

CW-ZH-0008

4G/4G/2.4G/2.4G External Combo Antenna

Key Features

Frequency: 698-960MHz/1710-2700MHz/2.4-2.5G

SMA Male Connector

Screw Mount

Dimensions 80*15mm



1. Antenna Electrical Characteristics

Band (MHz)	4G-1
Frequency (MHz)	698-960MHz/1710-2700MHz
VSWR	2.5/2
Efficiency (%)	80.58%/ 77.21%
Peak Gain (dBi)	2.89/4.09
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male

Band (MHz)	4G-2
Frequency (MHz)	698-960MHz/1710-2700MHz
VSWR	2
Efficiency (%)	73.15%/ 71.26%
Peak Gain (dBi)	3.58/4.69
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male

1. Antenna Electrical Characteristics

Band (MHz)	2.4G-1
Frequency (MHz)	2.4-2.5G
VSWR	2
Efficiency (%)	61.69%
Peak Gain (dBi)	3.33
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male

Band (MHz)	2.4G-2
Frequency (MHz)	2.4-2.5G
VSWR	2
Efficiency (%)	73.58%
Peak Gain (dBi)	2.82
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male

2. Material and environmental characteristics

Inner structure	PCB/Ceramic antenna
External material	ABS
Cable Type	RG174
Connector Type	SMA Male
Dimensions (mm)	80*15MM
Antenna color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS



4. Antenna test parameters

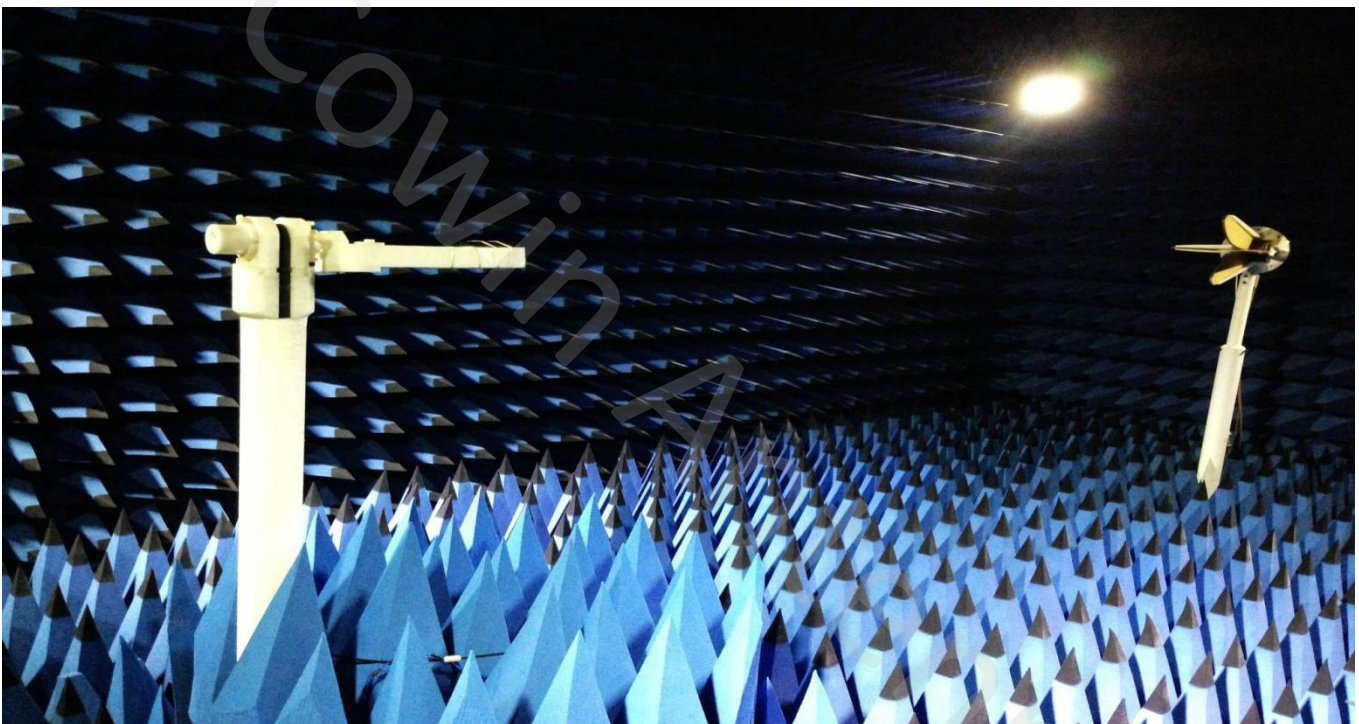
Antenna Measurement Conditions:

