

**CW-WZ-0009**

## **4G Magentic Antenna**

### **Key Features**

Frequency: 698-960MHZ/1710-2700MHZ

SMA Male Connector

External Magnetic Base

Dimensions 318\*30 mm



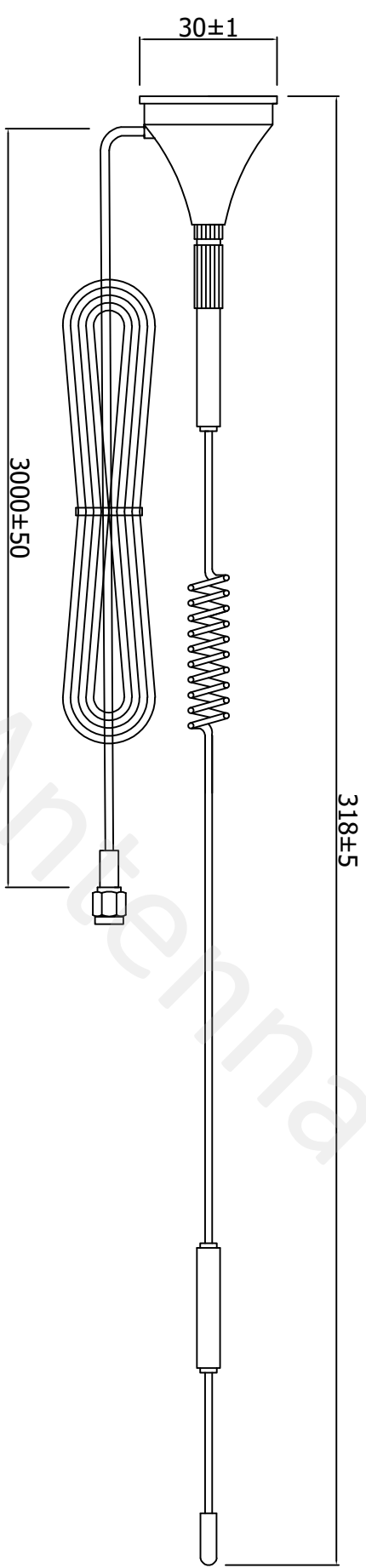
## 1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	698-960MHz/1710-2700MHz
VSWR	2.0:1
Efficiency (%)	73.15%/71.26%
Peak Gain (dBi)	3.58/4.69
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male

## 2. Material and environmental characteristics

Inner structure	N/A
Material of Plastic	ABS
Cable Type	N/A
Connector Type	SMA Male
Dimensions (mm)	318*30MM
Antenna color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS

REV	Date	Description
X1	2022/07/08	New Issue



Specification(Free Test):  
 Frequency Range:698-960MHZ/1710-2700MHZ  
 Impedance: 50Ω  
 V.S.W.R:≤2.0  
 100% Continuity,short and open circuit test  
 Materials,parts and process must by environmentally (ROHS)

6	Signal Pole								
5	Bottom cover	Black steel wire							
4	Sticker	Black ABS 29*1MM							
3	Magnet	Neodymium iron boron							
2	Cable	RG174 Cable							
1	Connector	SMA Male							
NO	Name	Description							
XX	±5.0	Approved							
X	±3.0		Customer						
.X	±1.0	Checked	Part NO.						
.XX	±0.2		Part name	External antenna					
.XXX	±0.1	Drawing	CW P/NO.	CW-WZ-0009					
			REV	Unit	File				
			X1	m/m	Sheet :	1/1			



## 4. Antenna test parameters

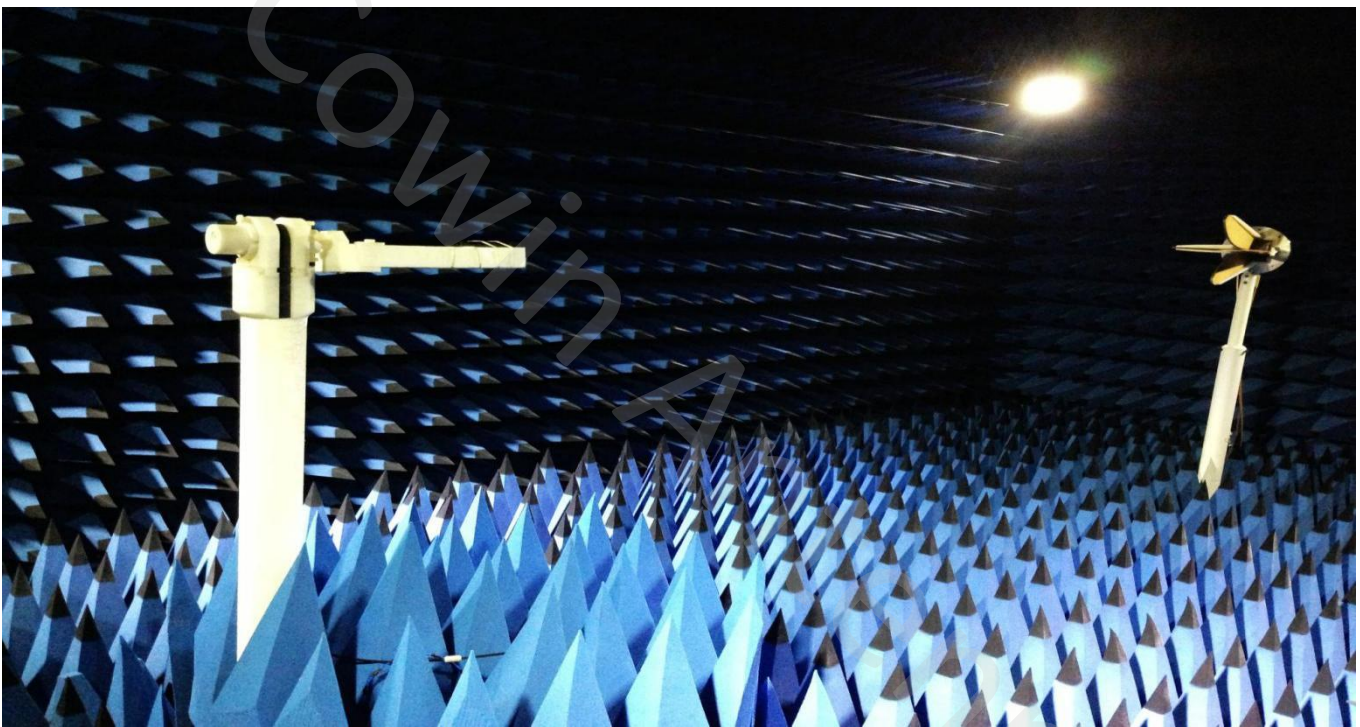
### Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

