CW-WZ-0051

5G External Waterproof Antenna

Key Features

Frequency: 617-960 MHz/1575-2700MHz/3300-3800MHz/5125-5925MHz

N Male Connector

External Waterproof

Dimensions 176*21mm

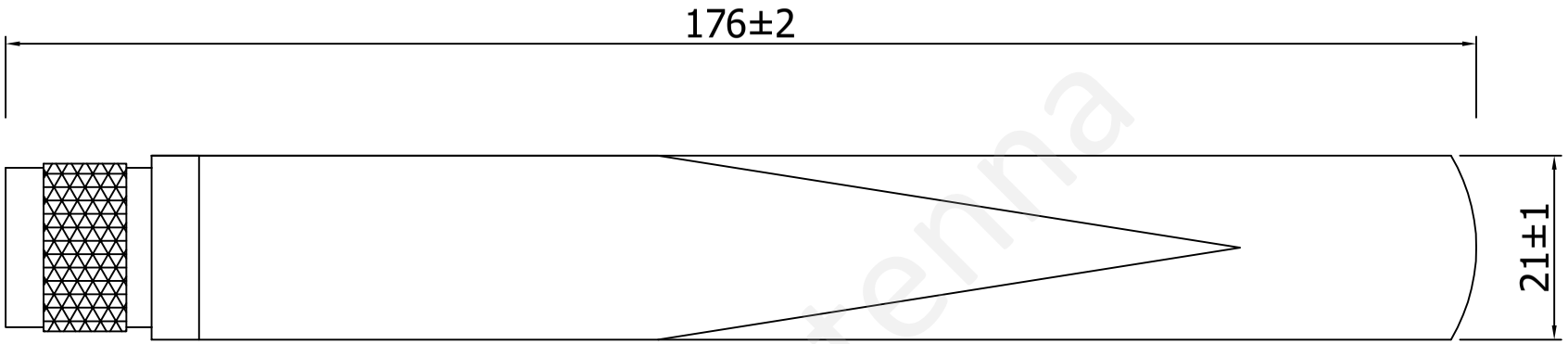
1. Antenna Electrical Characteristics

Frequency (MHz)	617-960MHz	1575-2700MHz	3300-3800MHz	5125-5925MHz
VSWR	2.5:1	2.5:1	3.5:1	4:1
Efficiency (%)	64.49%	68.76%	56.56%	58.02%
Peak Gain (dBi)	3.05	3.17	3.44	5
Impendance (Ohm)	50			
Polarisation	Vertical			
Max. Input Power (W)	10			
Connector Type	N male			

2. Material and environmental characteristics

Material of PCB	FR4
Material of Plastic	TPE
Cable Type	RG178
Connector Type	N male
Dimensions (mm)	176*21
Antenna color	White
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS

REV	Date	Description
X1	2021/08/03	New issue



Specification(Free Test):

Frequency Range: 617-960MHZ/1575-2700MHZ
3300-3800MHZ/5125-5925MHZ

Impedance: 50Ω

V.S.W.R: ≤2.5/2.5/3.5/4

NO	Name	Description	Q'TY	Remark
4	Rod sleeve	White TPE	1	
3	PCB	FR4	1	
2	Cable	RG178 single silver wire	1	
1	Connector	N male head	1	

XX.	±5.0	Approved	Customer	
X.	±3.0		Part NO.	
.X	±1.0	Checked	Part name	External antenna
.XX	±0.2		CW P/NO.	CW-WZ-0051
.XXX	±0.1	Drawing	REV / Unit / File :	
			X1 / m/m / Sheet :	1/1

Cowin Antenna

4. Antenna test parameters

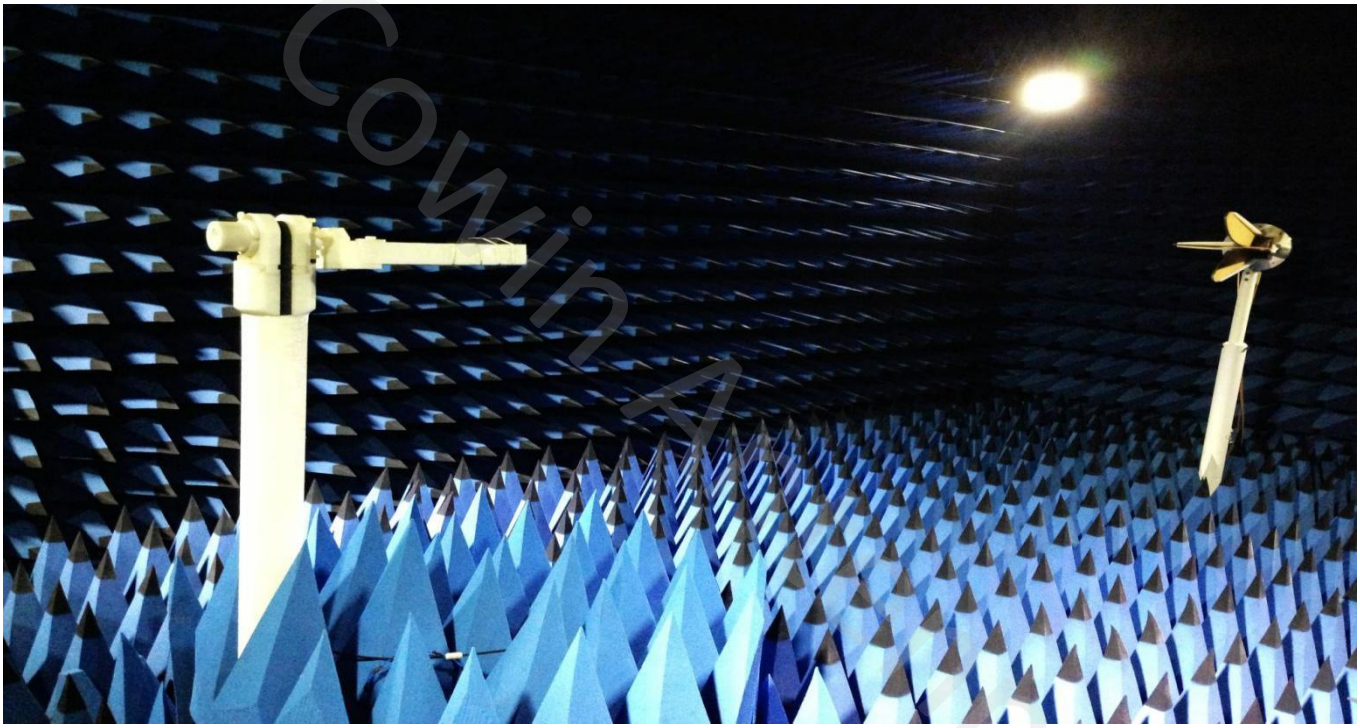
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

