

CW-WZ-0154

698-960MHZ/1710-2700MHZ External Antenna

Key Features

Frequency:698-960MHZ/1710-2700MHZ

SMA Connector

Dimensions:75*45mm



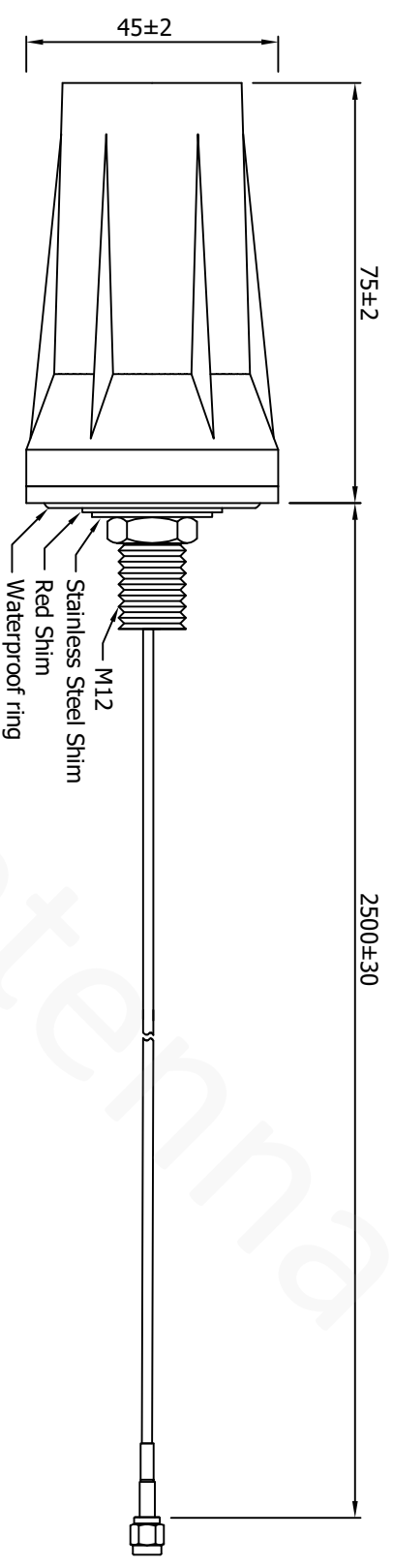
1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	698-960MHZ/1710-2700MHZ
VSWR	≤3.0
Efficiency (%)	96.66%/73.27%
Peak Gain (dBi)	5.82/5.22
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA

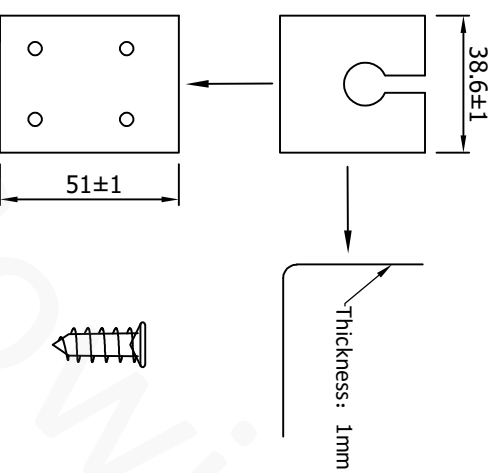
2. Material and environmental characteristics

External structure	ABS
Inner structure	PCB
Cable Type	RG174
Connector Type	SMA
Dimensions (mm)	75*45 MM
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	2023/12/22	New issue



Attach: Two accessories will be included in the product packaging



Specification(Free Test):
 Frequency Range: 698-960MHZ/1710-2700MHZ
 Impedance: 50Ω
 V.S.W.R: ≤3.0
 100% Continuity, short and open circuit test
 Materials, parts and process must by environmentally (ROHS)

NO	Name	Description	Q'TY	Remark
1	Connector	SMA Male	1	
2	PCB	FR4	1	
3	Shim	Red Shim	1	
4	Shim	Lron Galvanized	1	
5	Cable	RG174	1	
6	Tube	15MM Ordinary Black	1	
7	Shell	Black ABS	1	
8	Lower Cover	Black ABS	1	
9	Stud	Brass	1	
10	Nut	Brass	1	
11	Waterproof Ring	Black silicone	1	
12	Right Angle Fixture	Lron Galvanized	1	
13	Screw	Lron Galvanized	4	

XX.	±5.0	Approved	Customer
X.	±3.0 <td>Checked <td>Part NO.</td> </td>	Checked <td>Part NO.</td>	Part NO.
X	±1.0 <td>Checked <td>Part name</td> </td>	Checked <td>Part name</td>	Part name
.XX	±0.2 <td>Drawing <td>CW P/NO.</td> </td>	Drawing <td>CW P/NO.</td>	CW P/NO.
.XXX	±0.1 <td></td> <td>REV</td>		REV
			Unit
			m/m
			Sheet :
			1/1