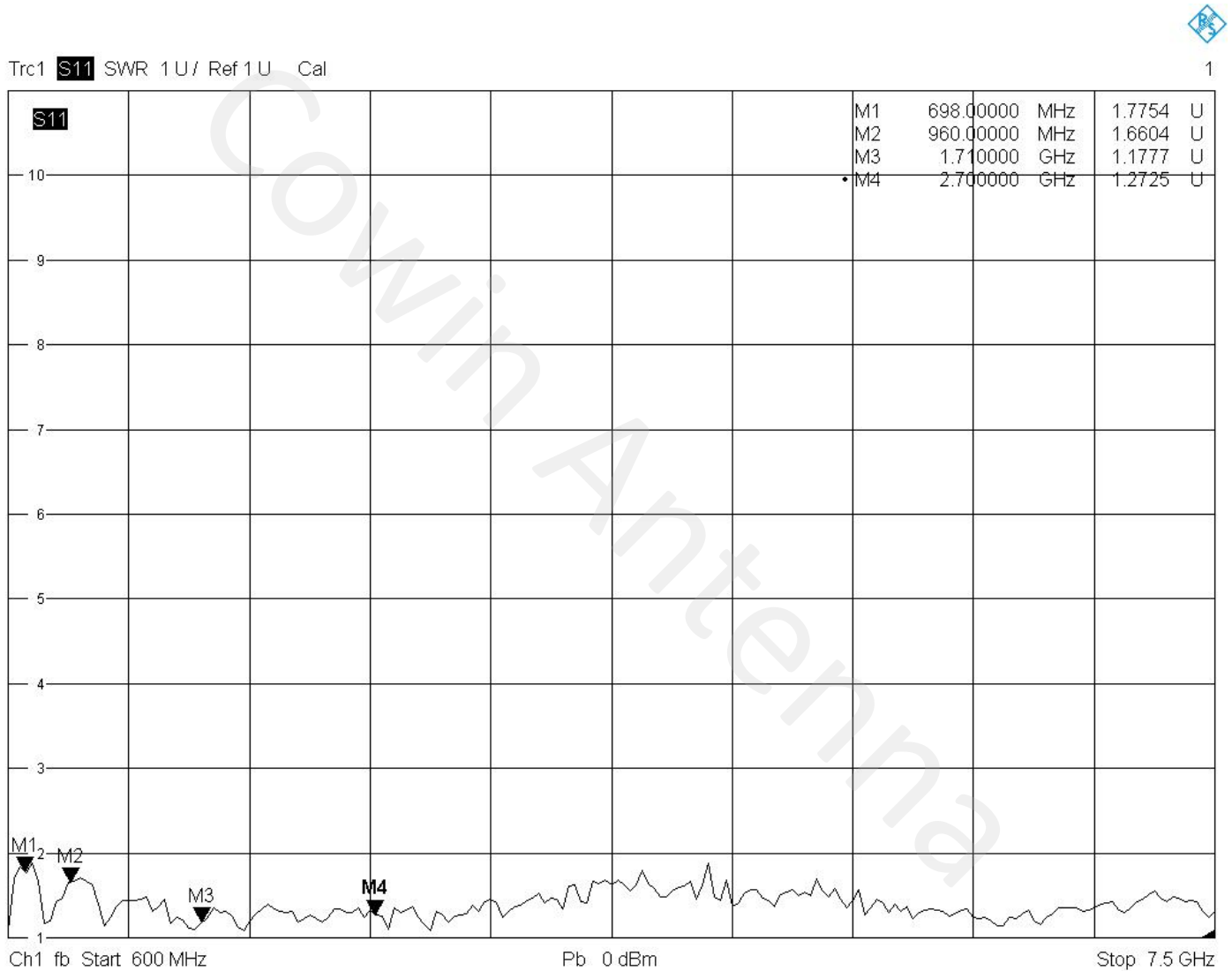
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

