

CW-WZ-0082

4G/2.4G External Antenna

Key Features

Frequency:824-960MHZ/1710-2700MHZ/2.4-2.5G

I-PEX Connector

Screw Mount

Dimensions 46*16mm



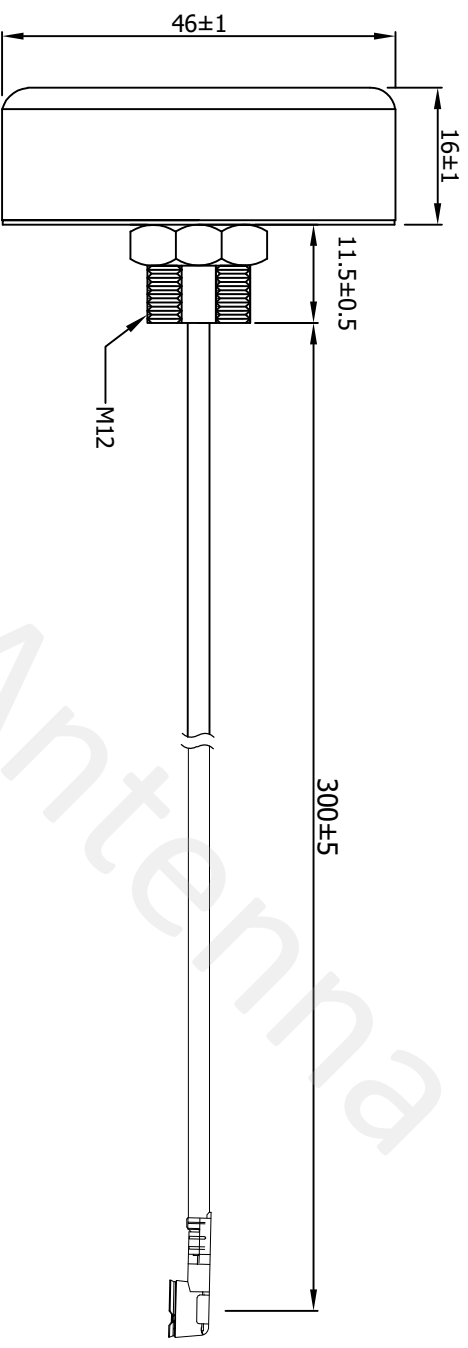
1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	824-960MHz/1710-2700MHz/2.4-2.5G
VSWR	3.5/3.5/2.5
Efficiency (%)	61.56%/58.48%/56.57%
Peak Gain (dBi)	4.35/3.98/3.98
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	I-PEX

2. Material and environmental characteristics

Inner structure	PCB
Material of Plastic	ABS
Cable Type	RG178
Connector Type	I-PEX
Dimensions (mm)	46*16MM
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	2022/08/22	New Issue



Specification(Free Test):
 Frequency Range: 824-960MHZ/1710-2700MHZ/2.4-2.5G
 Impedance: 50Ω
 V.S.W.R: ≤3.5/3.5/2.5
 100% Continuity,short and open circuit test
 Materials,parts and process must by environmentally (ROHS)

5	Foam cotton	45.5*1MM	1		
4	PCB	FR4	1		
3	Radome	Black ABS	1		
2	Cable	RG178	1		
1	Connector	φ178 I-PEX (equivalents)	1		
NO	Name	Description	QTY	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.			
		External antenna			
		REV			
		Unit			
		File			
		m/m			
		Sheet			



4. Antenna test parameters

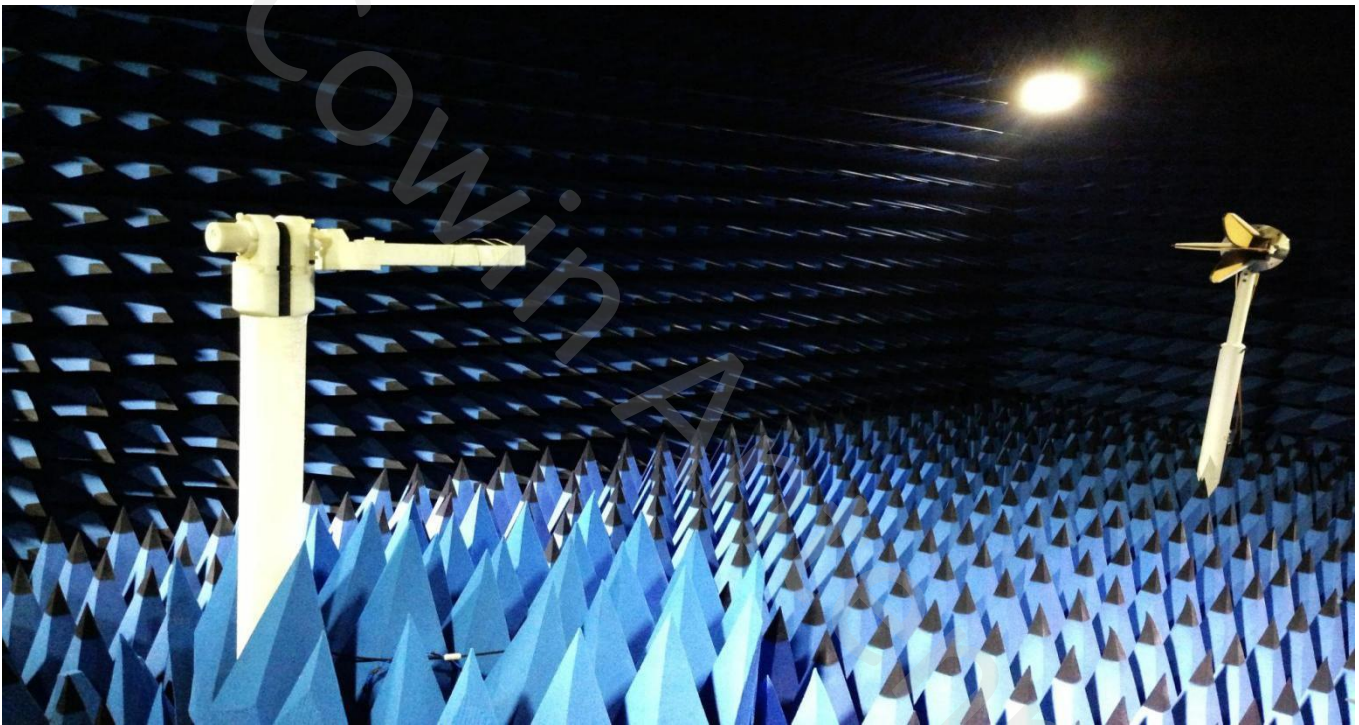
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

