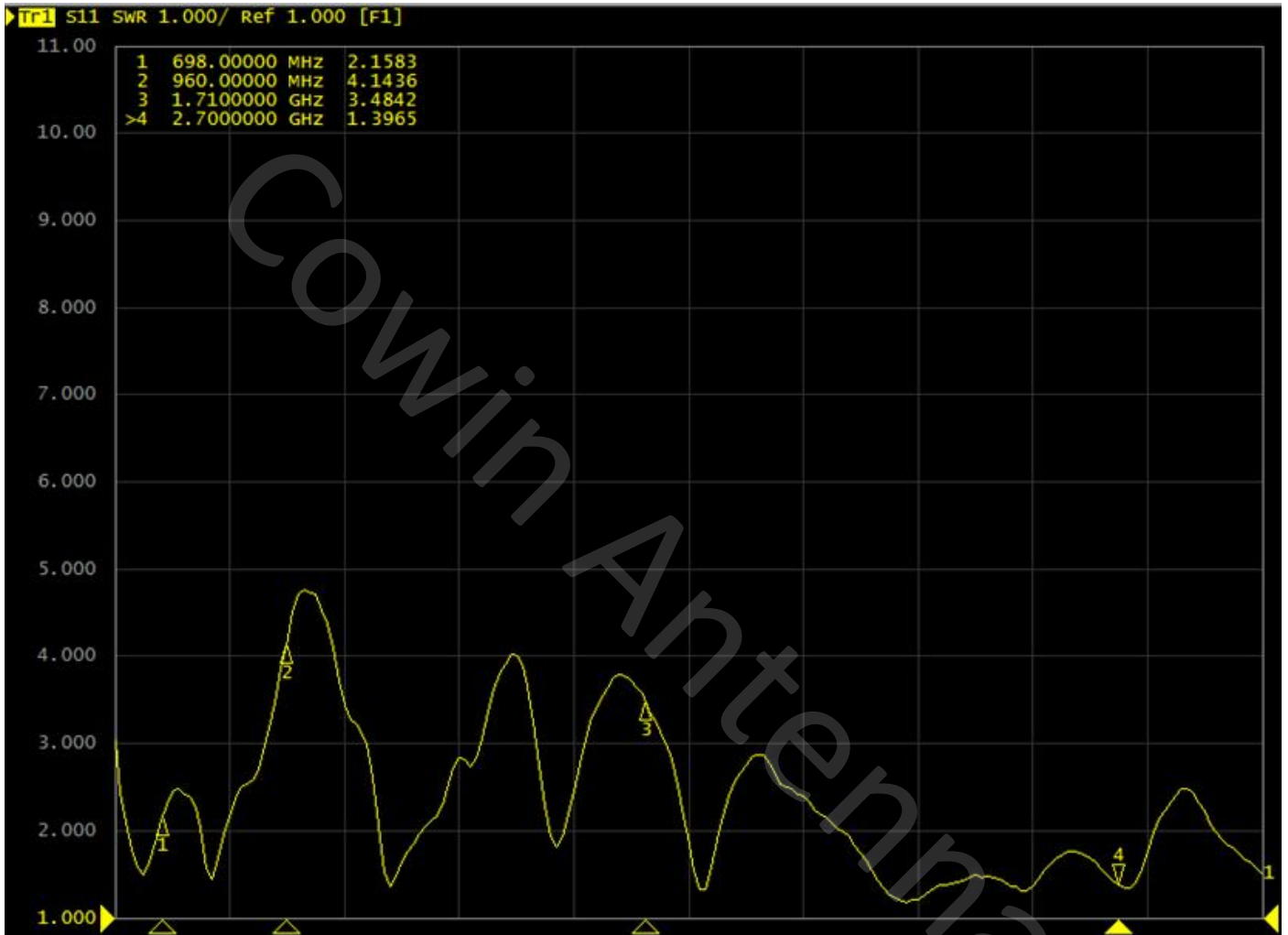
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

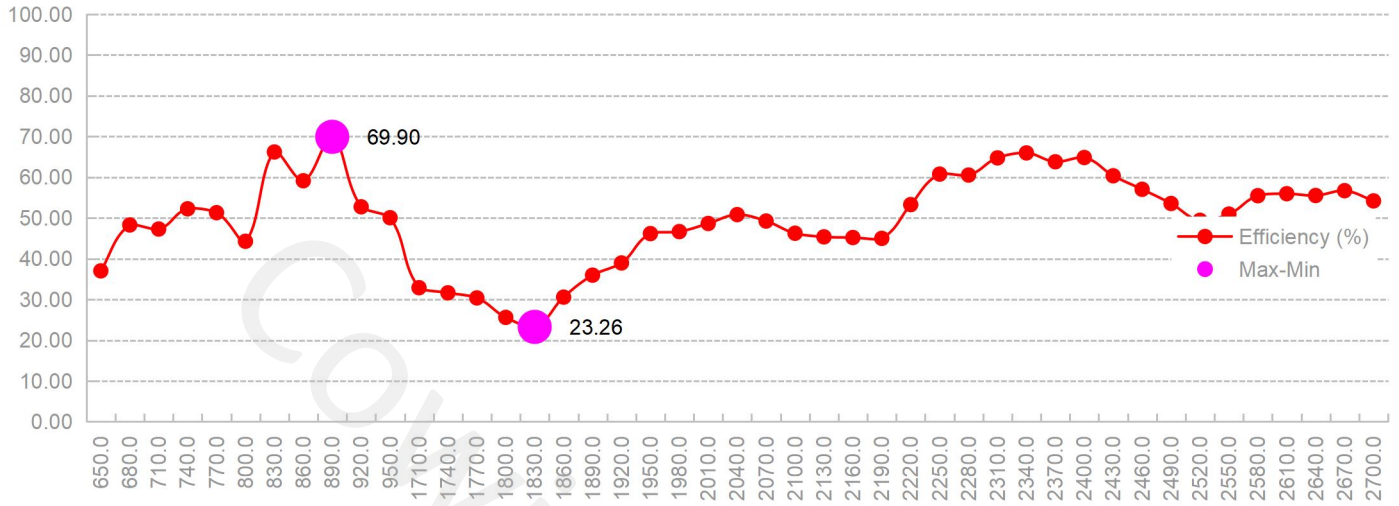
The comprehensive tester is Agilent cmv500