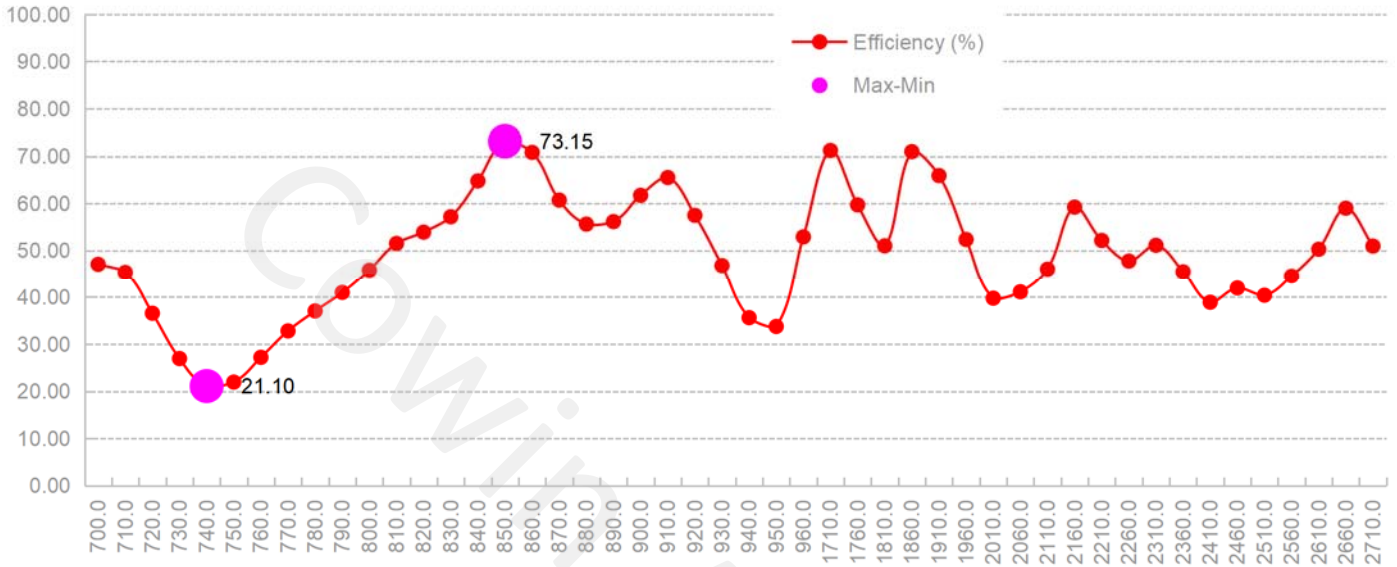


## 4.1 VSWR

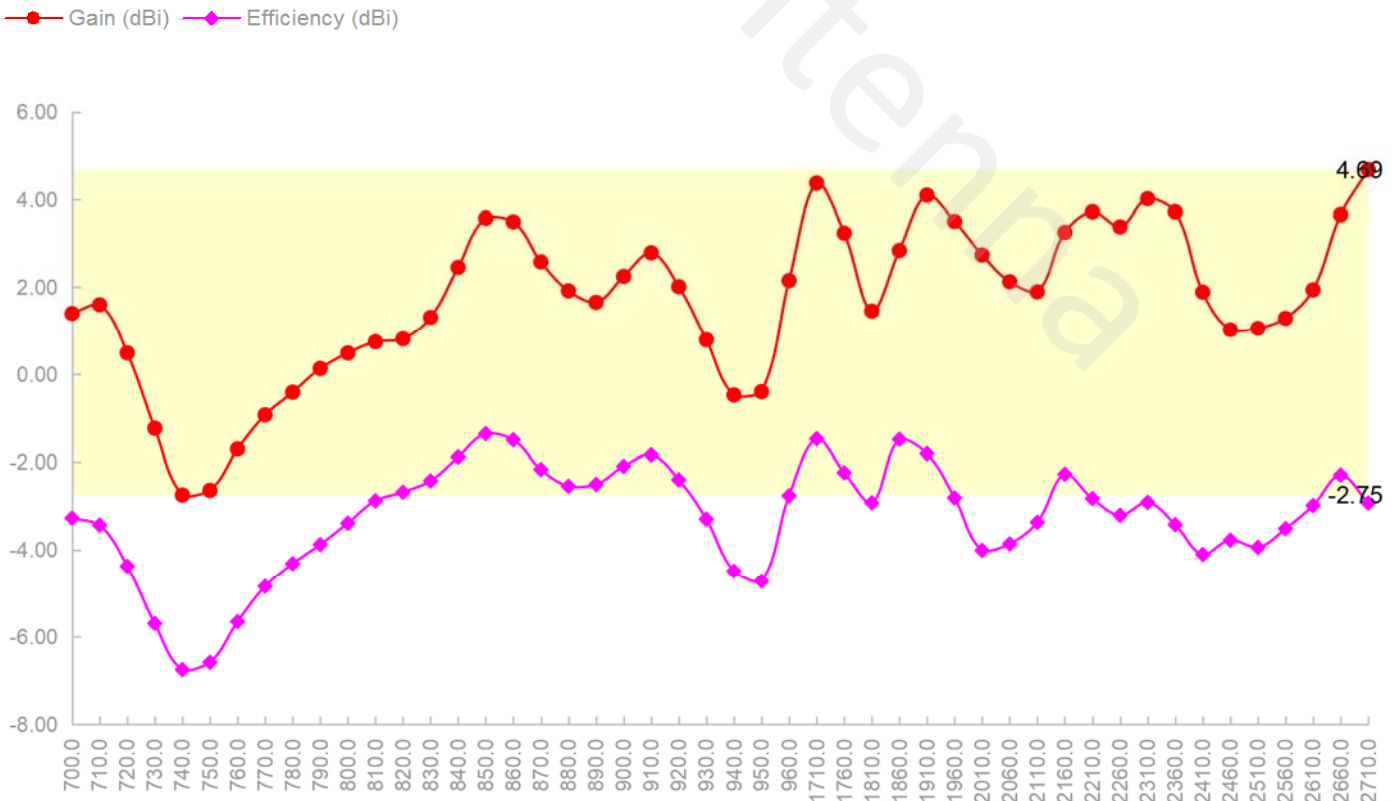


10/27/2022, 8:51 PM

## 4.2 Efficiency



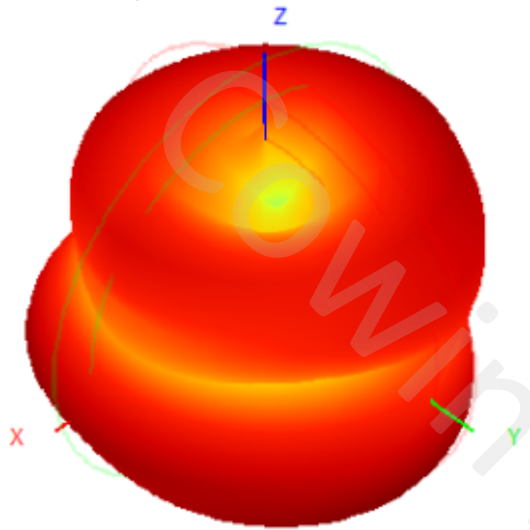
## 4.3 Peak gain



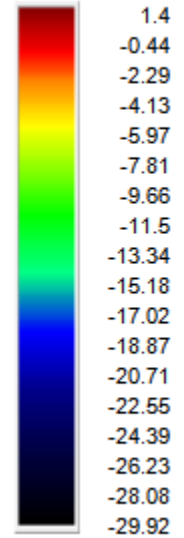
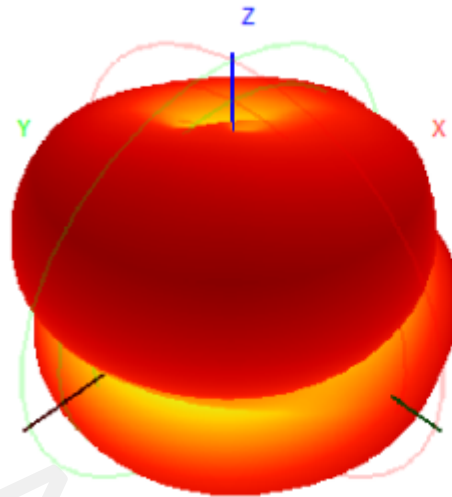


