

CW-WZ-0053

5G External Antenna

Key Features

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

SMA Male Connector

External Rubber

Dimensions 221*27 mm



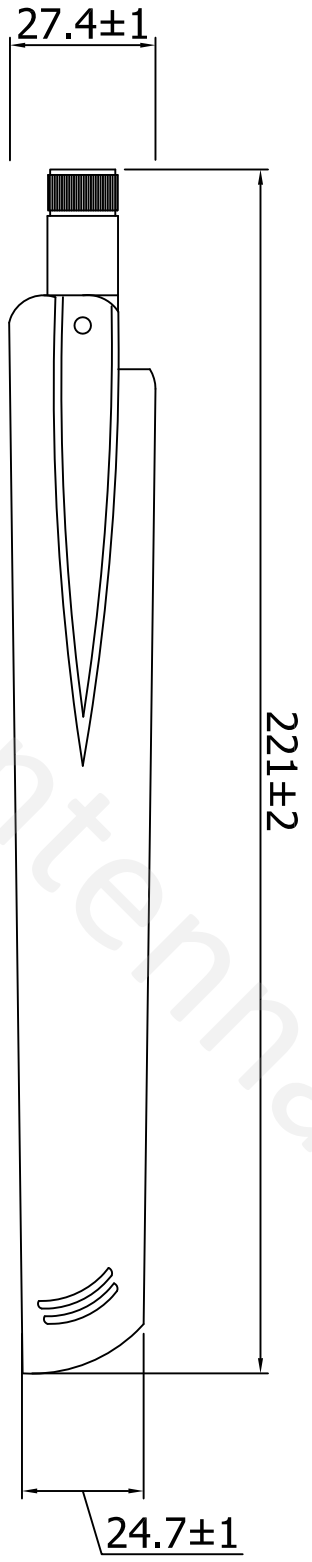
1. Antenna Electrical Characteristics

Band (MHz)				
Frequency (MHz)	617-960MHZ	1575-2700MHZ	3300-3800MHZ	5125-5925MHZ
VSWR	2.5:1	2.5:1	2.5:1	2:1
Efficiency (%)	68.79%	65.45%	61.66%	51.29%
Peak Gain (dBi)	3.53	3.57	2.84	5.02
Impedance (Ohm)	50			
Polarisation	Vertical			
Max. Input Power (W)	10			
Connector Type	SMA male			

2. Material and environmental characteristics

Material of PCB	FR4
Material of Plastic	PC+PBT/ABS
Cable Type	RG178
Connector Type	SMA male
Dimensions (mm)	221*27
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	2021/08/10	New issue



Specification(Free Test):
 Frequency Range: 617-960MHZ/1575-2700NHZ
 3300-3800MHZ/5125-5925MHZ
 Impedance: 50Ω
 V.S.W.R: ≤2.5/2.5/2.5/2

5	Rod sleeve	Black ABS	1		
4	Fixed seat	Black PC+PBT	1		
3	PCB	FR4	1		
2	Cable	RG 178 single silver wire	1		
1	Connector	SMA male	1		
NO	Name	Description	QTY	Remark	
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-0053
.XXX	±0.1	Drawing		REV	Unit
				X1	m/m
				Sheet :	1/1



4. Antenna test parameters

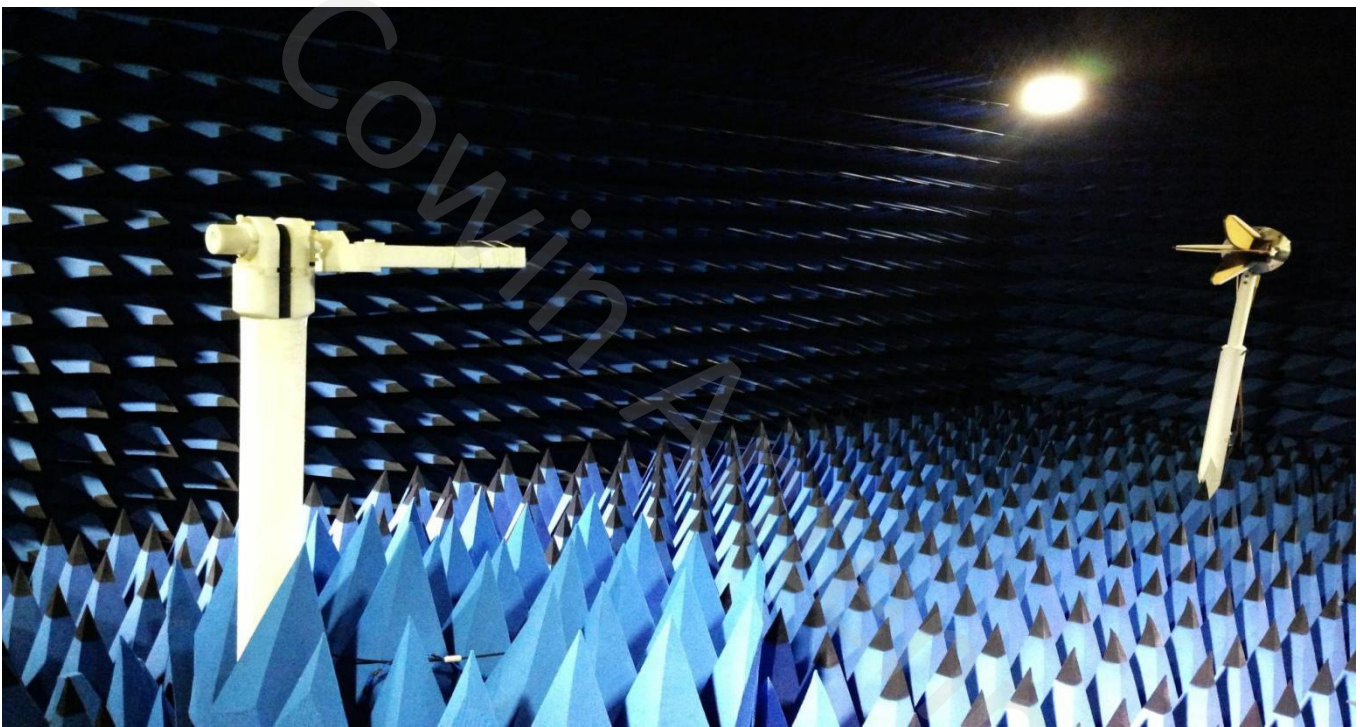
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