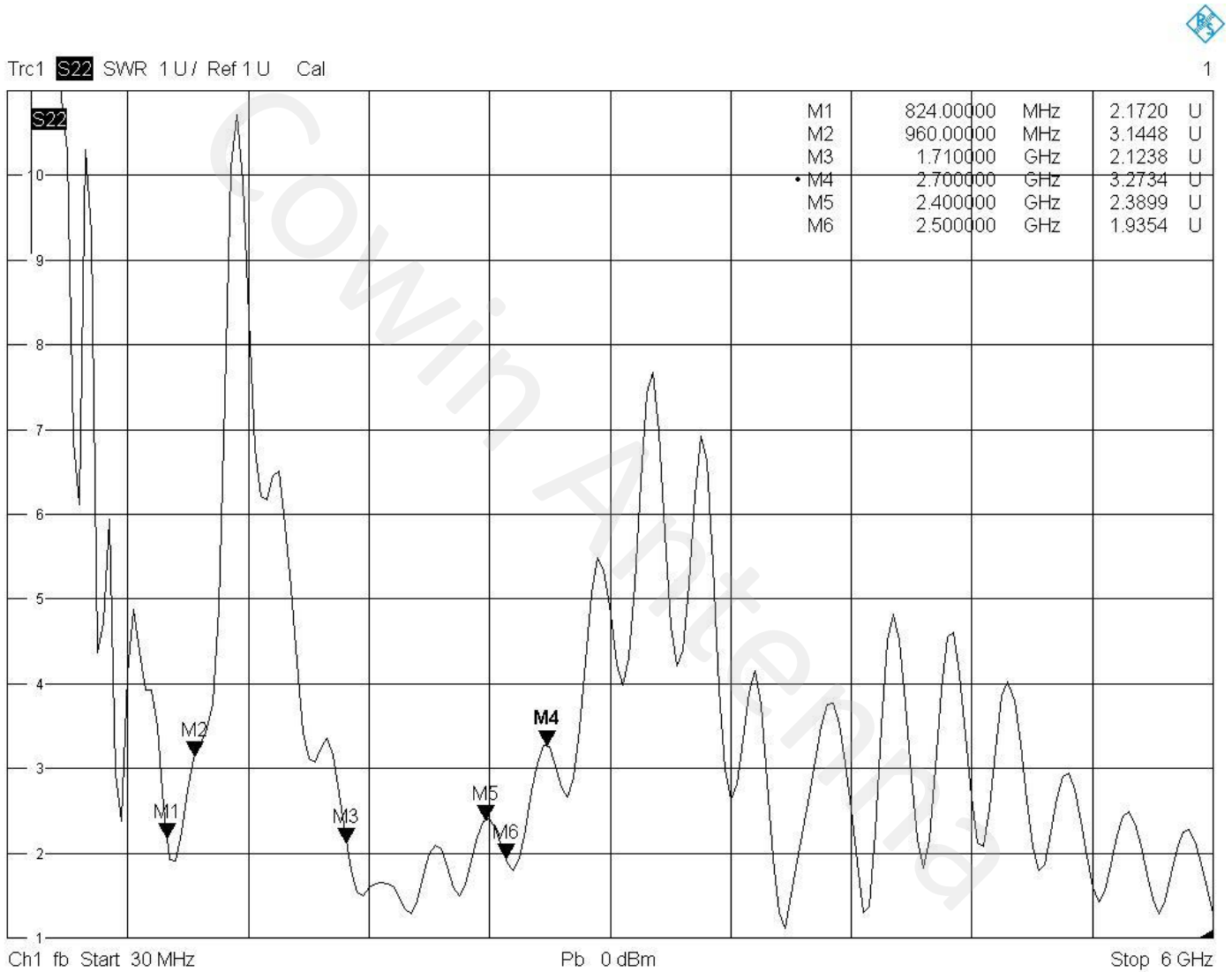
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