## 4.4 3D&2D Radiation Patterns

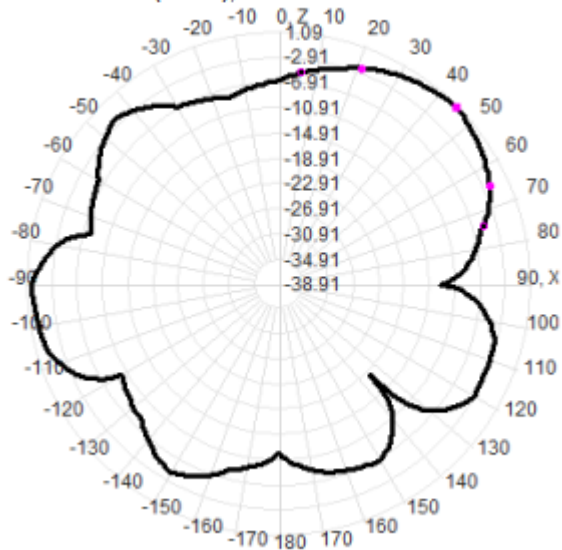
700.0MHz H+V, Eff: 47.1%



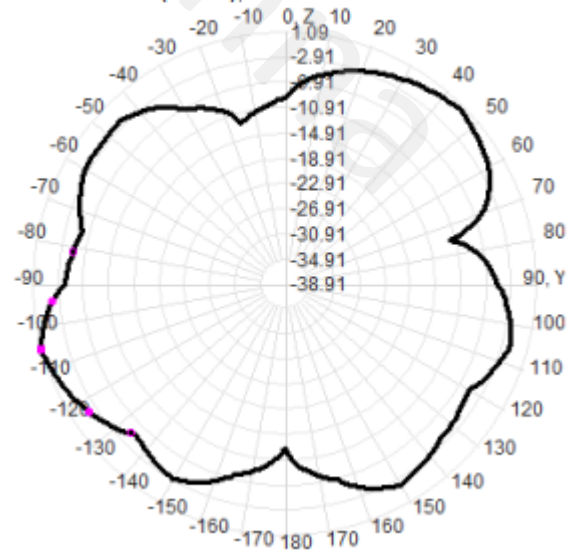
Back View



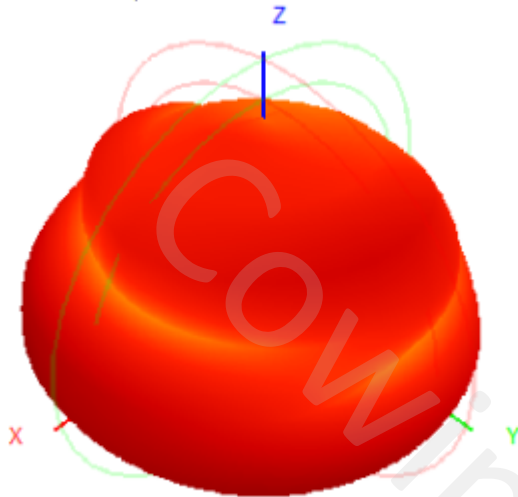
700.0MHz Total(E1-XZ), Max= 0.84dBi



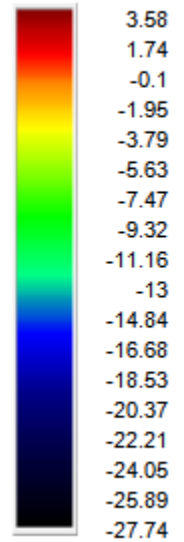
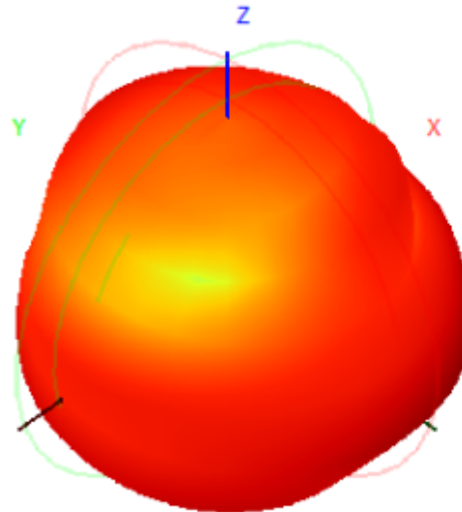
700.0MHz Total(E2-YZ), Max= 1.09dBi