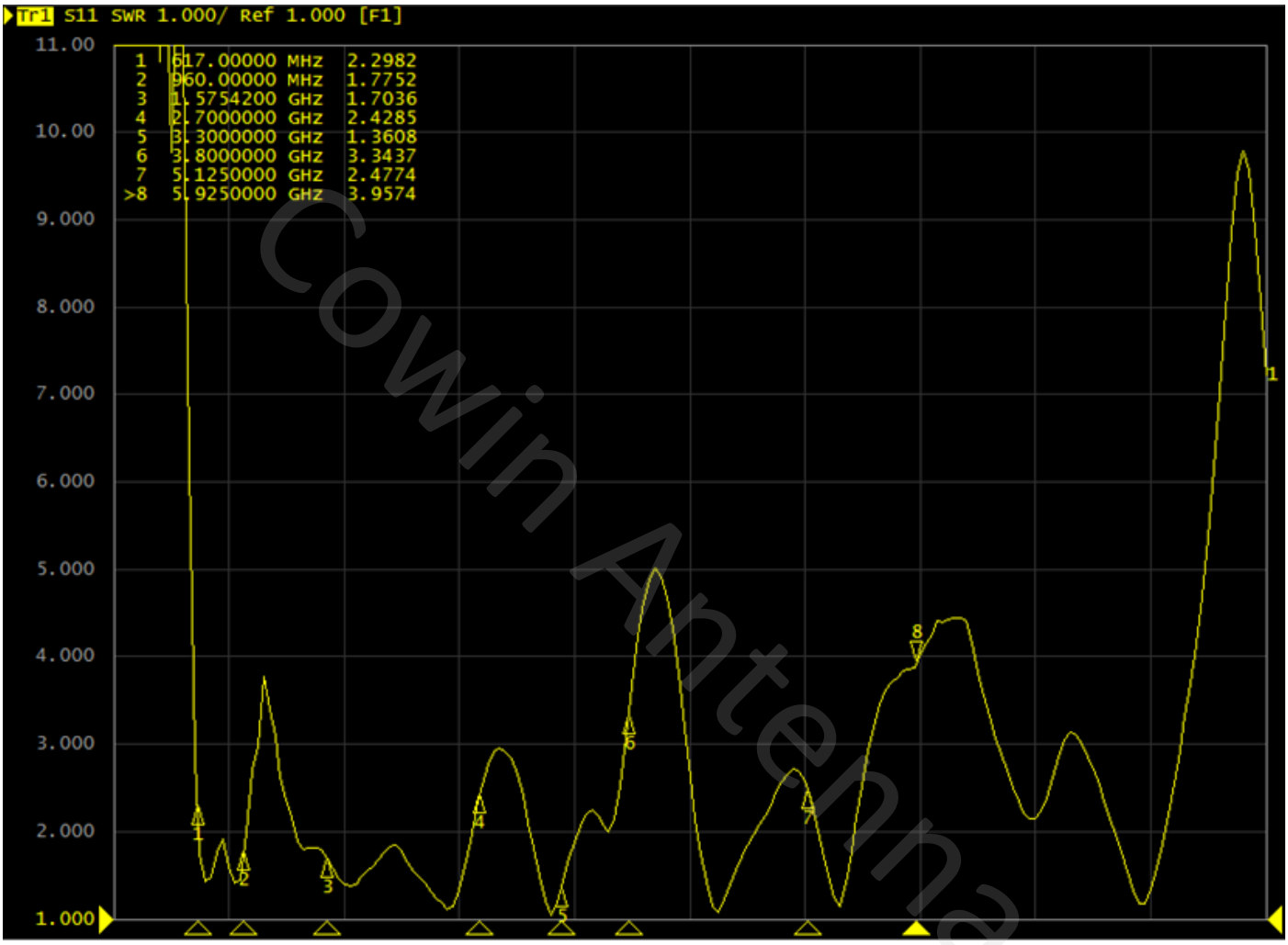
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

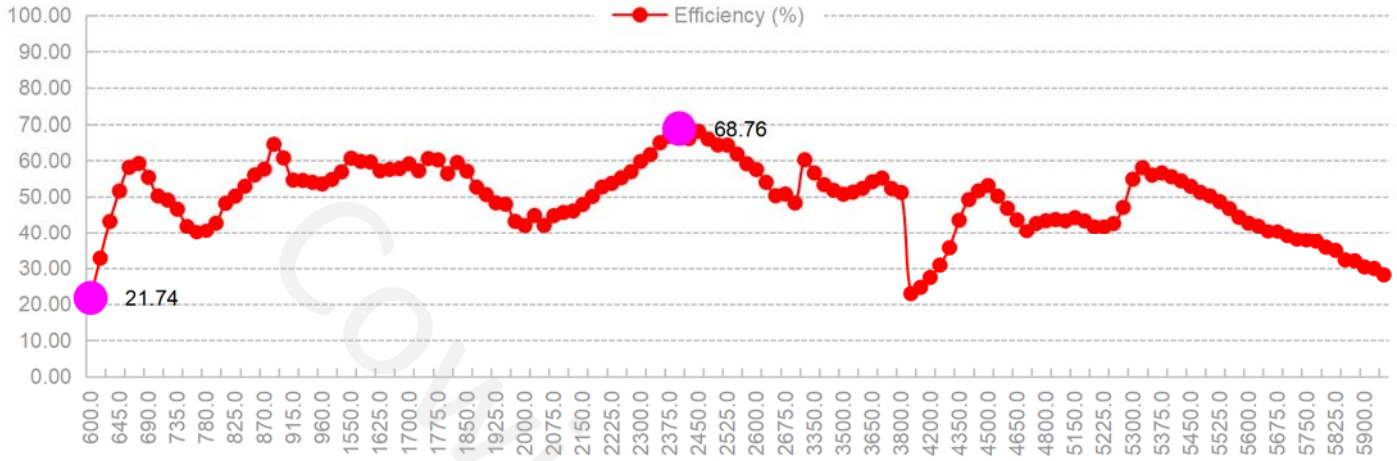
The comprehensive tester is Agilent cmv500