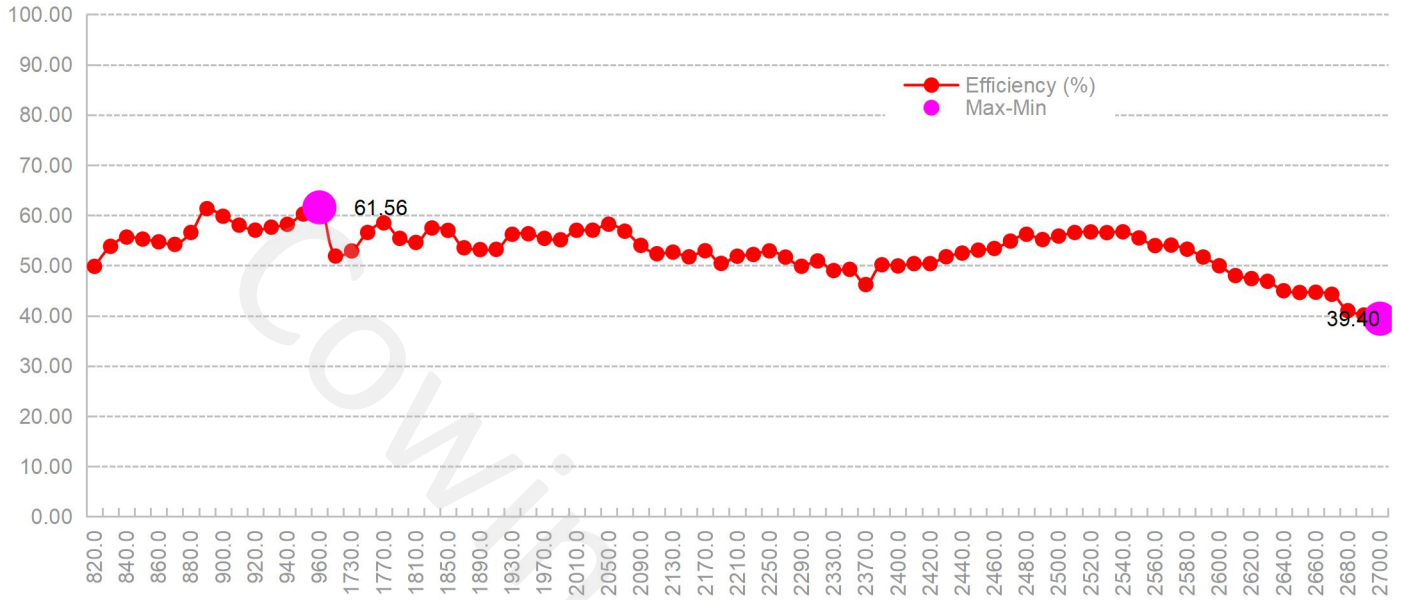


4.1 VSWR

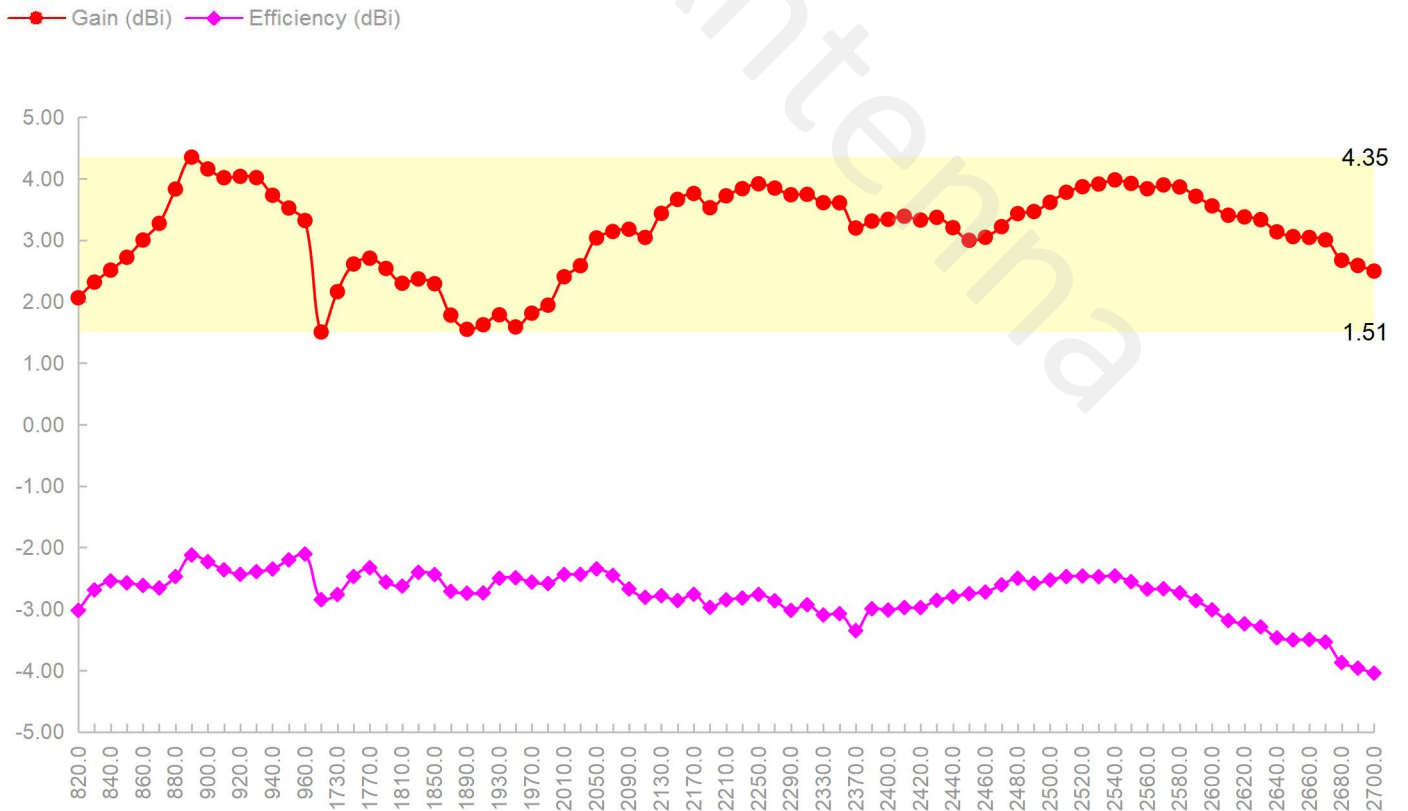


8/21/2022, 8:28 PM

4.2 Efficiency

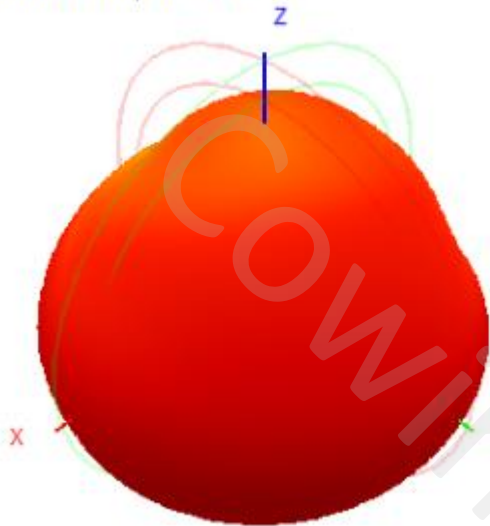


4.3 Peak gain

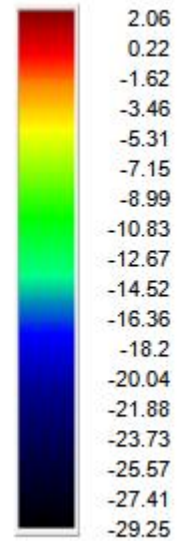
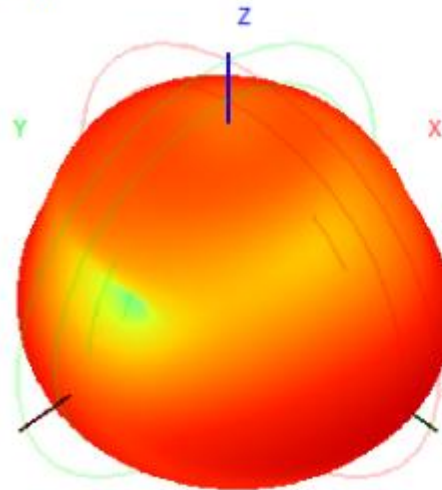