Cowin Antenna



4. Antenna test parameters

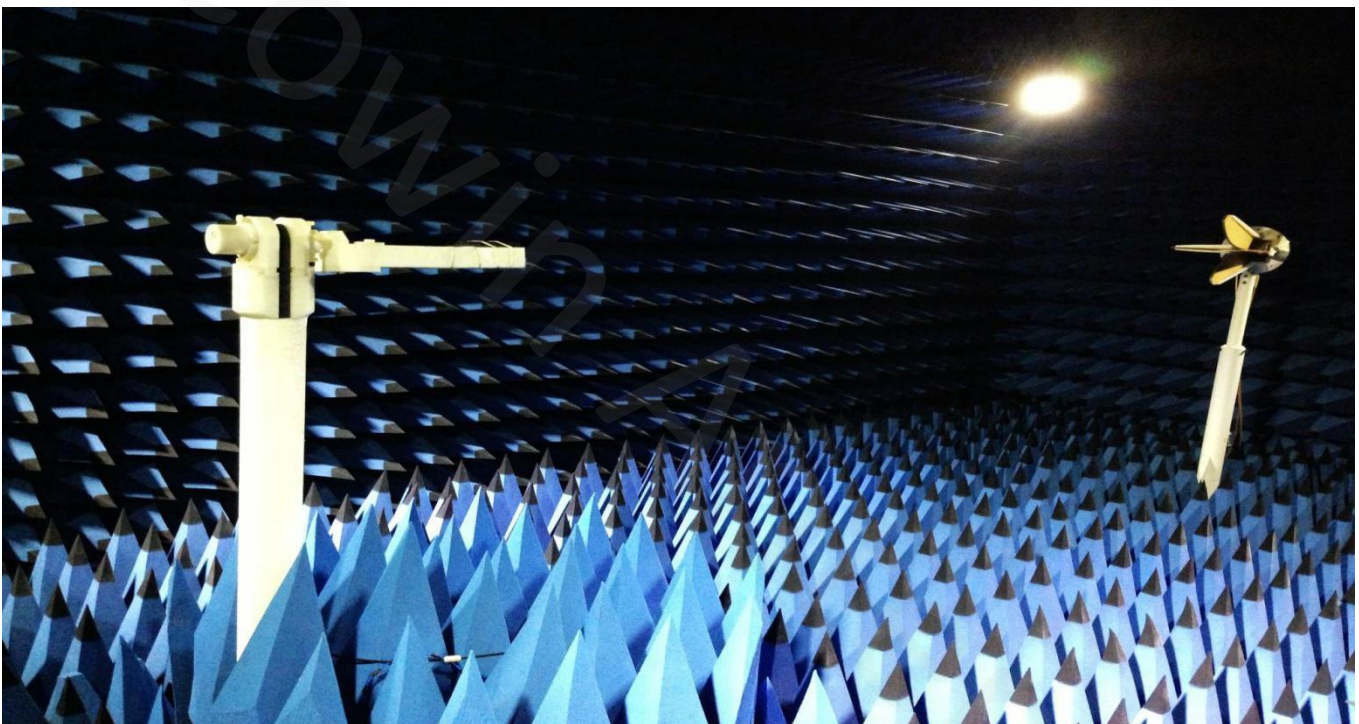
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

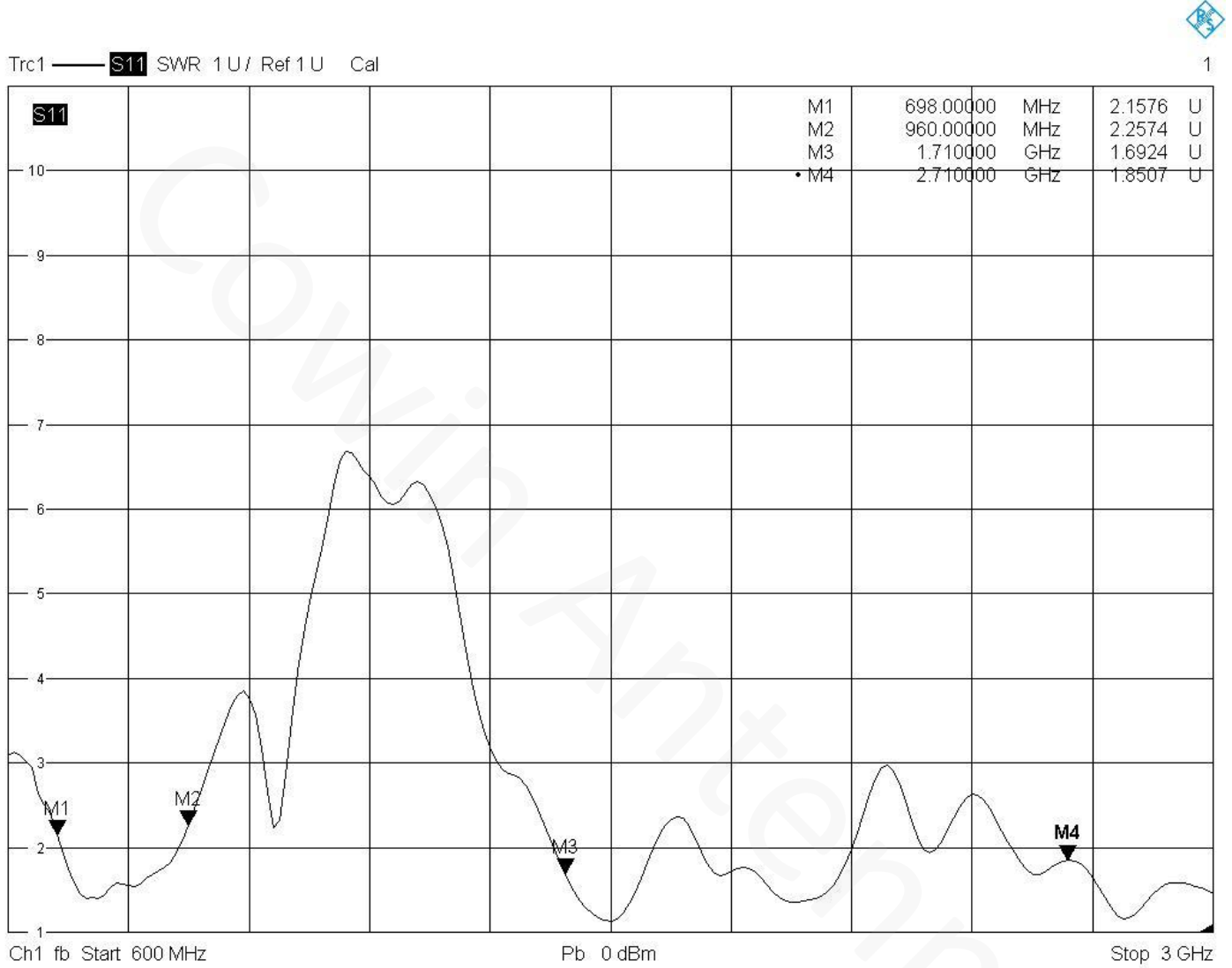
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