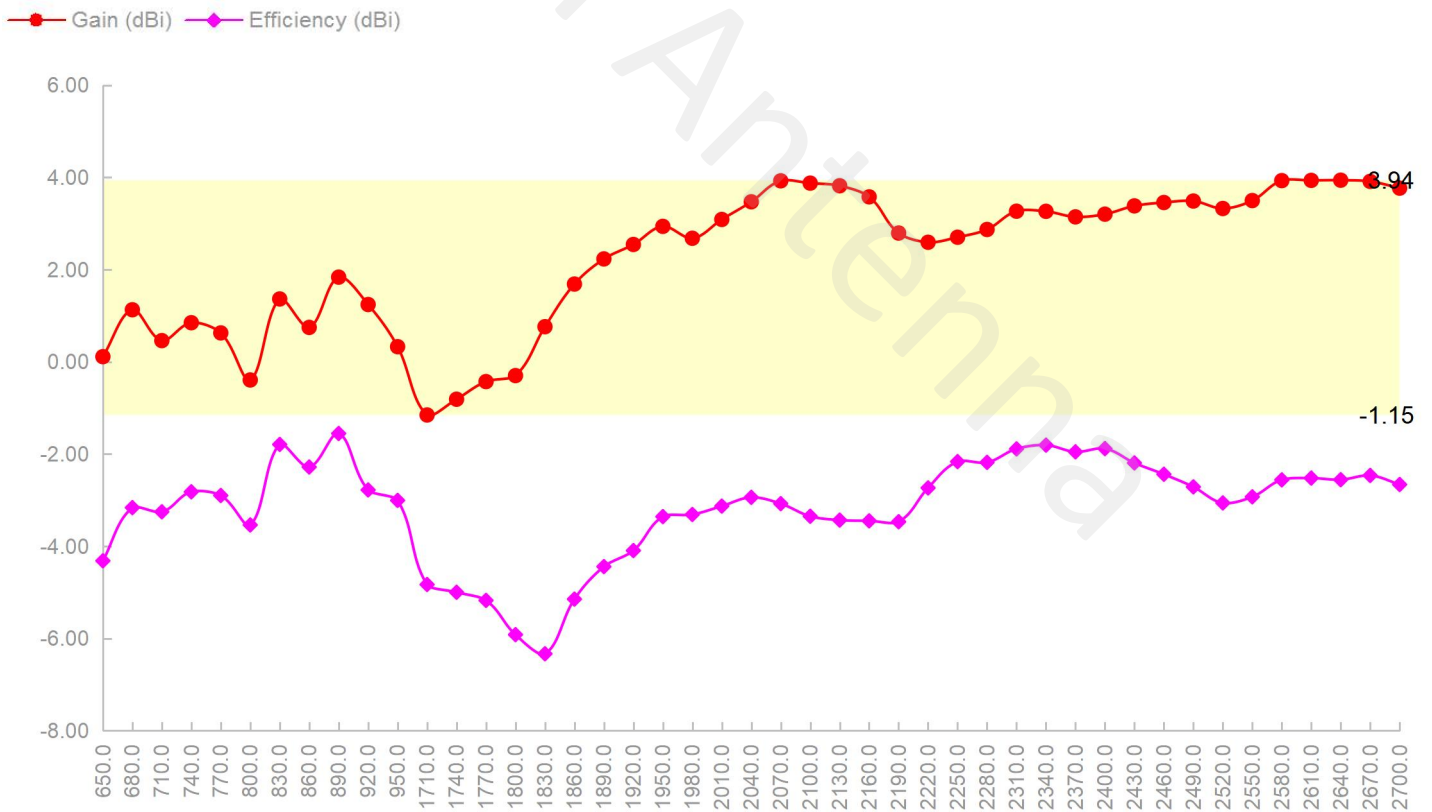
## 4.1 VSWR



## 4.2 Efficiency



## 4.3 Peak gain

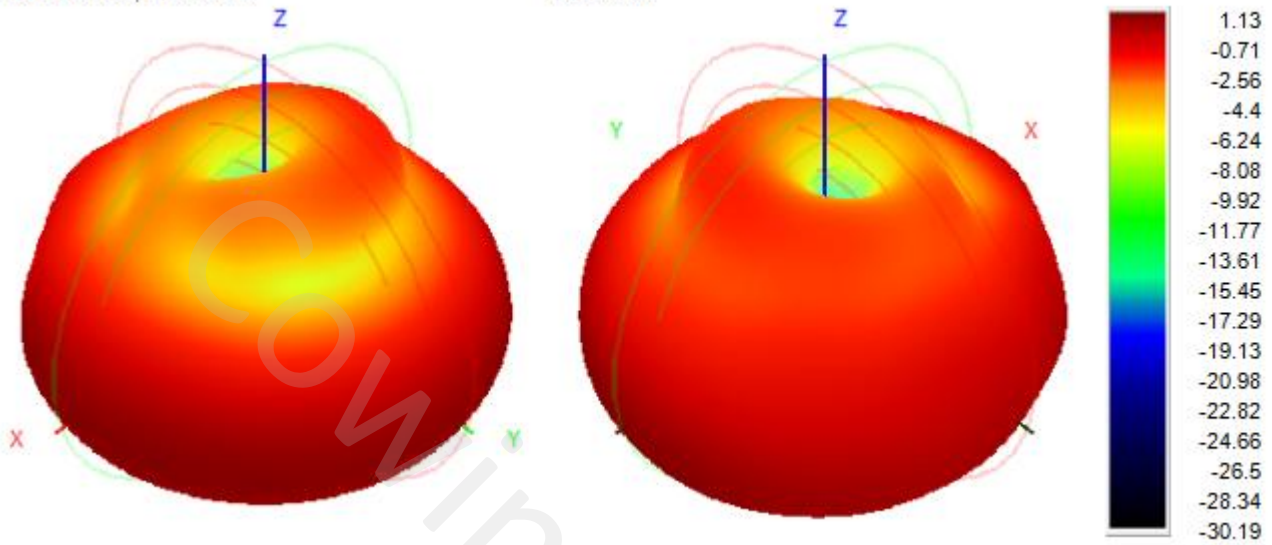




## 4.4 3D&2D Radiation Patterns

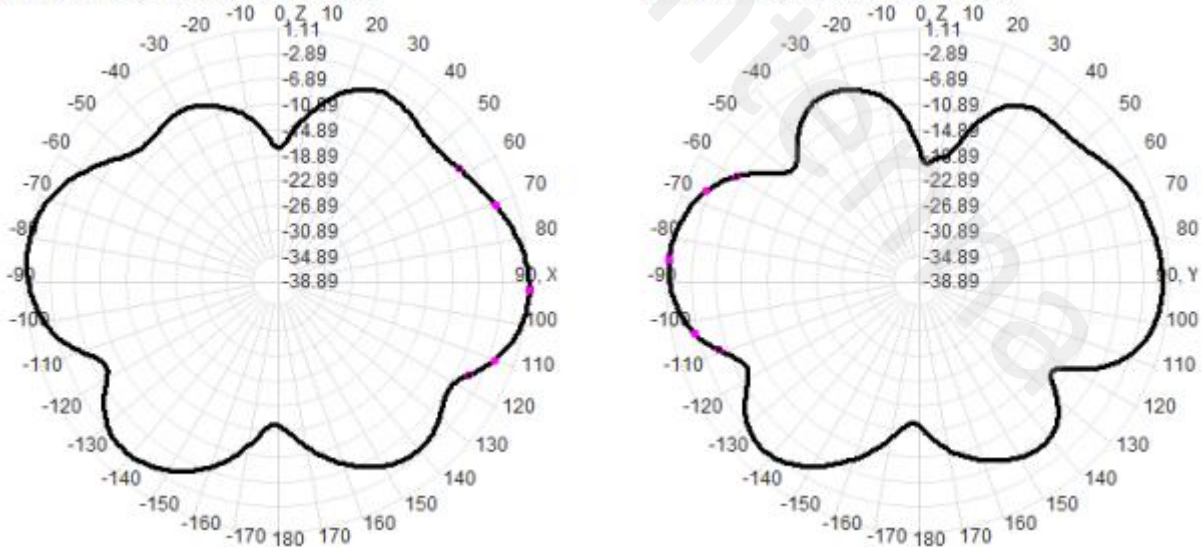