4.4 3D&2D Radiation Patterns

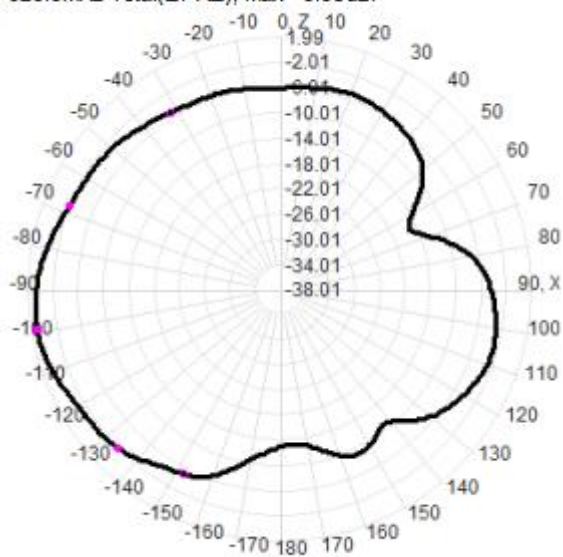
820.0MHz H+V, Eff: 49.8%



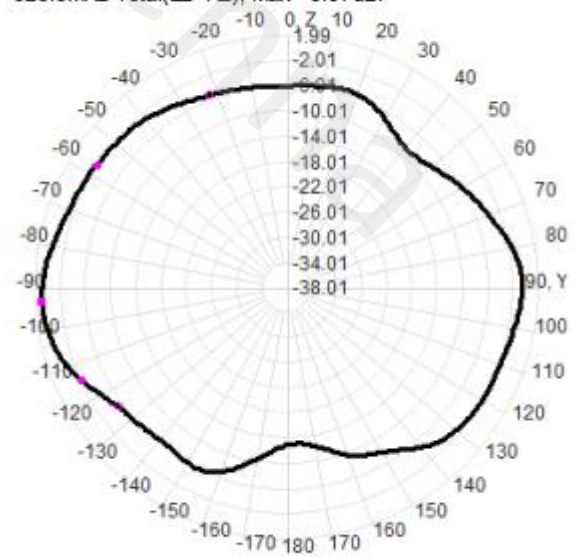
Back View



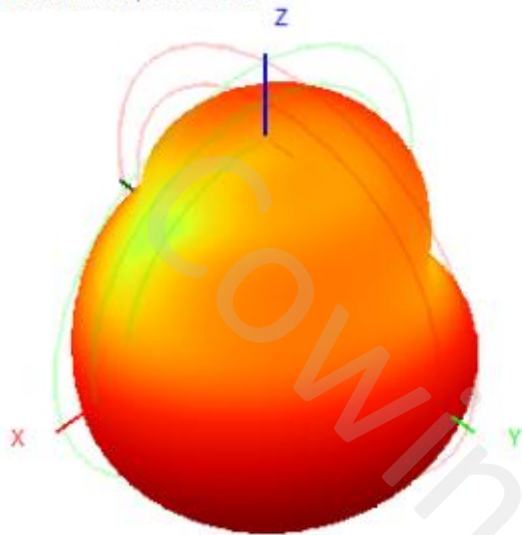
820.0MHz Total(E1-XZ), Max= 0.95dBi



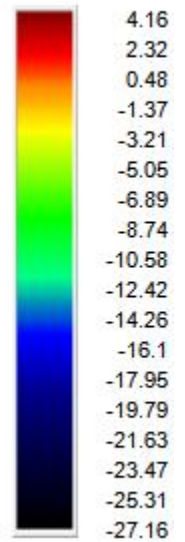
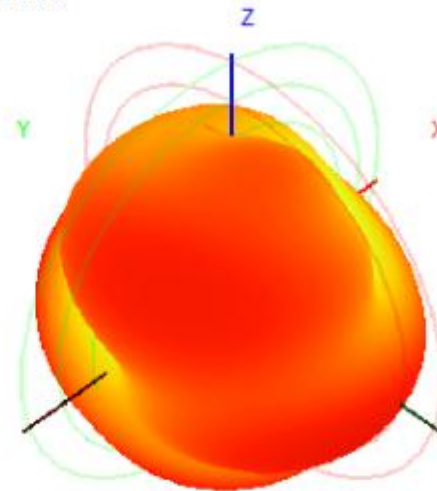
820.0MHz Total(E2-YZ), Max= 0.87dBi



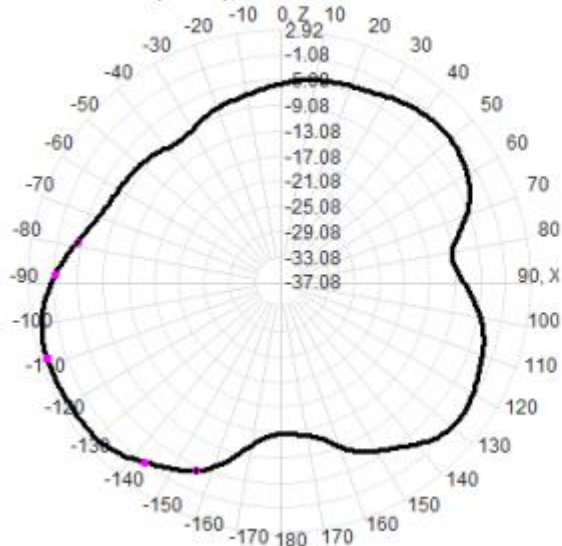
900.0MHz H+V, Eff: 59.8%



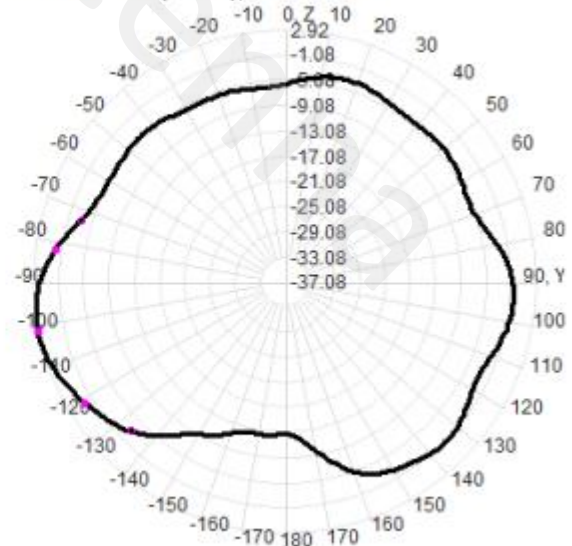
Back View



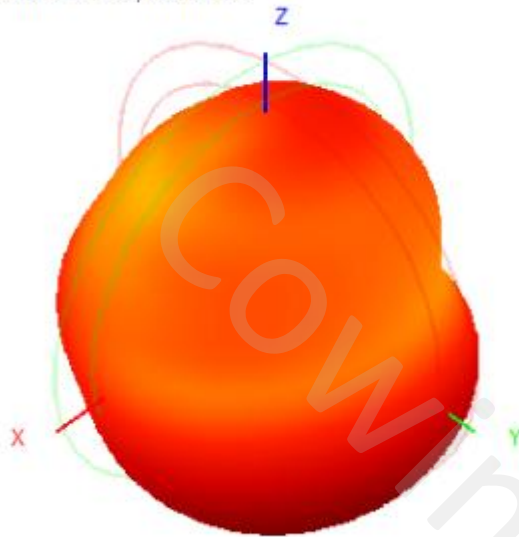
900.0MHz Total(E1-XZ), Max= 1.76dBi



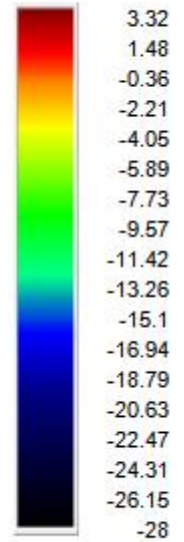
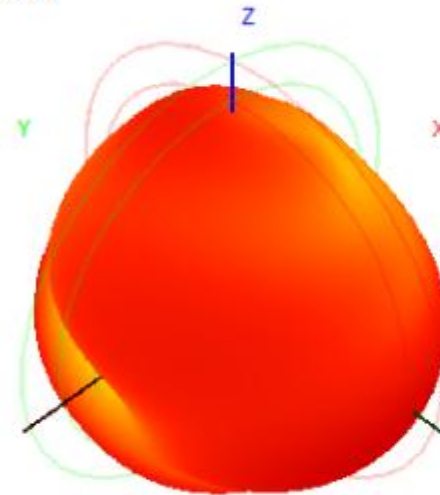
900.0MHz Total(E2-YZ), Max= 2.92dBi