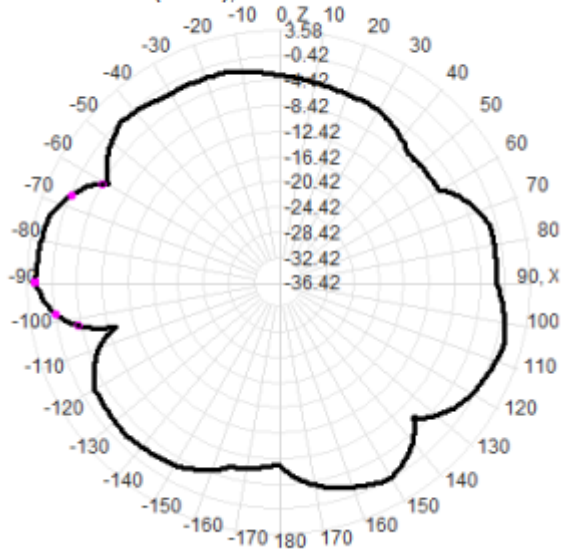
850.0MHz H+V, Eff: 73.1%



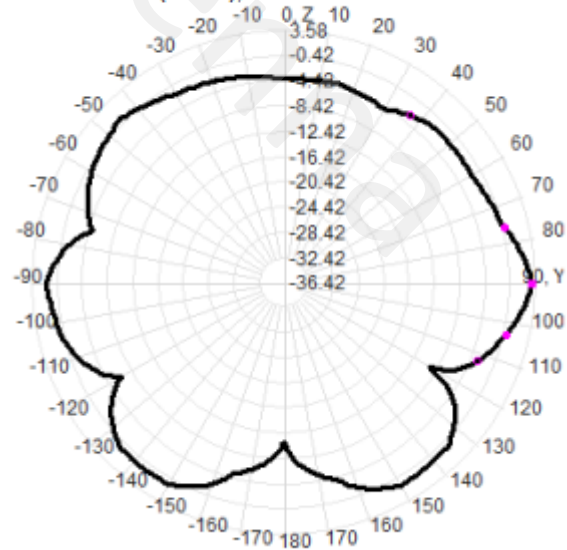
Back View



850.0MHz Total(E1-XZ), Max= 2.21 dBi

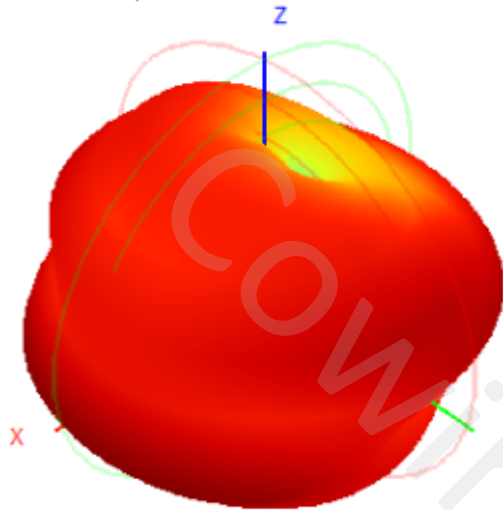


850.0MHz Total(E2-YZ), Max= 2.77 dBi

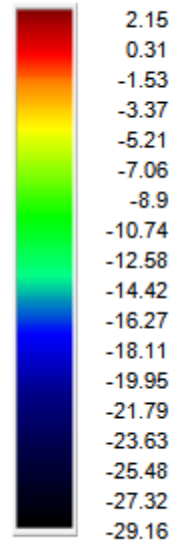
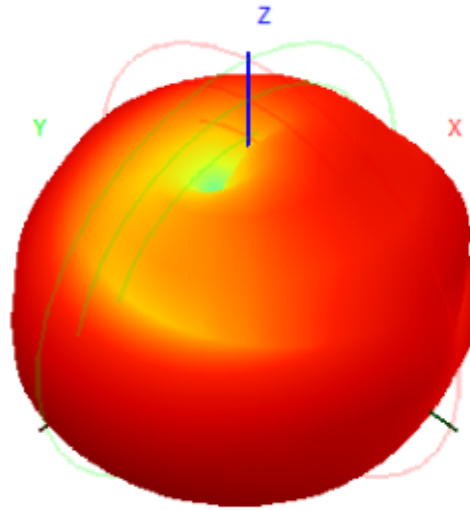