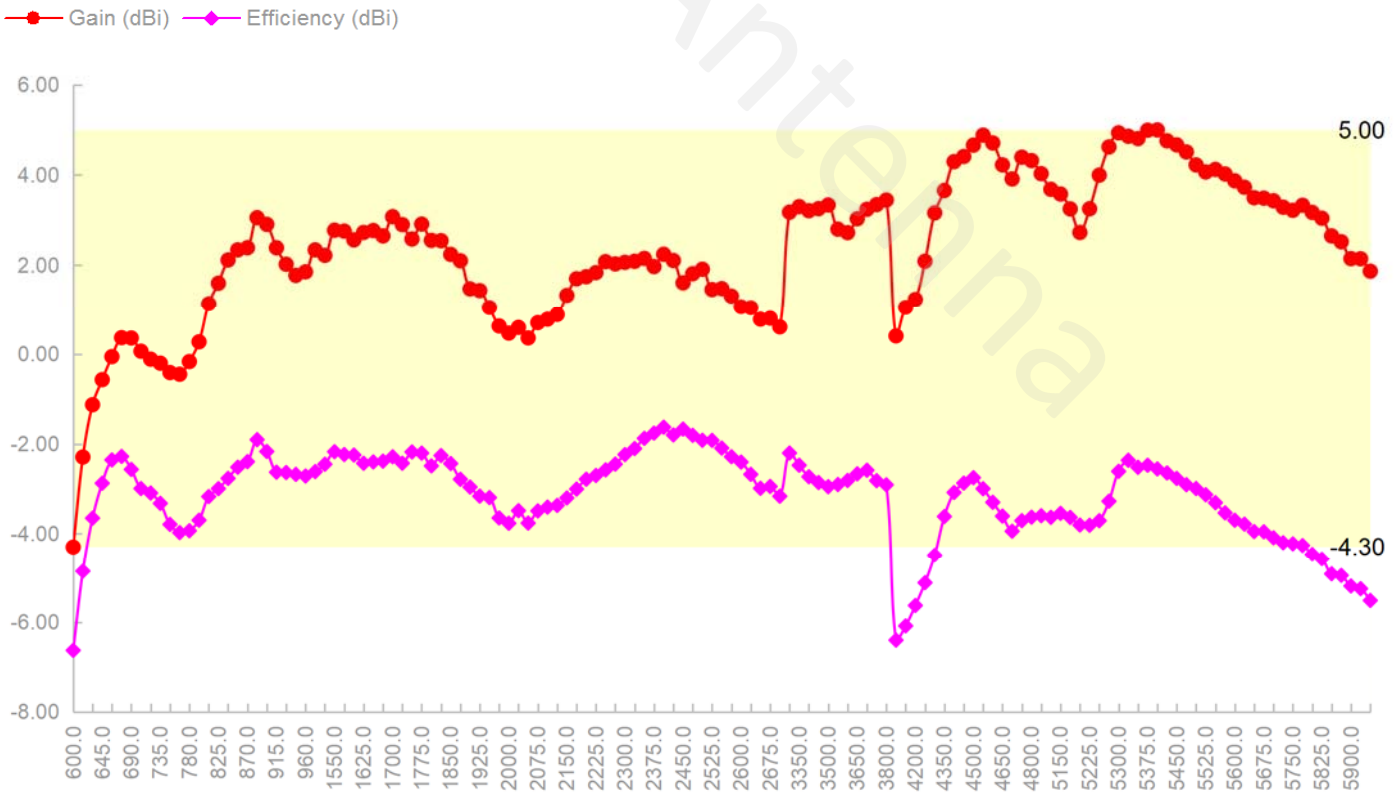
4.1 VSWR



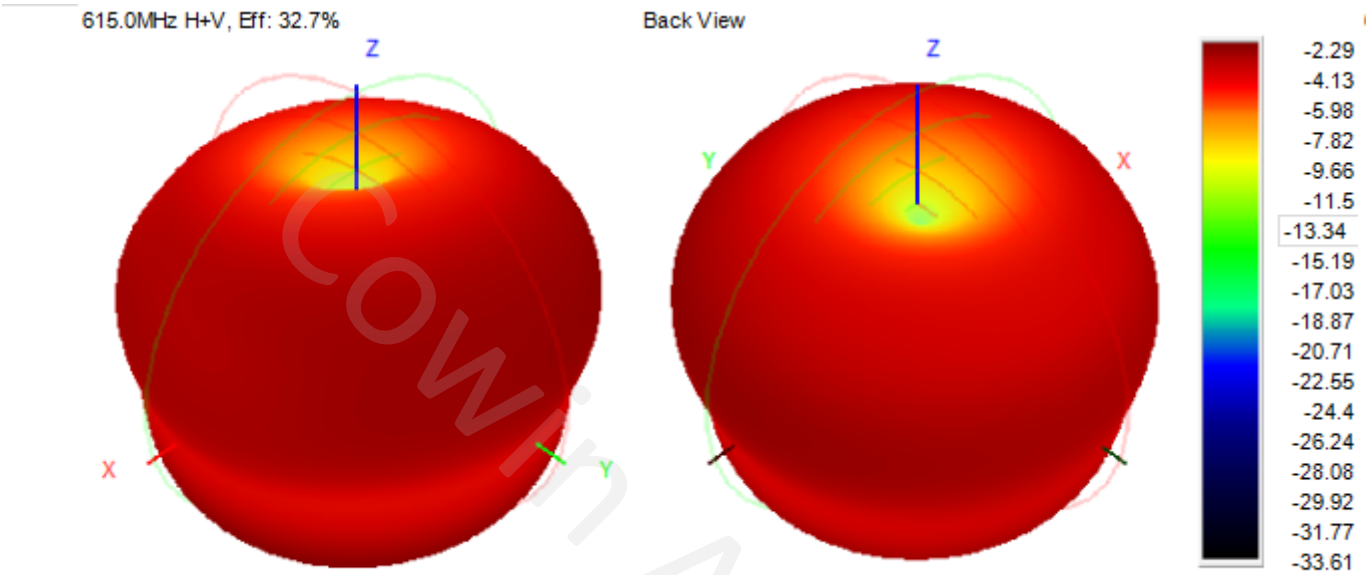
4.2 Efficiency

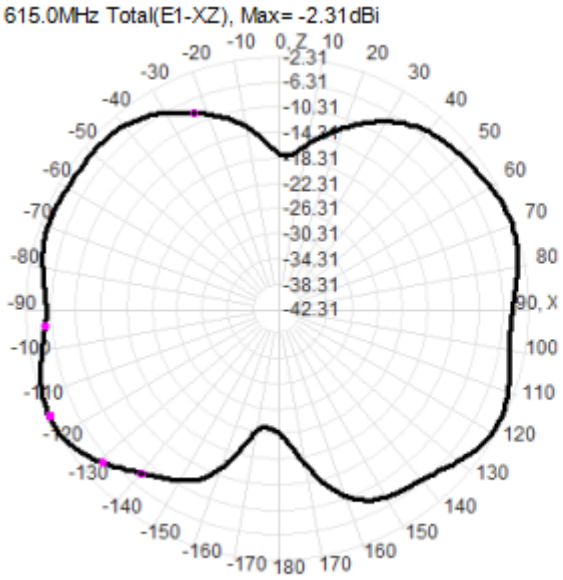


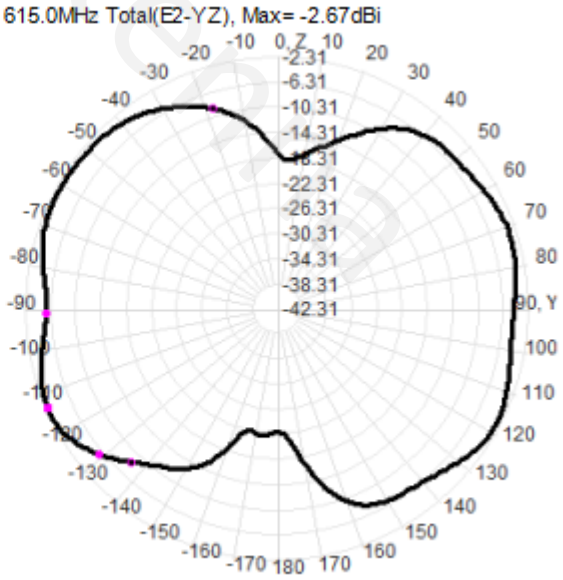
4.3 Peak gain



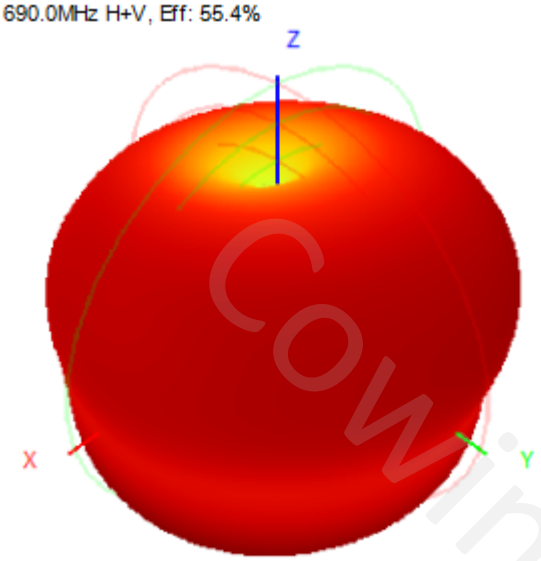
4.4 3D&2D Radiation Patterns



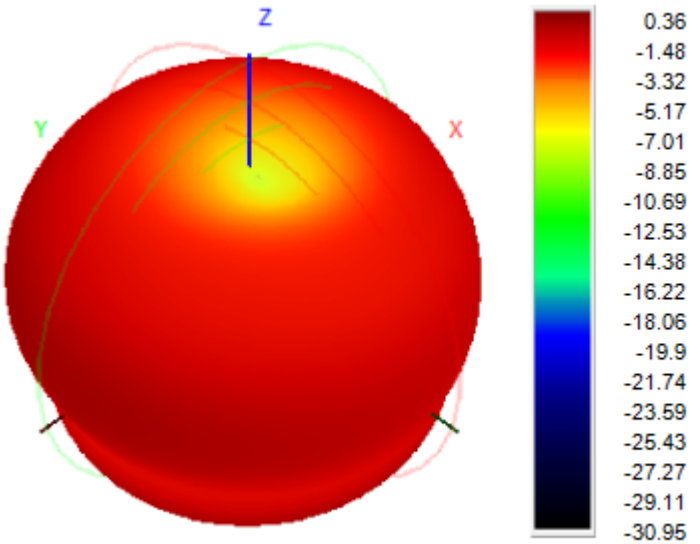




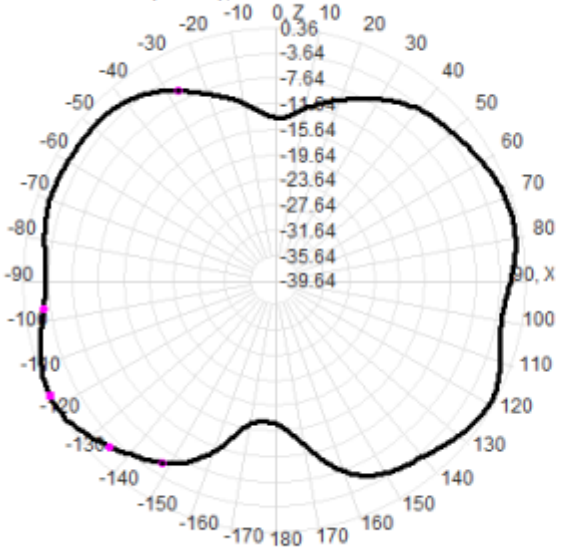