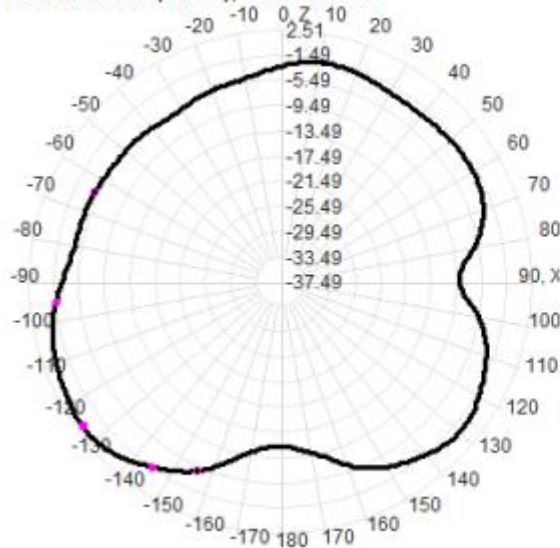
960.0MHz H+V, Eff: 61.6%



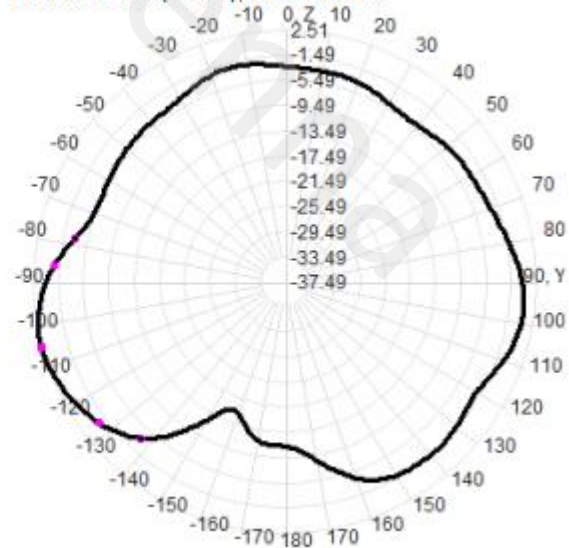
Back View



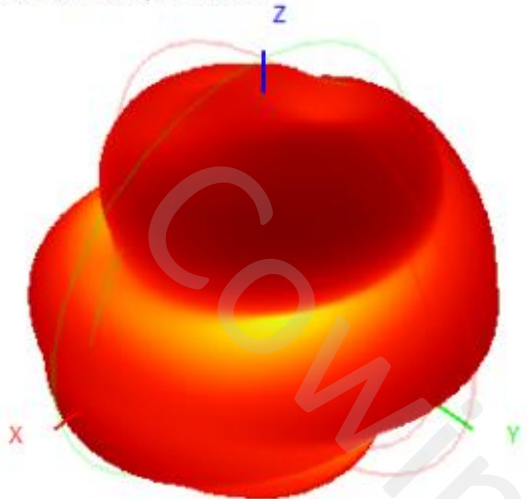
960.0MHz Total(E1-XZ), Max= 1.29dBi



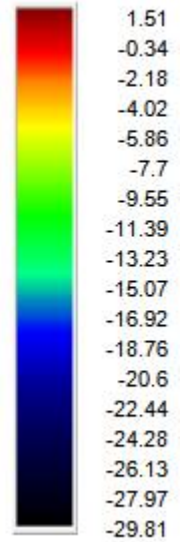
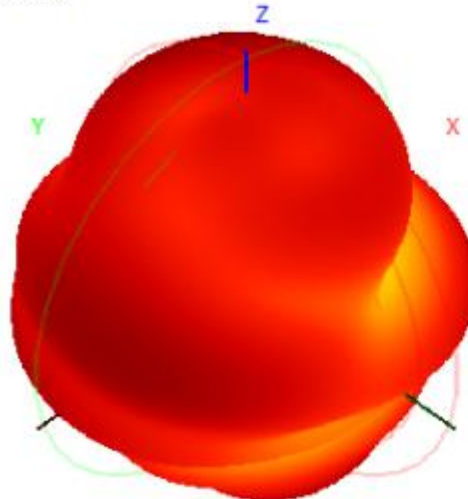
960.0MHz Total(E2-YZ), Max= 2.51dBi



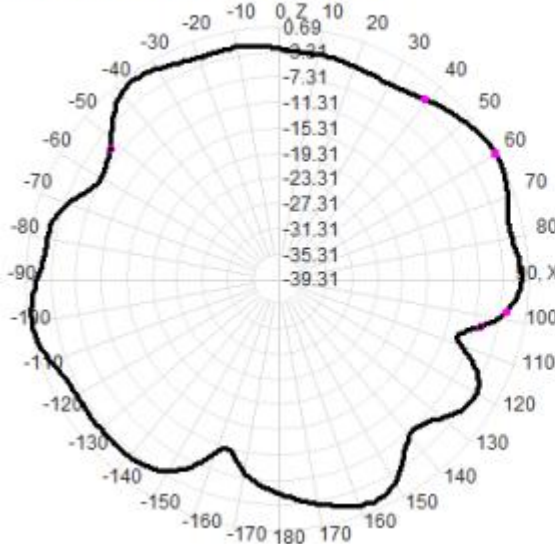
1710.0MHz H+V, Eff: 51.9%



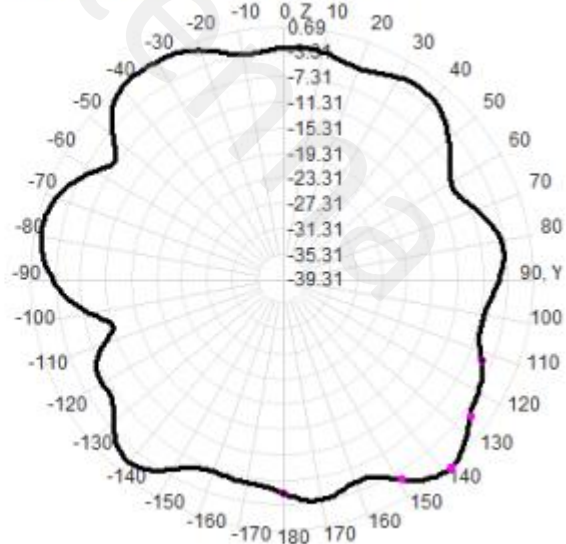
Back View



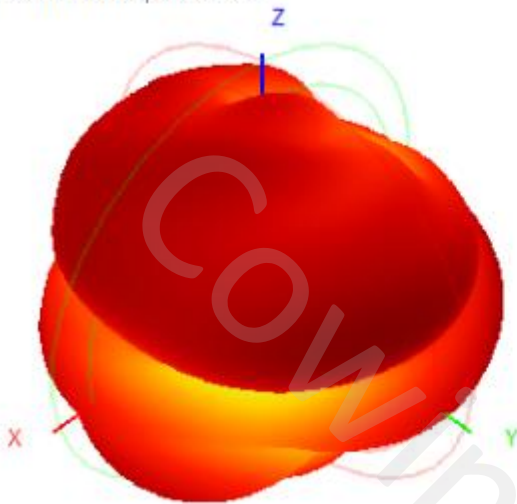
1710.0MHz Total(E1-XZ), Max= 0.49dBi



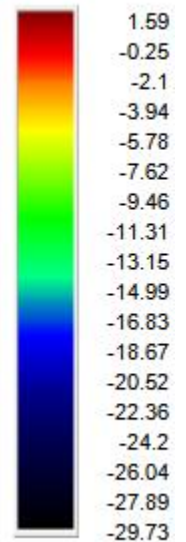
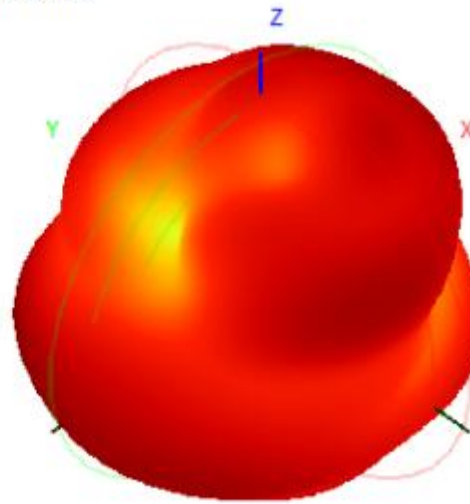
1710.0MHz Total(E2-YZ), Max= 0.69dBi