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

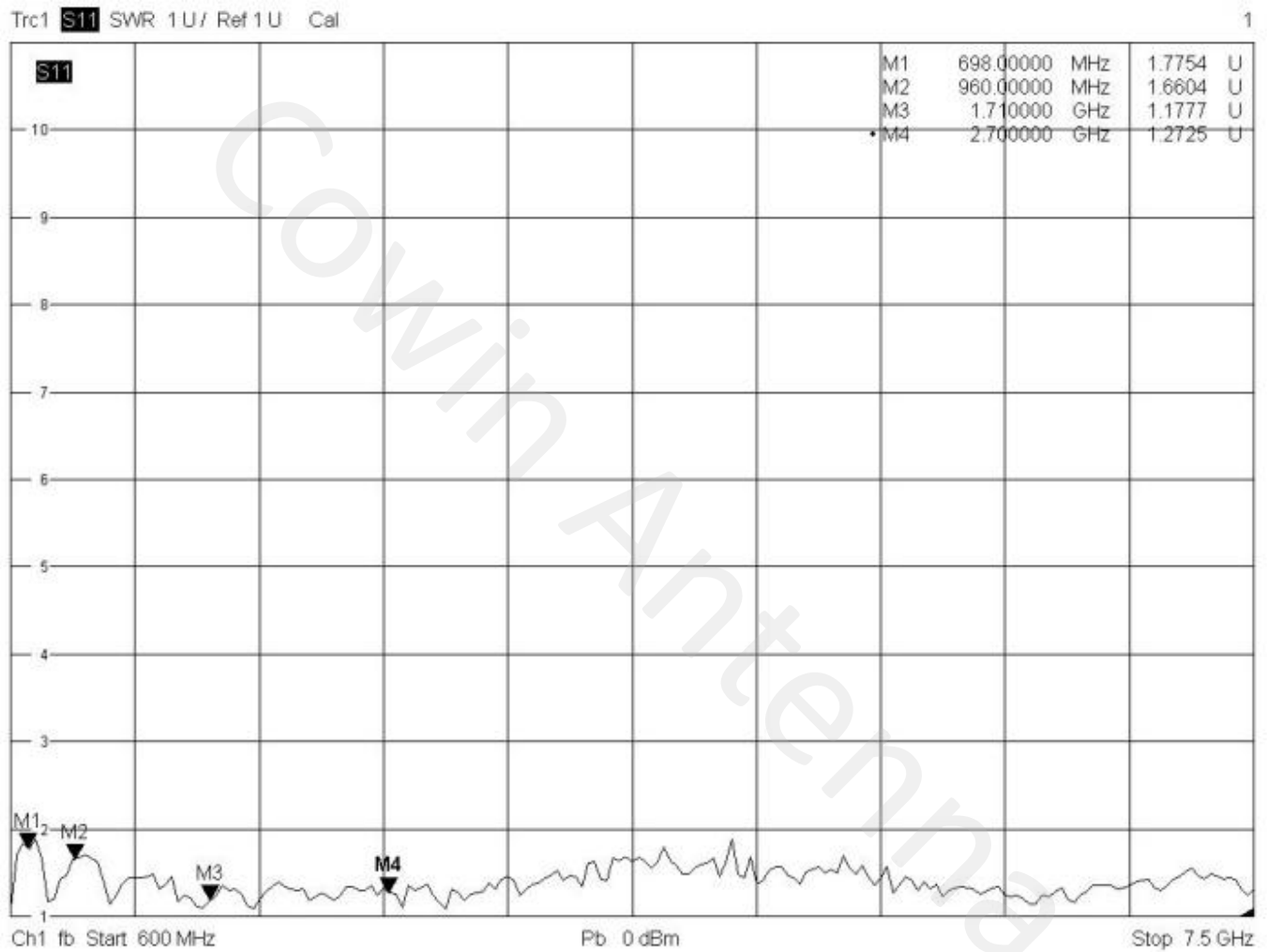