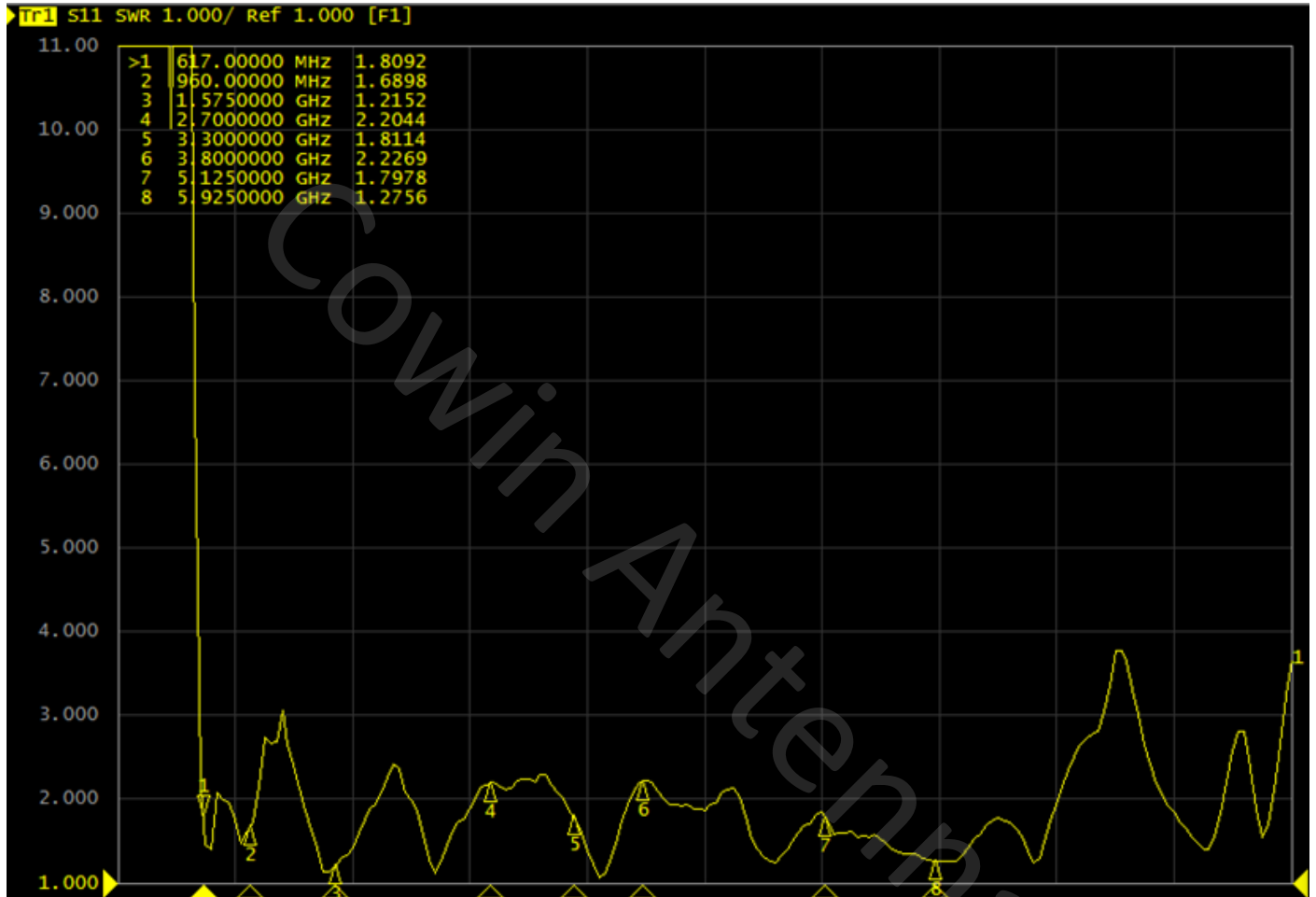
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

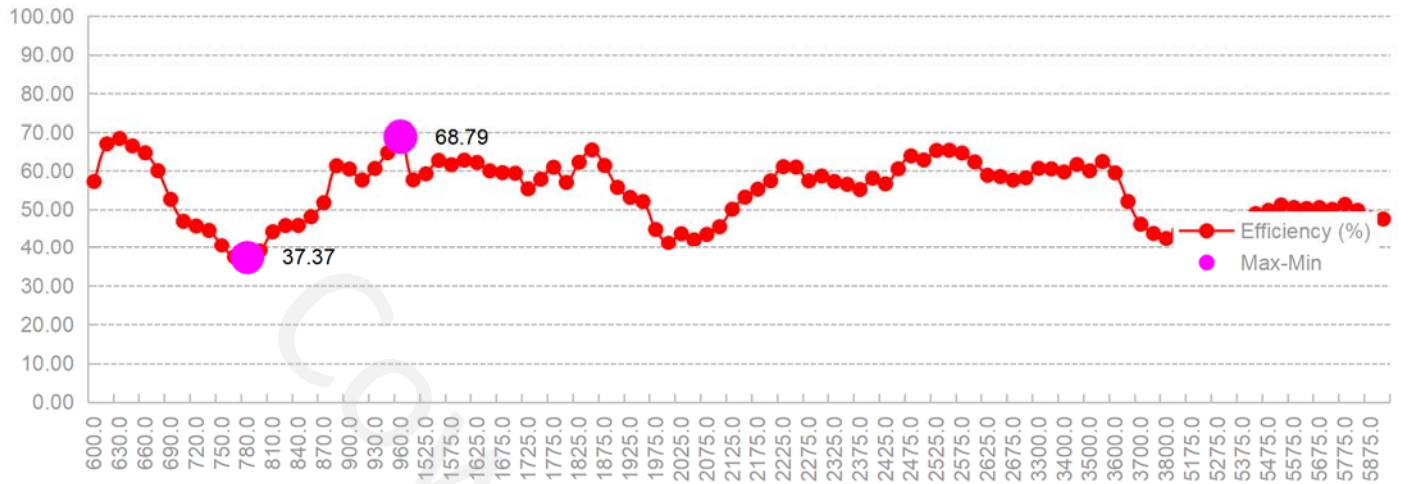
The comprehensive tester is Agilent cmv500



