

CW-WZ-0055

4G External Antenna

Key Features

Frequency: 698-960MHz/1710-2700MHz

Right Angle SMA Male Connector

External Rubber

Dimensions 115*10.3mm

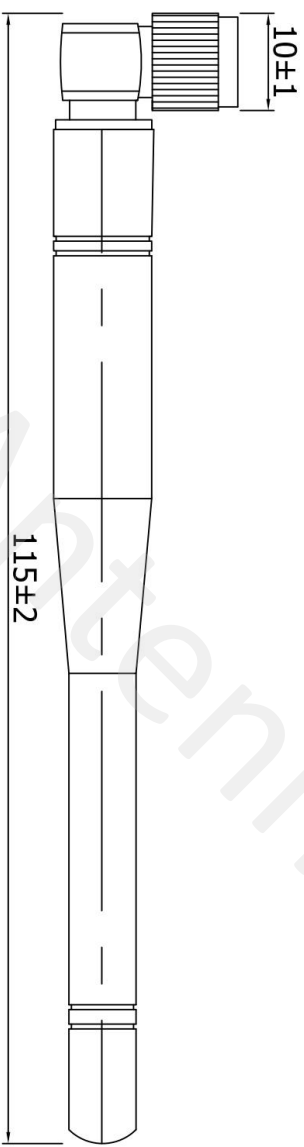


1. Antenna Electrical Characteristics

Band (MHz)		
Frequency (MHz)	698-960MHz	1710-2700MHz
VSWR	4:1	2.5:1
Efficiency (%)	69.2%	66.07%
Peak Gain (dBi)	3.56	4.79
Impedance (Ohm)	50	
Polarisation	Vertical	
Max. Input Power (W)	10	
Connector Type	90° SMA male	

2. Material and environmental characteristics

Material of PCB	N/A
Material of Plastic	TPEE
Cable Type	2.8mm insulated wire
Connector Type	90° SMA male
Dimensions (mm)	115*10.3MM
Antenna color	White
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS

												<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>REV</th> <th>Date</th> <th>Description</th> </tr> <tr> <td>X1</td> <td>2021/08/12</td> <td>New issue</td> </tr> </table>		REV	Date	Description	X1	2021/08/12	New issue																																																																
REV	Date	Description																																																																																	
X1	2021/08/12	New issue																																																																																	
Specification(Free Test): Frequency Range: 698-960MHZ/1710-2700mhz Impedance: 50Ω V.S.W.R: ≤4/2.5																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>4</td> <td>Radome</td> <td>White TPPE</td> <td>1</td> <td></td> </tr> <tr> <td>3</td> <td>Signal tube</td> <td>Copper</td> <td>2</td> <td></td> </tr> <tr> <td>2</td> <td>Cable</td> <td>2.8mm insulated wire</td> <td>1</td> <td></td> </tr> <tr> <td>1</td> <td>Connector</td> <td>90° SMA male (Nickel)</td> <td>1</td> <td></td> </tr> <tr> <td>NO</td> <td>Name</td> <td>Description</td> <td>QTY</td> <td>Remark</td> </tr> <tr> <td>XX</td> <td>±5.0</td> <td>Approved</td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>±3.0</td> <td>Customer</td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>±1.0</td> <td>Part NO.</td> <td></td> <td></td> </tr> <tr> <td>.XX</td> <td>±0.2</td> <td>Part name</td> <td>External antenna</td> <td></td> </tr> <tr> <td>.XX</td> <td>±0.2</td> <td>CW P/NO.</td> <td>CW-WZ-0055</td> <td></td> </tr> <tr> <td>.XXX</td> <td>±0.1</td> <td>REV</td> <td>File :</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Drawing</td> <td>Unit</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>m/m</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Sheet :</td> <td>1/1</td> </tr> </table>														4	Radome	White TPPE	1		3	Signal tube	Copper	2		2	Cable	2.8mm insulated wire	1		1	Connector	90° SMA male (Nickel)	1		NO	Name	Description	QTY	Remark	XX	±5.0	Approved			X	±3.0	Customer			X	±1.0	Part NO.			.XX	±0.2	Part name	External antenna		.XX	±0.2	CW P/NO.	CW-WZ-0055		.XXX	±0.1	REV	File :				Drawing	Unit					m/m					Sheet :	1/1
4	Radome	White TPPE	1																																																																																
3	Signal tube	Copper	2																																																																																
2	Cable	2.8mm insulated wire	1																																																																																
1	Connector	90° SMA male (Nickel)	1																																																																																
NO	Name	Description	QTY	Remark																																																																															
XX	±5.0	Approved																																																																																	
X	±3.0	Customer																																																																																	
X	±1.0	Part NO.																																																																																	
.XX	±0.2	Part name	External antenna																																																																																
.XX	±0.2	CW P/NO.	CW-WZ-0055																																																																																
.XXX	±0.1	REV	File :																																																																																
		Drawing	Unit																																																																																
			m/m																																																																																
			Sheet :	1/1																																																																															
Cowin Antenna 																																																																																			

4. Antenna test parameters

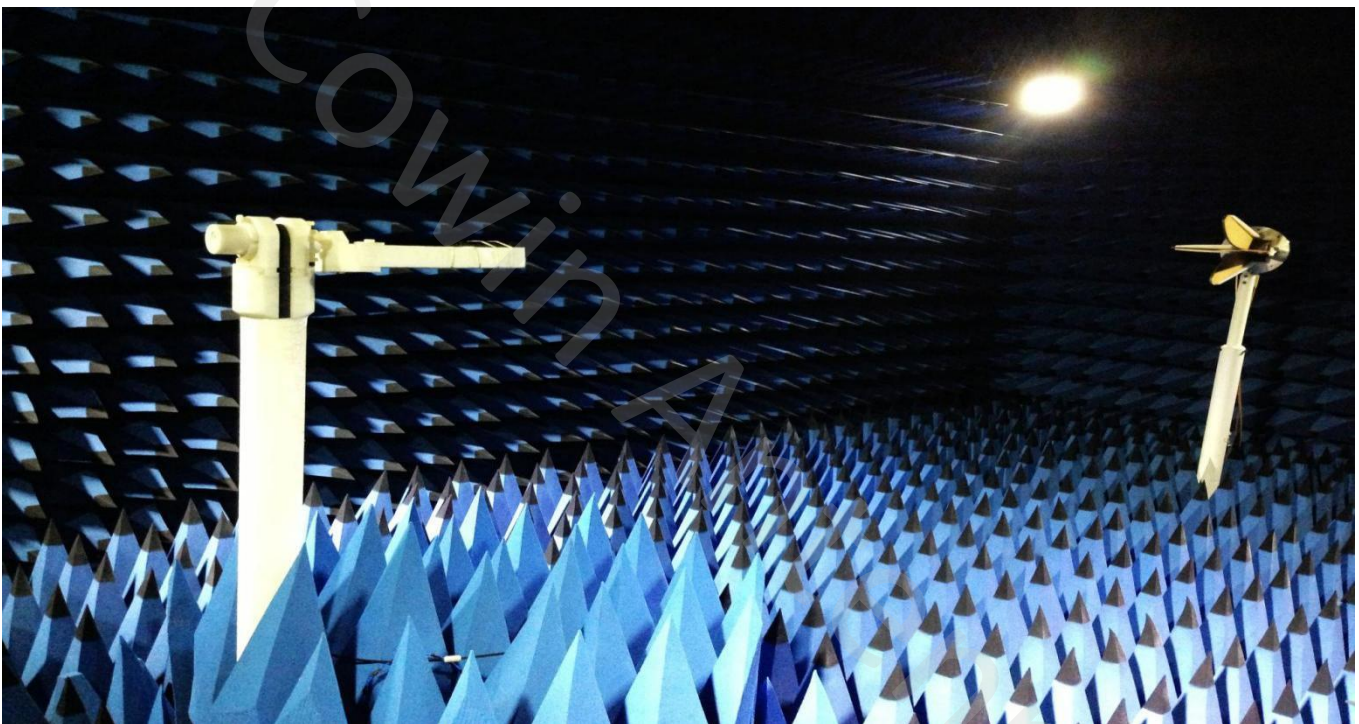
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