690.0MHz H+V, Eff: 55.4%



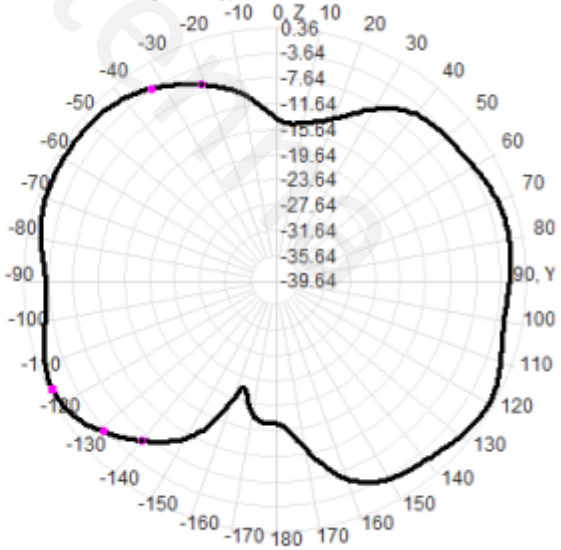
Back View

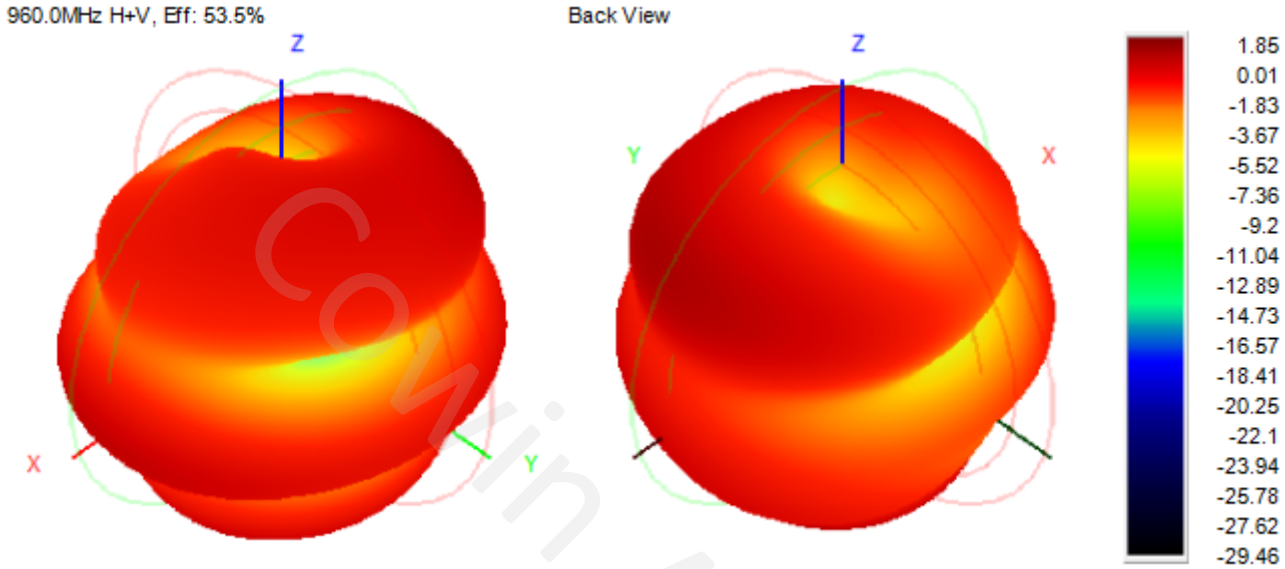


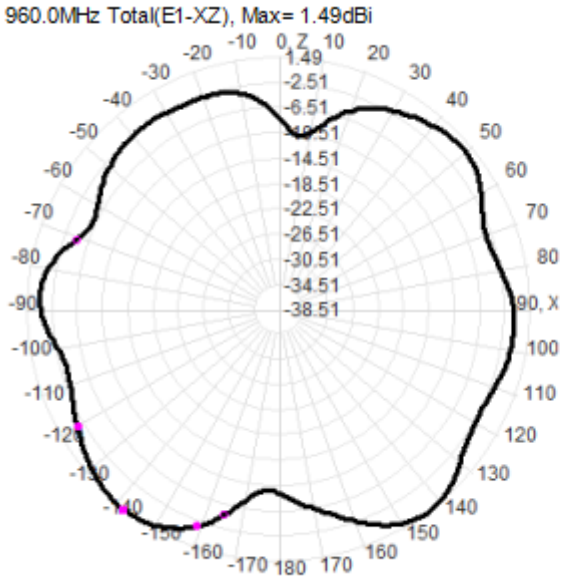
690.0MHz Total(E1-XZ), Max= 0.36dBi

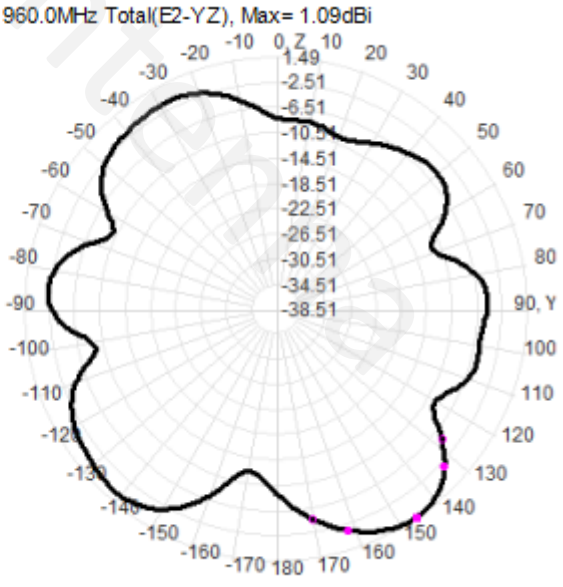


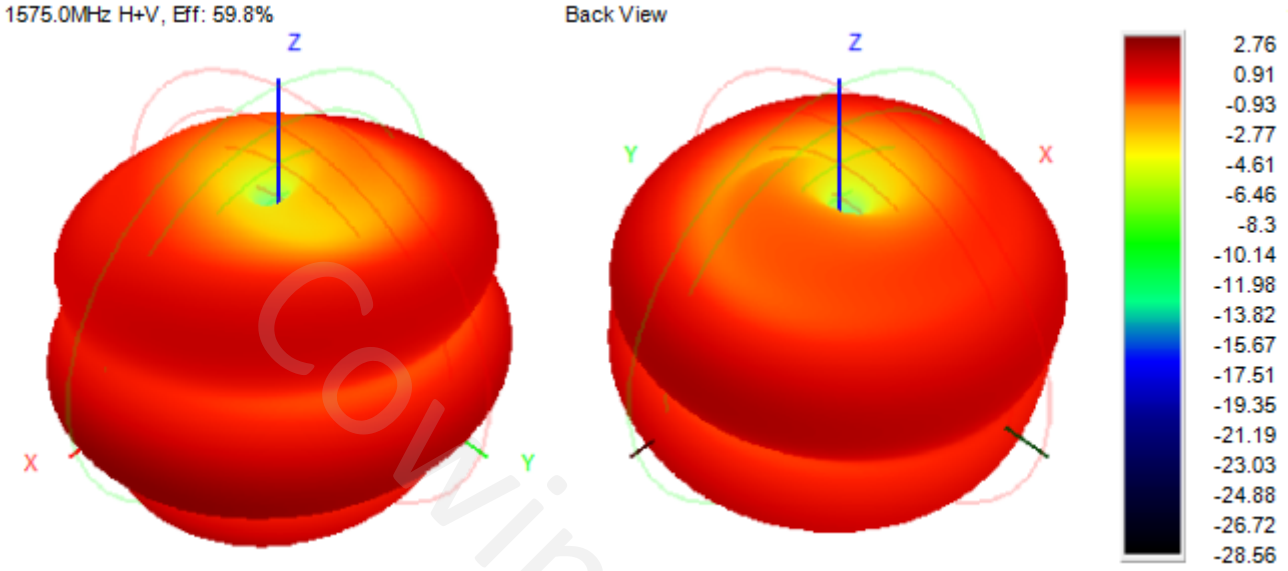
690.0MHz Total(E2-YZ), Max= -0.38dBi