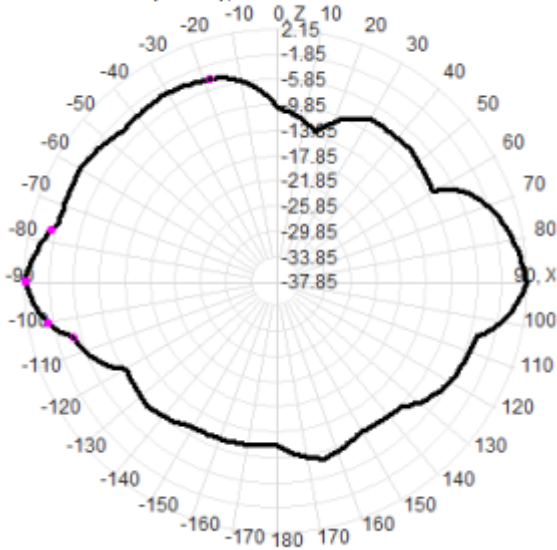
960.0MHz H+V, Eff: 52.9%



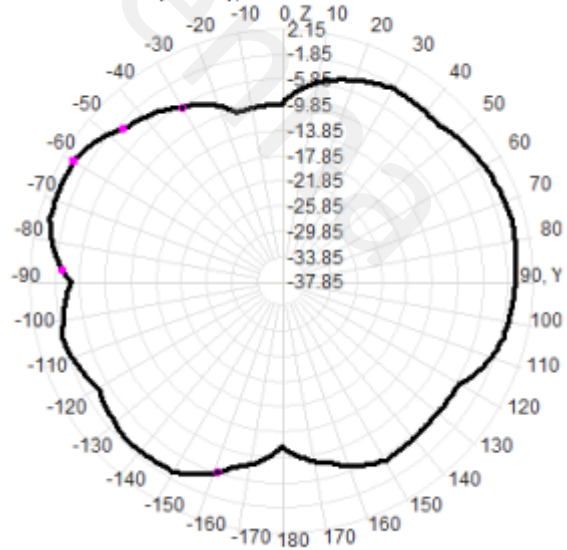
Back View



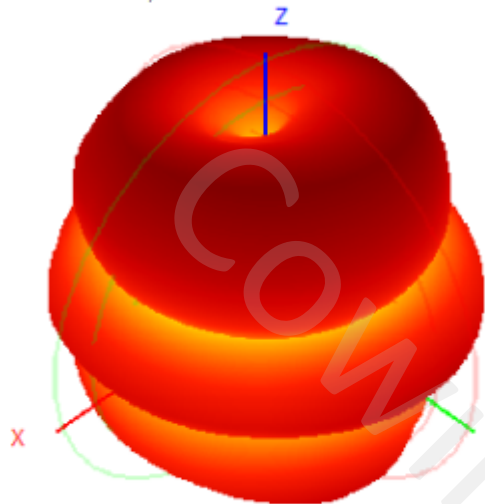
960.0MHz Total(E1-XZ), Max= 1.92dBi



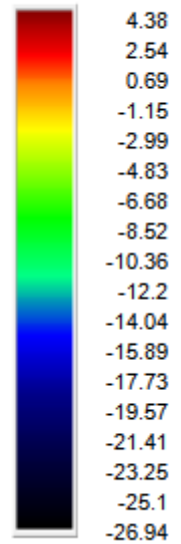
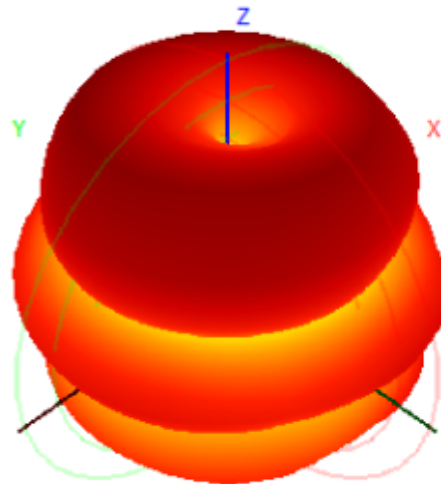
960.0MHz Total(E2-YZ), Max= 0.28dBi



