

## CW-NZ-0131

### 4G PCB Antenna

#### Key Features

Frequency: 698-960MHz/1710-2700MHz

I-PEX Connector

1.13 Cable

Dimensions 112\*14\*0.7mm



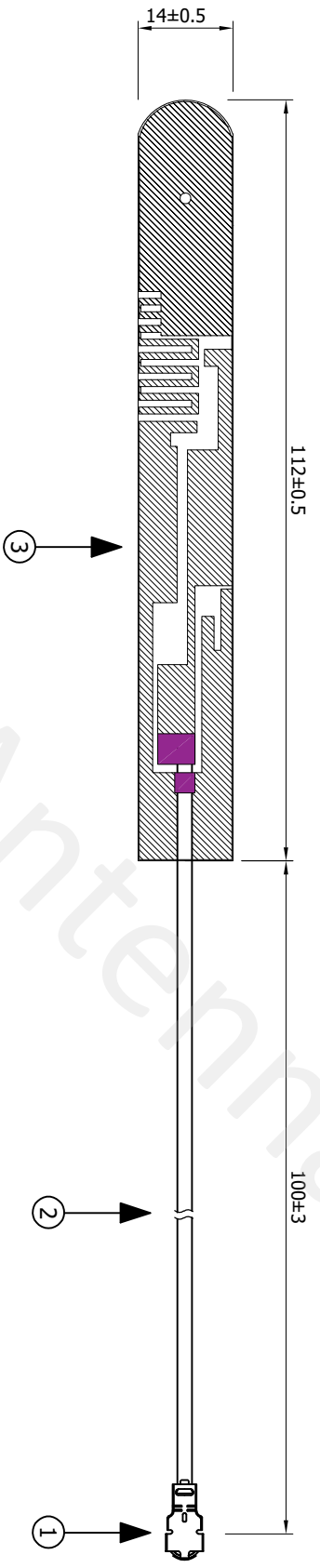
## 1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	698-960MHz/1710-2700MHz
VSWR	≤2.0/2.5
Efficiency (%)	97.03%/80.48%
Peak Gain (dBi)	3.26/4.37
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	I-PEX

## 2. Material and environmental characteristics

External structure	N/A
Inner structure	Connector/Cable/PCB
Cable Type	RF1.13
Connector Type	I-PEX
Dimensions (mm)	112*14*0.7MM
Antenna color	N/A
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS

REV	Date	Description
X1	2022/10/05	New issue



Specification(Free Test):  
 Frequency Range: 698-960MHZ/1710-2700MHZ  
 Impedance: 50Ω  
 V.S.W.R: ≤ 2.0/2.5  
 100% Continuity,short and open circuit test  
 Materials,parts and process must by environmentally (ROHS)

4	Foam cotton	100*13*0.13MM	1	
3	PCB	112*14*0.7MM Green	1	
2	Cable	Ø1.13MM black double tin wire	1	
1	Connector	Ø1.13 I-PEX I(equivalents)	1	
NO	Name	Description	Q'ty	Remark
XX	±5.0	Approved		
X	±3.0			
.X	±1.0	Checked		
.XX	±0.2			
.XXX	±0.1	Drawing		

Customer	Part NO.	Part name	CW/P/NO.	REV	Unit	File	Sheet
		PCB Antenna	CW-NZ-0131	X1	m/m		1/1



## 4. Antenna test parameters

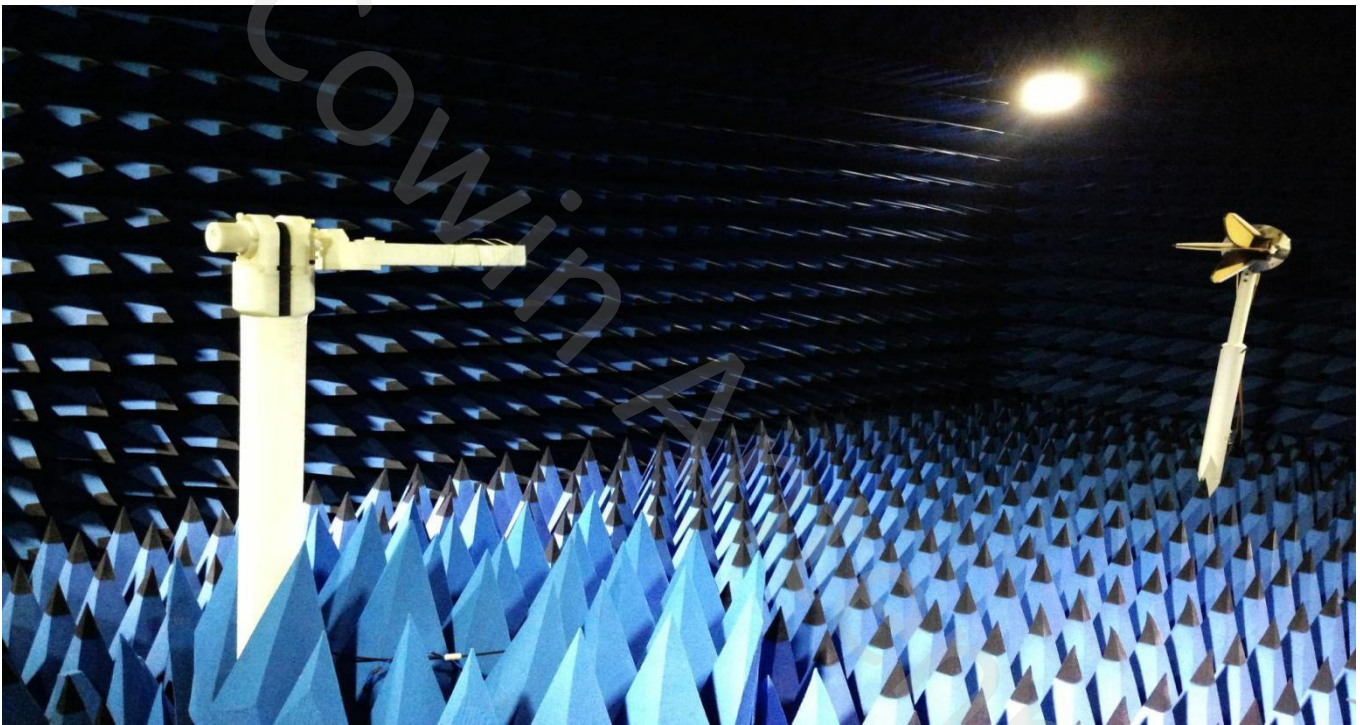
### Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