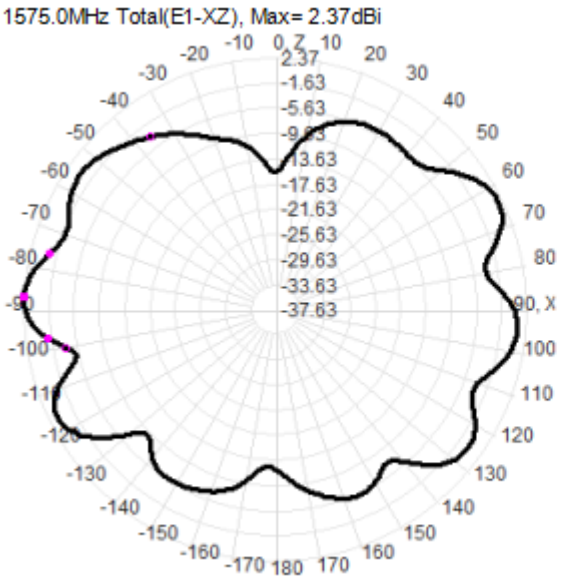


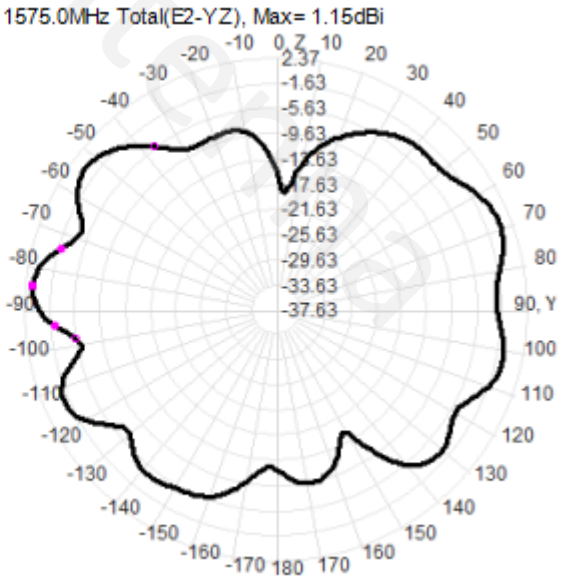


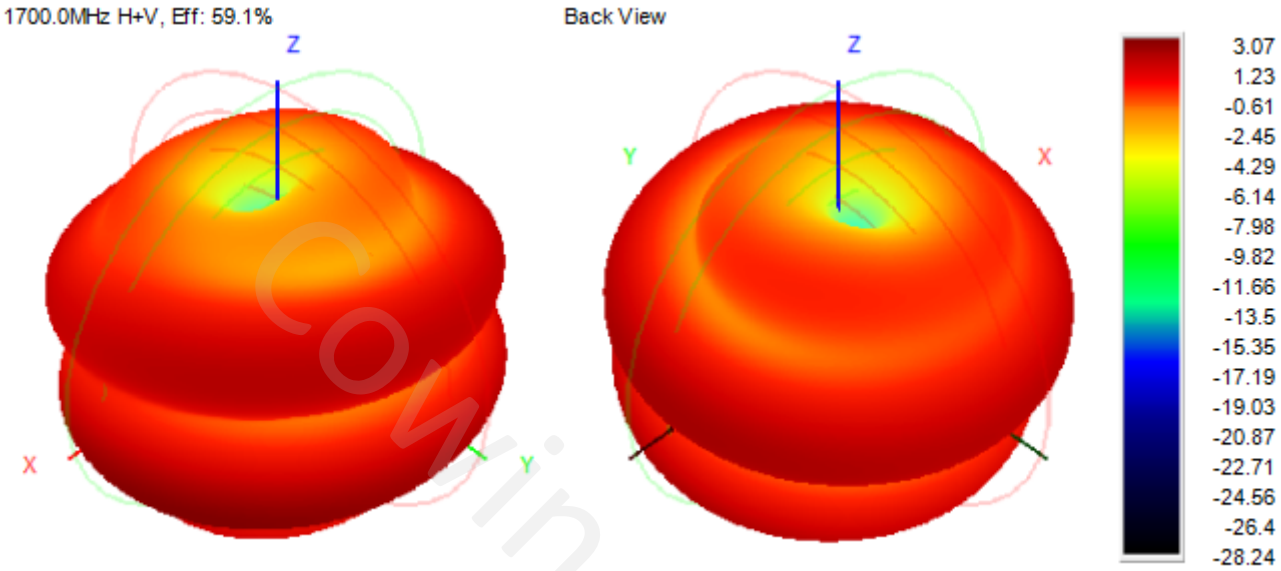


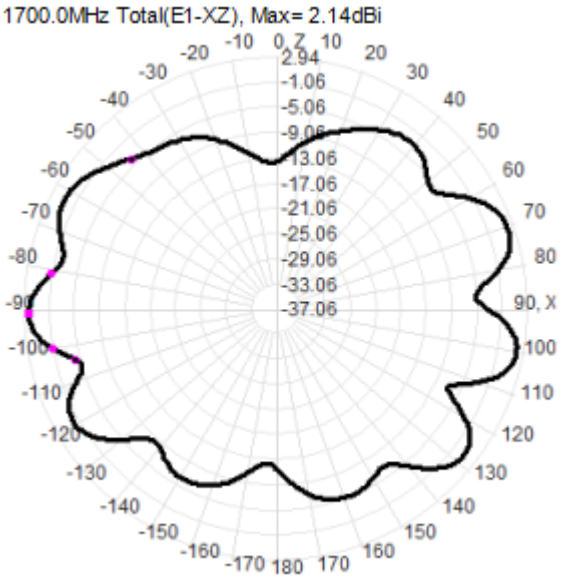


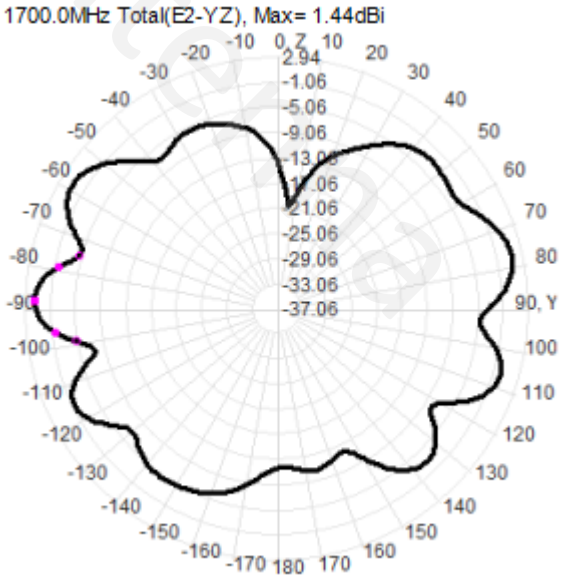


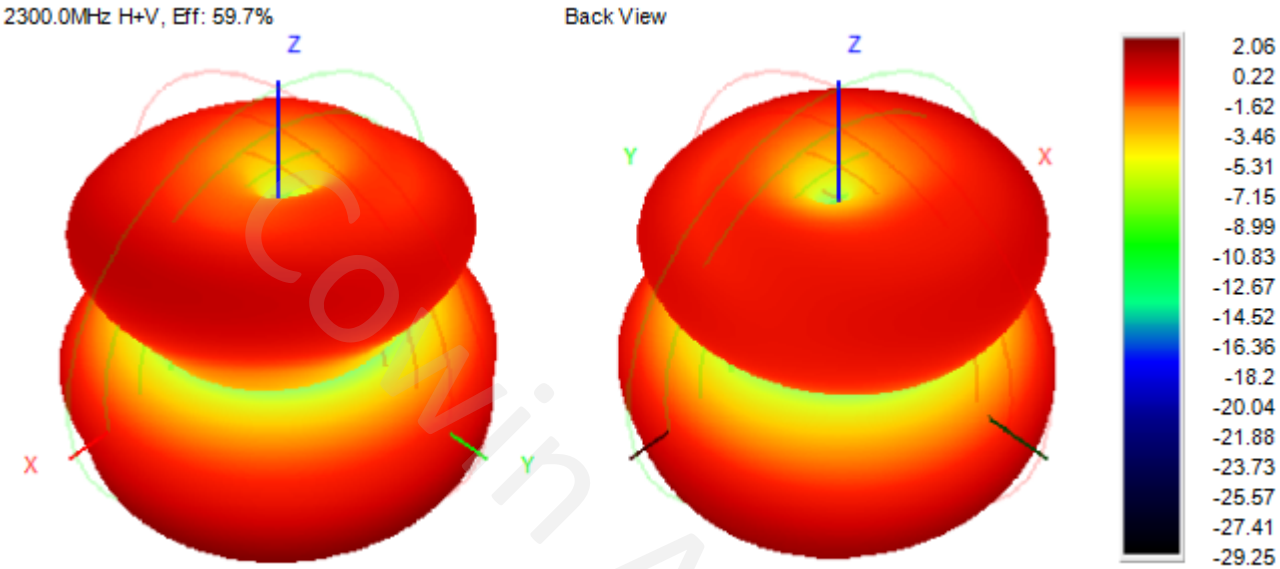


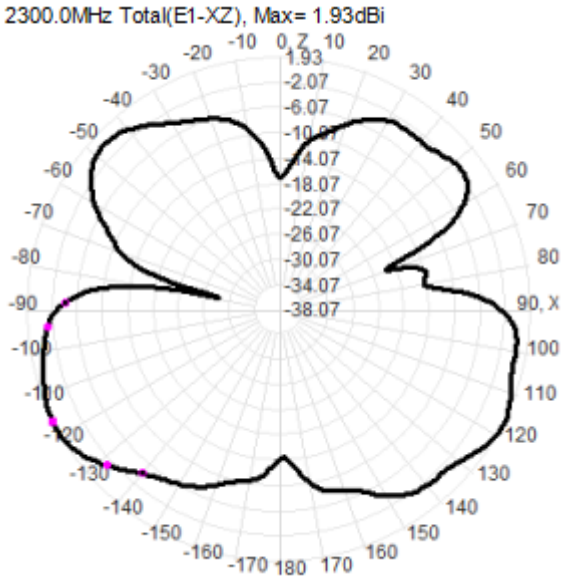


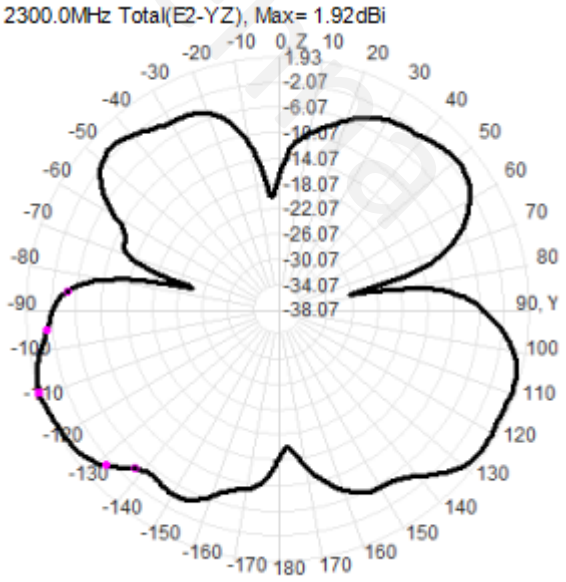


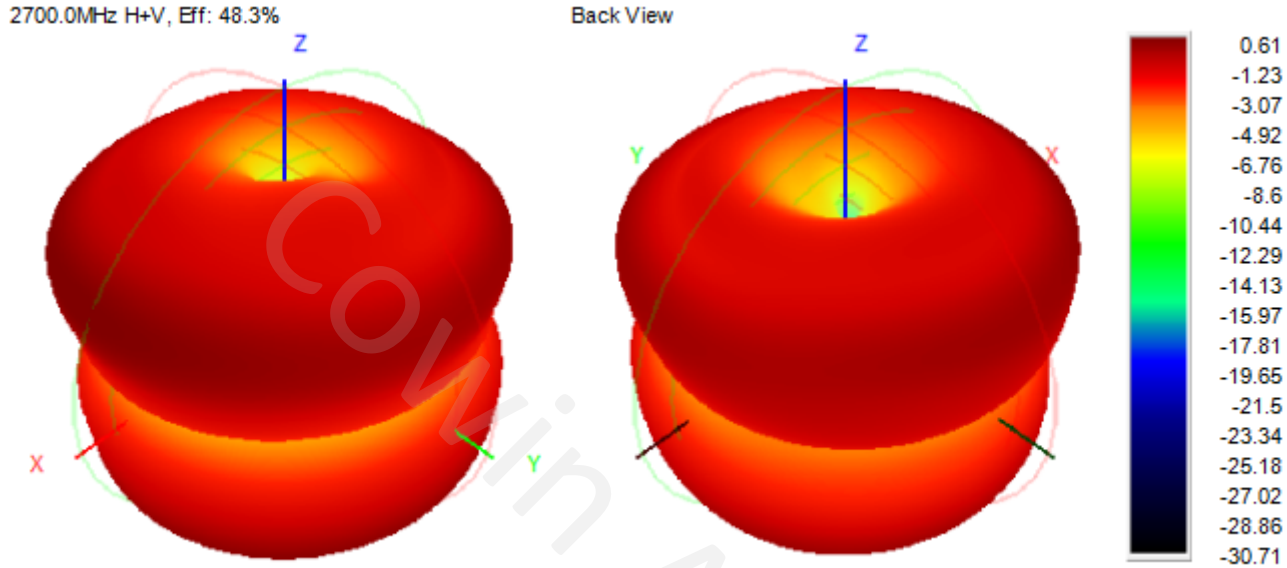