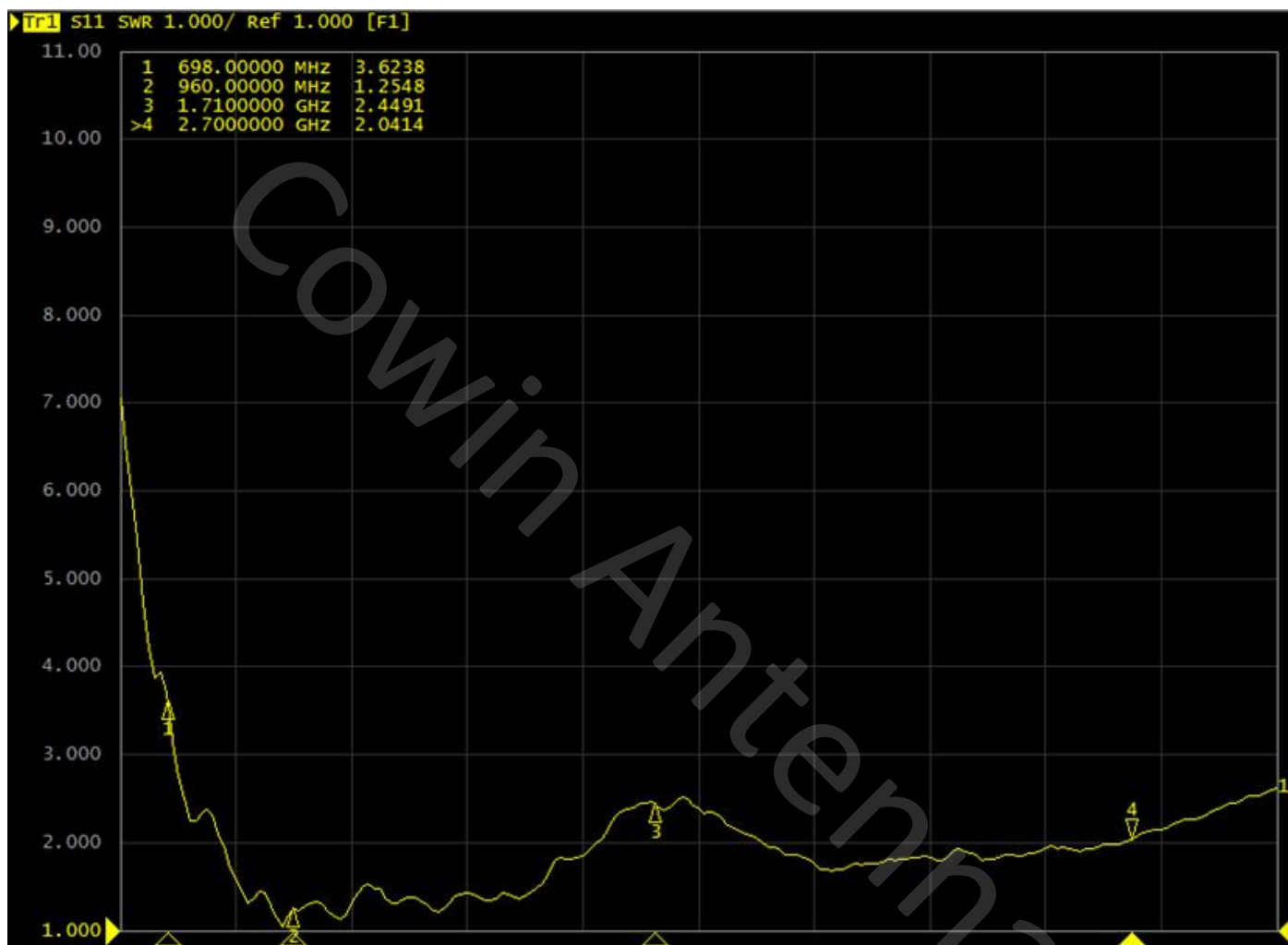
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

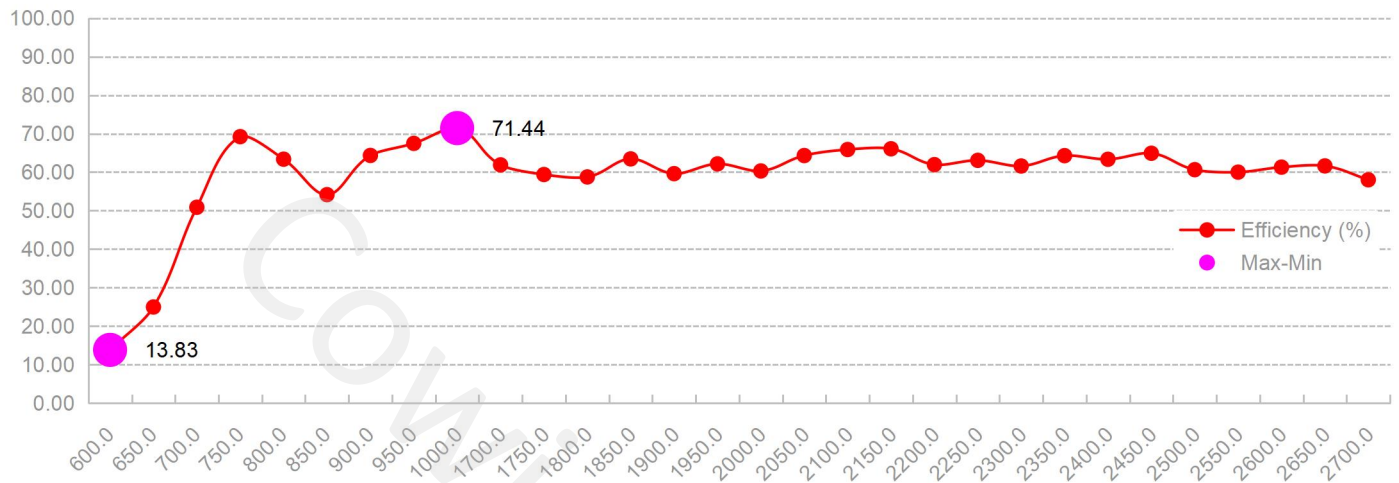
The comprehensive tester is Agilent cmv500