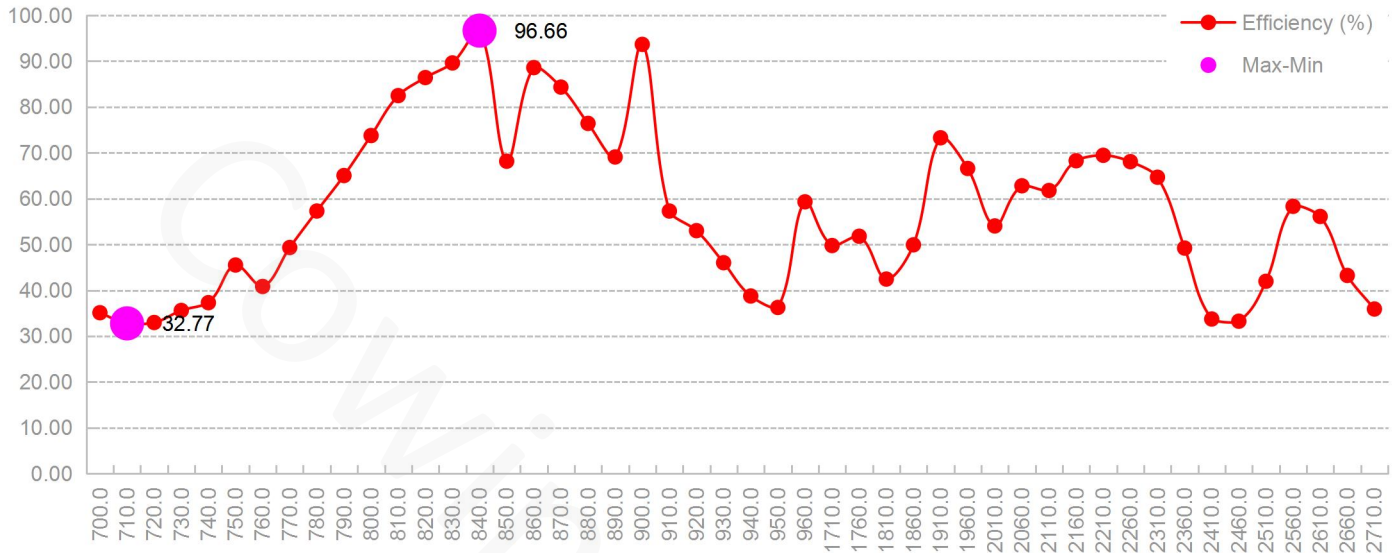


4.1 VSWR

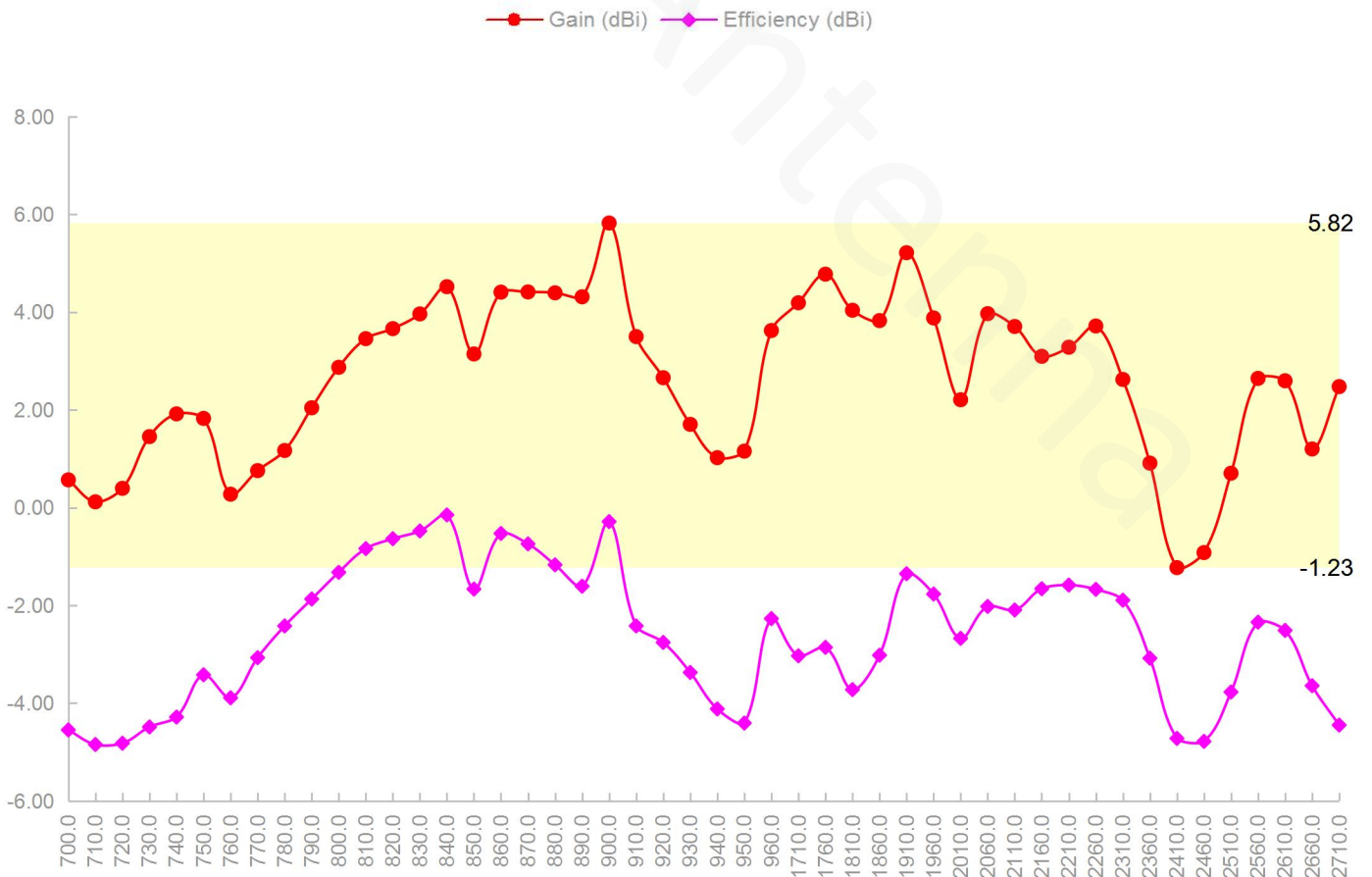


12/20/2023, 5:56 AM

4.2 Efficiency



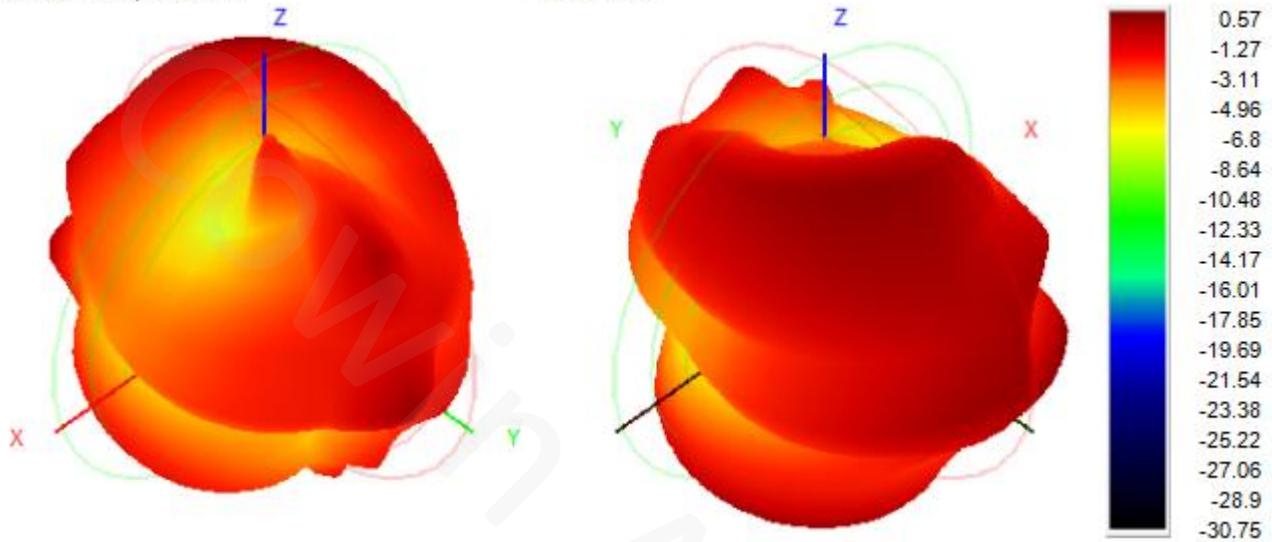
4.3 Peak gain



4.4 3D&2D Radiation Patterns

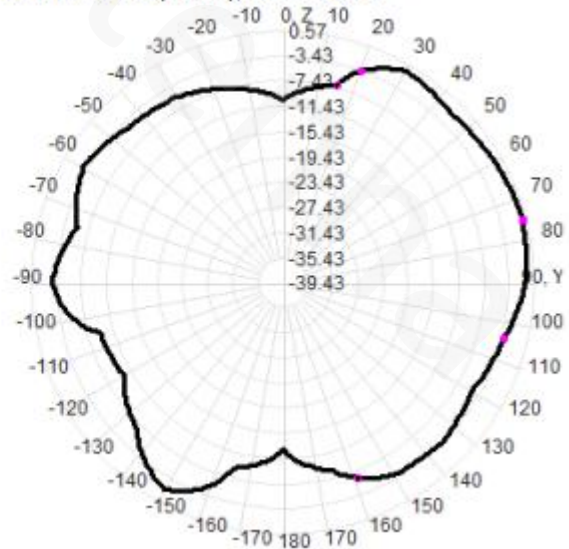