680.0MHz H+V, Eff: 48.3%

Back View

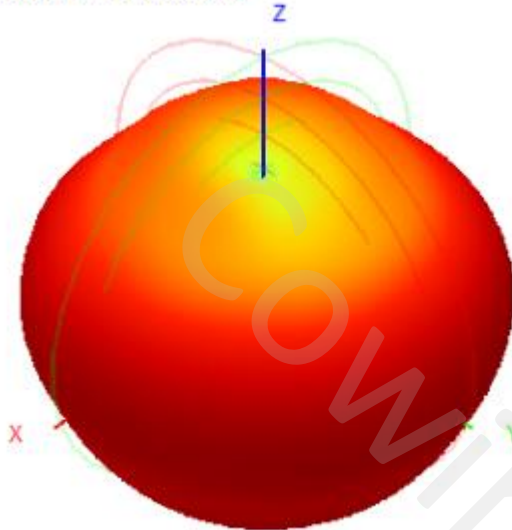


680.0MHz Total(E1-XZ), Max= 1.01dBi

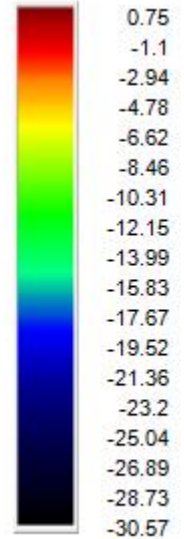
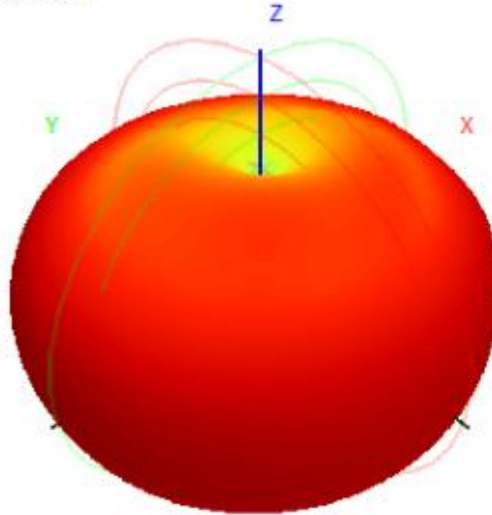
680.0MHz Total(E2-YZ), Max= 0.67dBi