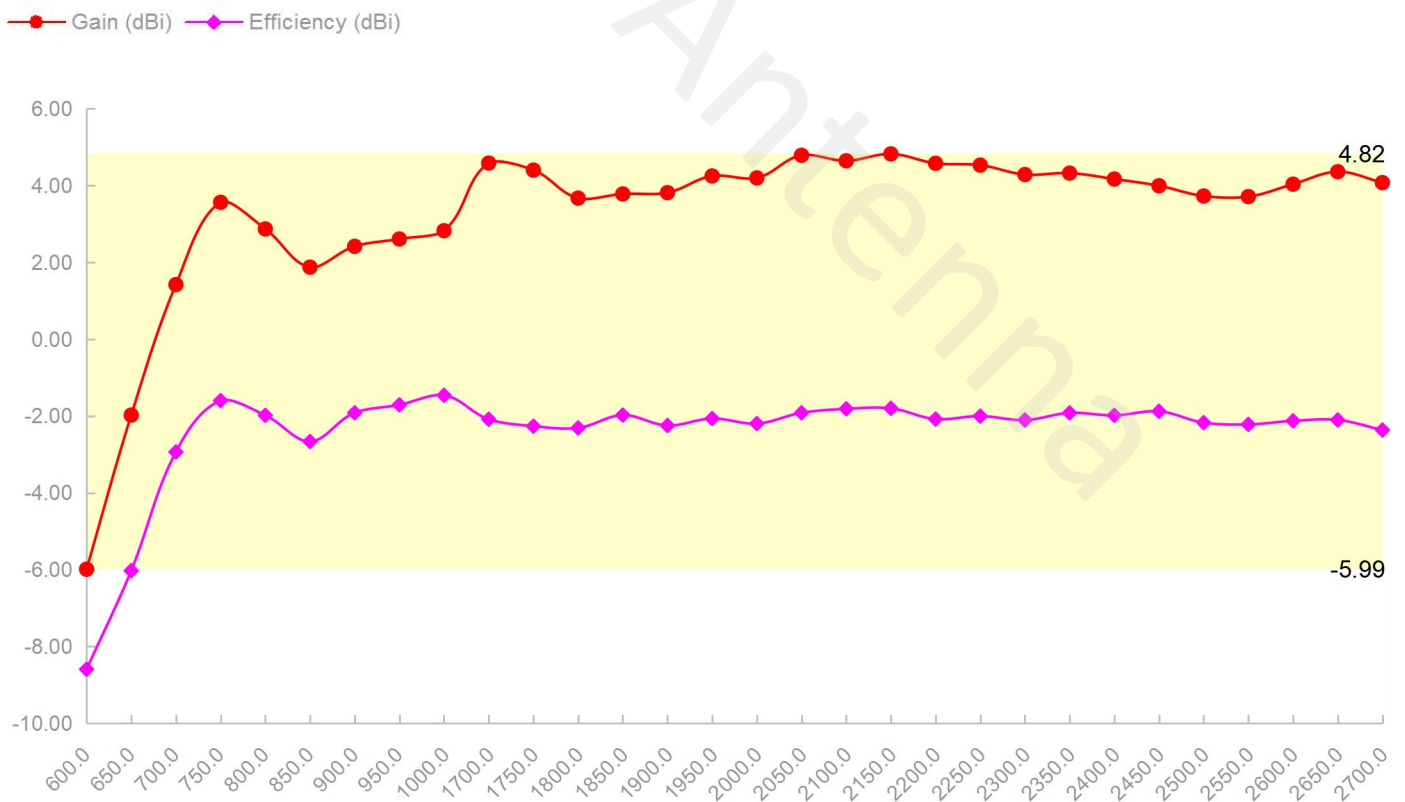
4.1 VSWR



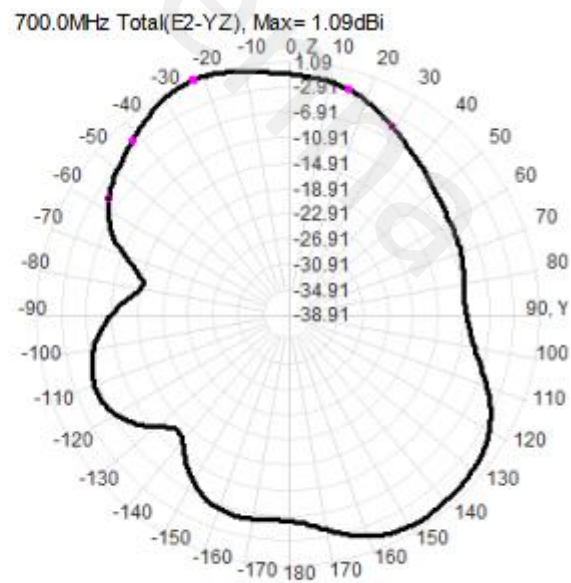
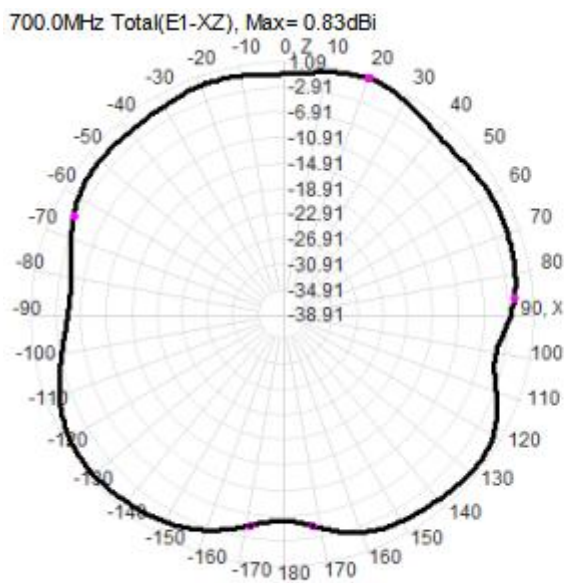
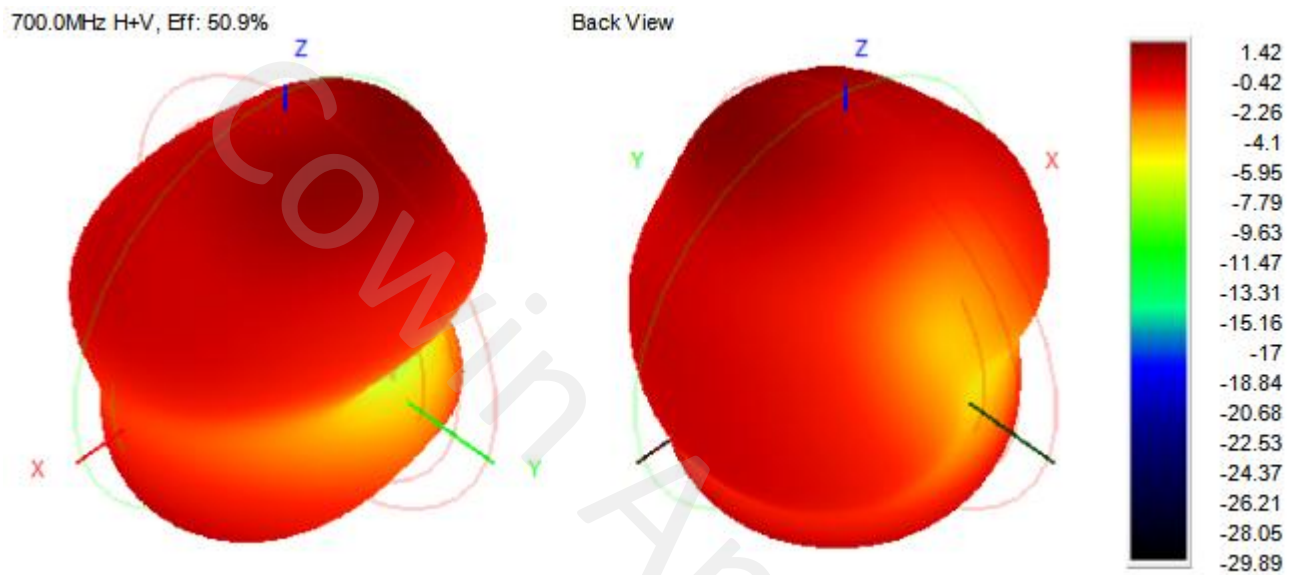
4.2 Efficiency