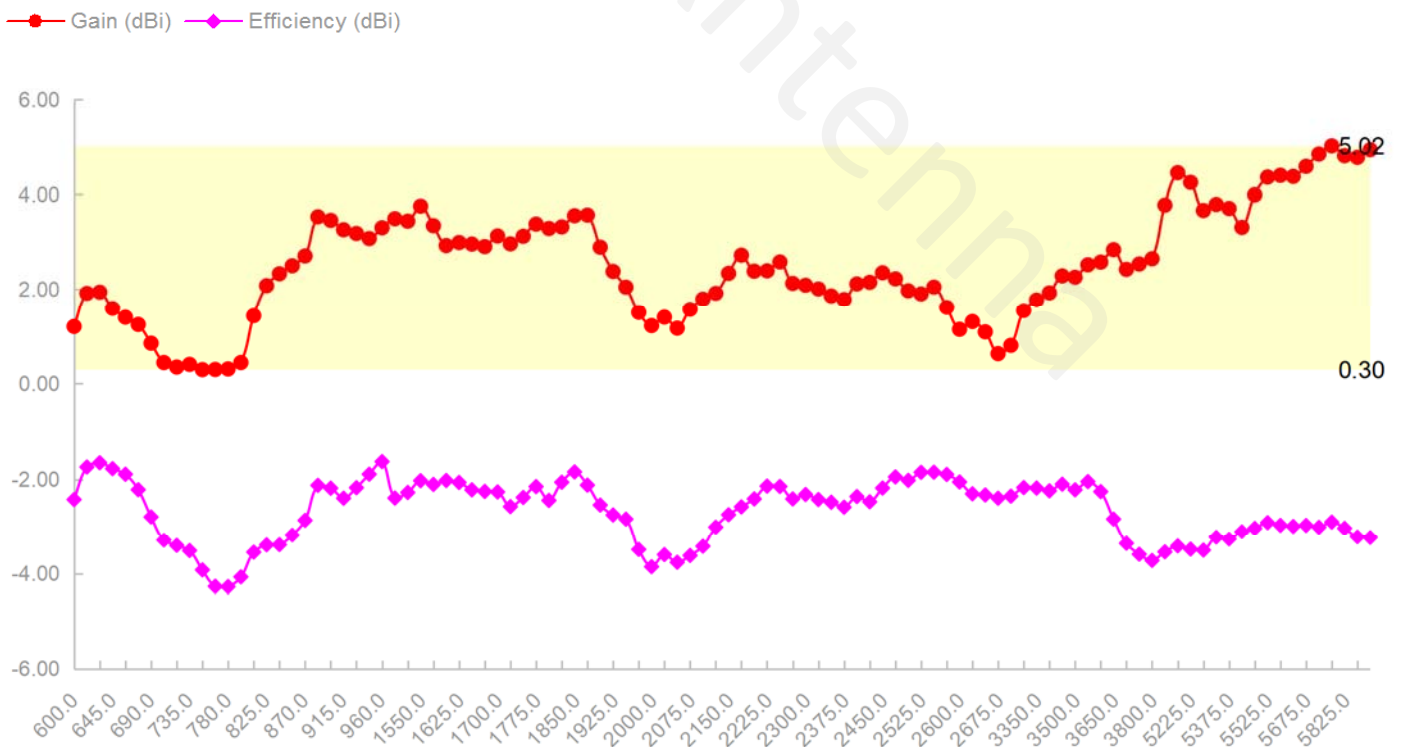
4.1 VSWR



4.2 Efficiency

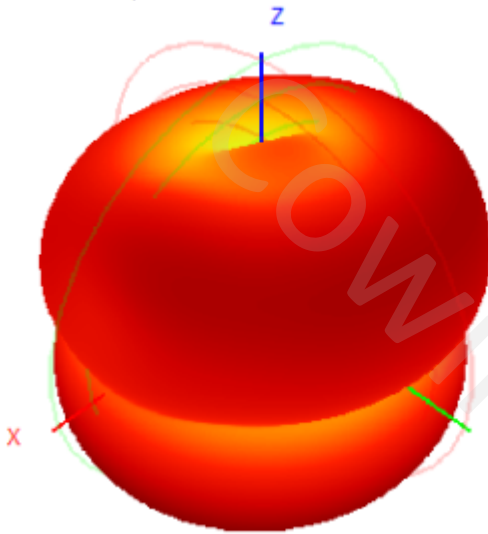


4.3 Peak gain

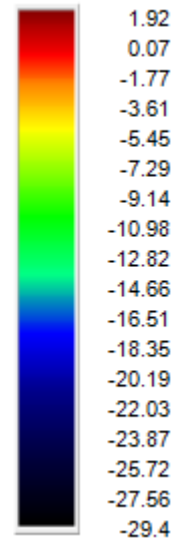
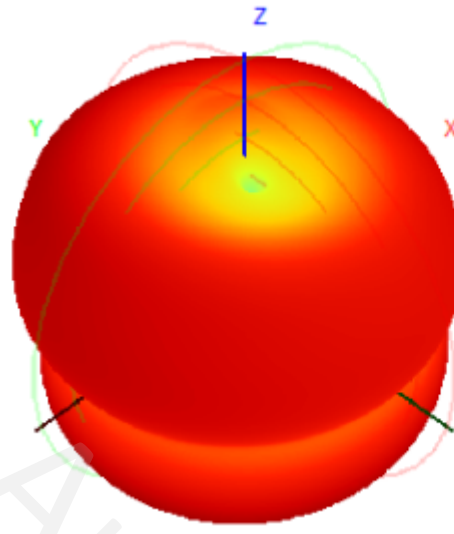


4.4 3D&2D Radiation Patterns

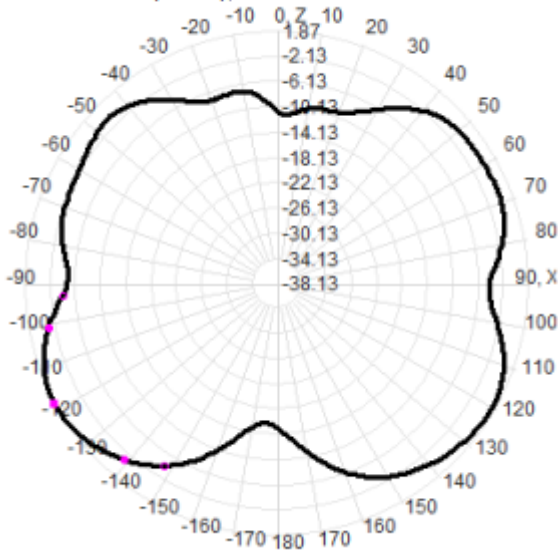
615.0MHz H+V, Eff: 67.0%



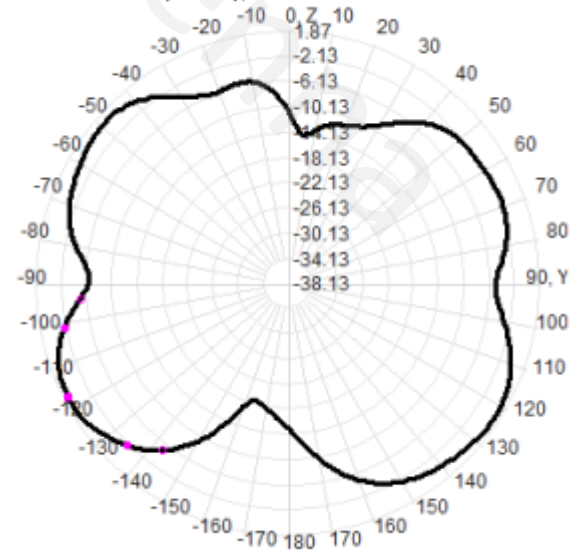
Back View



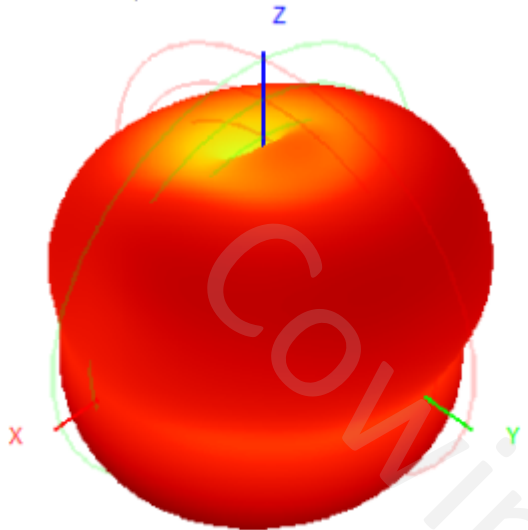
615.0MHz Total(E1-XZ), Max= 1.87dBi



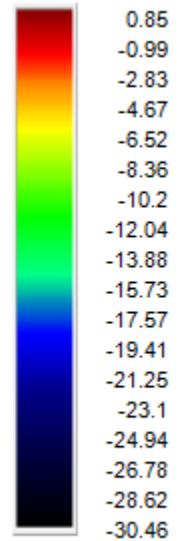
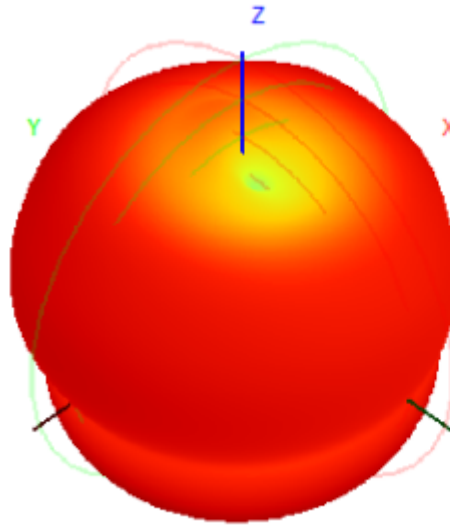
615.0MHz Total(E2-YZ), Max= 1.05dBi