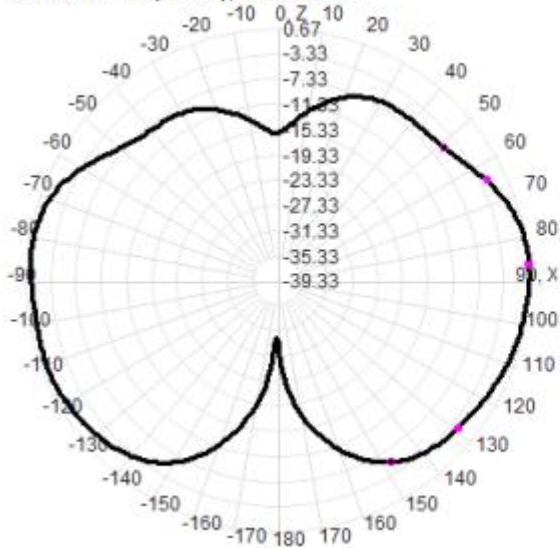
860.0MHz H+V, Eff: 59.1%



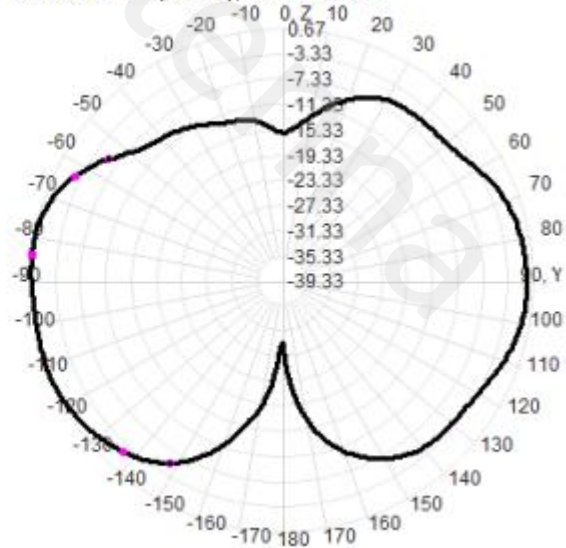
Back View



860.0MHz Total(E1-XZ), Max= 0.53dBi

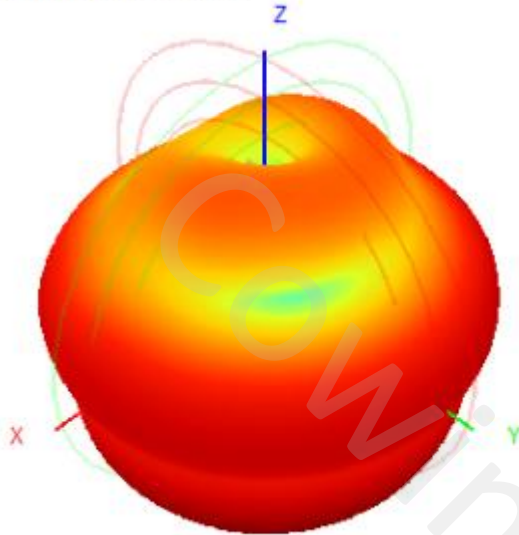


860.0MHz Total(E2-YZ), Max= 0.60dBi

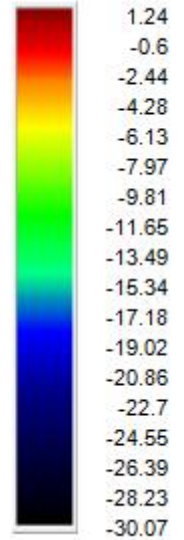
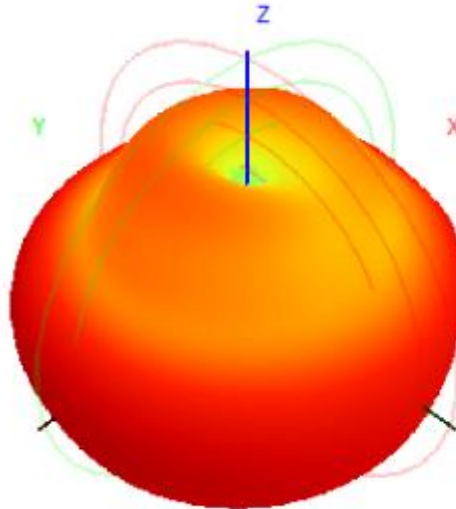