4.3 Peak gain

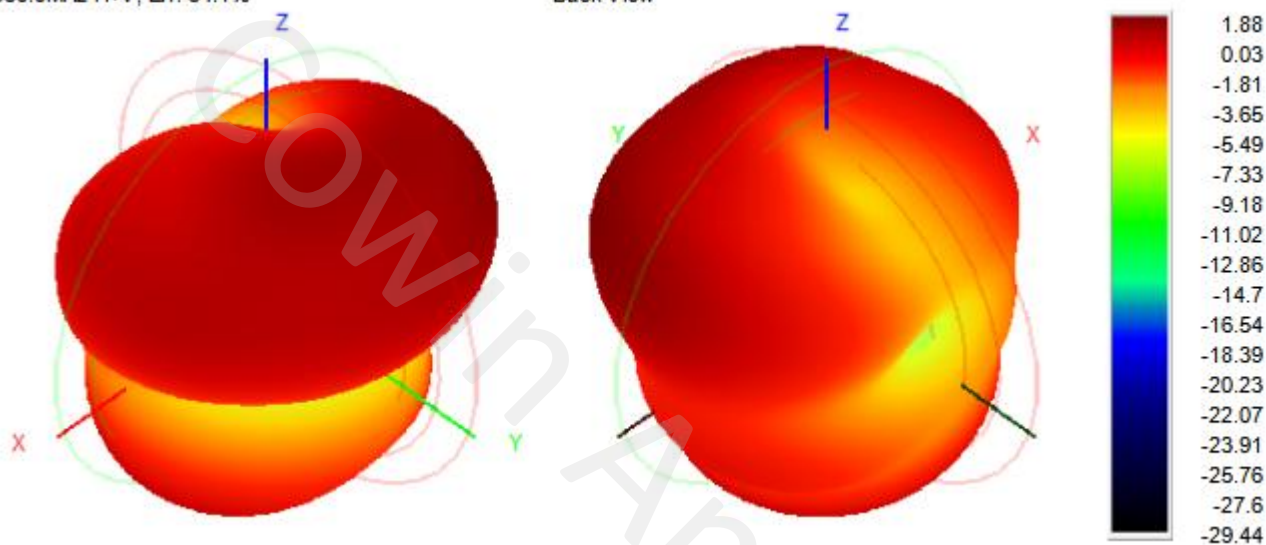


4.4 3D&2D Radiation Patterns



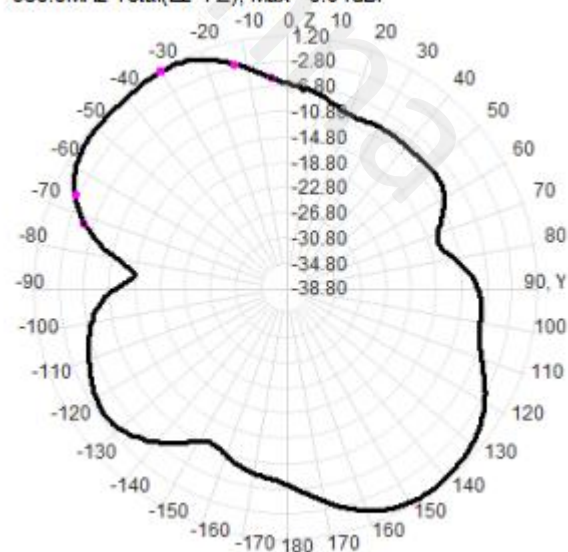
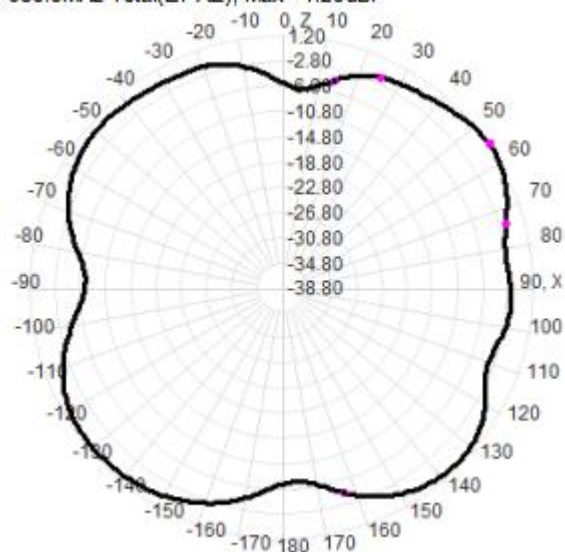
850.0MHz H+V, Eff: 54.1%