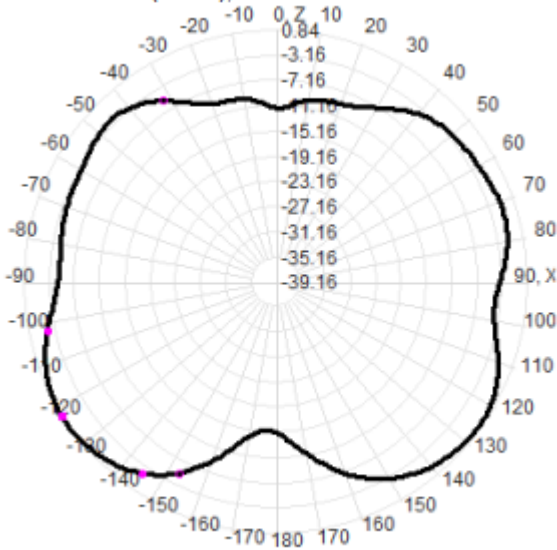
690.0MHz H+V, Eff: 52.6%



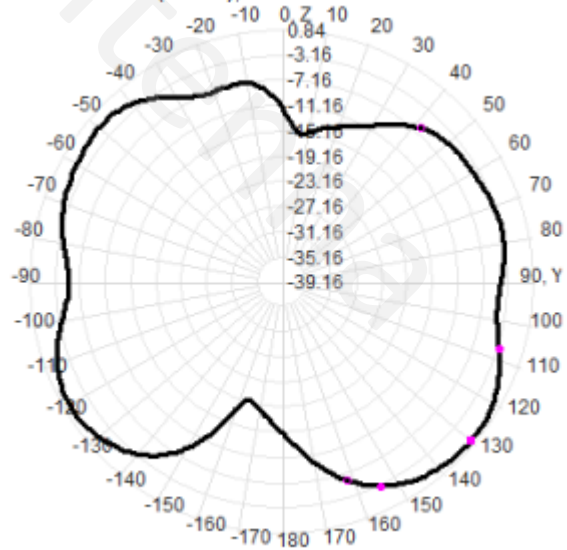
Back View



690.0MHz Total(E1-XZ), Max= 0.84dBi

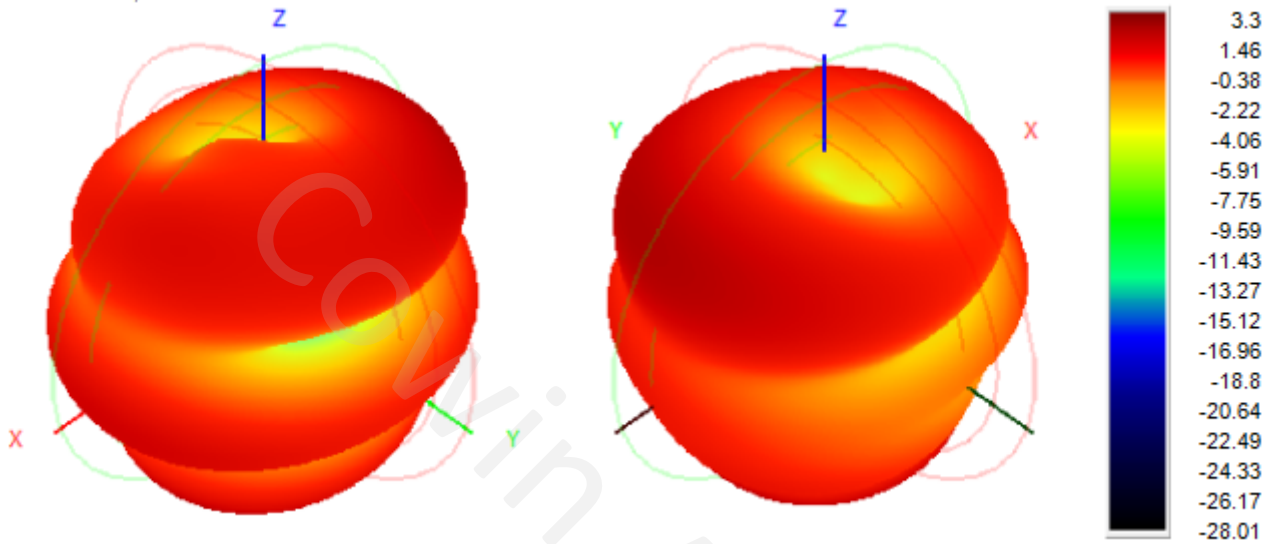


690.0MHz Total(E2-YZ), Max= -0.11dBi



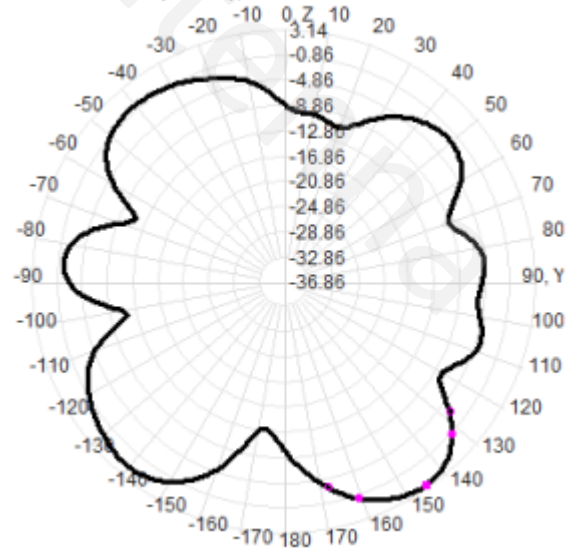
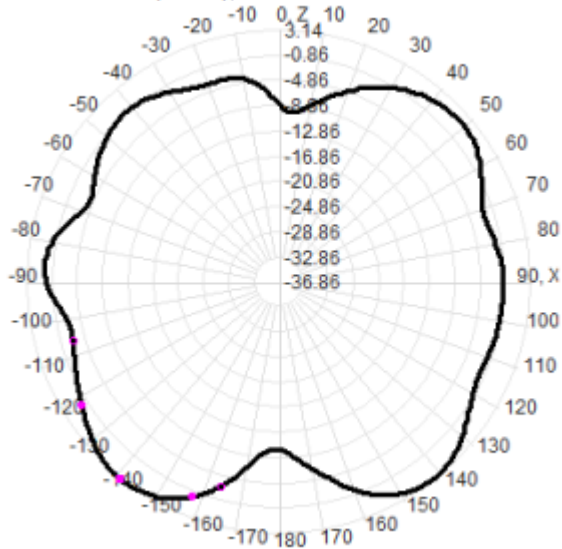
960.0MHz H+V, Eff: 68.8%

Back View

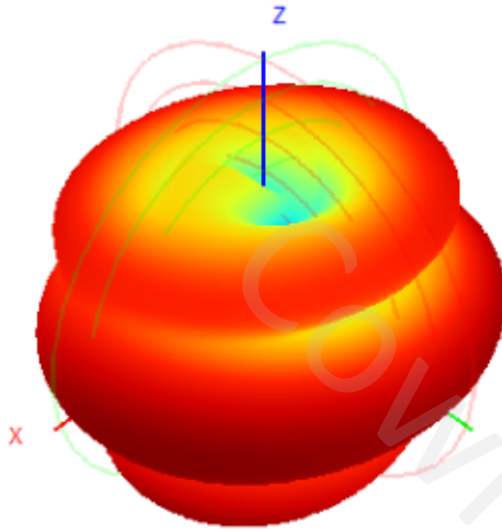


960.0MHz Total(E1-XZ), Max= 3.14dBi

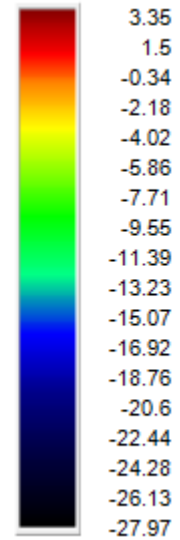
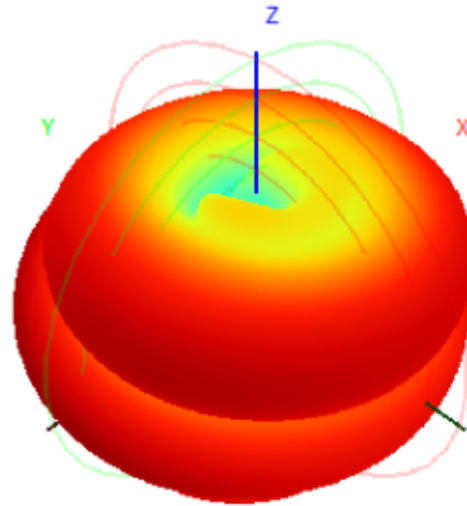
960.0MHz Total(E2-YZ), Max= 2.31dBi