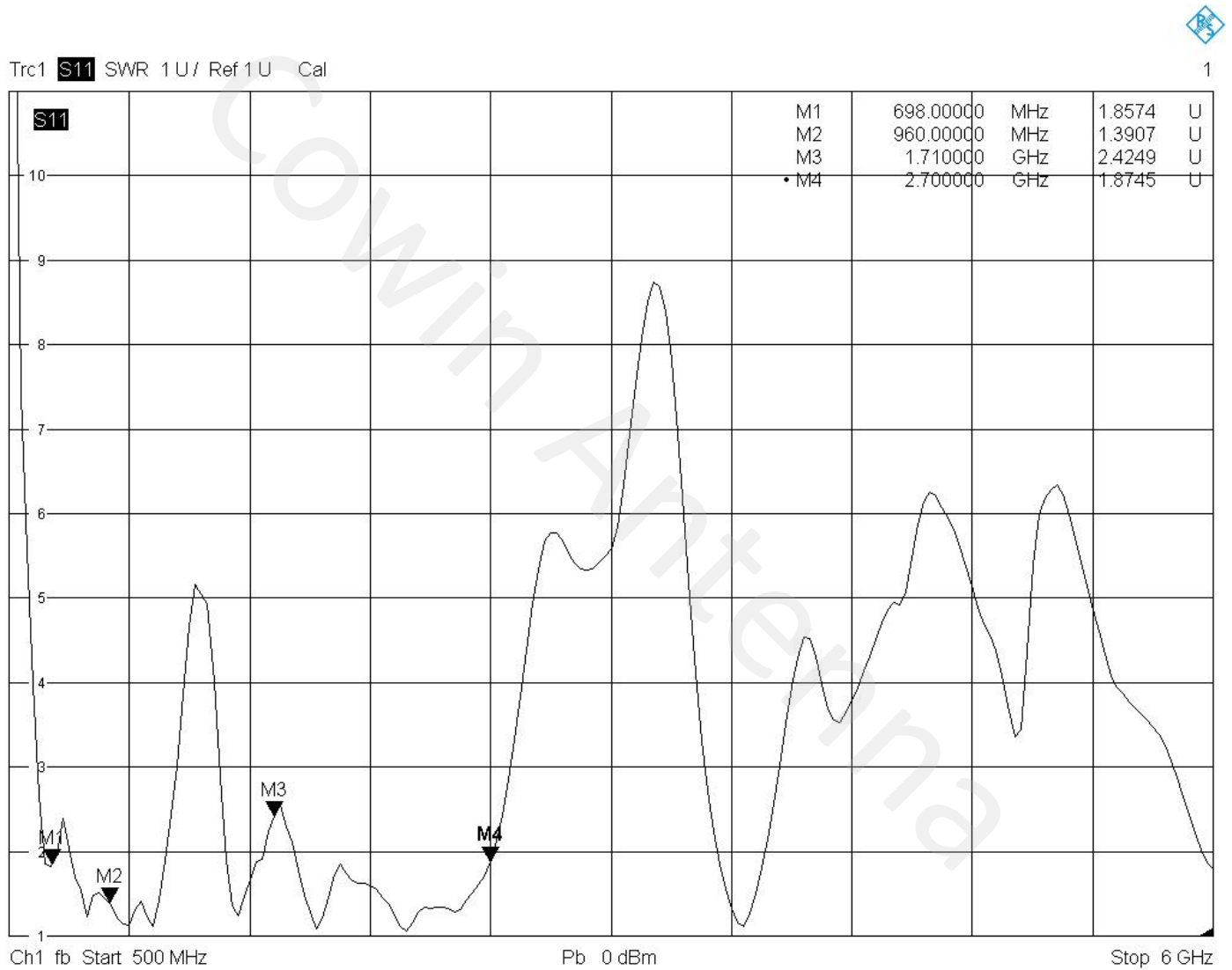
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