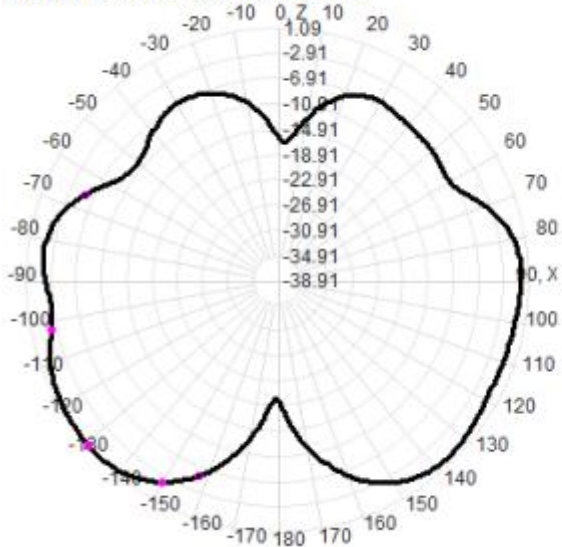
920.0MHz H+V, Eff: 52.7%



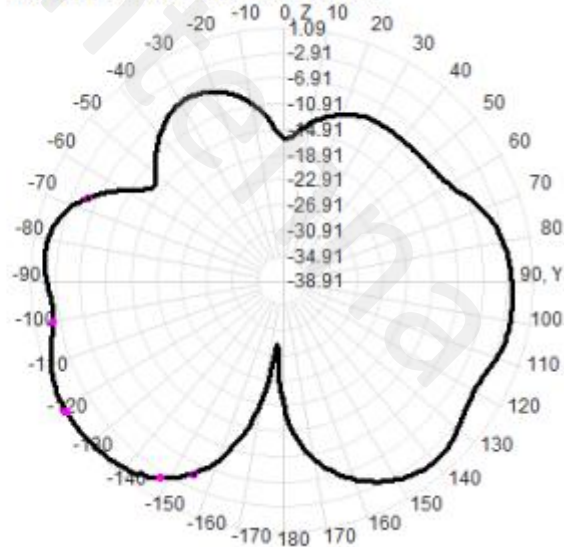
Back View



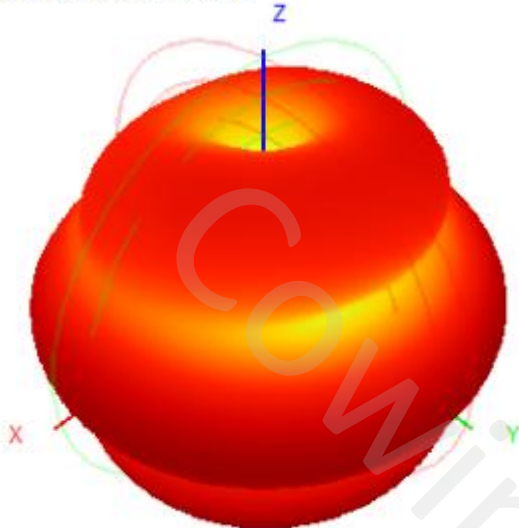
920.0MHz Total(E1-XZ), Max= 0.78dBi



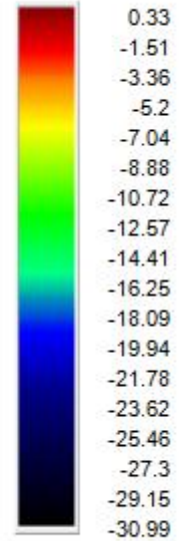
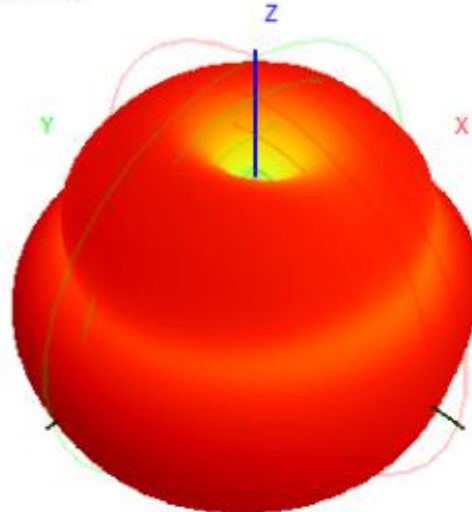
920.0MHz Total(E2-YZ), Max= 1.09dBi



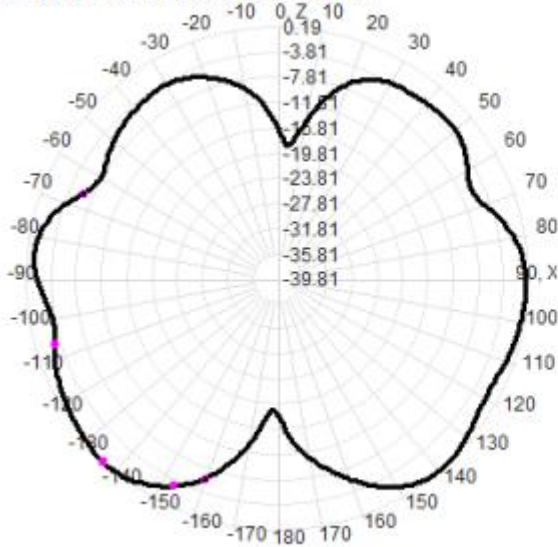
950.0MHz H+V, Eff: 50.0%



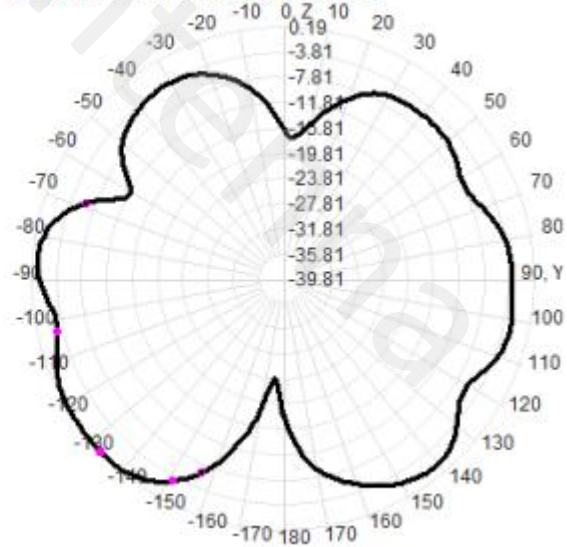
Back View



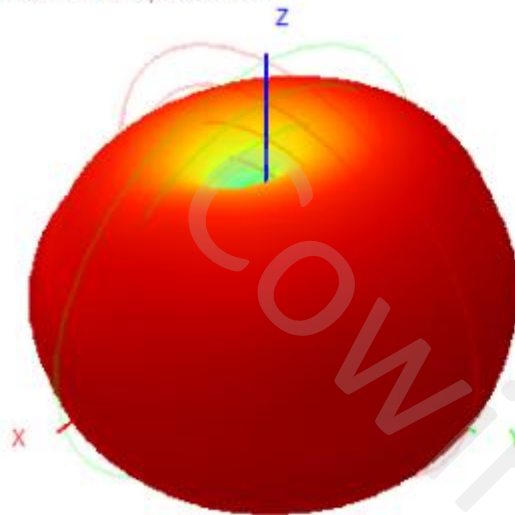
950.0MHz Total(E1-XZ), Max= 0.19dBi



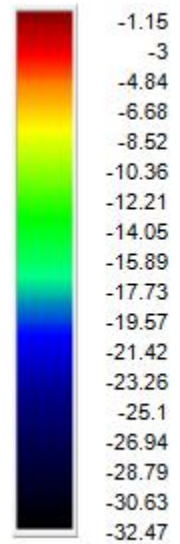
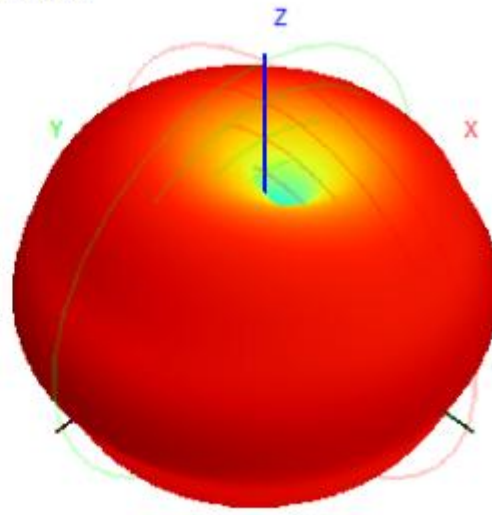
950.0MHz Total(E2-YZ), Max= 0.01dBi