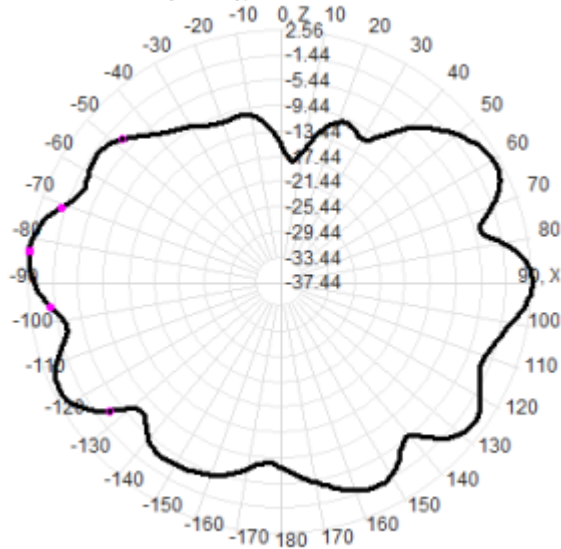
1575.0MHz H+V, Eff: 61.6%



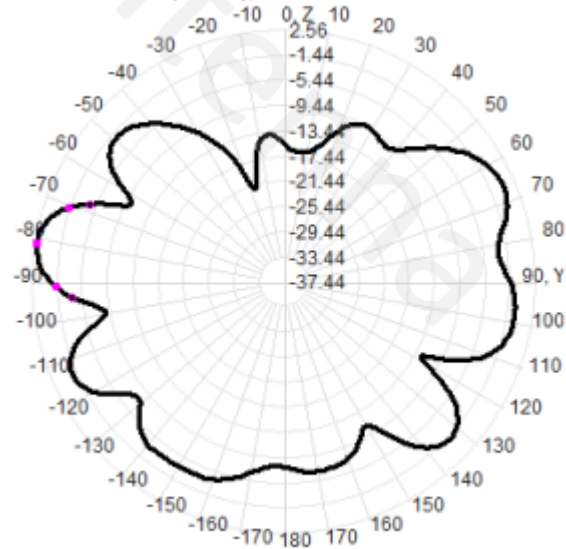
Back View



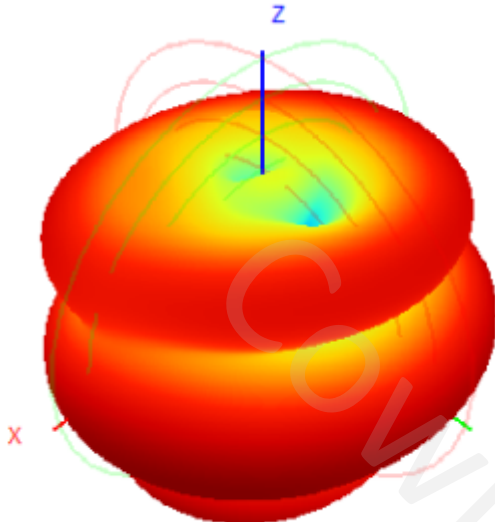
1575.0MHz Total(E1-XZ), Max= 2.56dBi



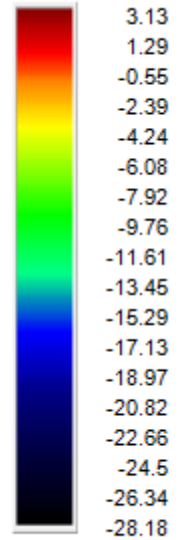
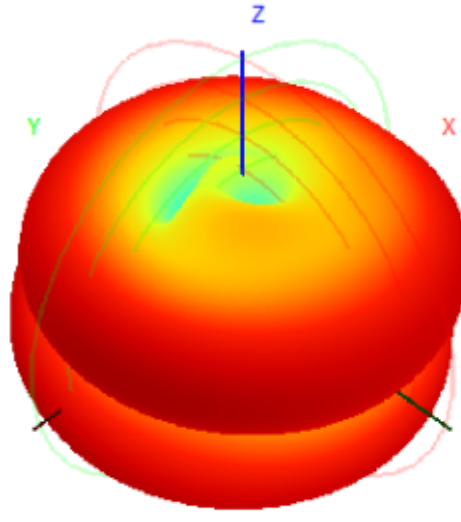
1575.0MHz Total(E2-YZ), Max= 2.19dBi



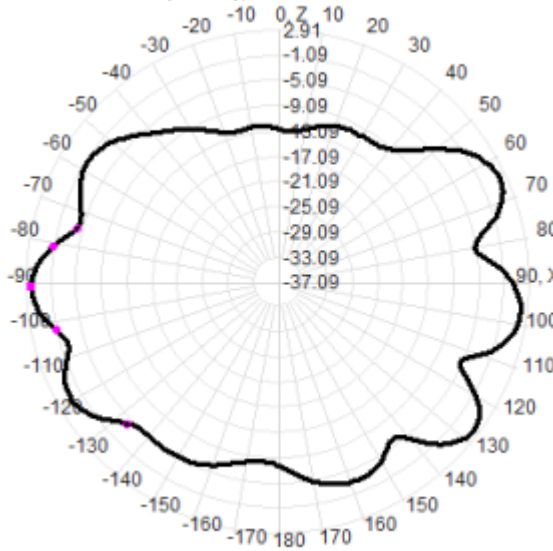
1700.0MHz H+V, Eff: 59.4%



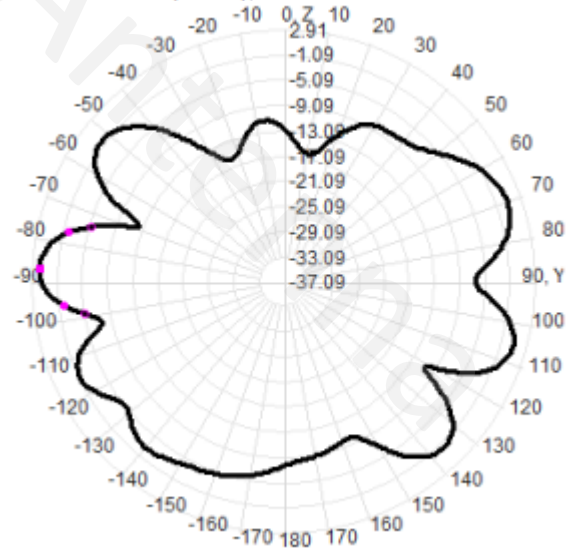
Back View



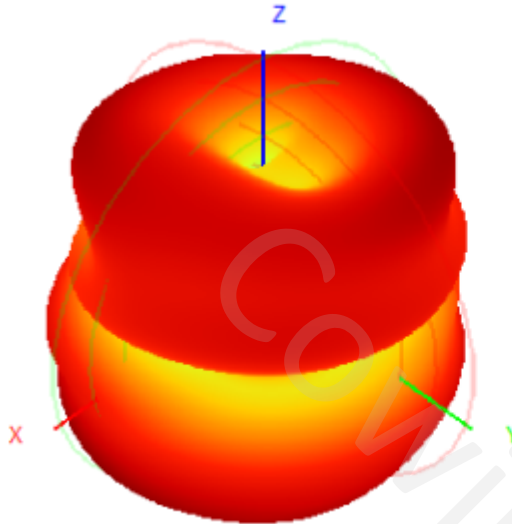
1700.0MHz Total(E1-XZ), Max= 1.99dBi



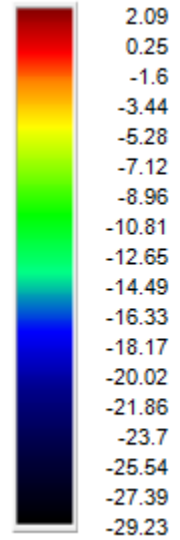
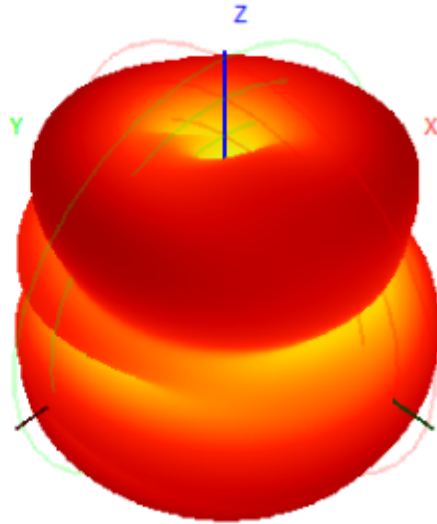
1700.0MHz Total(E2-YZ), Max= 1.74dBi