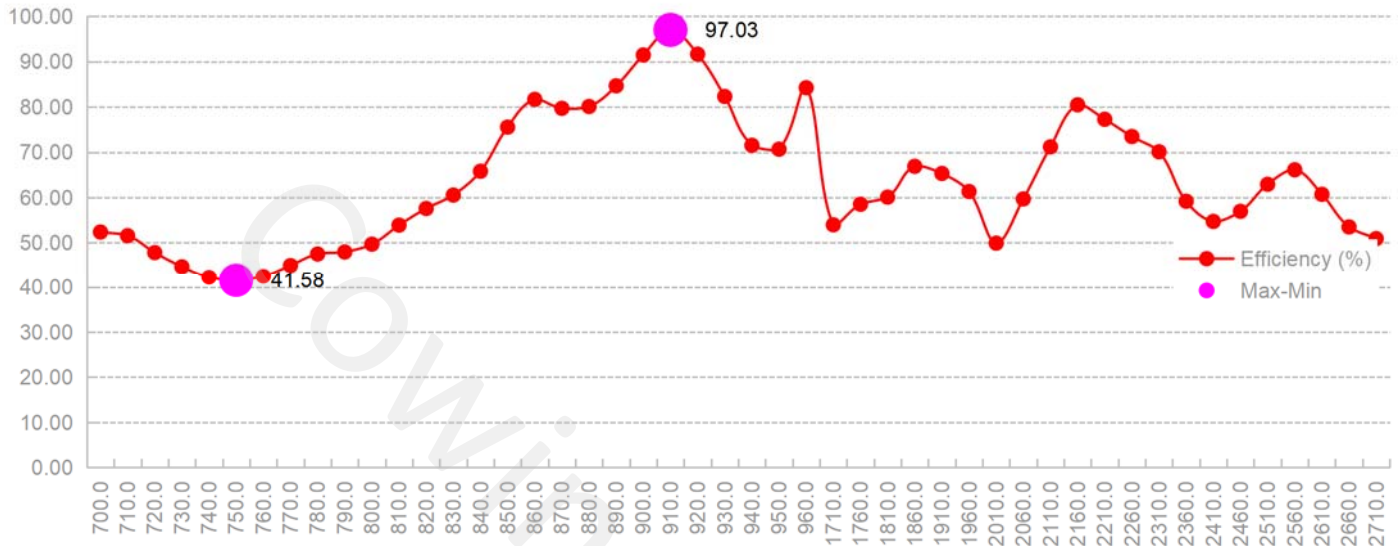


## 4.1 VSWR

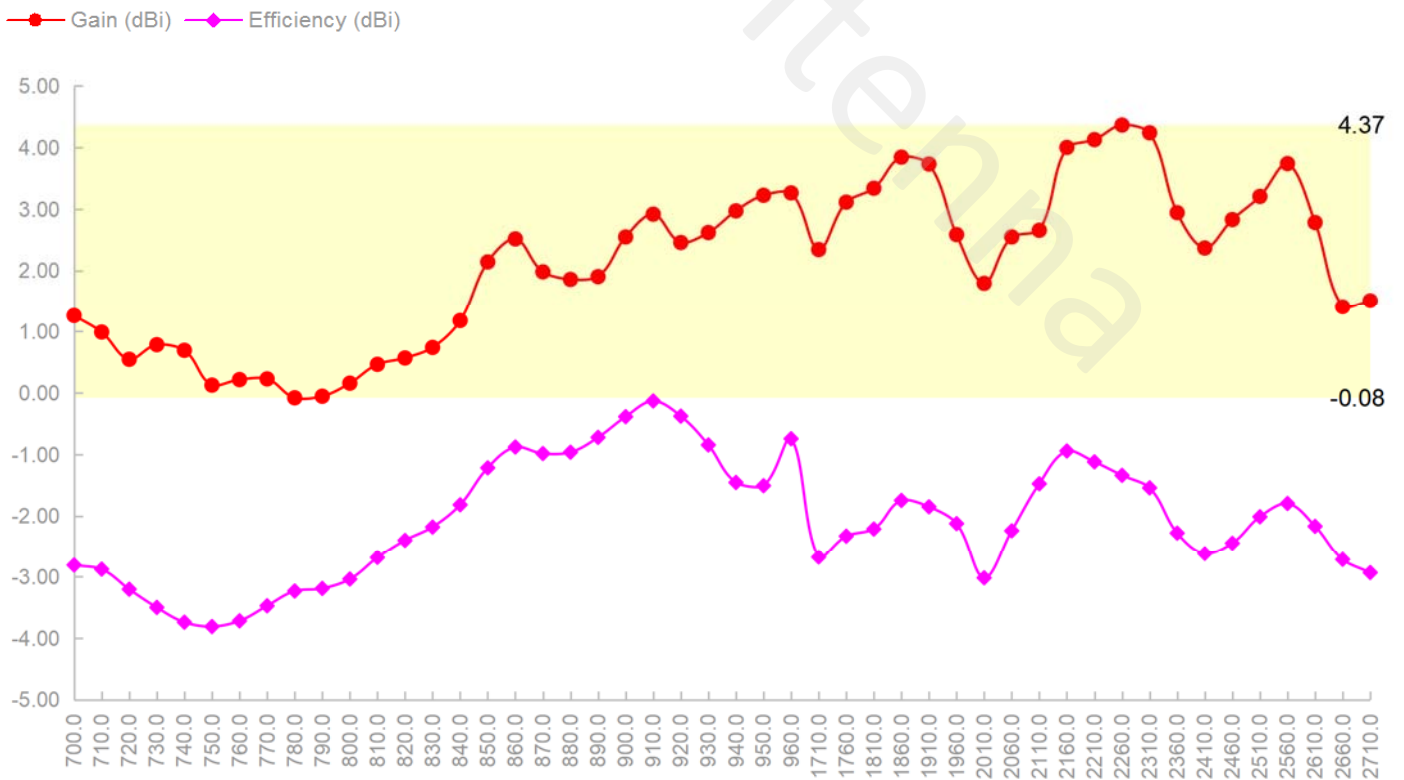


12/1/2022, 9:52 PM

## 4.2 Efficiency

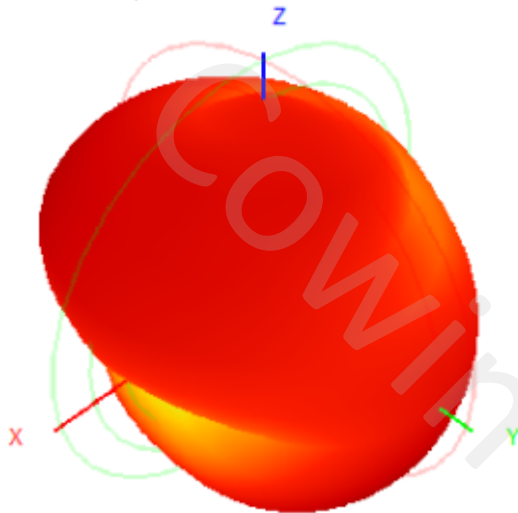


## 4.3 Peak gain

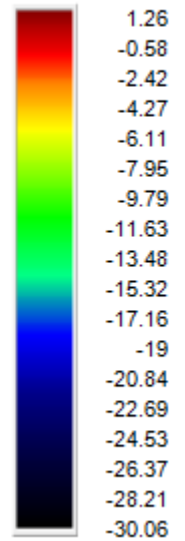
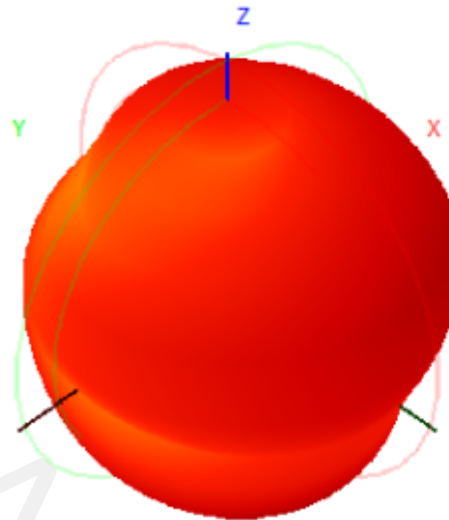