Back View



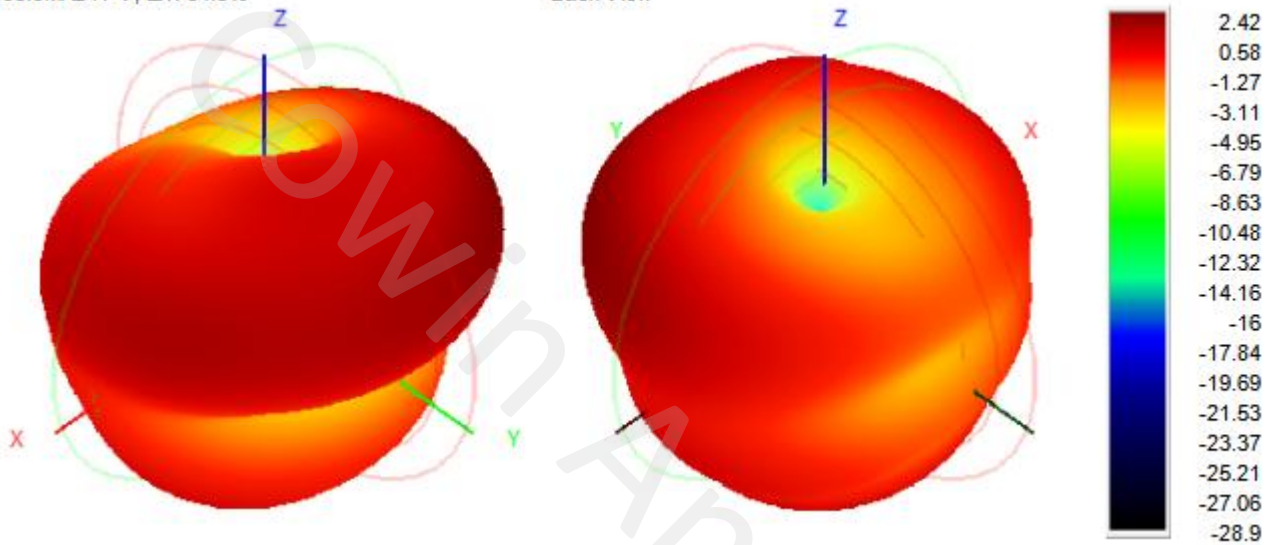
850.0MHz Total(E1-XZ), Max= 1.20dBi

850.0MHz Total(E2-YZ), Max= 0.84dBi



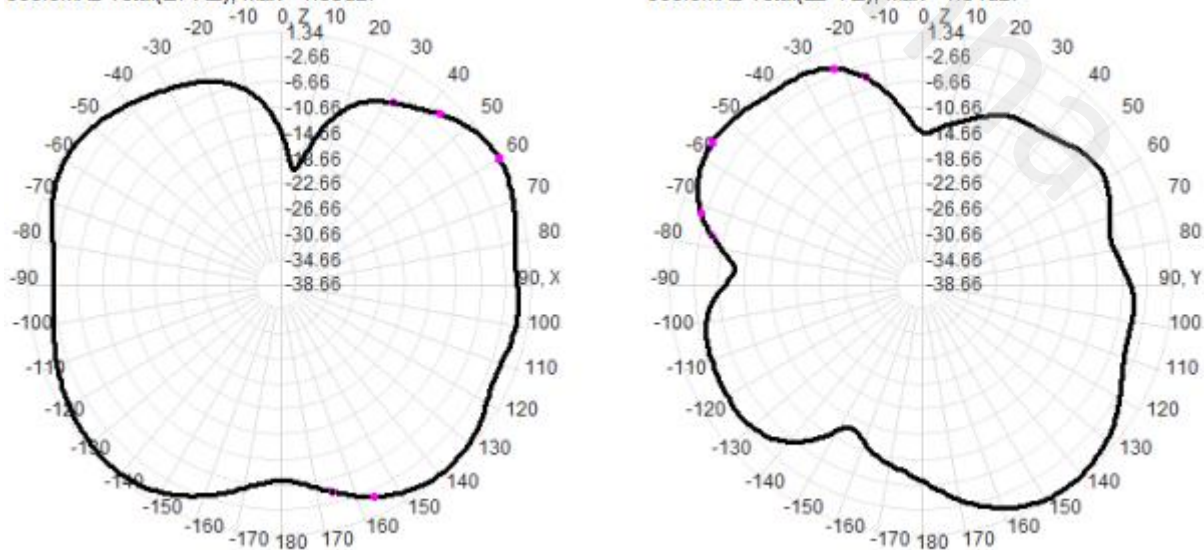
900.0MHz H+V, Eff: 64.3%

Back View

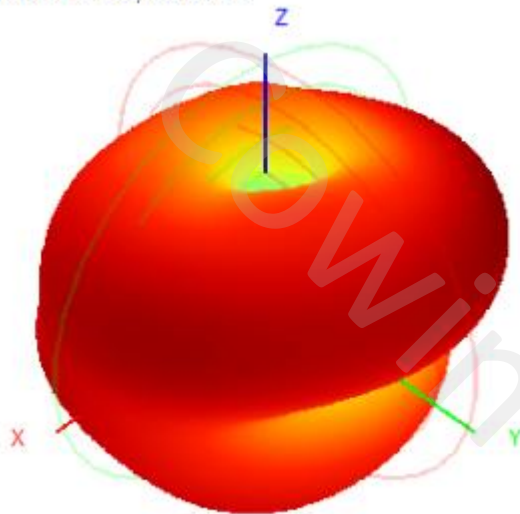


900.0MHz Total(E1-XZ), Max= 1.33dBi

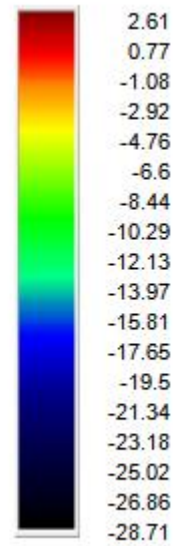
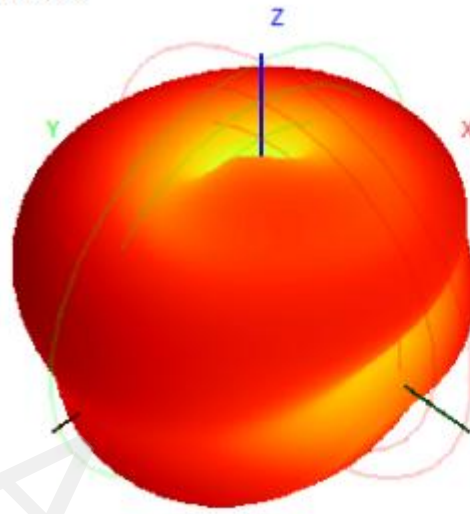
900.0MHz Total(E2-YZ), Max= 1.34dBi