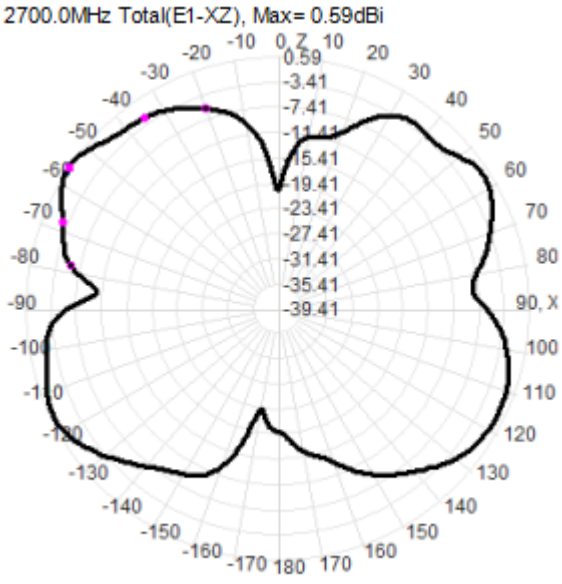


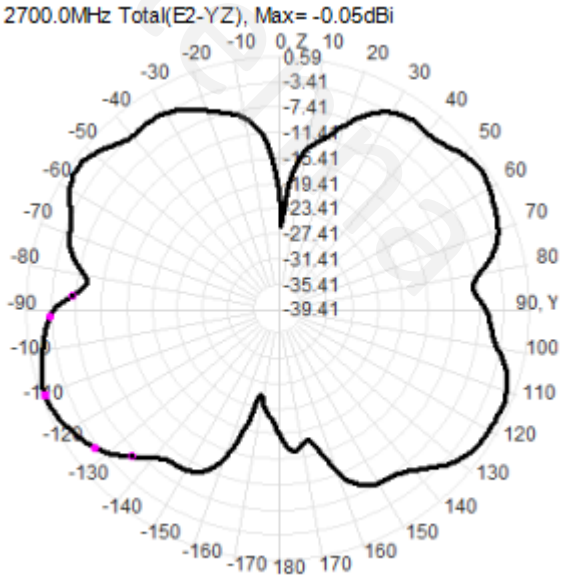


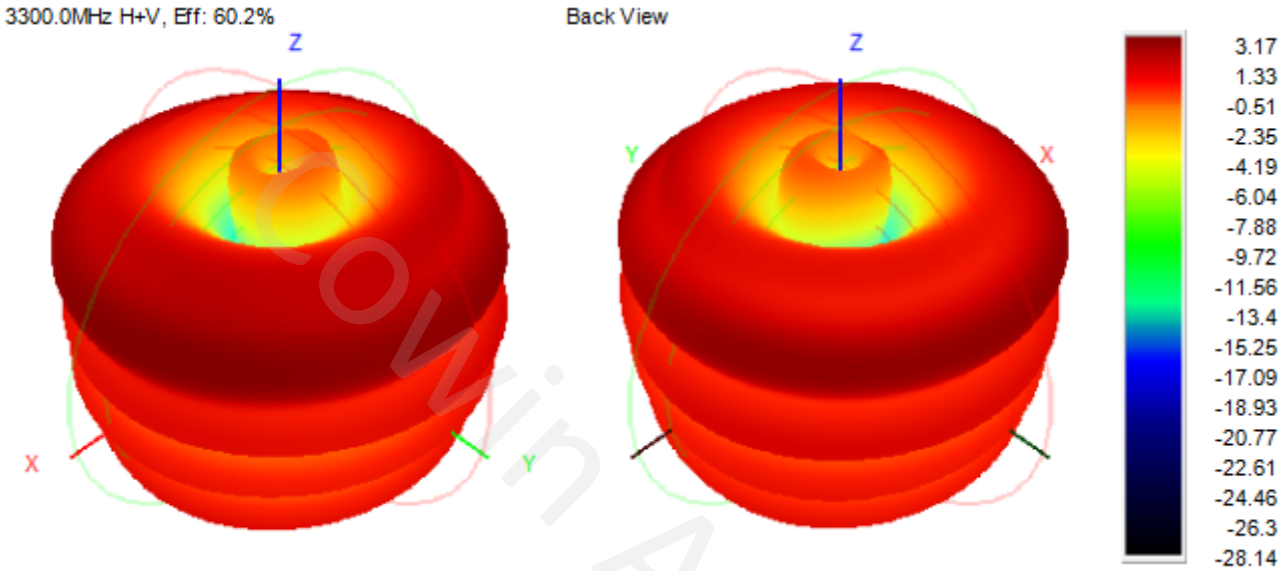


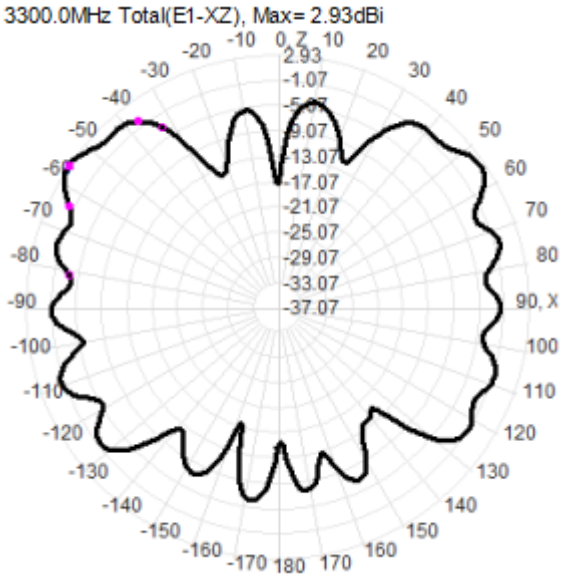


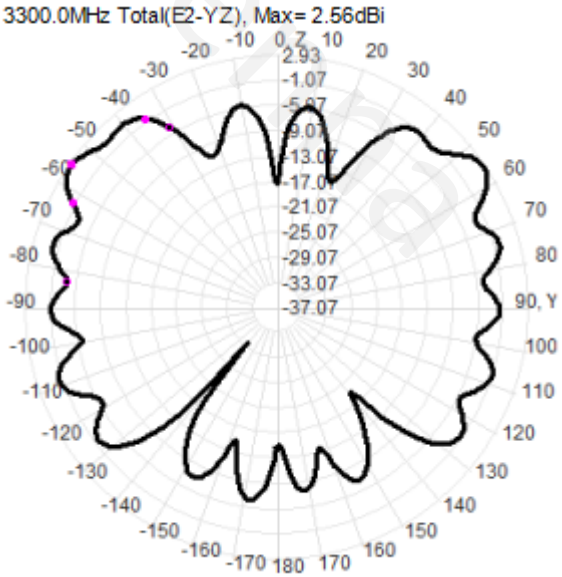




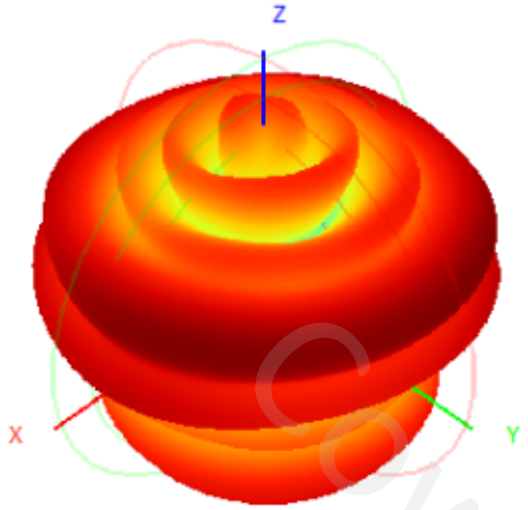




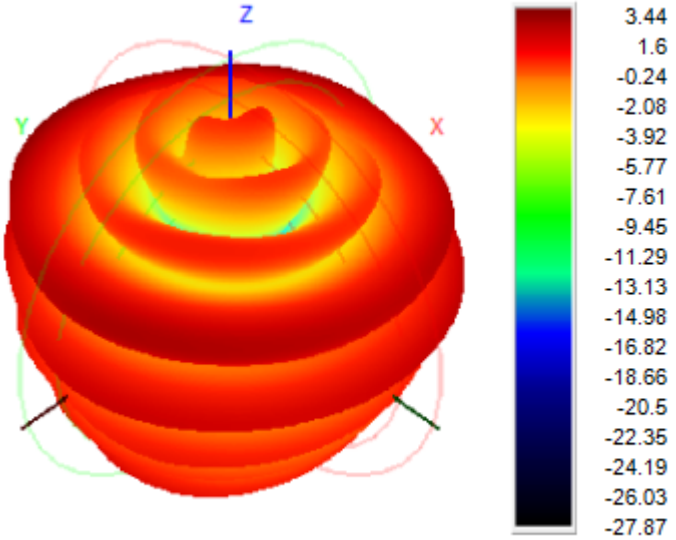




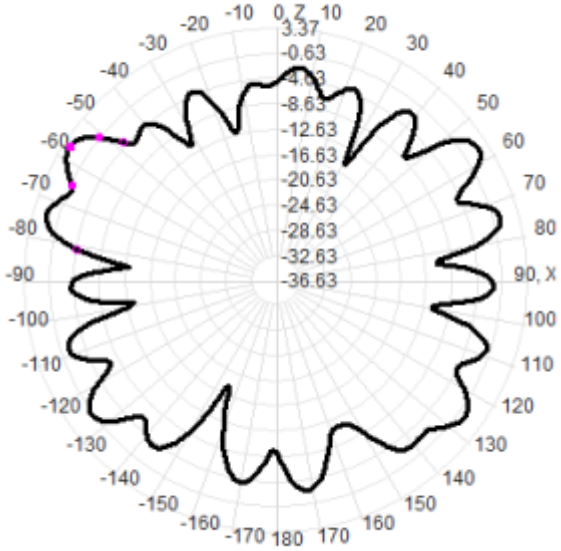