4.1 VSWR

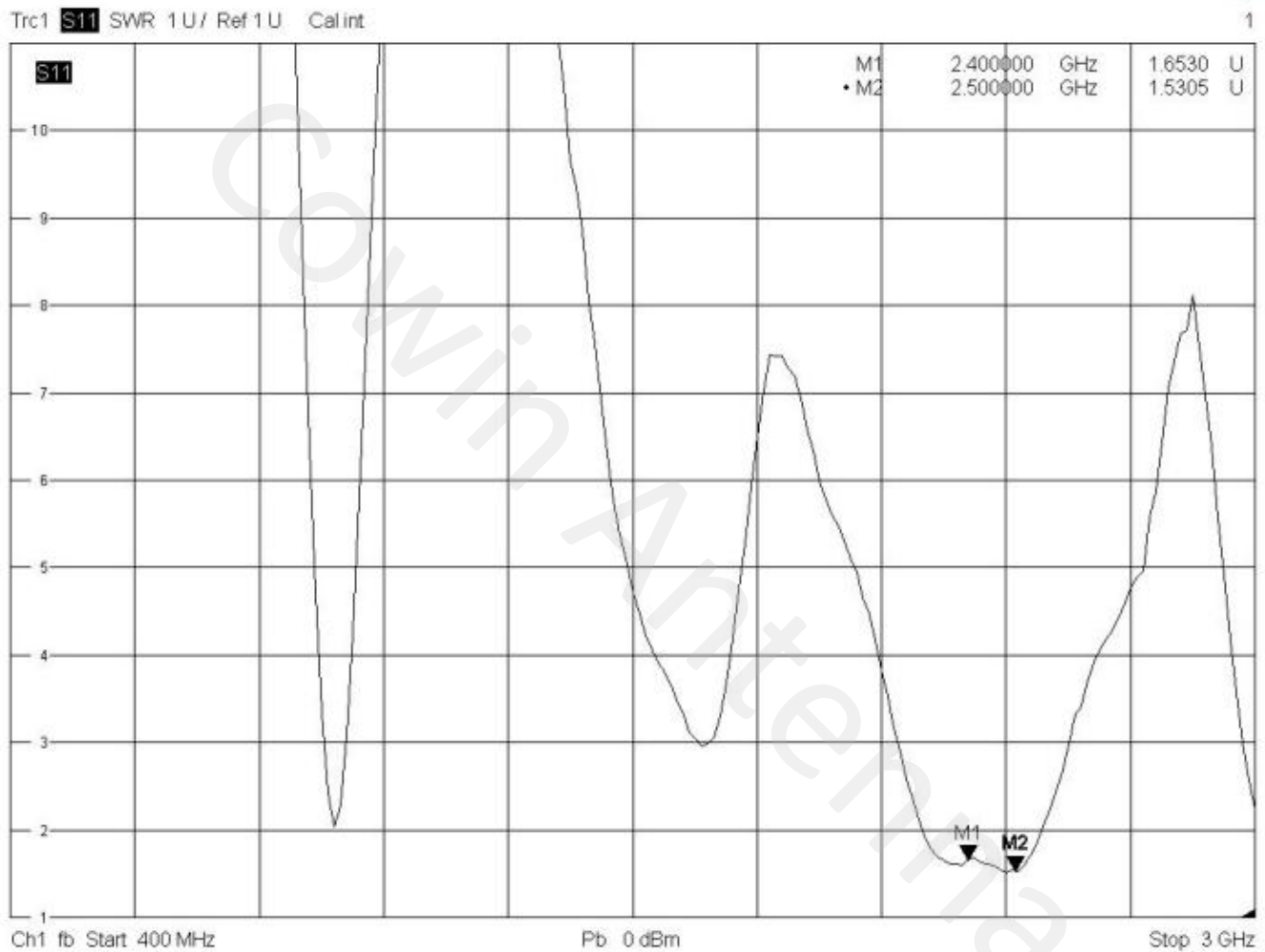
4.1.1 4G-1 VSWR