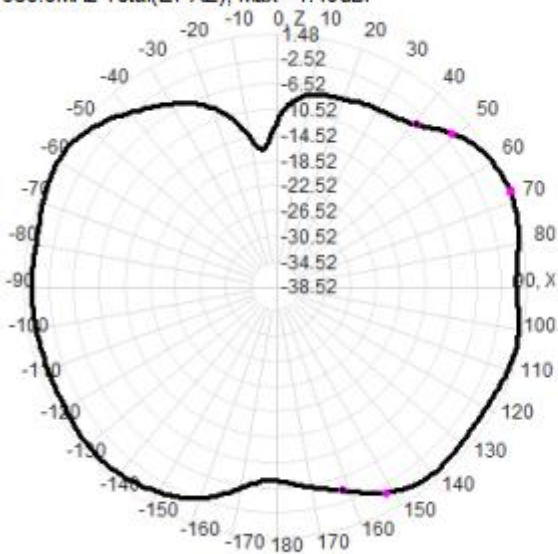
950.0MHz H+V, Eff: 67.5%



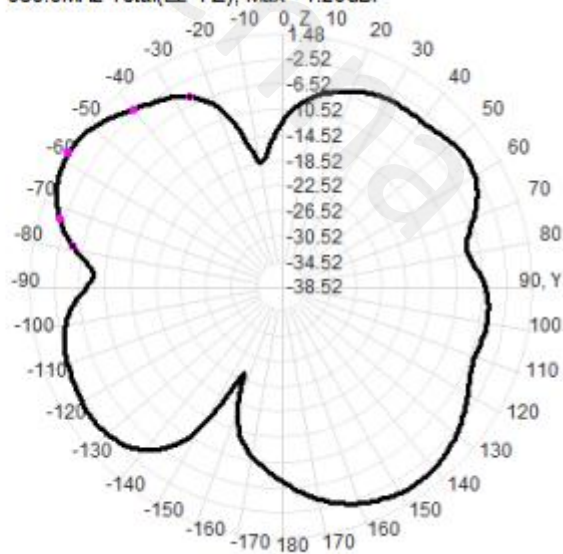
Back View



950.0MHz Total(E1-XZ), Max= 1.48dBi

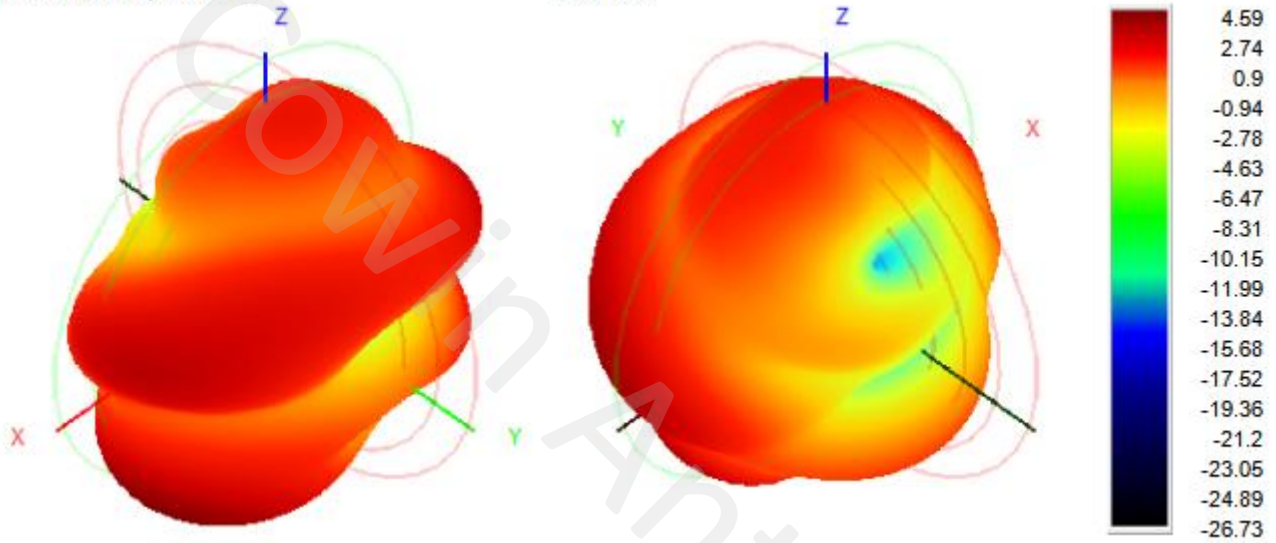


950.0MHz Total(E2-YZ), Max= 1.28dBi

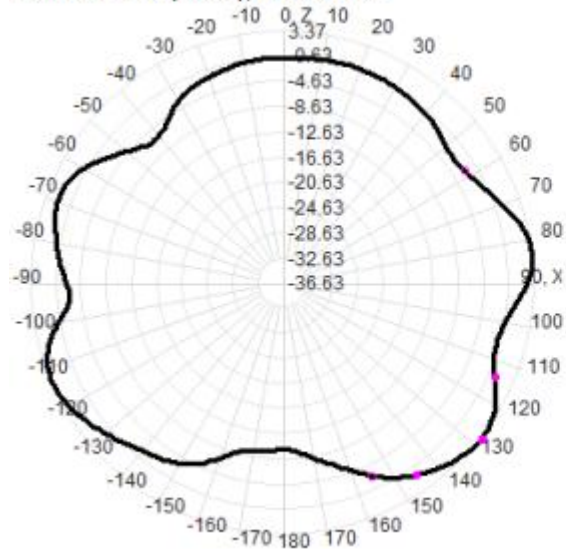


1700.0MHz H+V, Eff: 61.9%

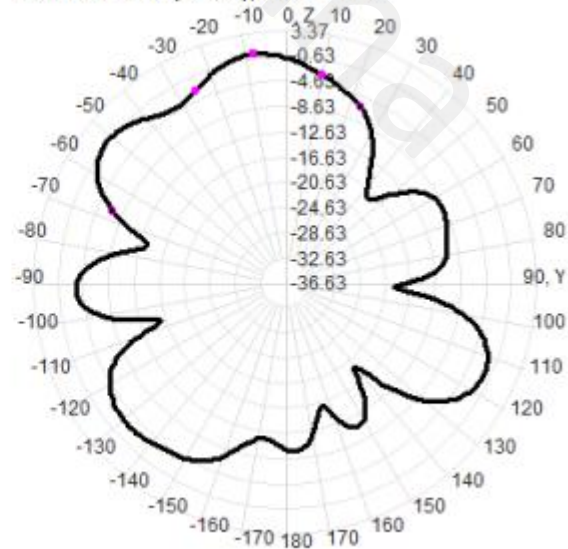
Back View



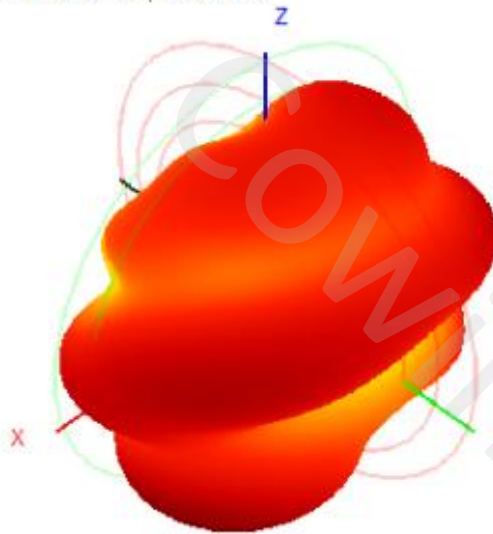
1700.0MHz Total(E1-XZ), Max= 3.37dBi



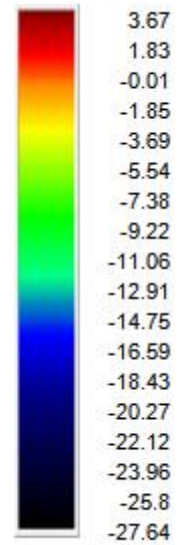
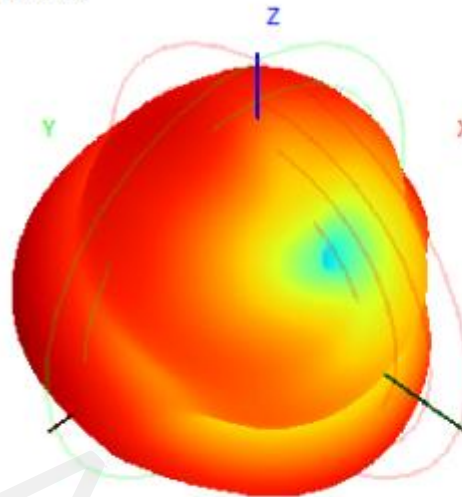
1700.0MHz Total(E2-YZ), Max= 0.00dBi