3800.0MHz H+V, Eff: 51.2%



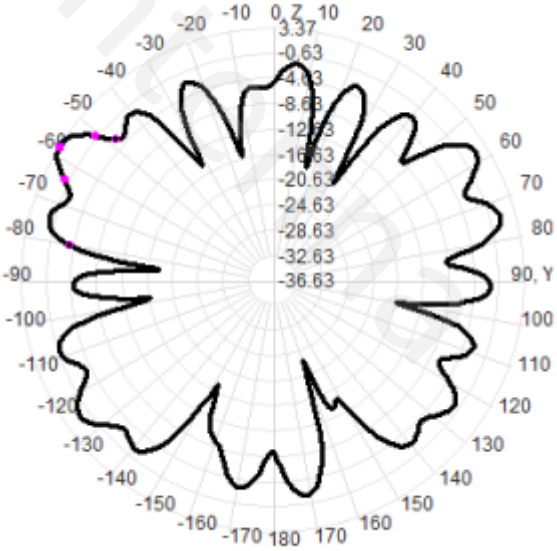
Back View



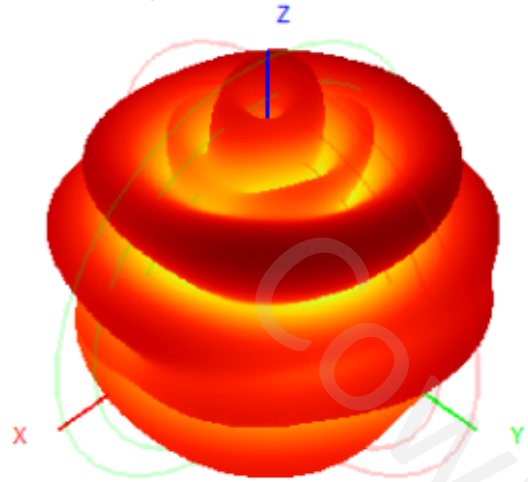
3800.0MHz Total(E1-XZ), Max= 2.29dBi



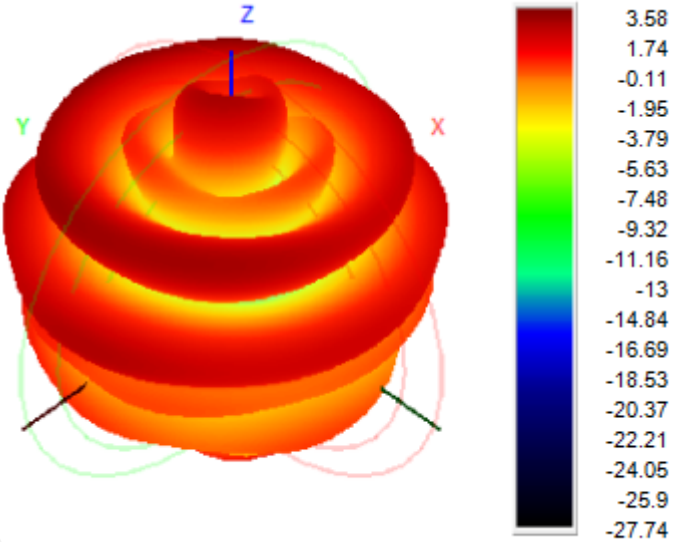
3800.0MHz Total(E2-YZ), Max= 3.37dBi



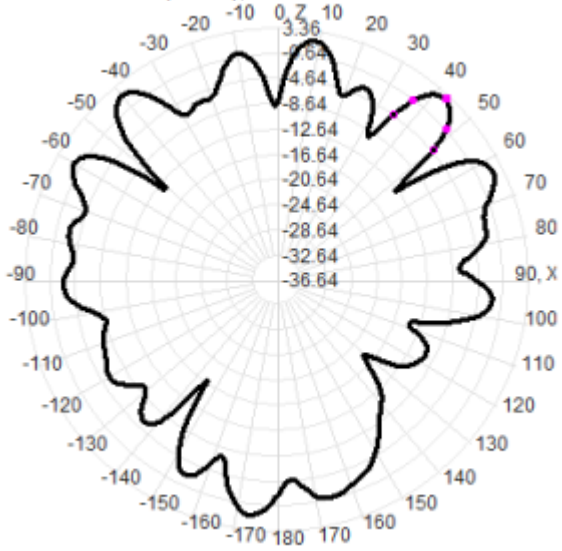
5150.0MHz H+V, Eff: 44.2%



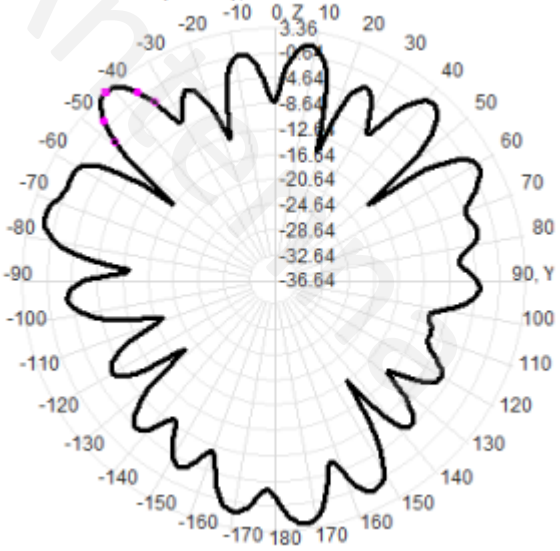