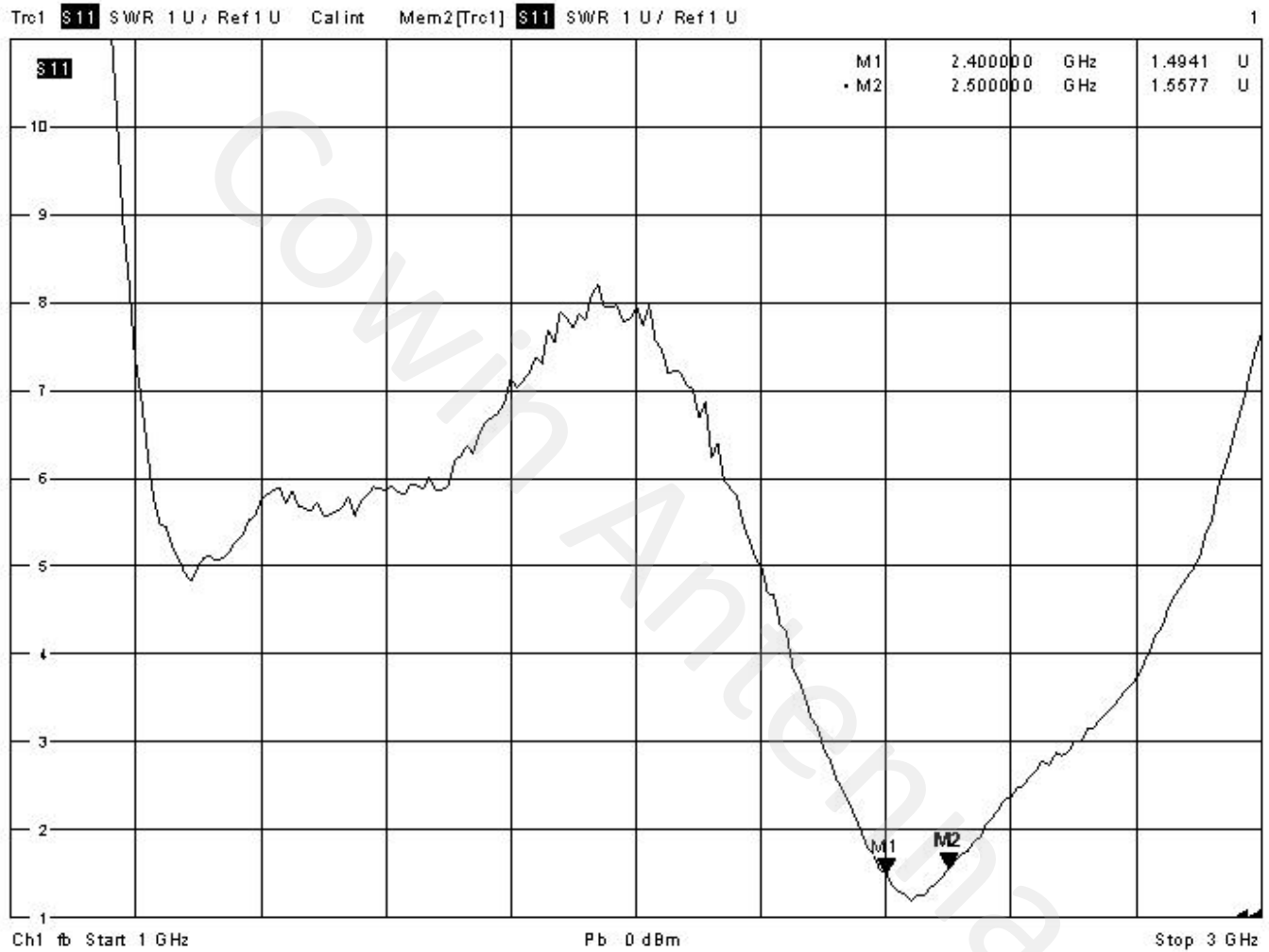
4.1.2 4G-2 VSWR



4.1.3 2.4G-1 VSWR