## 4.4 3D&2D Radiation Patterns

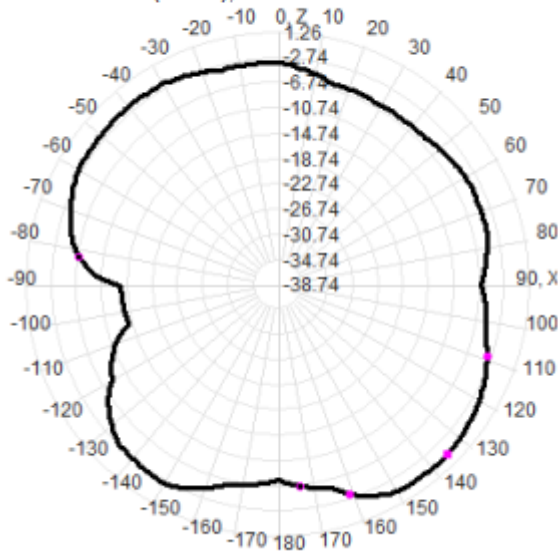
700.0MHz H+V, Eff: 52.4%



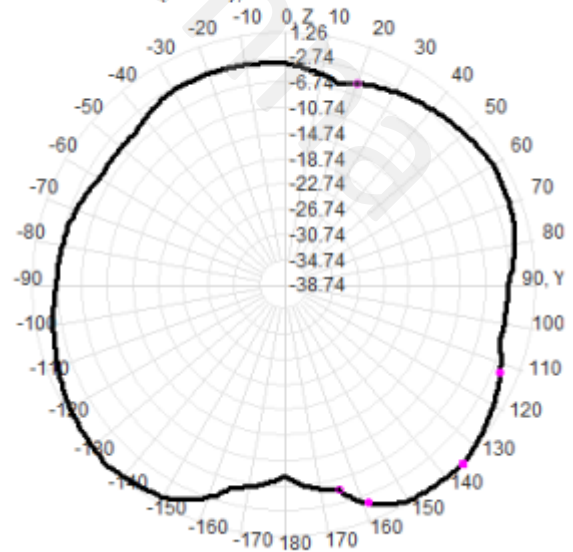
Back View



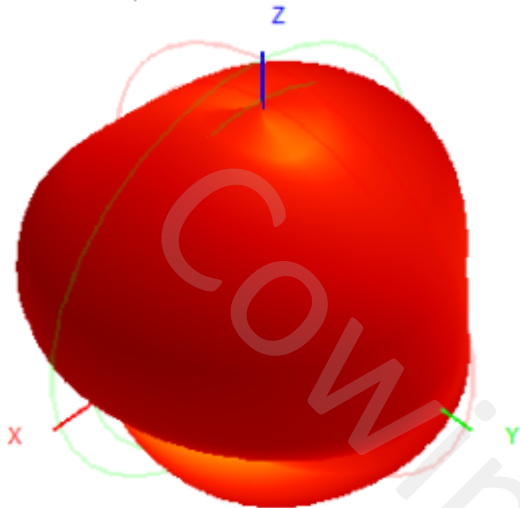
700.0MHz Total(E1-XZ), Max= -0.74dBi



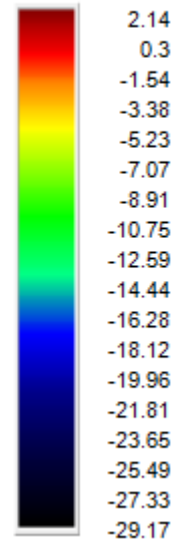
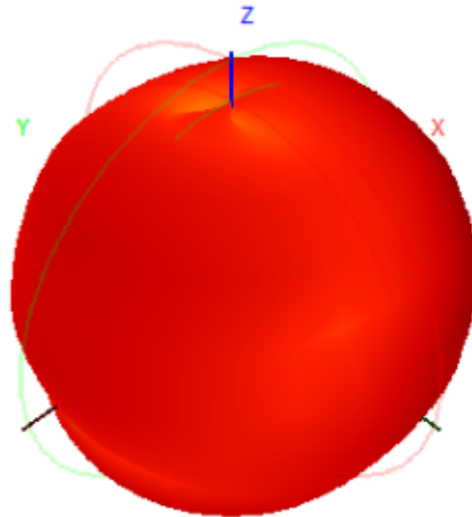
700.0MHz Total(E2-YZ), Max= 1.26dBi