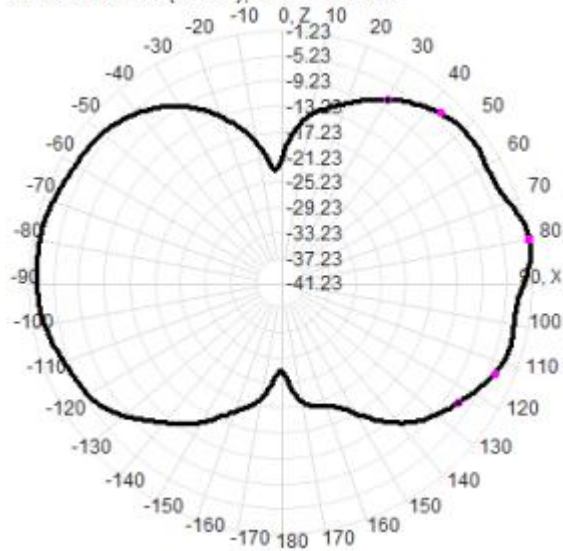
1710.0MHz H+V, Eff: 32.9%



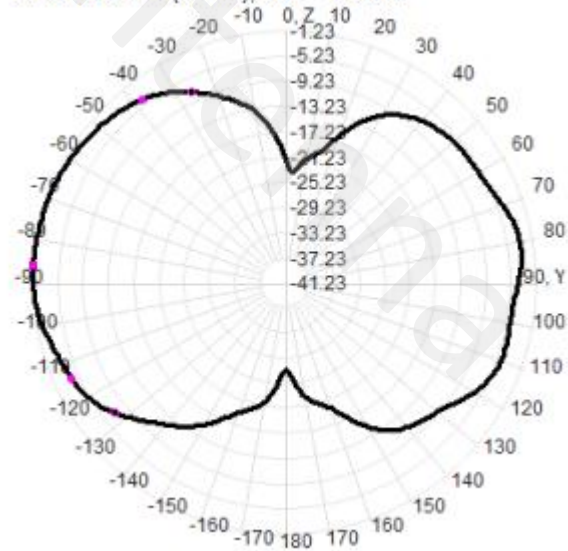
Back View



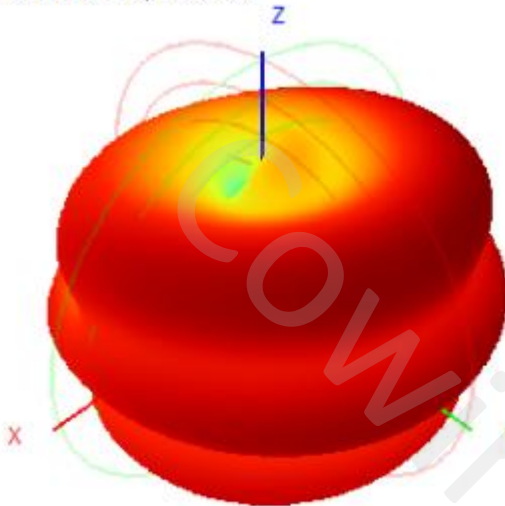
1710.0MHz Total(E1-XZ), Max= -1.34dBi



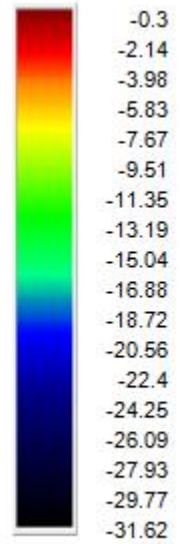
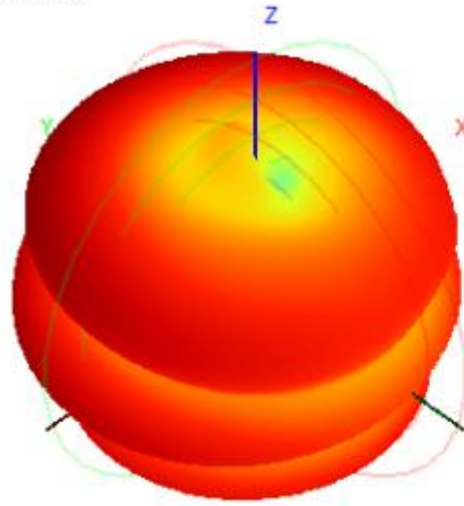
1710.0MHz Total(E2-YZ), Max= -1.23dBi