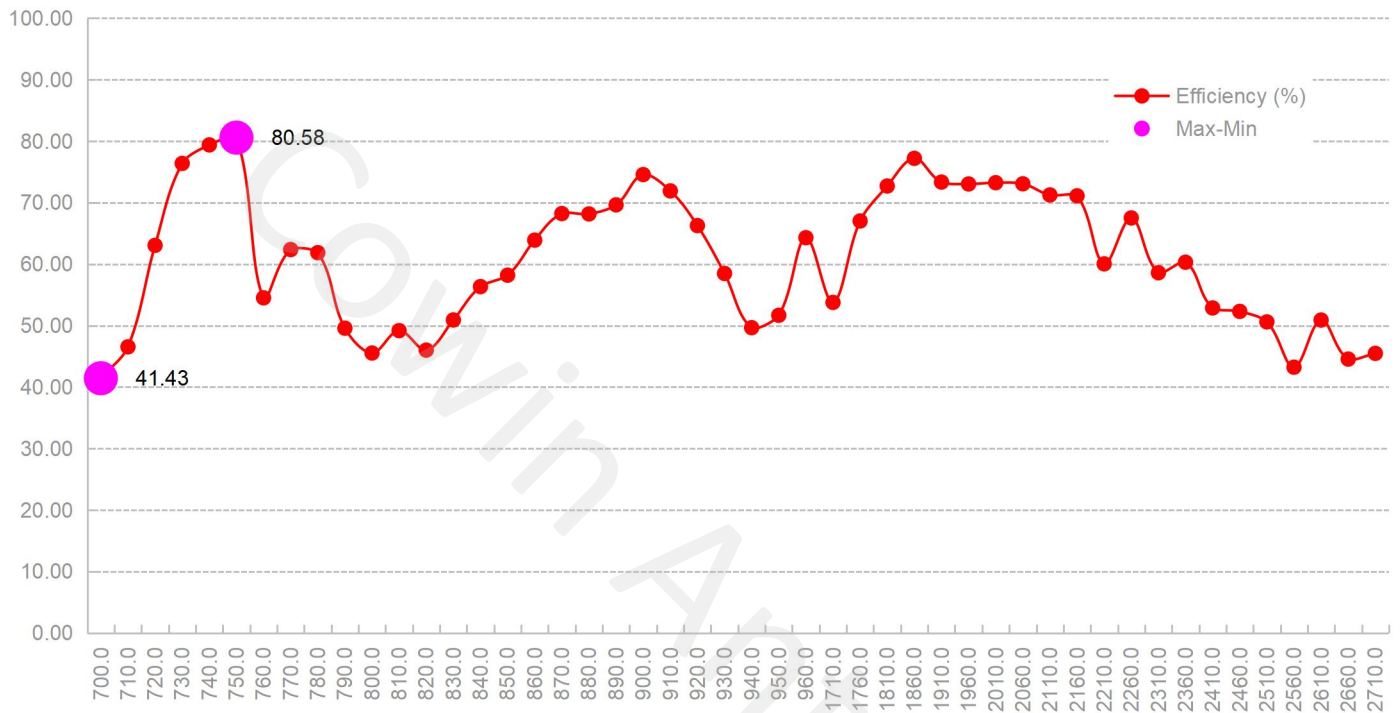


4.1.4 2.4G-2 VSWR