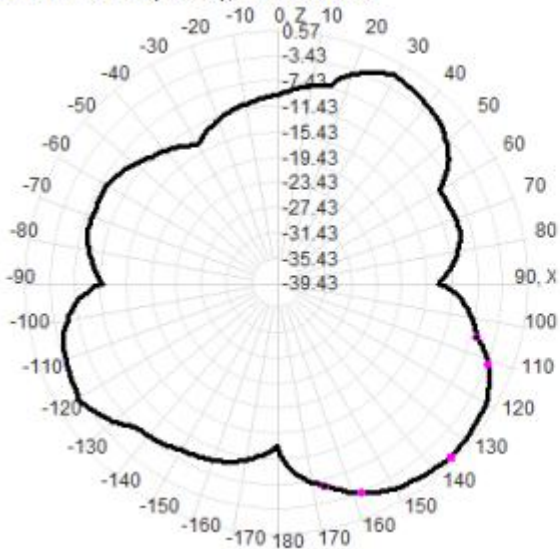
700.0MHz H+V, Eff: 35.1%

Back View

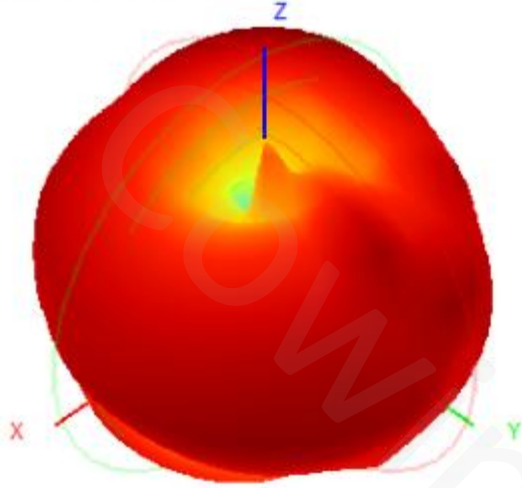


700.0MHz Total(E1-XZ), Max=-0.47dBi

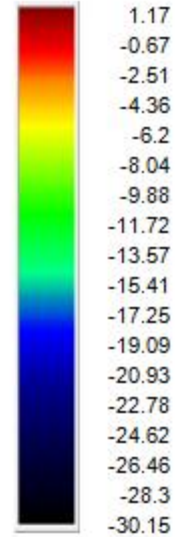
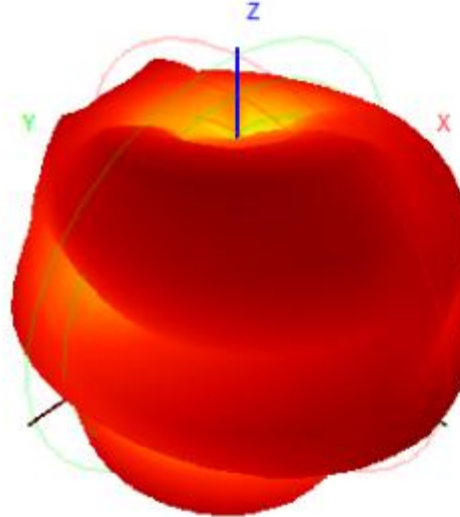
700.0MHz Total(E2-YZ), Max=-0.30dBi