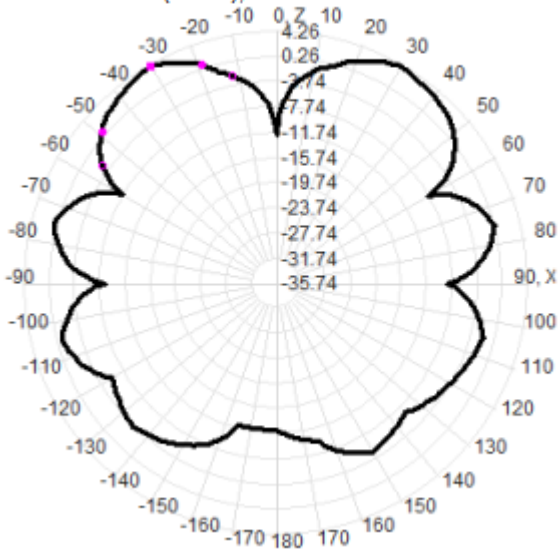
1710.0MHz H+V, Eff: 71.3%



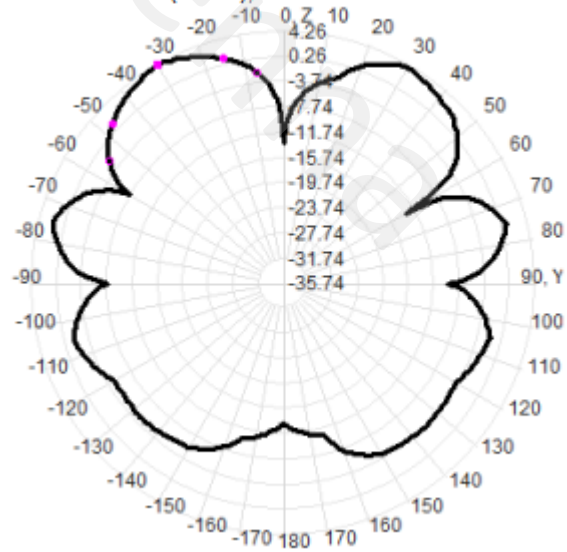
Back View



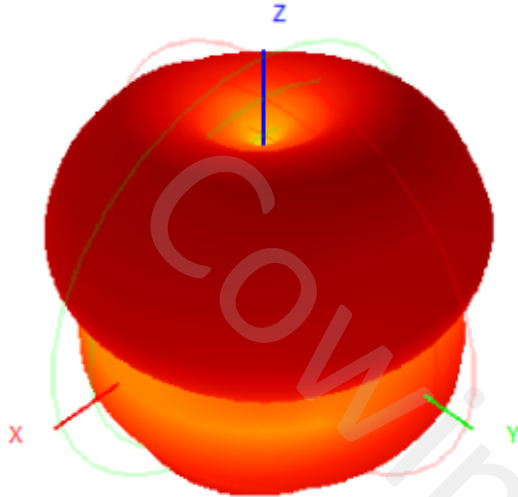
1710.0MHz Total(E1-XZ), Max= 3.97dBi



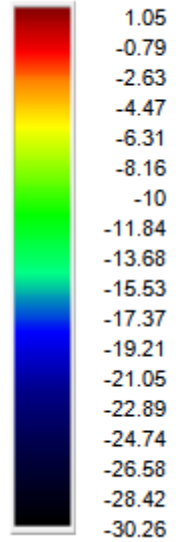
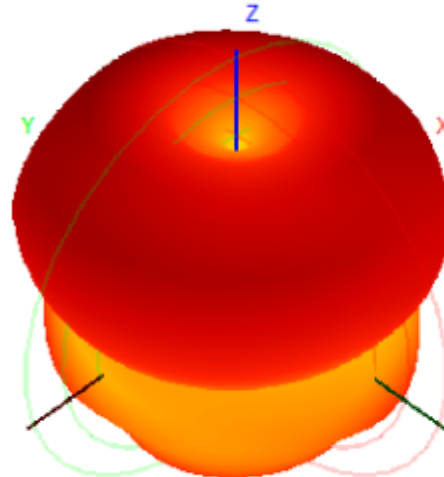
1710.0MHz Total(E2-YZ), Max= 4.26dBi