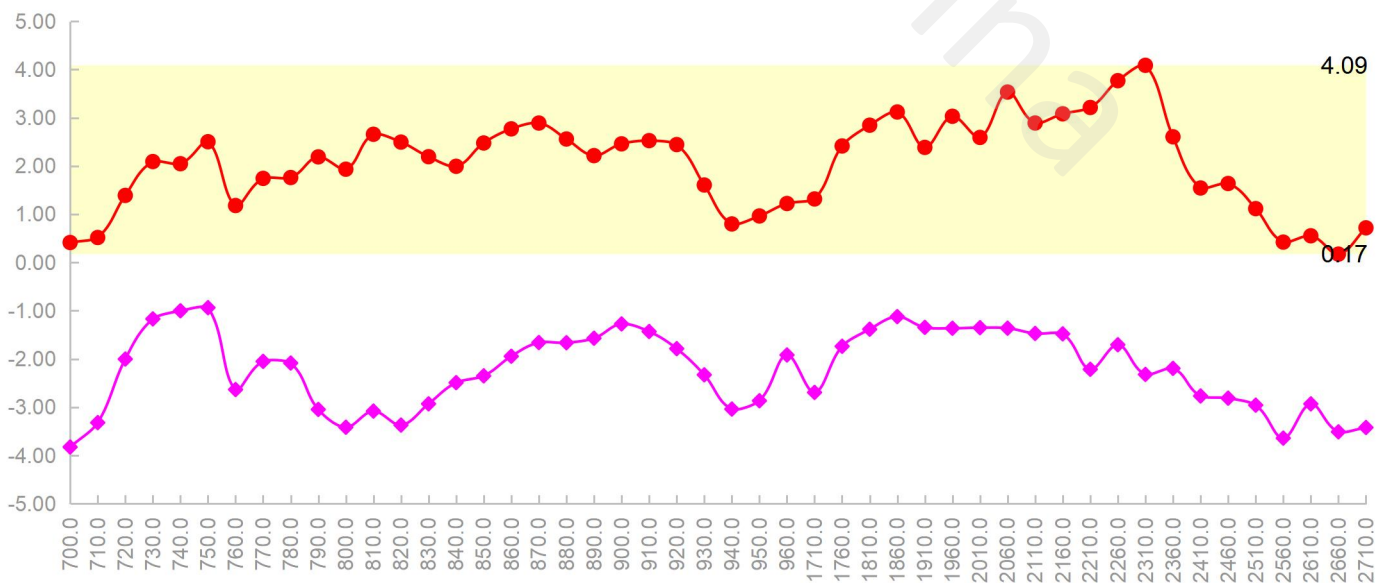


4.2 Efficiency&Peak gain

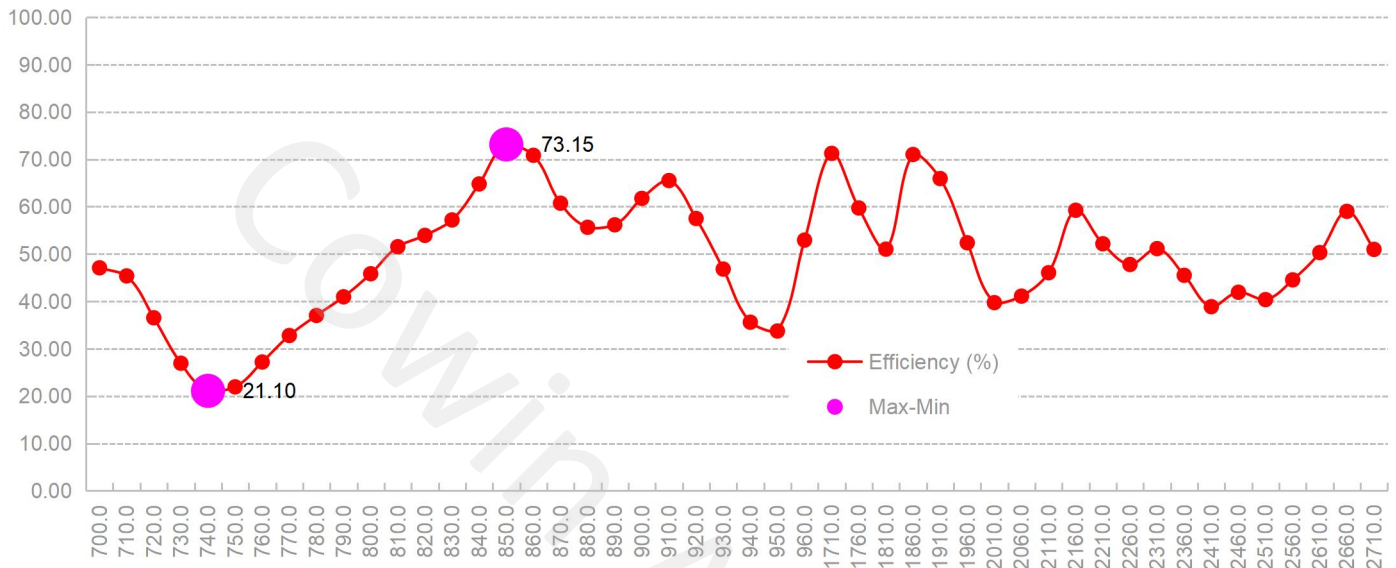