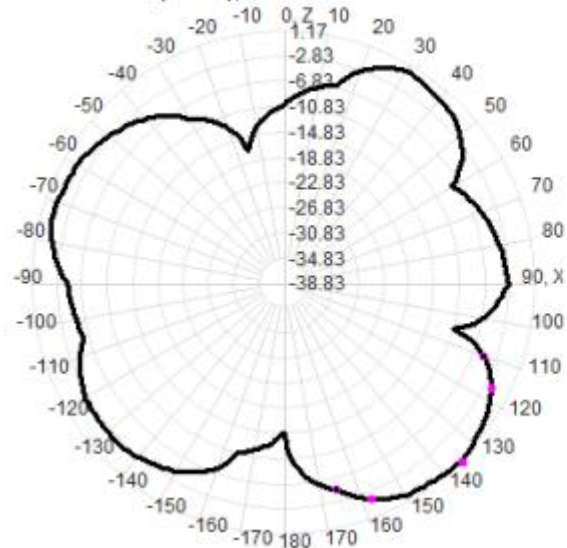
780.0MHz H+V, Eff: 57.3%



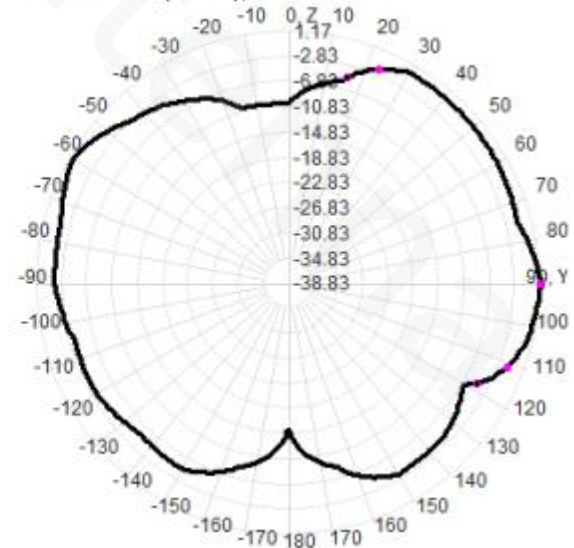
Back View



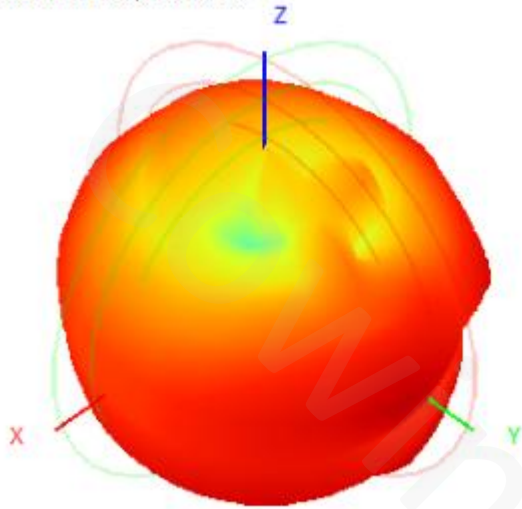
780.0MHz Total(E1-XZ), Max= 0.98dBi



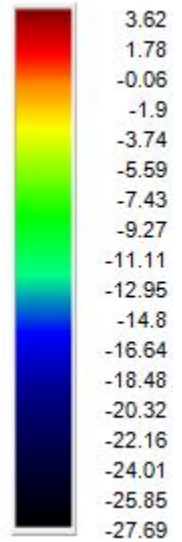
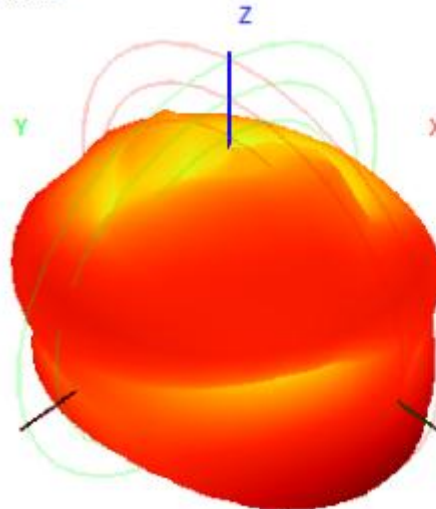
780.0MHz Total(E2-YZ), Max= 1.17dBi