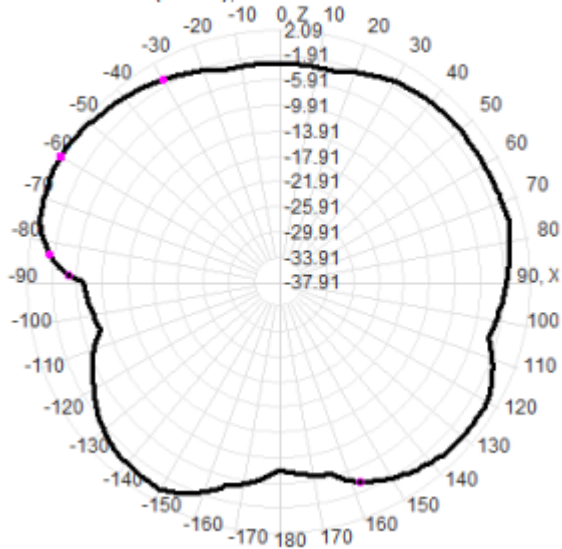
850.0MHz H+V, Eff: 75.5%



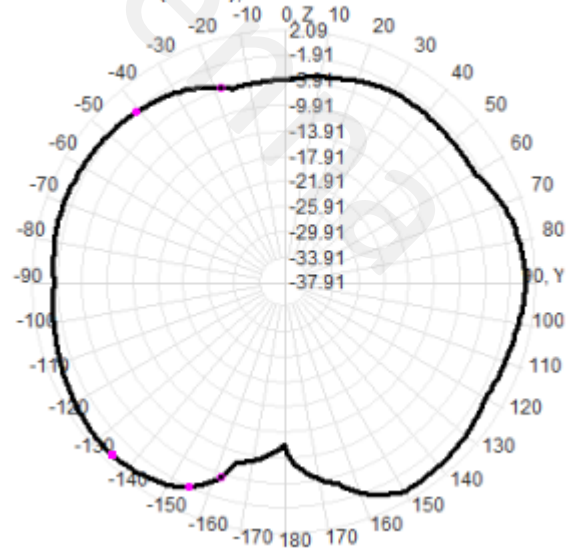
Back View



850.0MHz Total(E1-XZ), Max= 2.09dBi

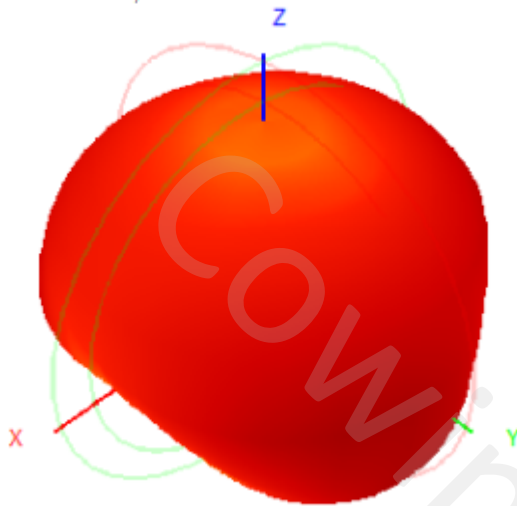


850.0MHz Total(E2-YZ), Max= 0.75dBi

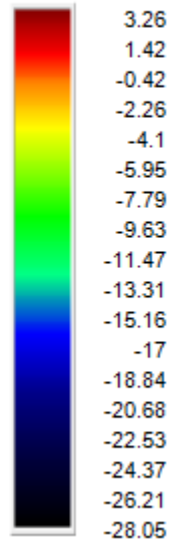
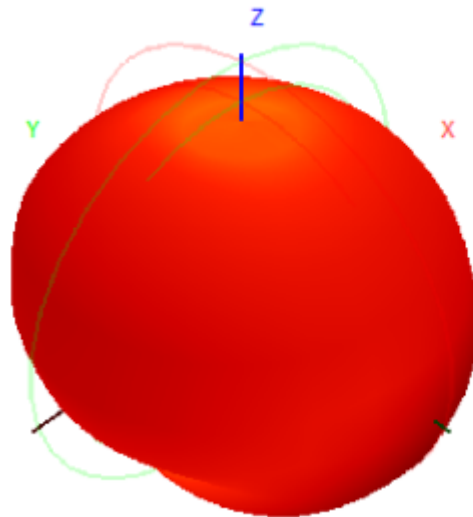