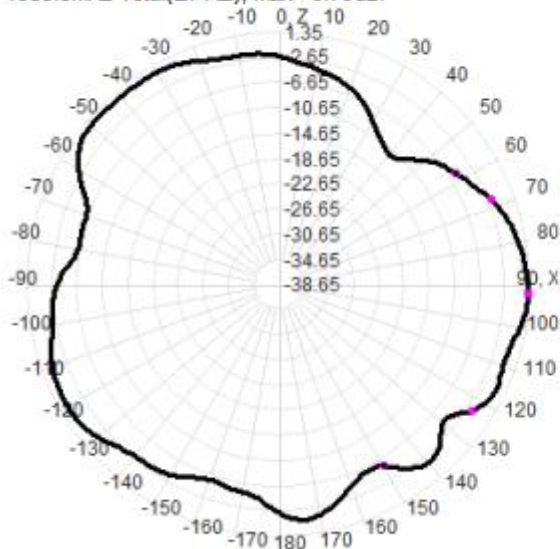
1950.0MHz H+V, Eff: 56.3%



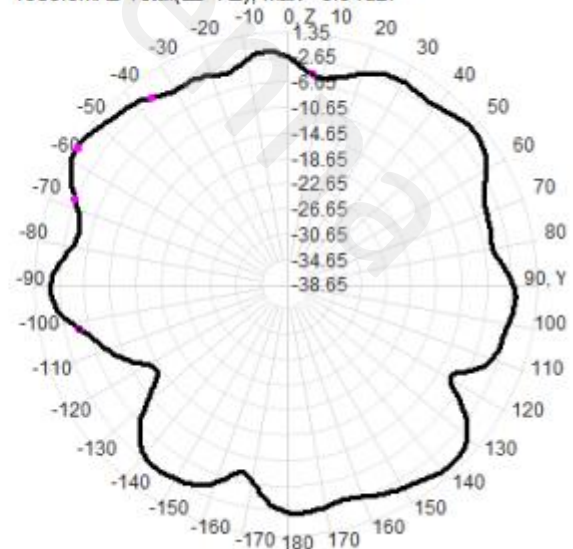
Back View



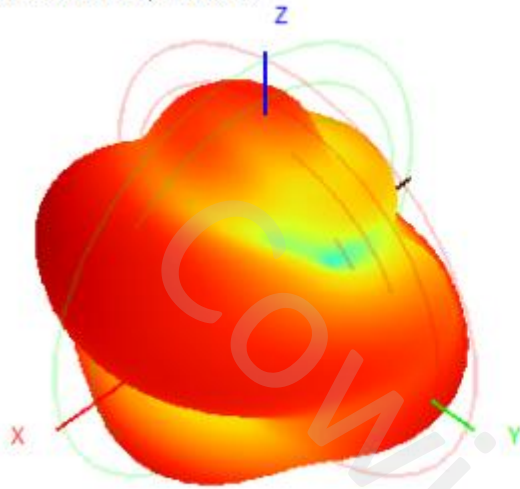
1950.0MHz Total(E1-XZ), Max= 0.79dBi



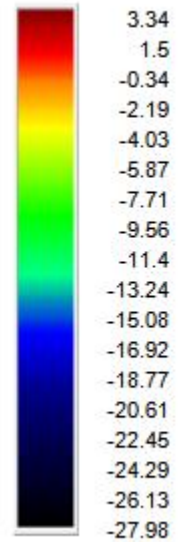
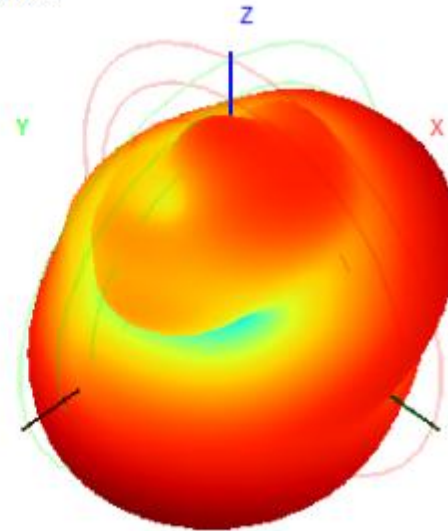
1950.0MHz Total(E2-YZ), Max= 0.94dBi



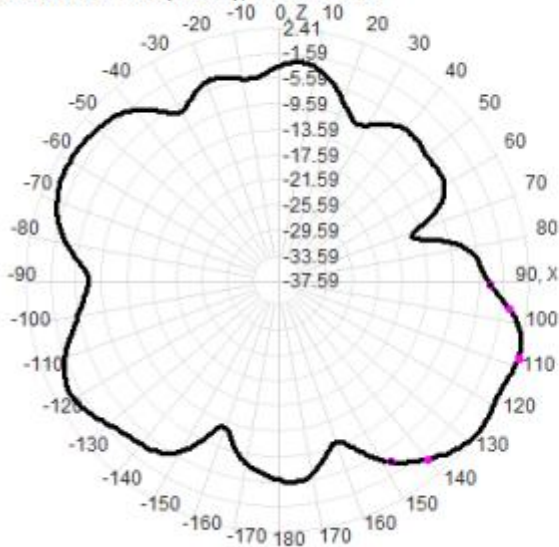
2400.0MHz H+V, Eff: 49.9%



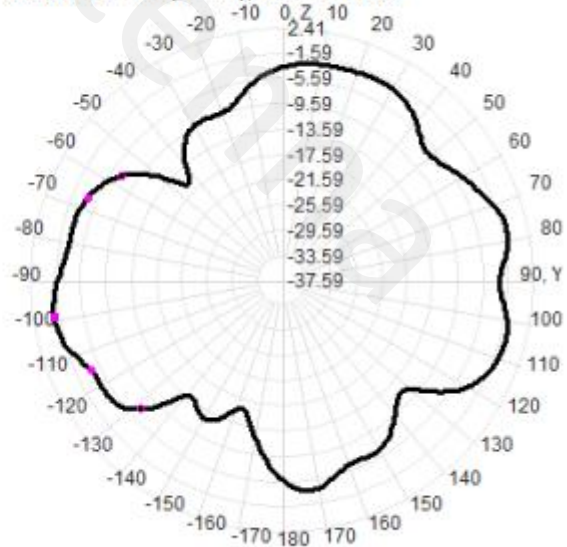
Back View



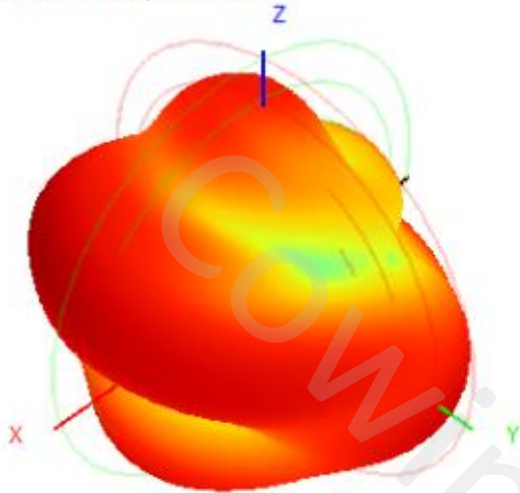
2400.0MHz Total(E1-XZ), Max= 2.41dBi



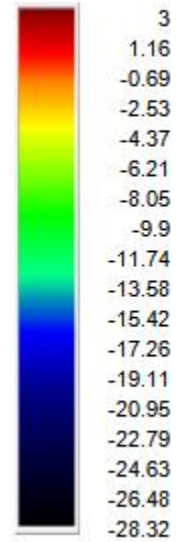
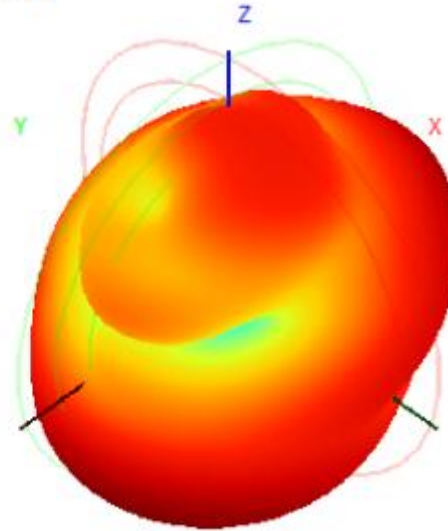
2400.0MHz Total(E2-YZ), Max= -0.94dBi