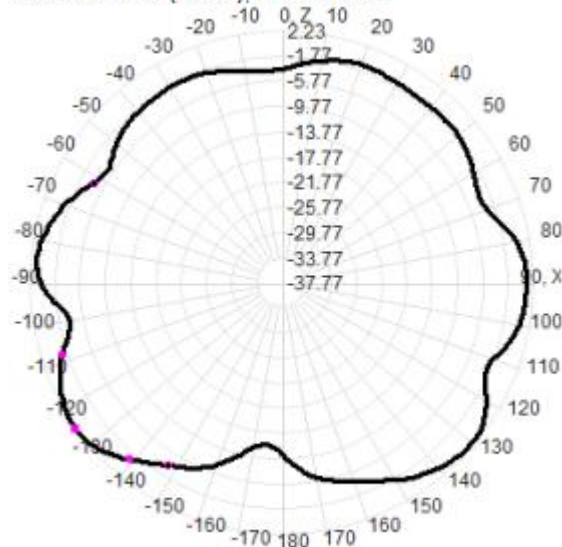
1800.0MHz H+V, Eff: 58.8%



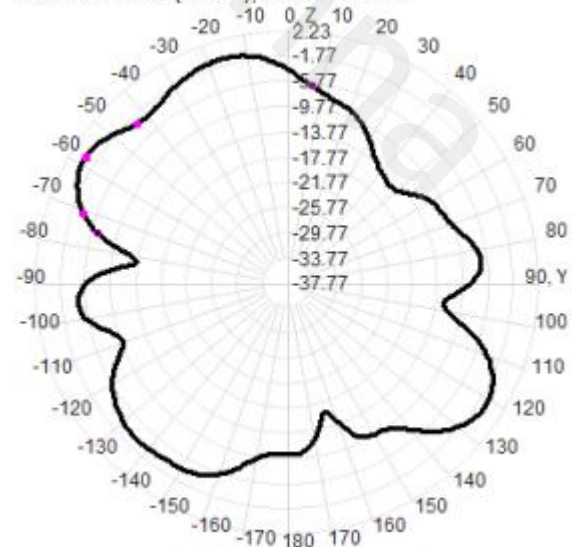
Back View



1800.0MHz Total(E1-XZ), Max= 2.23dBi

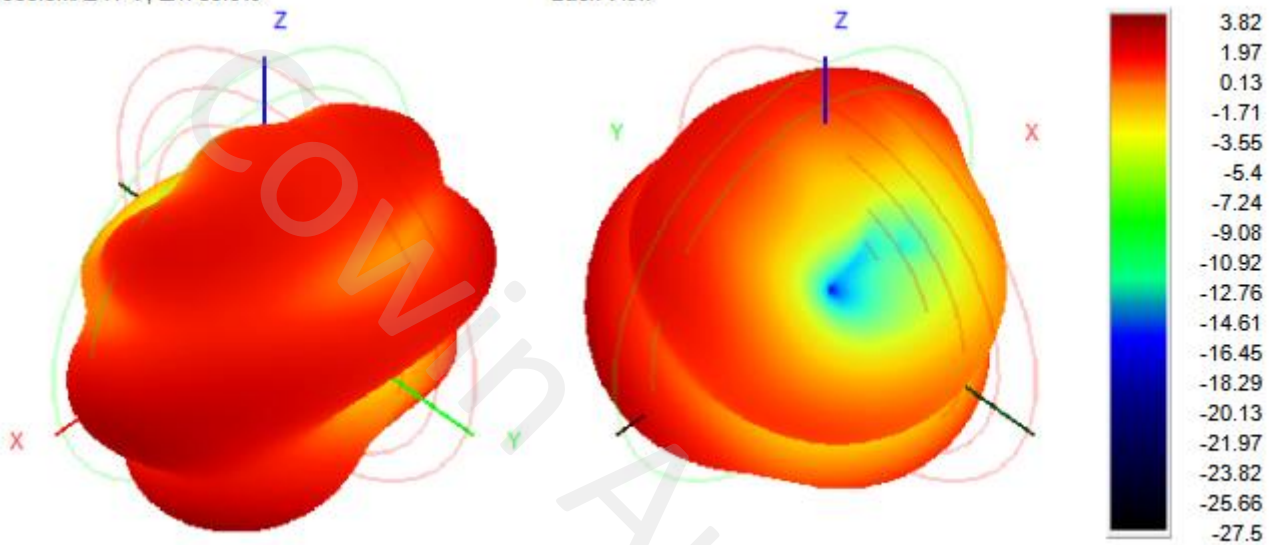


1800.0MHz Total(E2-YZ), Max= -0.14dBi



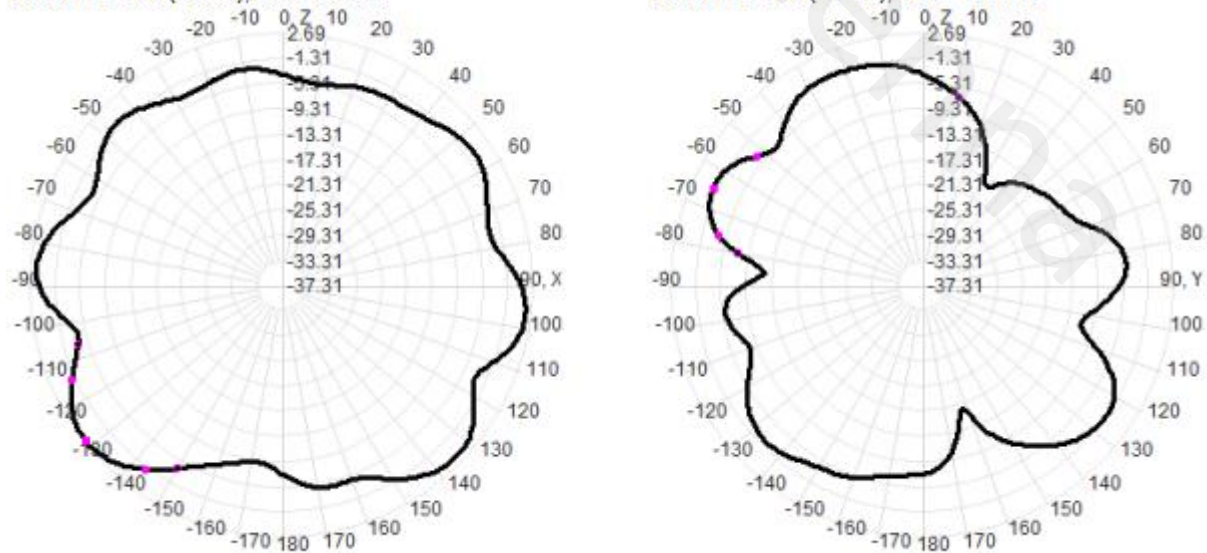
1900.0MHz H+V, Eff: 59.6%

Back View



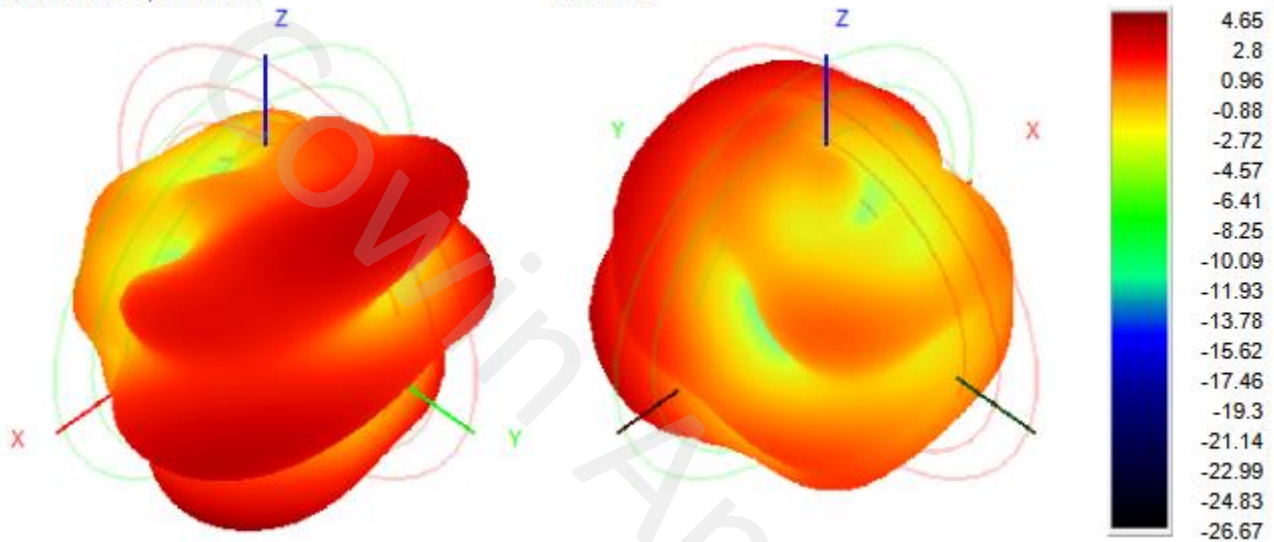
1900.0MHz Total(E1-XZ), Max= 2.25dBi

1900.0MHz Total(E2-YZ), Max= -0.71dBi

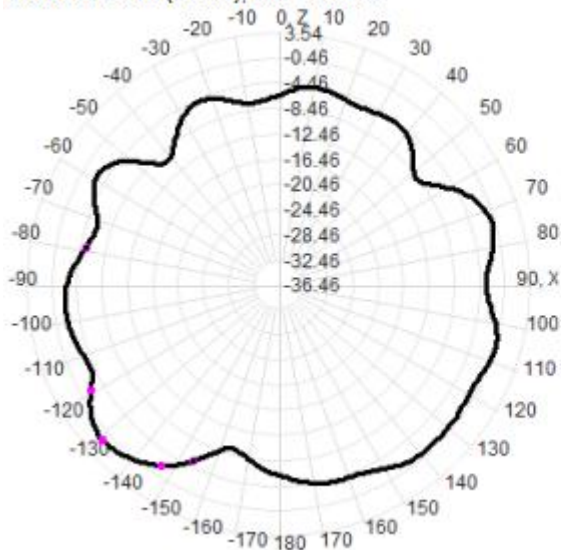


2100.0MHz H+V, Eff: 65.9%

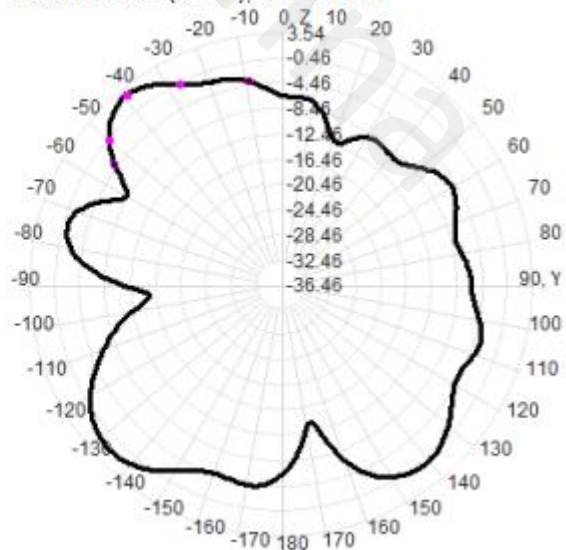
Back View