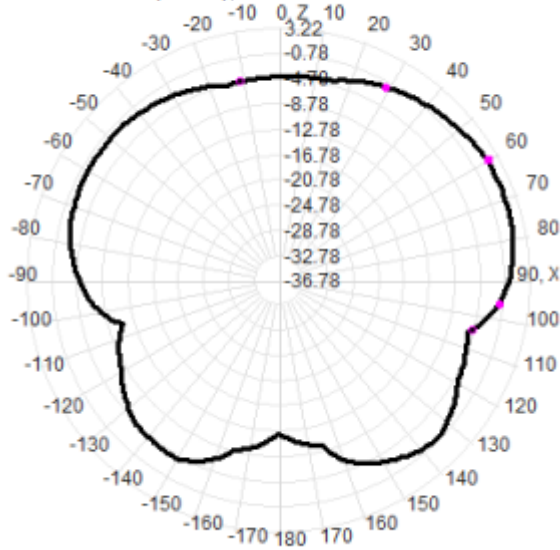
960.0MHz H+V, Eff: 84.2%



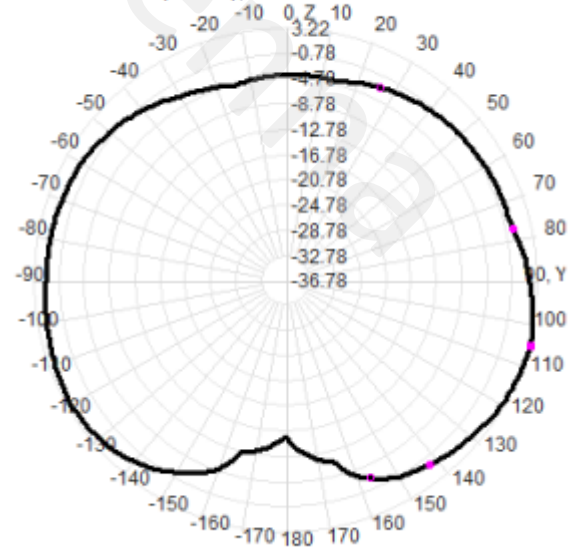
Back View



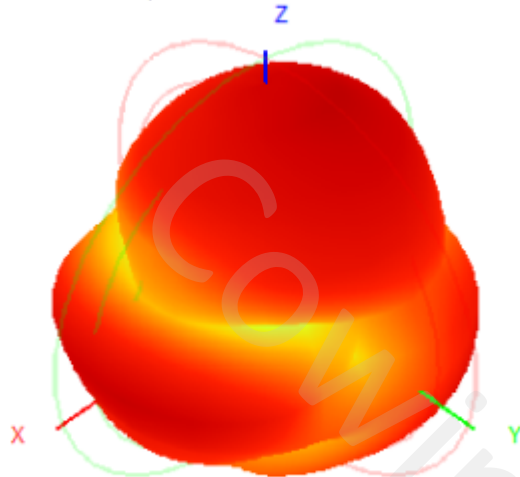
960.0MHz Total(E1-XZ), Max= 1.31dBi



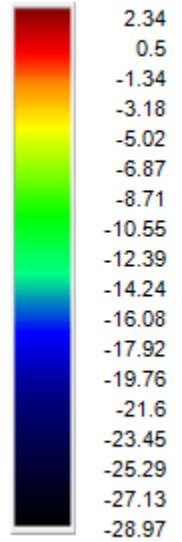
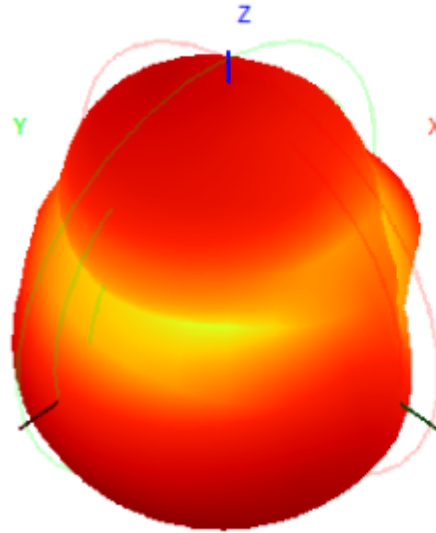
960.0MHz Total(E2-YZ), Max= 3.22dBi