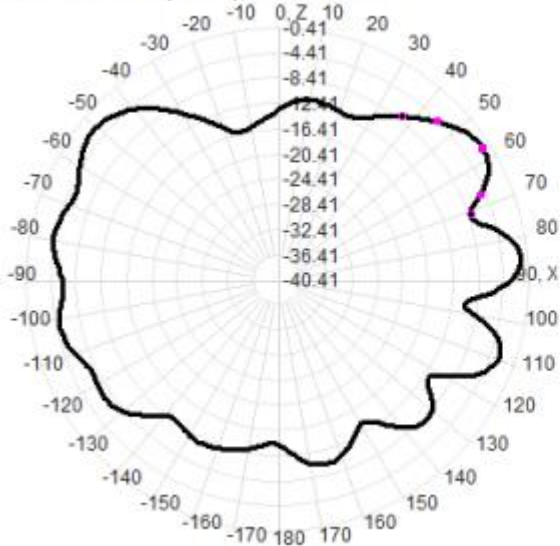
1800.0MHz H+V, Eff: 25.6%



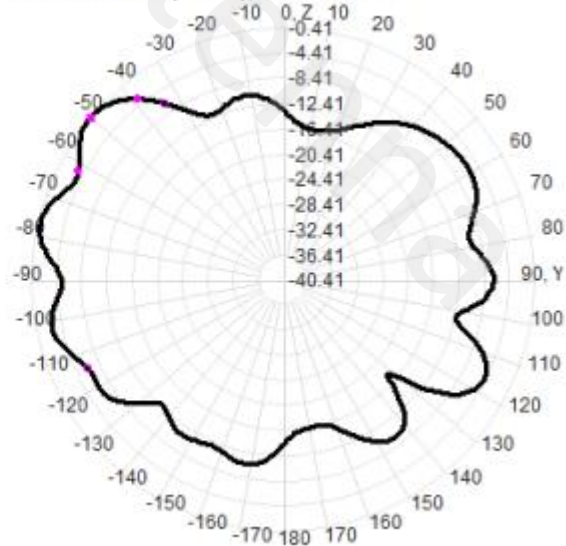
Back View



1800.0MHz Total(E1-XZ), Max= -1.81dBi

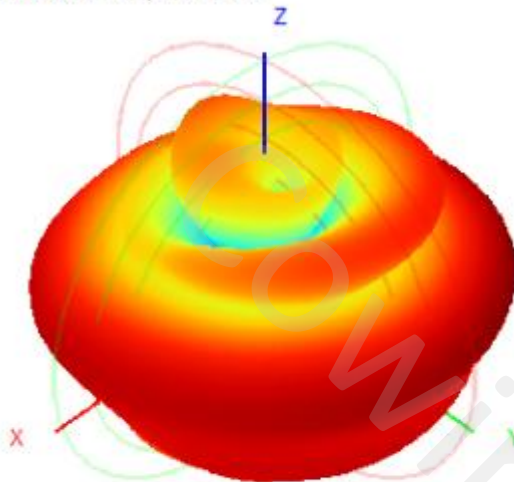


1800.0MHz Total(E2-YZ), Max= -0.41dBi

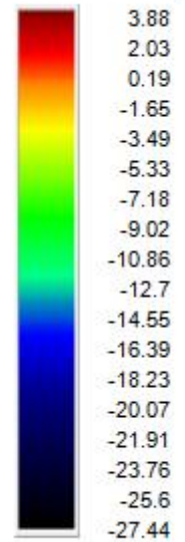
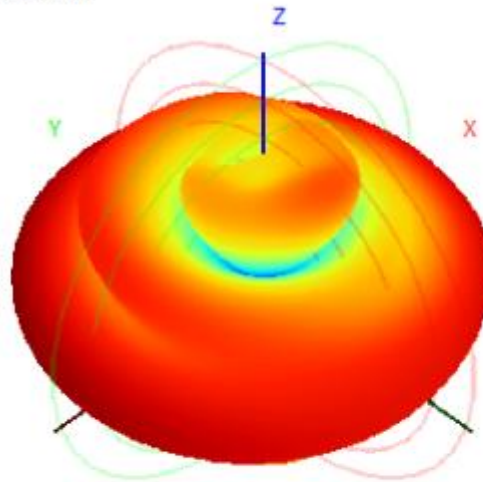