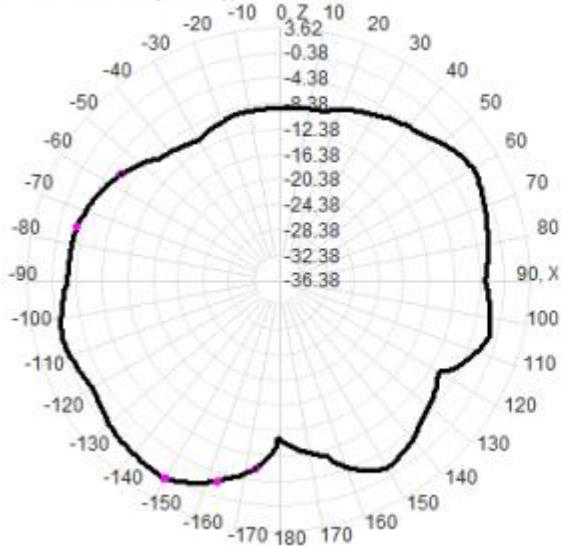
960.0MHz H+V, Eff: 59.3%



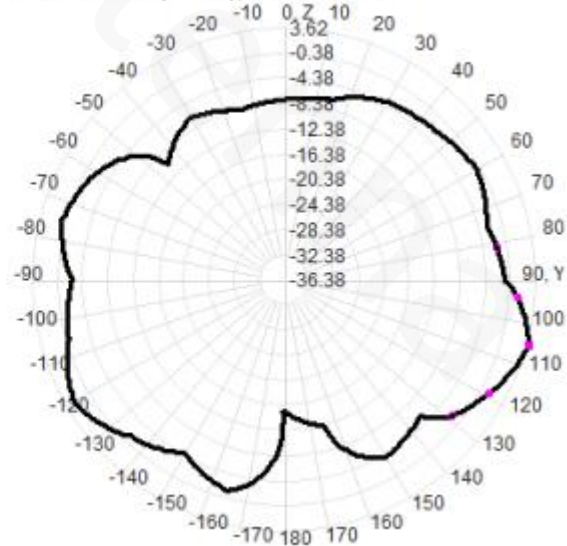
Back View



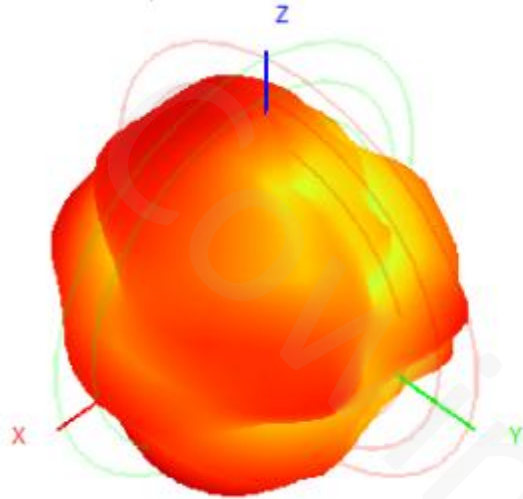
960.0MHz Total(E1-XZ), Max=-0.19dBi



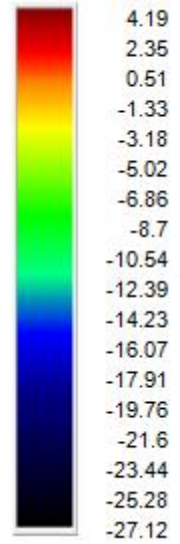
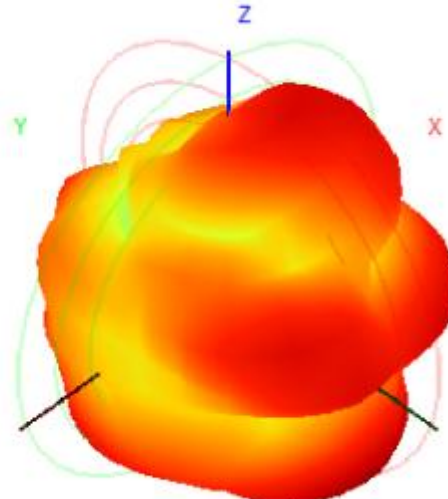
960.0MHz Total(E2-YZ), Max= 3.62dBi