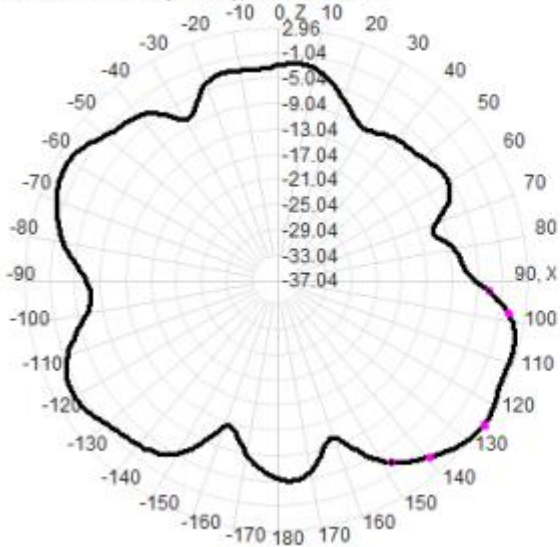
2450.0MHz H+V, Eff: 53.1%



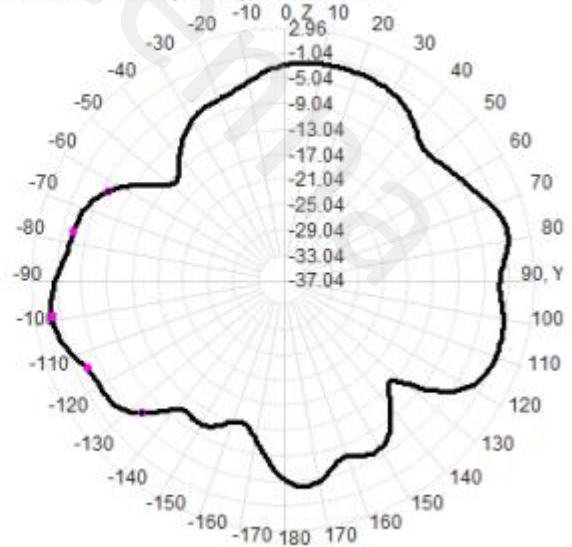
Back View



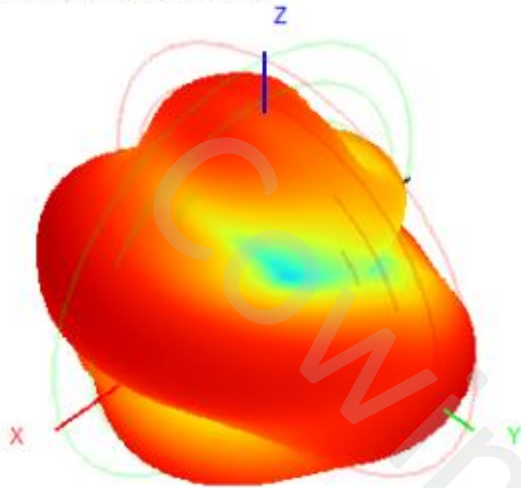
2450.0MHz Total(E1-XZ), Max= 2.96dBi



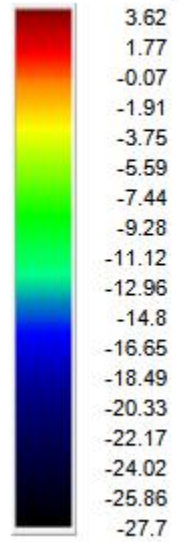
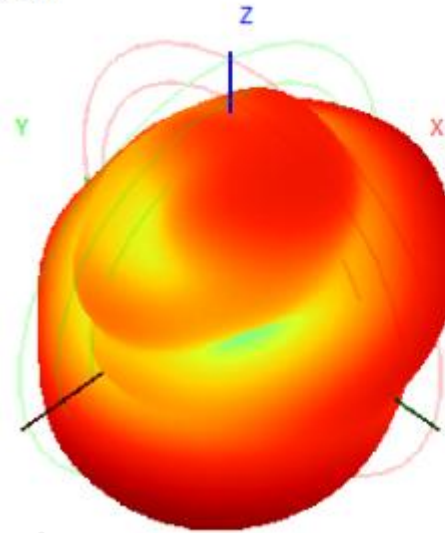
2450.0MHz Total(E2-YZ), Max= 0.12dBi