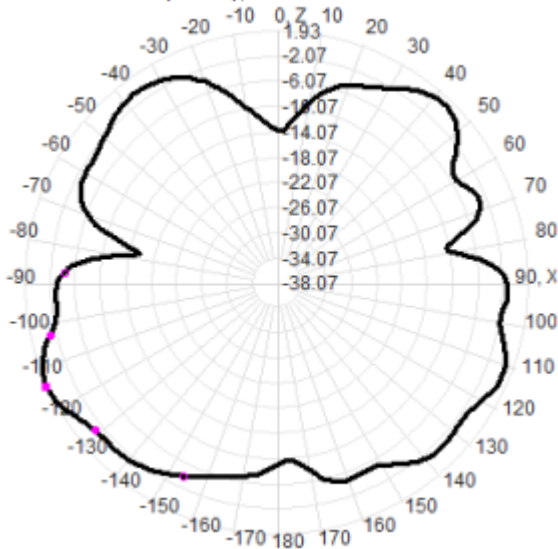
2300.0MHz H+V, Eff: 58.7%



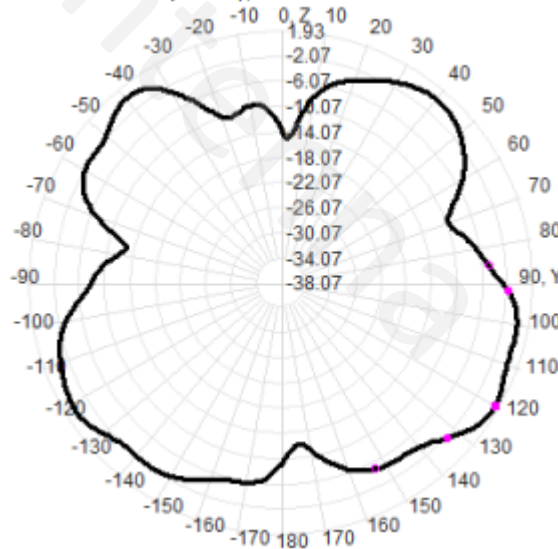
Back View



2300.0MHz Total(E1-XZ), Max= 1.93dBi

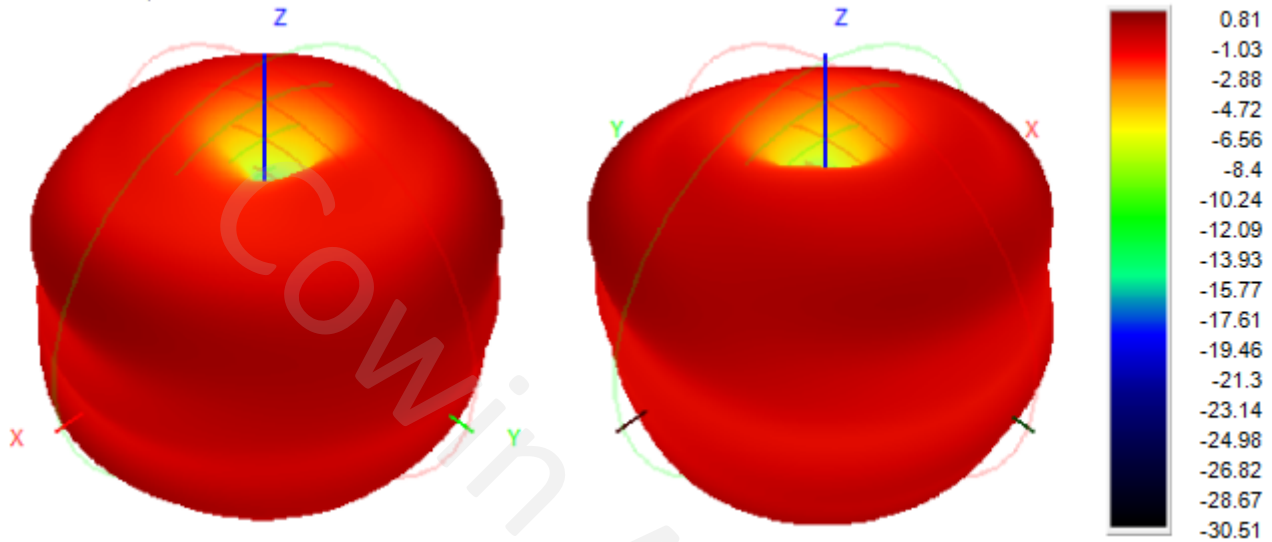


2300.0MHz Total(E2-YZ), Max= 0.92dBi



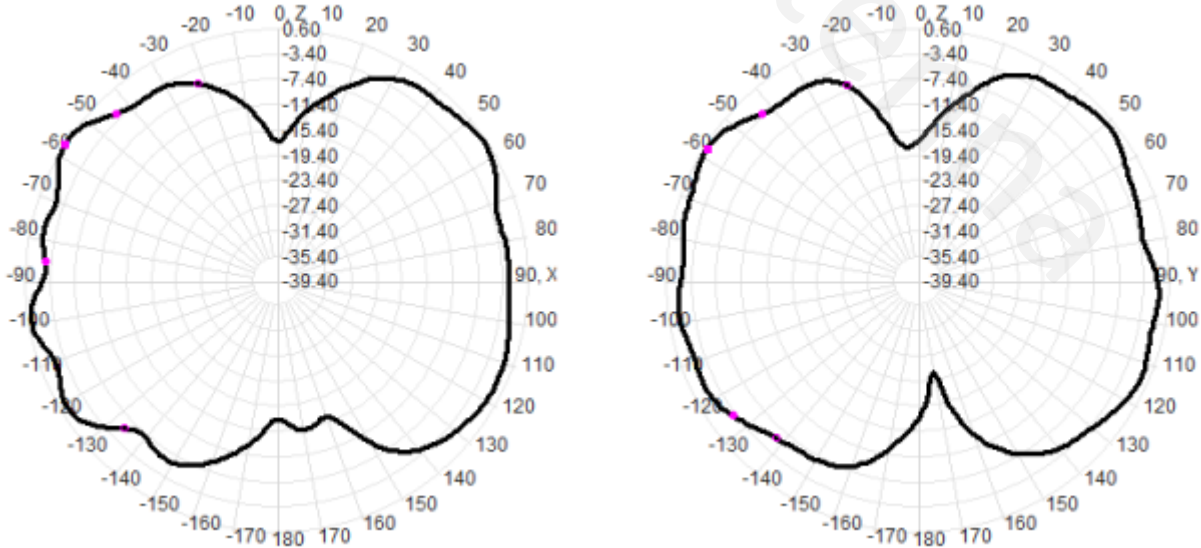
2700.0MHz H+V, Eff: 58.2%

Back View

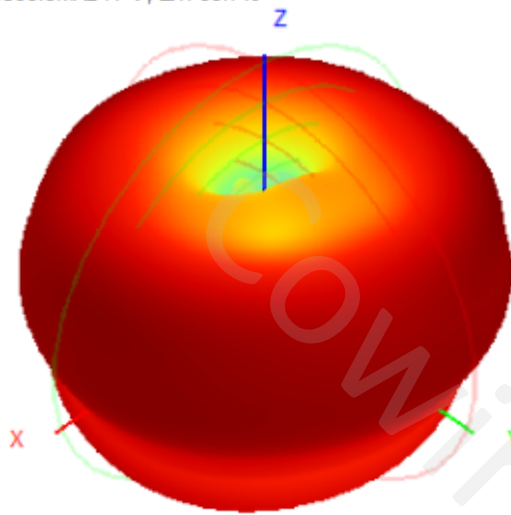


2700.0MHz Total(E1-XZ), Max= 0.60dBi

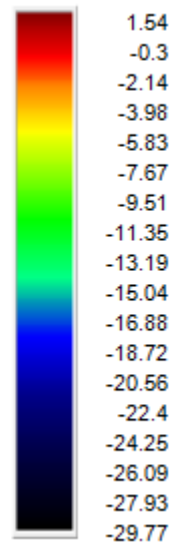