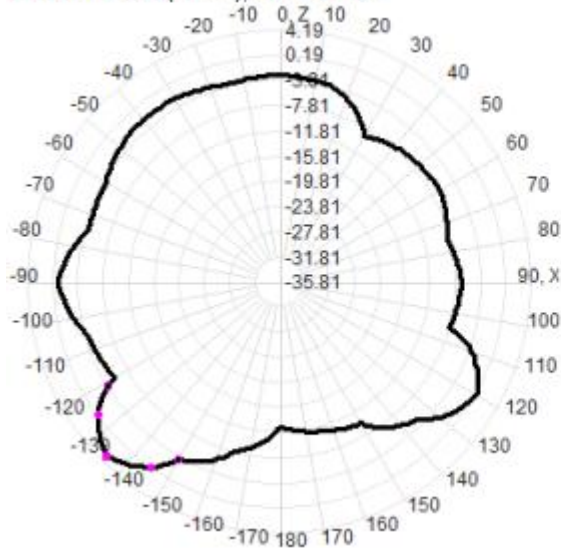
1710.0MHz H+V, Eff: 49.8%



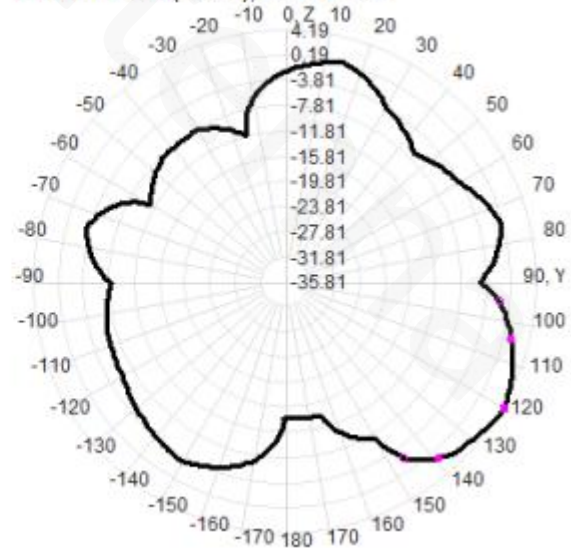
Back View



1710.0MHz Total(E1-XZ), Max= 3.02dBi

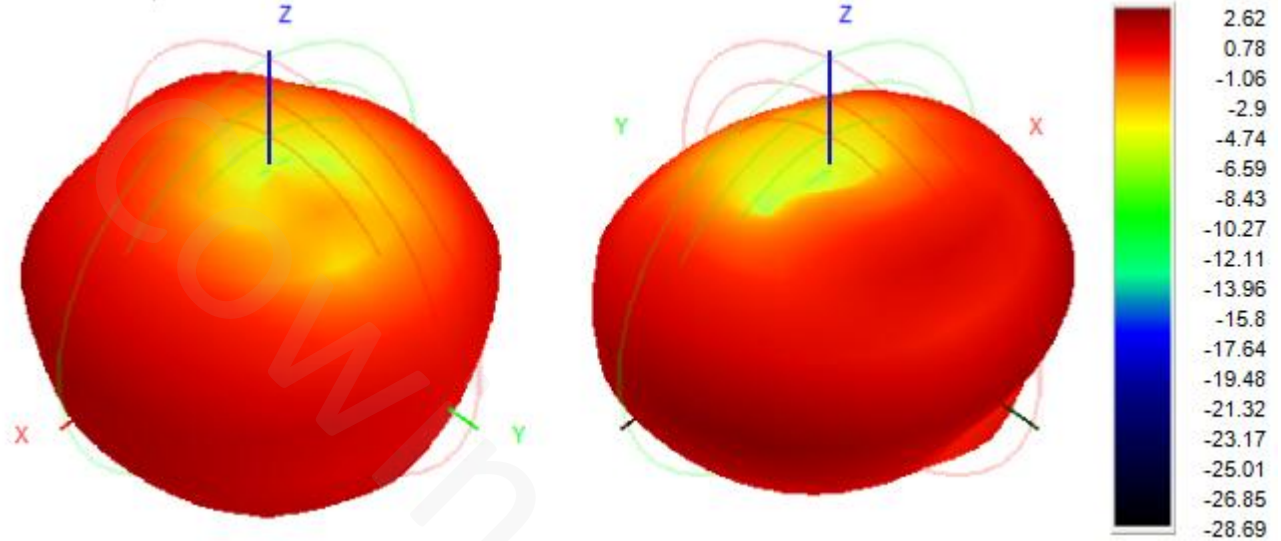


1710.0MHz Total(E2-YZ), Max= 4.19dBi



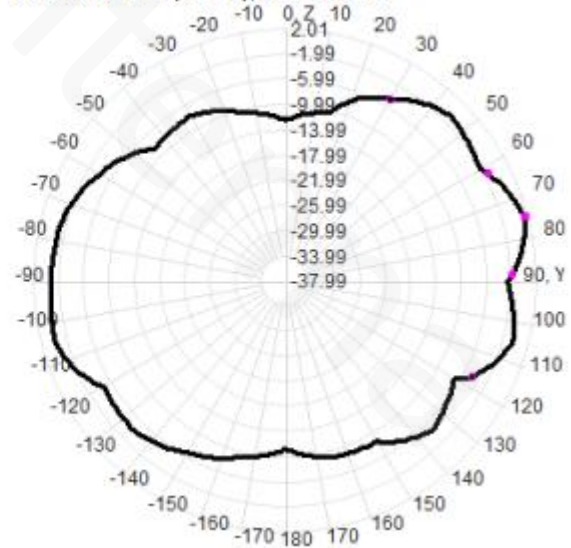
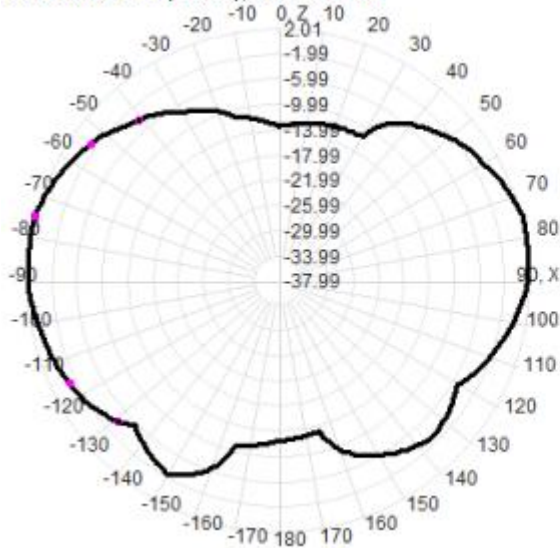
2310.0MHz H+V, Eff: 64.7%

Back View