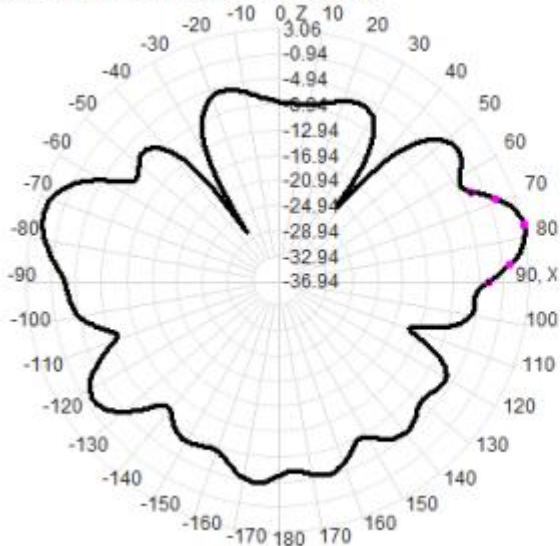
2100.0MHz H+V, Eff: 46.2%



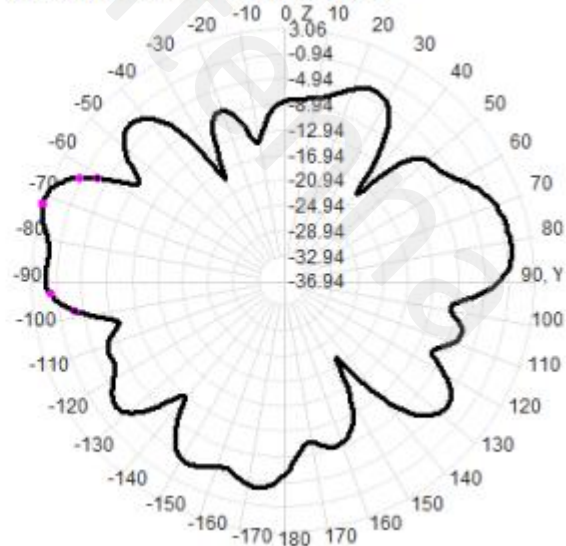
Back View



2100.0MHz Total(E1-XZ), Max= 3.00dBi



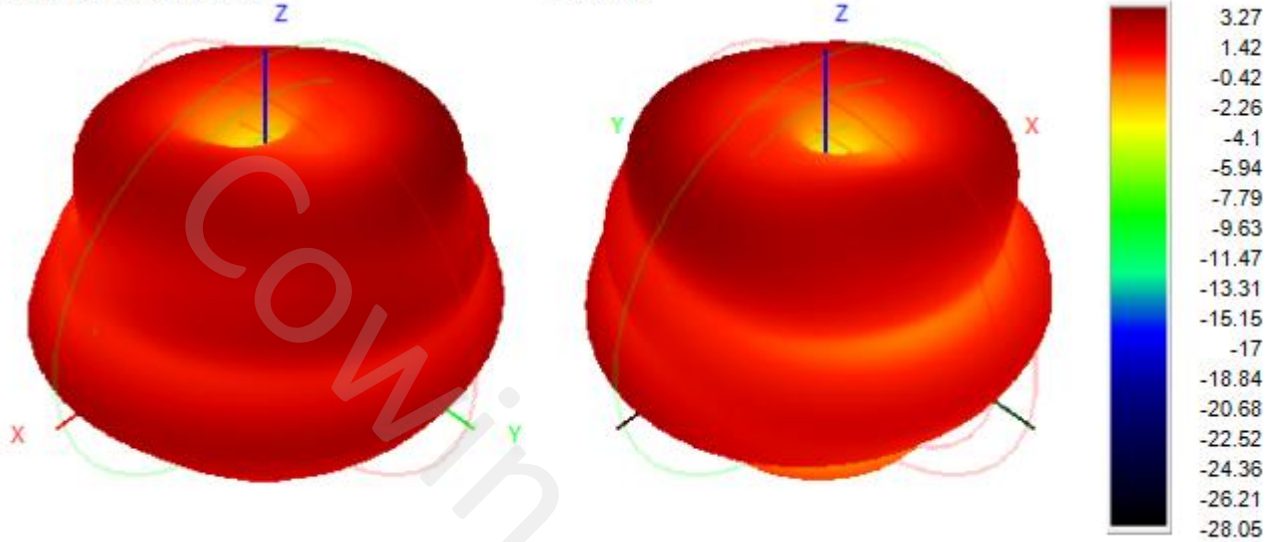
2100.0MHz Total(E2-YZ), Max= 3.06dBi





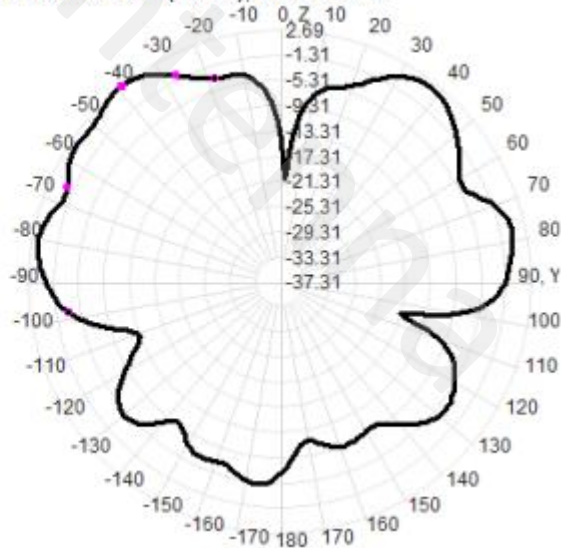
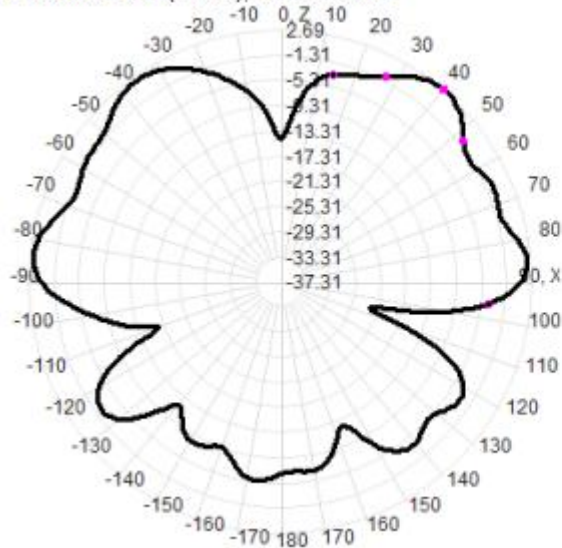
2310.0MHz H+V, Eff: 64.7%

Back View

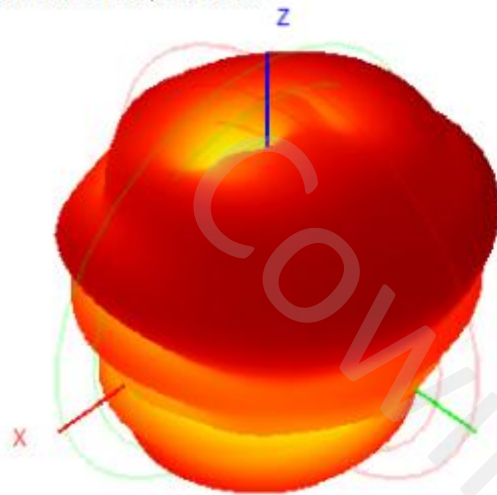


2310.0MHz Total(E1-XZ), Max= 2.69dBi

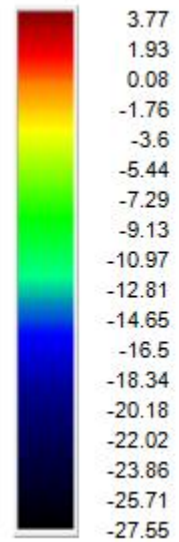
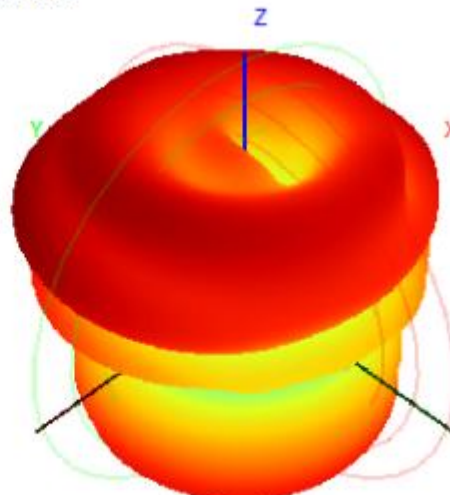
2310.0MHz Total(E2-YZ), Max= 2.68dBi



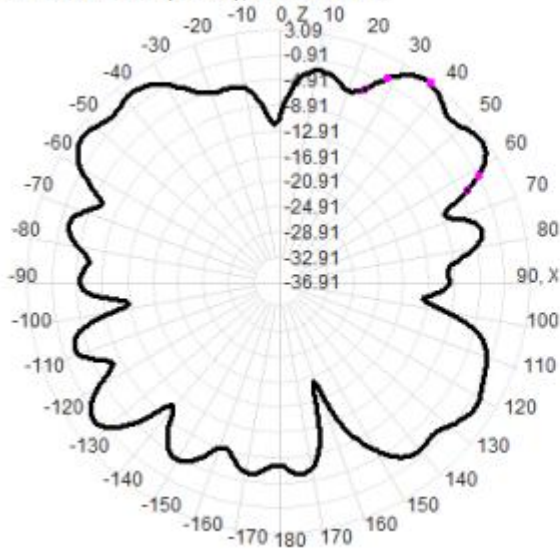
2700.0MHz H+V, Eff: 54.2%



Back View



2700.0MHz Total(E1-XZ), Max= 2.70dBi



2700.0MHz Total(E2-YZ), Max= 3.09dBi