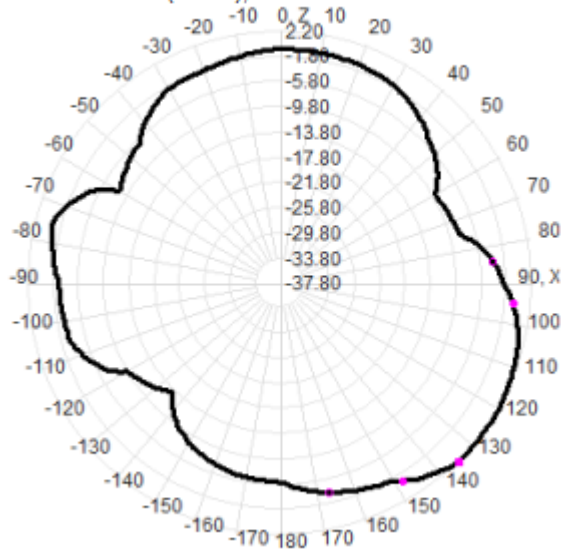
1710.0MHz H+V, Eff: 54.0%



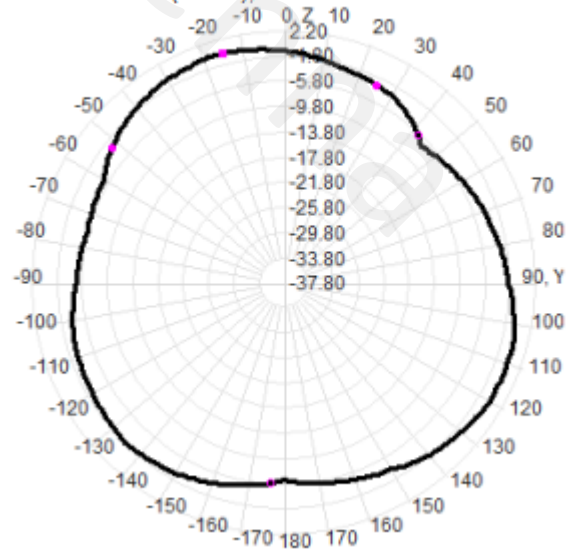
Back View



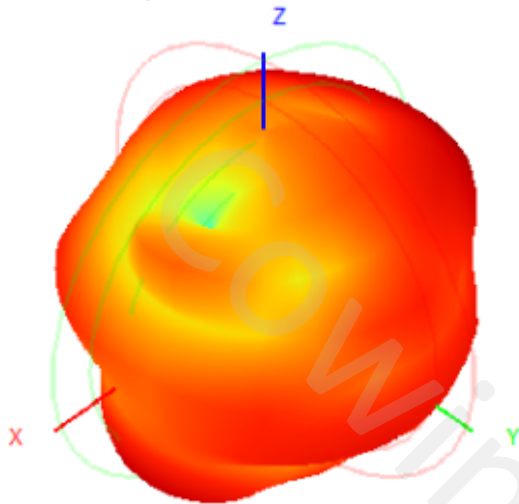
1710.0MHz Total(E1-XZ), Max= 2.20dBi



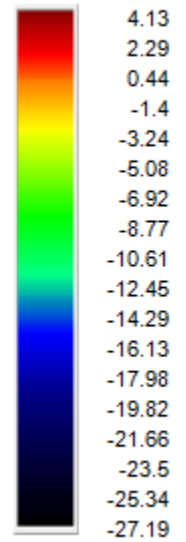
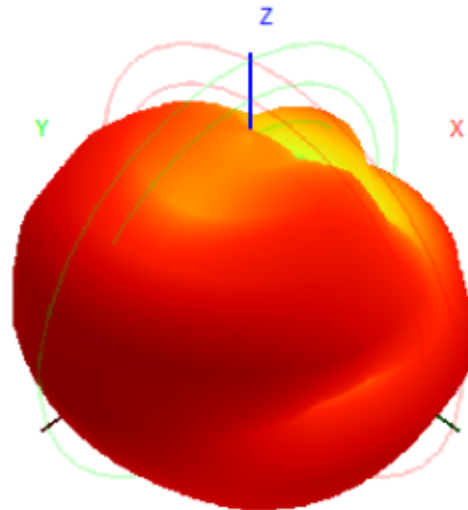
1710.0MHz Total(E2-YZ), Max= -0.05dBi