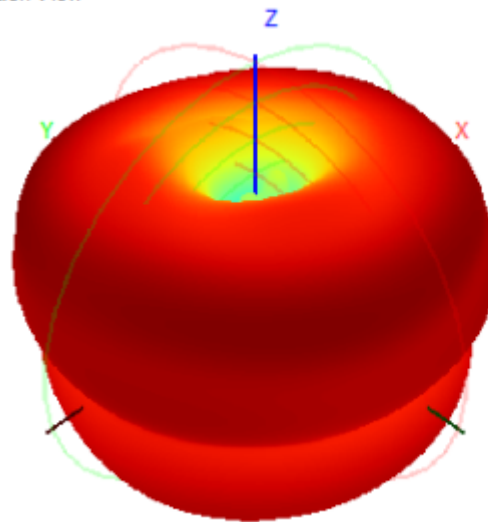
2700.0MHz Total(E2-YZ), Max= 0.03dBi



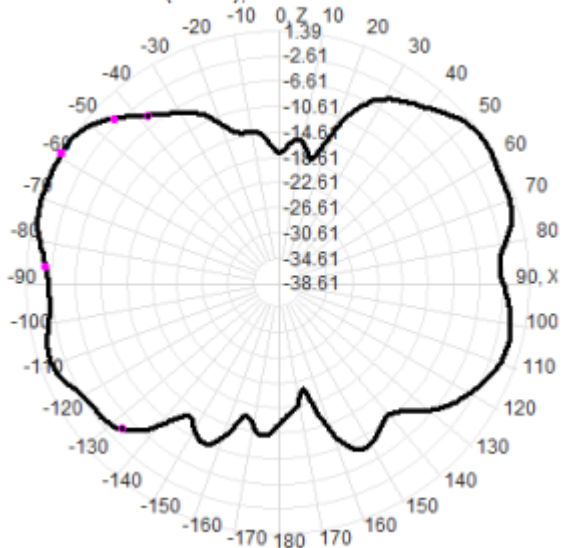
3300.0MHz H+V, Eff: 60.7%



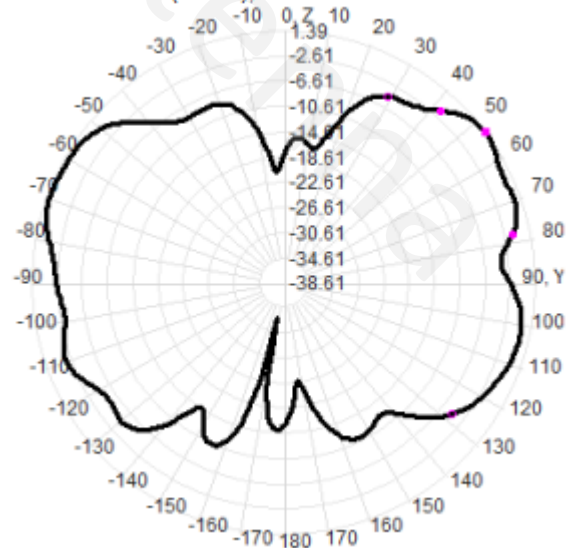
Back View



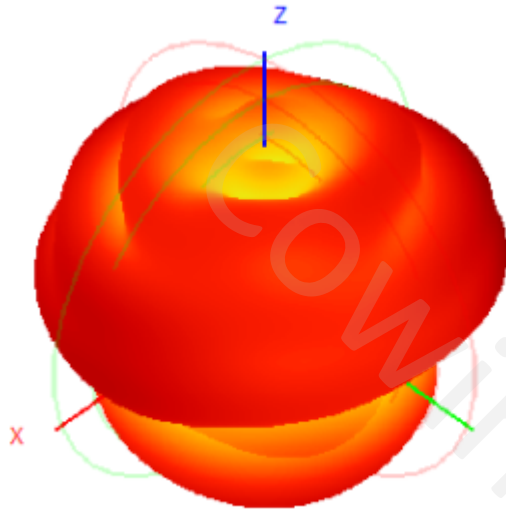
3300.0MHz Total(E1-XZ), Max= 1.39dBi



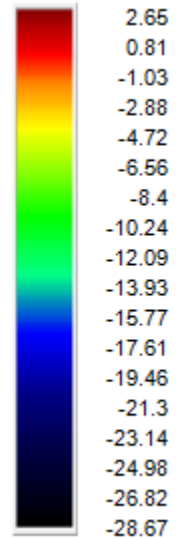
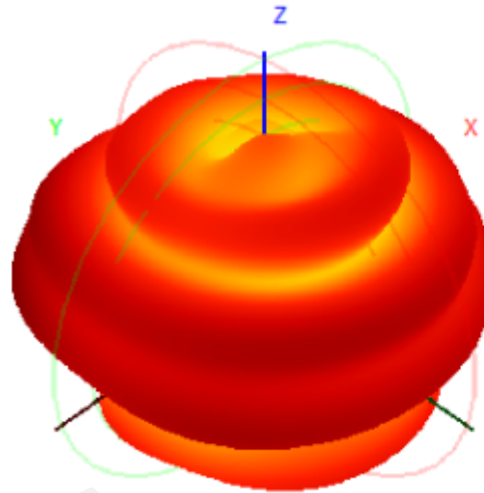
3300.0MHz Total(E2-YZ), Max= 1.24dBi