Back View



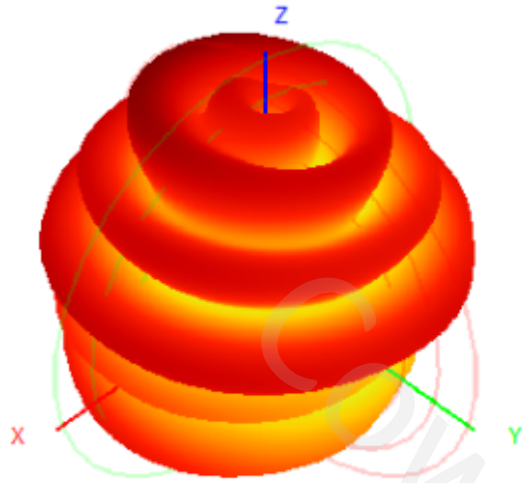
5150.0MHz Total(E1-XZ), Max= 2.57dBi



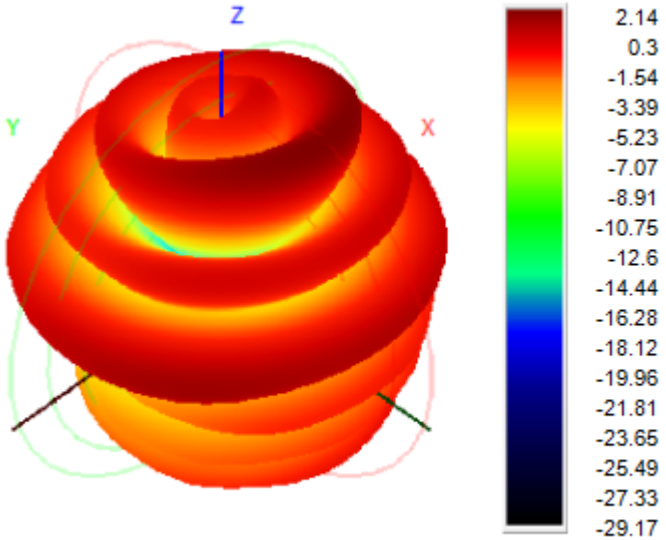
5150.0MHz Total(E2-YZ), Max= 3.36dBi



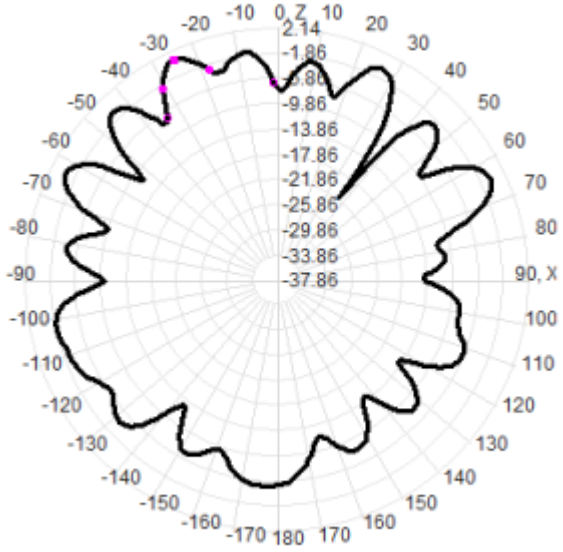
5925.0MHz H+V, Eff: 29.9%



Back View



5925.0MHz Total(E1-XZ), Max= 0.60dBi



5925.0MHz Total(E2-YZ), Max= 2.14dBi