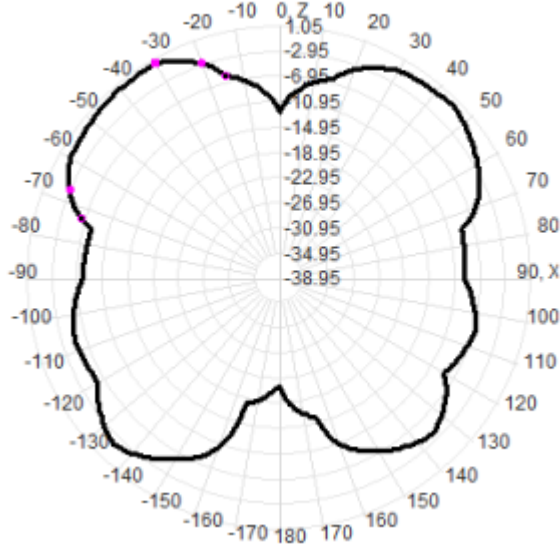
2510.0MHz H+V, Eff: 40.4%



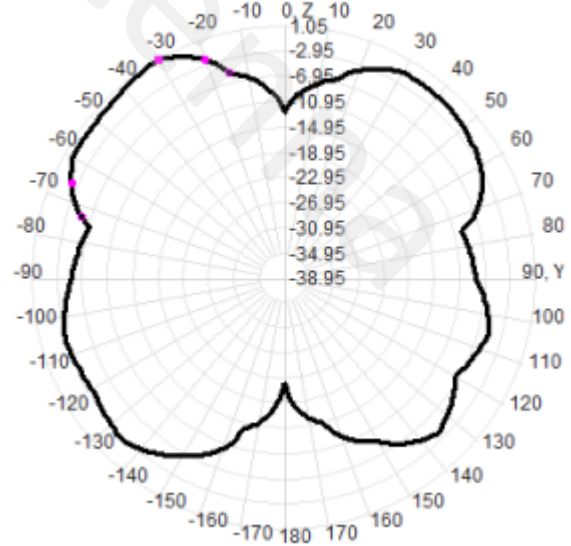
Back View



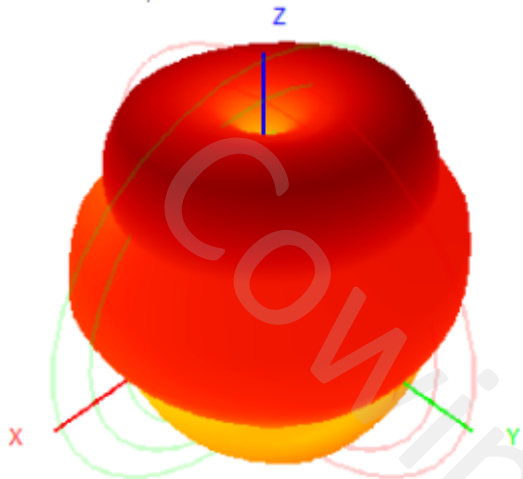
2510.0MHz Total(E1-XZ), Max= 0.31dBi



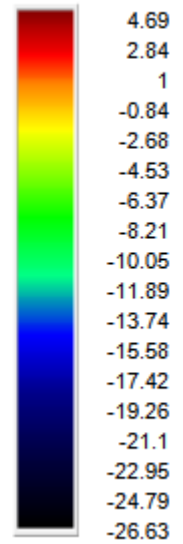
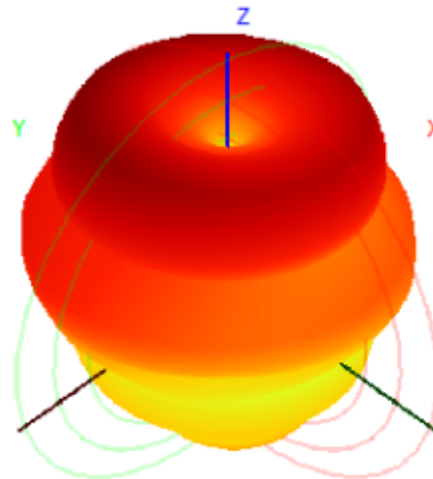
2510.0MHz Total(E2-YZ), Max= 1.05dBi



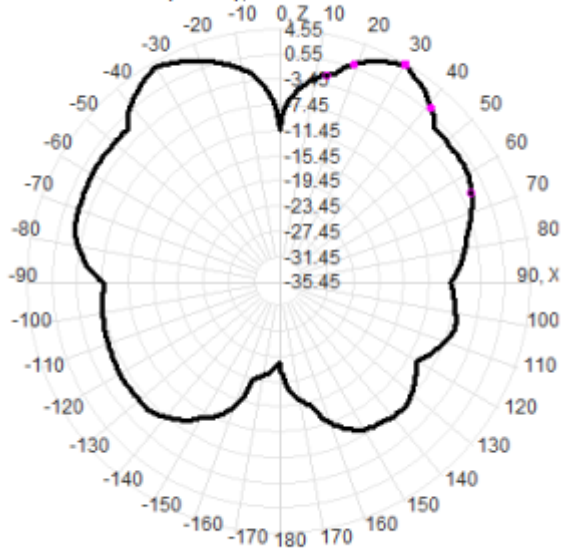
2710.0MHz H+V, Eff: 51.0%



Back View



2710.0MHz Total(E1-XZ), Max= 4.18dBi



2710.0MHz Total(E2-YZ), Max= 4.55dBi