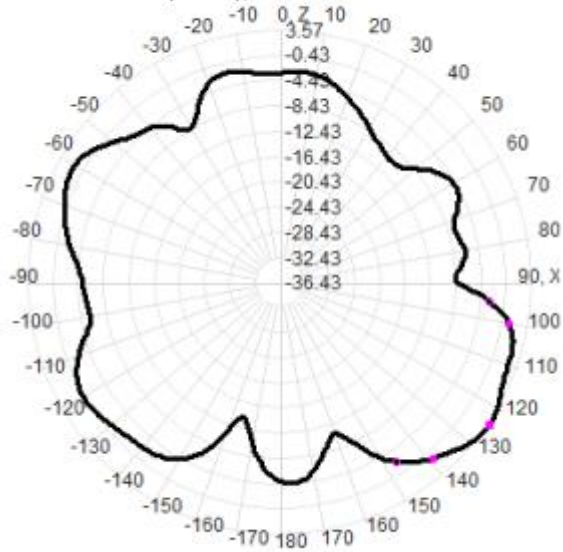
2500.0MHz H+V, Eff: 55.9%



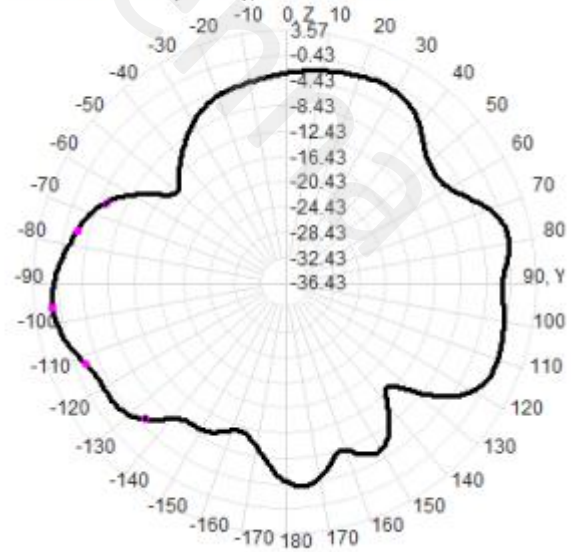
Back View



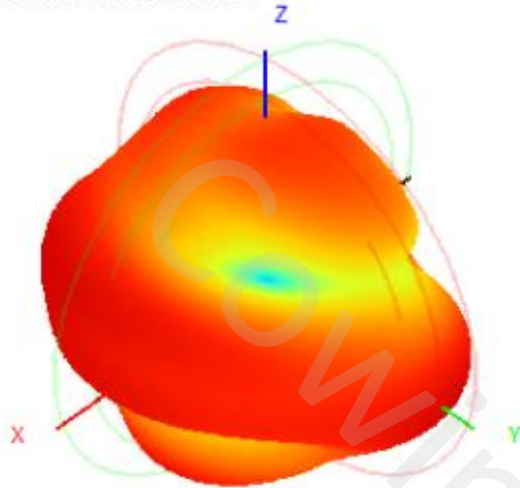
2500.0MHz Total(E1-XZ), Max= 3.57dBi



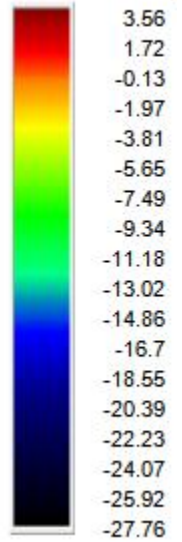
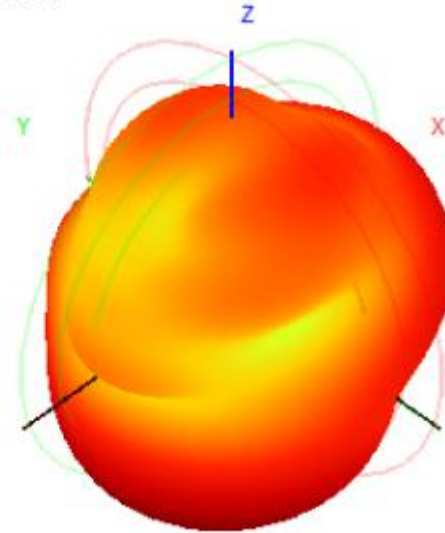
2500.0MHz Total(E2-YZ), Max= 0.63dBi



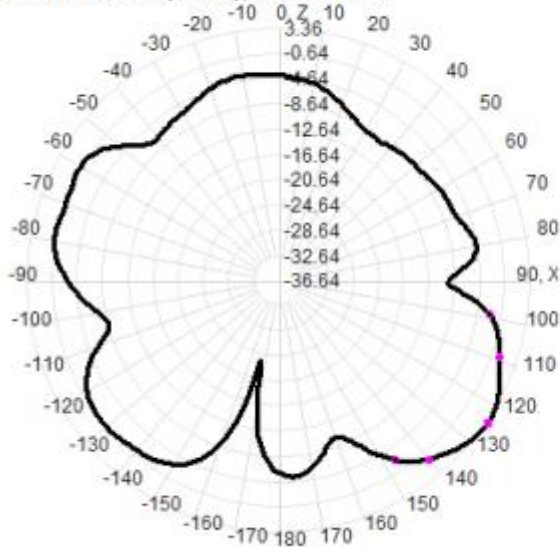
2600.0MHz H+V, Eff: 49.9%



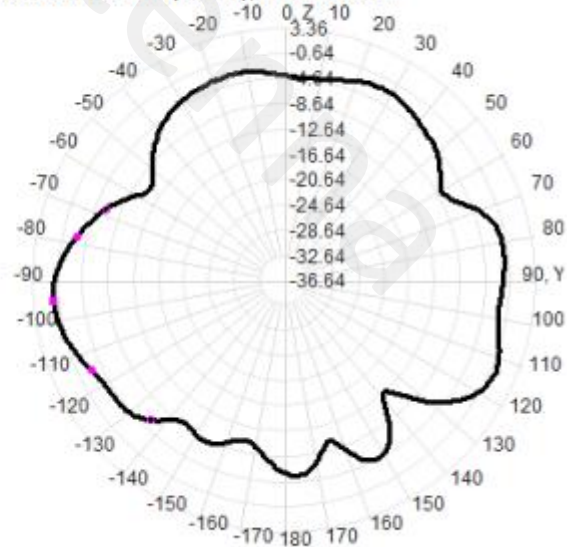
Back View



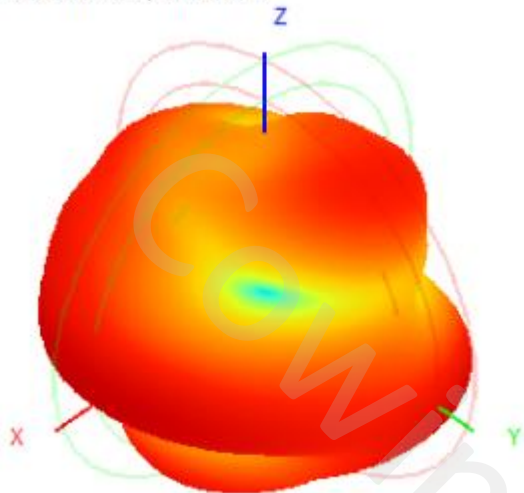
2600.0MHz Total(E1-XZ), Max= 3.36dBi



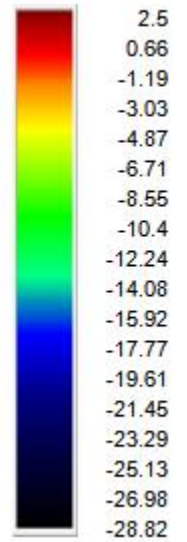
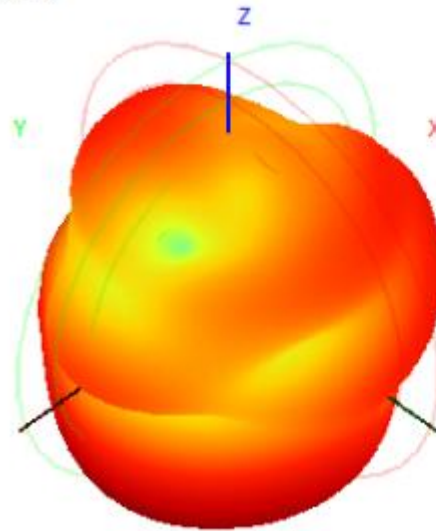
2600.0MHz Total(E2-YZ), Max= 0.06dBi



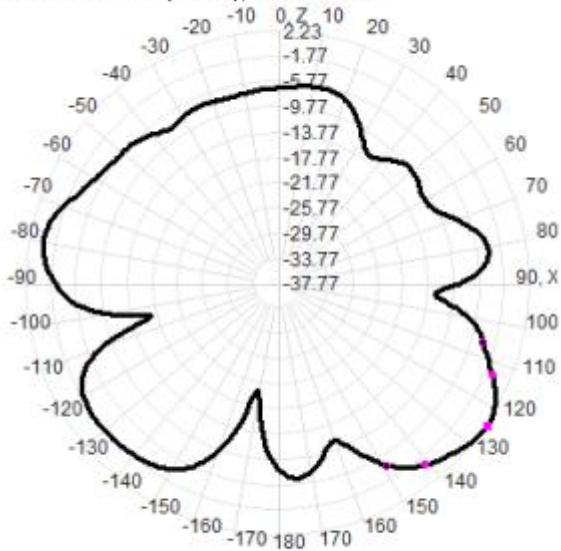
2700.0MHz H+V, Eff: 39.4%



Back View



2700.0MHz Total(E1-XZ), Max= 2.23dBi



2700.0MHz Total(E2-YZ), Max= -0.95dBi