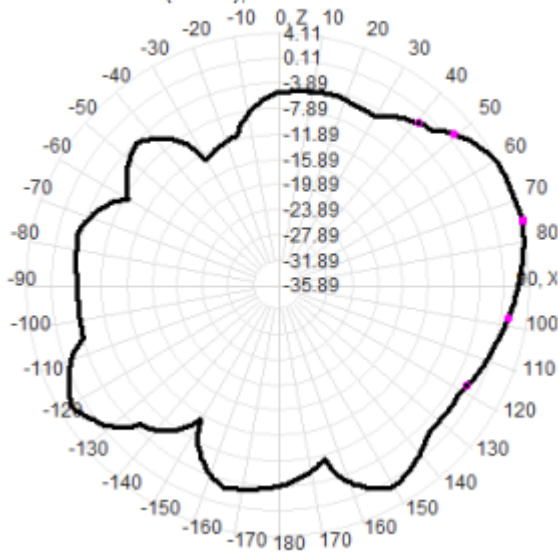
2210.0MHz H+V, Eff: 77.3%



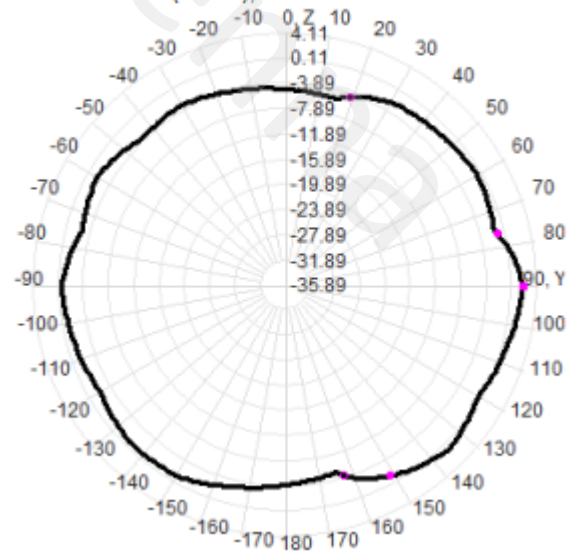
Back View



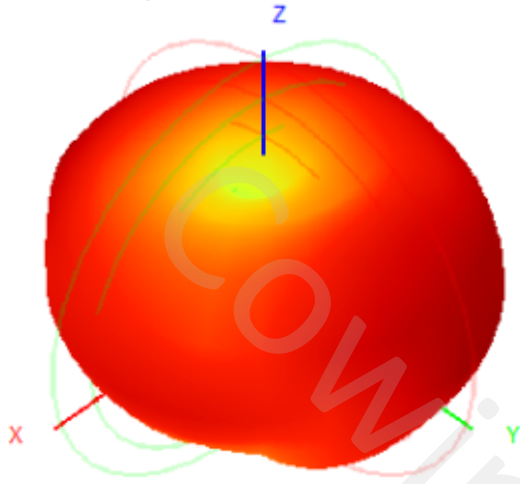
2210.0MHz Total(E1-XZ), Max= 4.11dBi



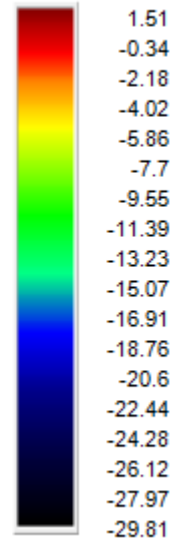
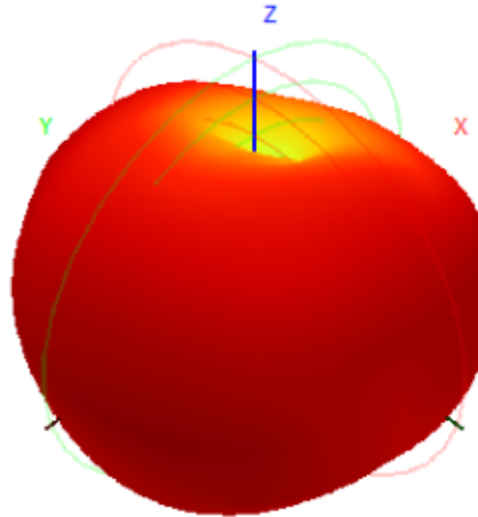
2210.0MHz Total(E2-YZ), Max= 1.70dBi



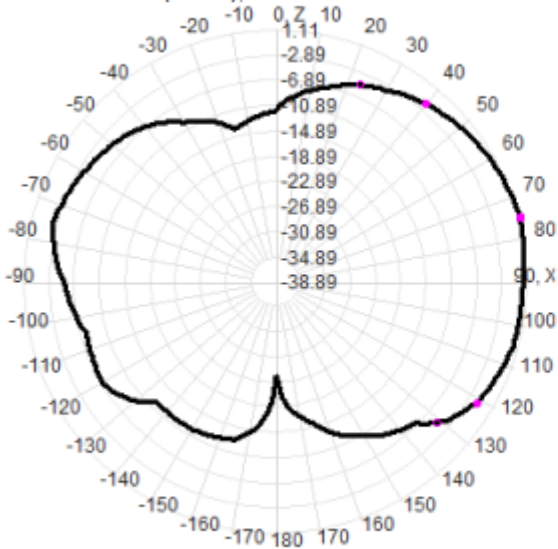
2710.0MHz H+V, Eff: 50.9%



Back View



2710.0MHz Total(E1-XZ), Max= 1.11dBi



2710.0MHz Total(E2-YZ), Max= 0.66dBi