2100.0MHz Total(E1-XZ), Max= 0.68dBi

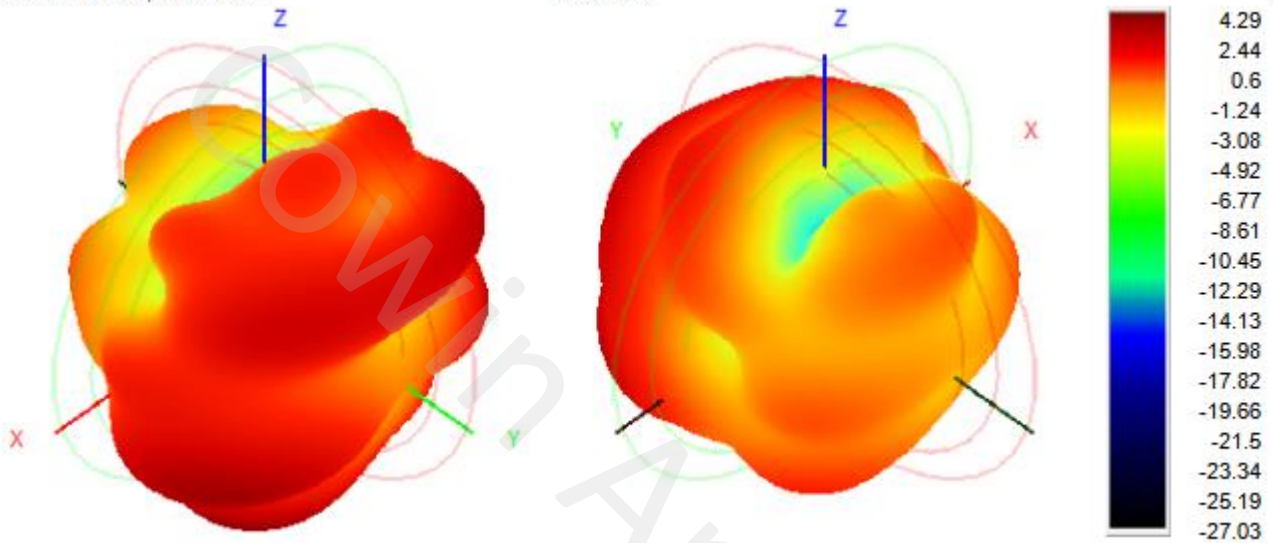


2100.0MHz Total(E2-YZ), Max= 2.34dBi



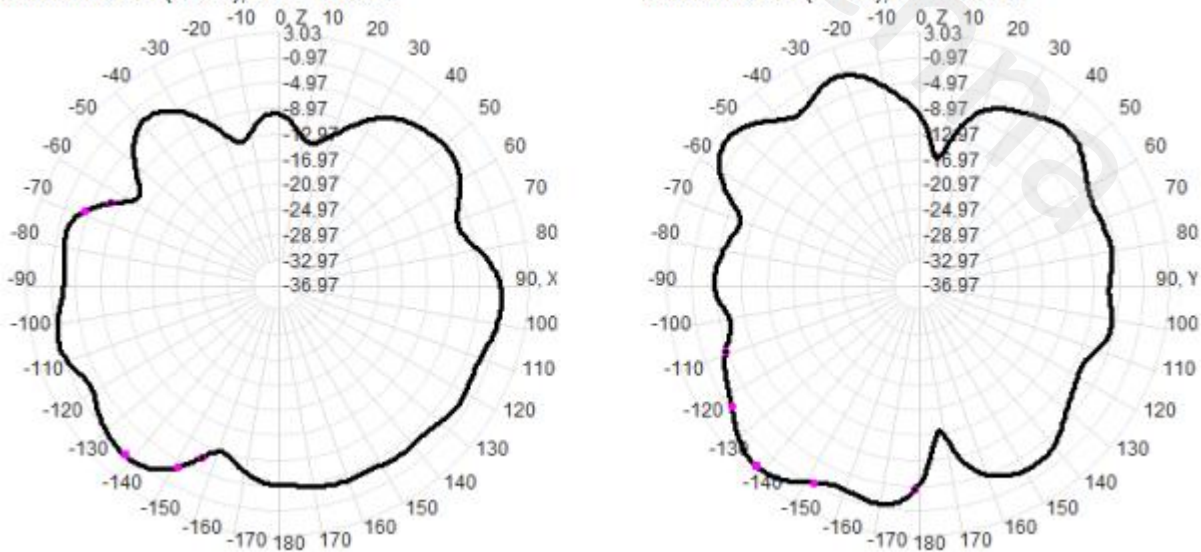
2300.0MHz H+V, Eff: 61.6%

Back View

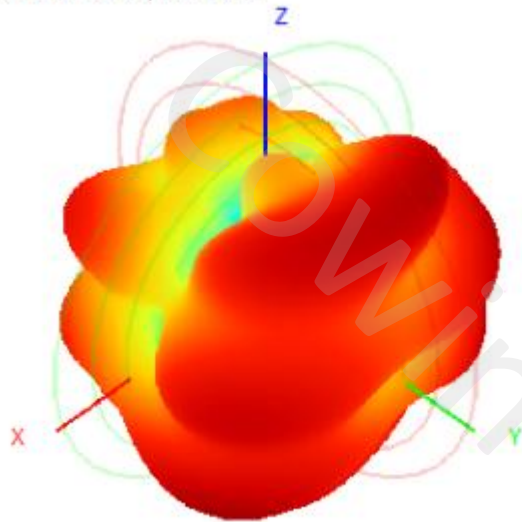


2300.0MHz Total(E1-XZ), Max=-0.80dBi

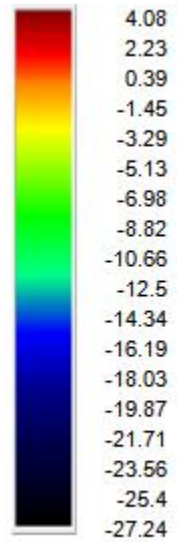
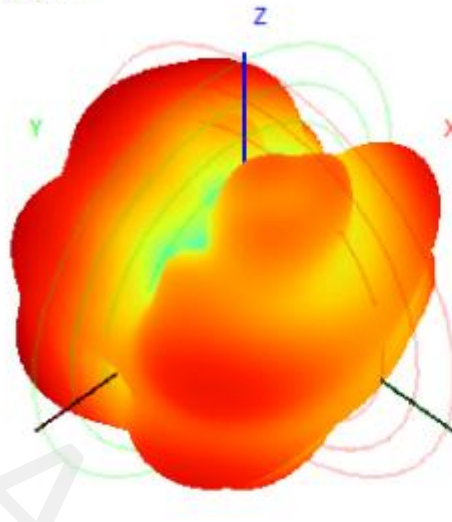
2300.0MHz Total(E2-YZ), Max= 1.47dBi



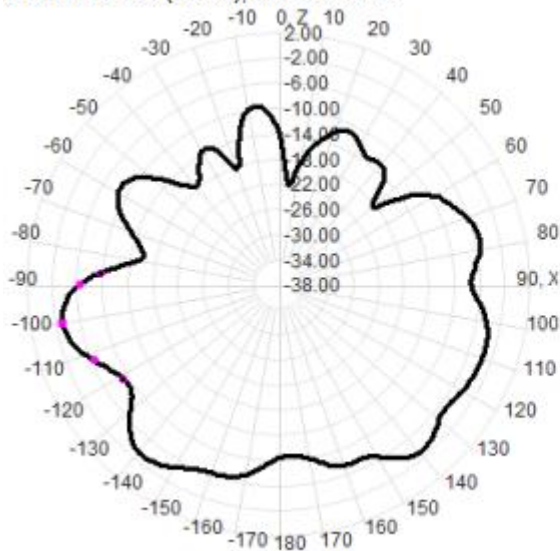
2700.0MHz H+V, Eff: 58.0%



Back View



2700.0MHz Total(E1-XZ), Max= -3.18dBi



2700.0MHz Total(E2-YZ), Max= 2.00dBi