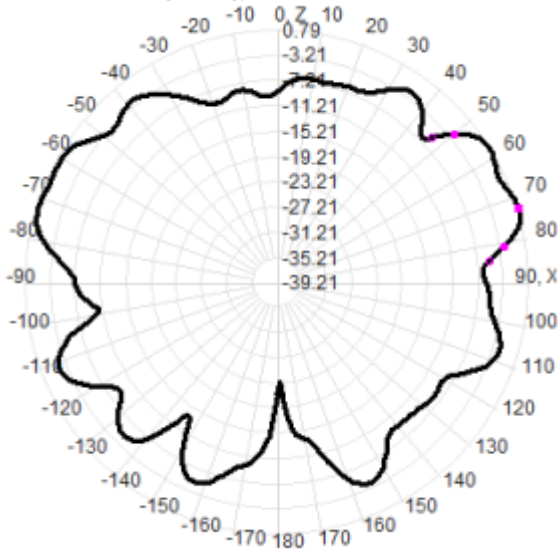
3800.0MHz H+V, Eff: 42.4%



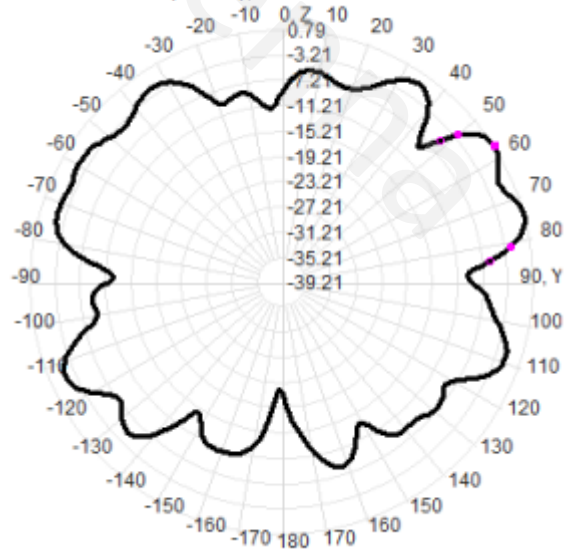
Back View



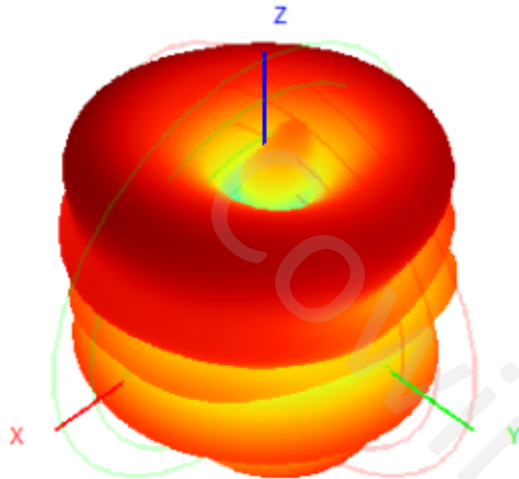
3800.0MHz Total(E1-XZ), Max= 0.79dBi



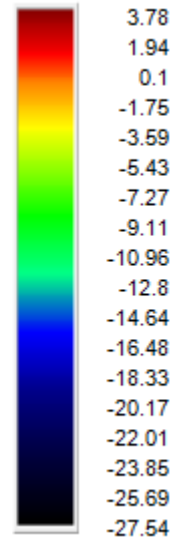
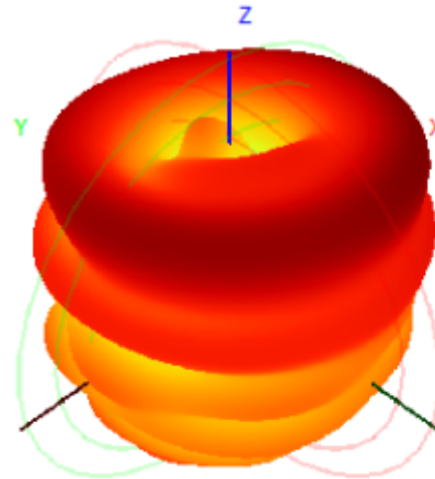
3800.0MHz Total(E2-YZ), Max= 0.71dBi



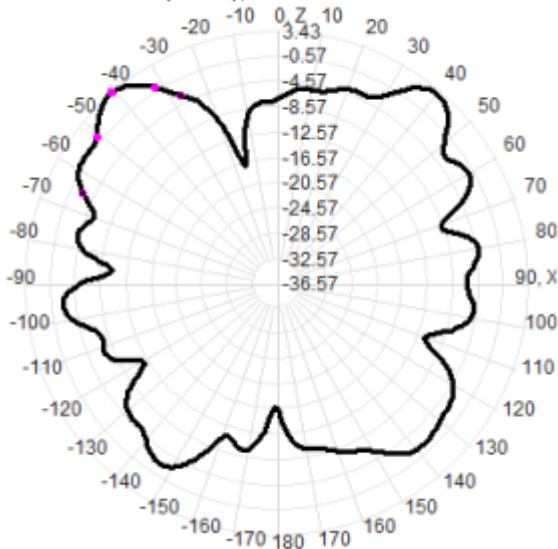
5125.0MHz H+V, Eff: 44.3%



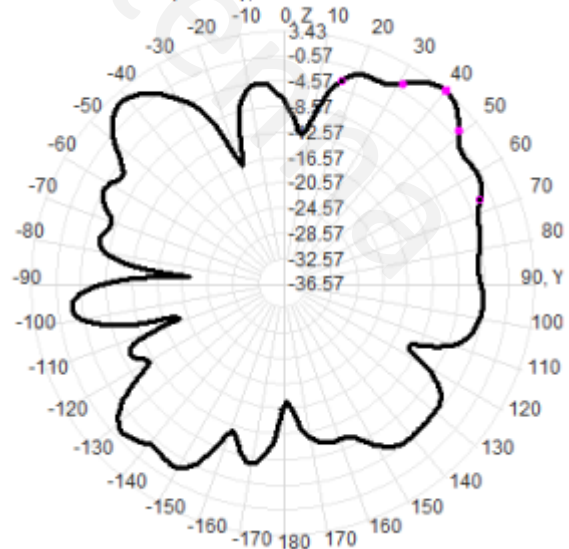
Back View



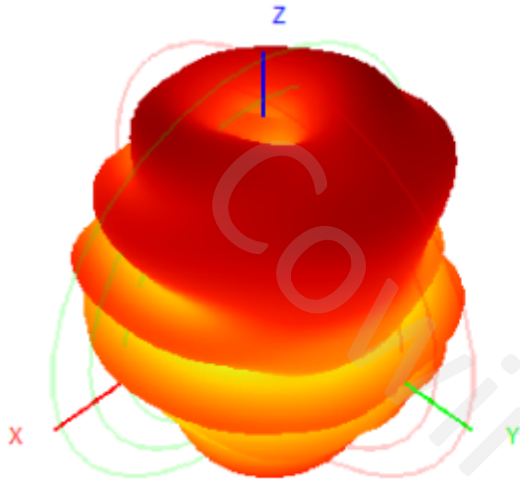
5125.0MHz Total(E1-XZ), Max= 3.43dBi



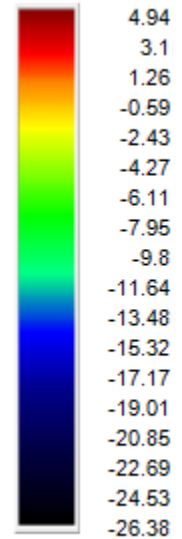
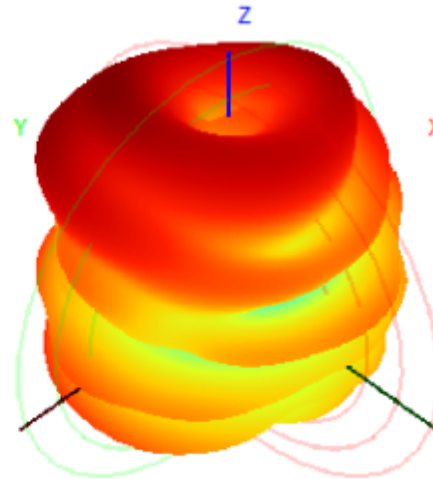
5125.0MHz Total(E2-YZ), Max= 3.37dBi



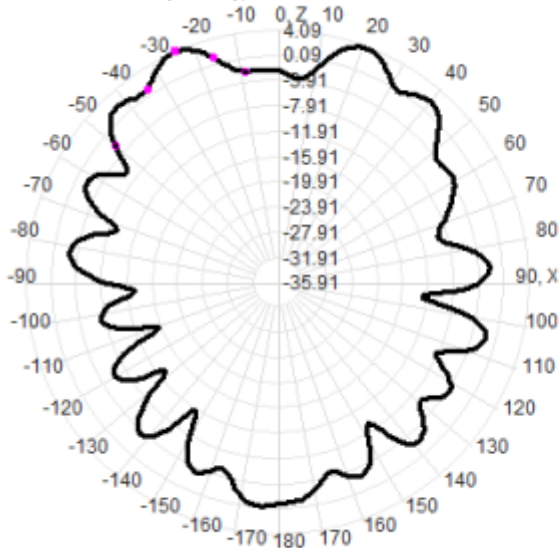
5925.0MHz H+V, Eff: 47.5%



Back View



5925.0MHz Total(E1-XZ), Max= 4.09dBi



5925.0MHz Total(E2-YZ), Max= 3.95dBi