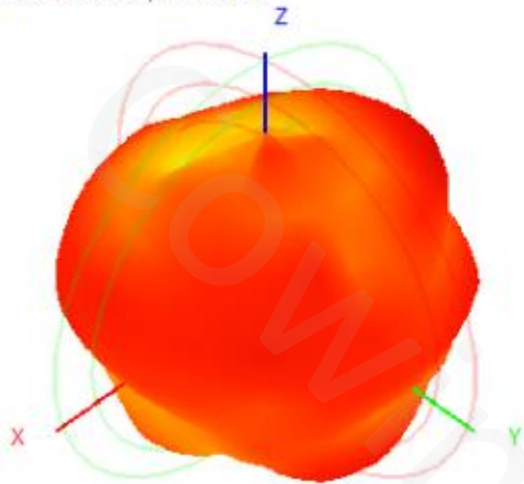


2310.0MHz Total(E1-XZ), Max= 2.01dBi

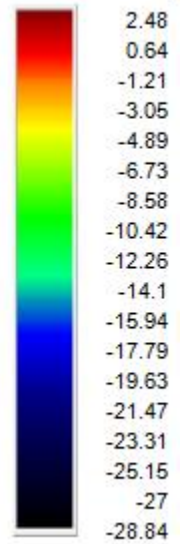
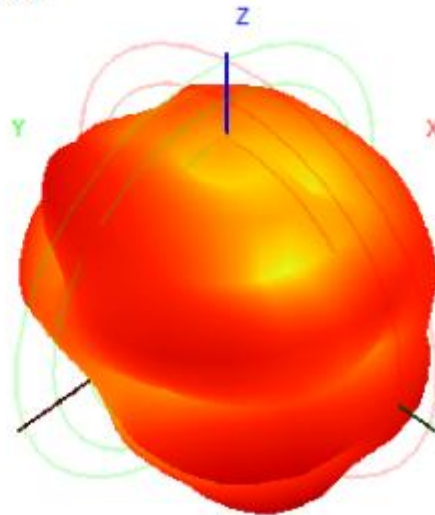
2310.0MHz Total(E2-YZ), Max= 1.33dBi



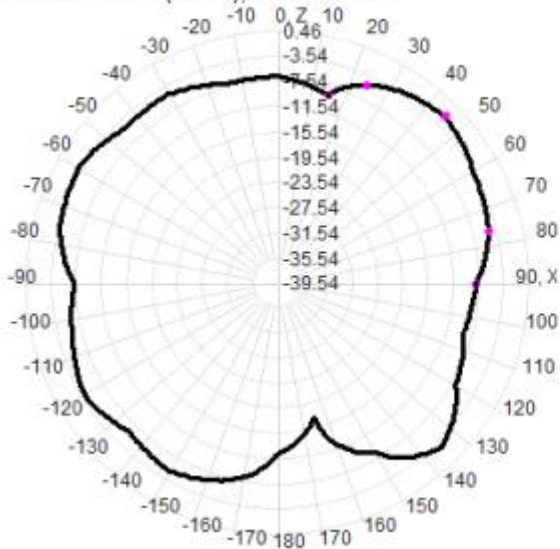
2710.0MHz H+V, Eff: 35.9%



Back View



2710.0MHz Total(E1-XZ), Max= -2.11dBi



2710.0MHz Total(E2-YZ), Max= 0.46dBi