4.2.1 4G-1 Efficiency



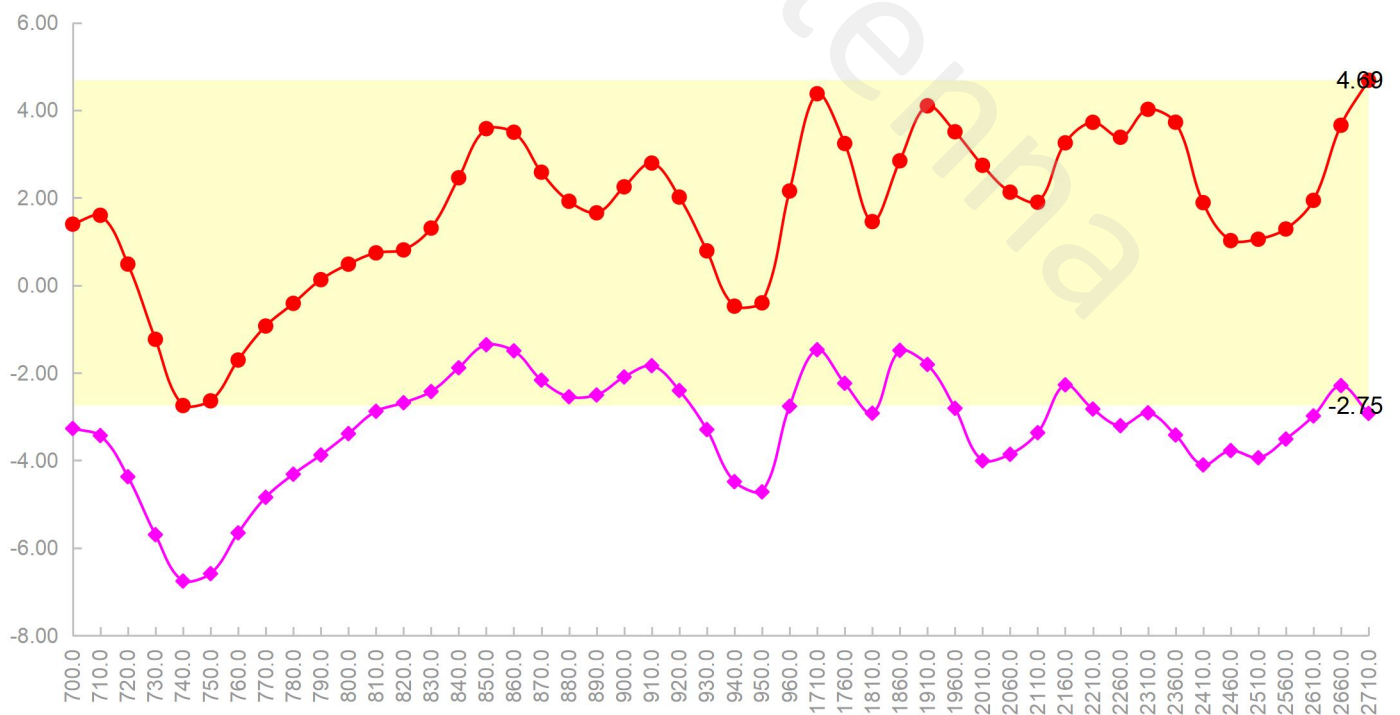
4.2.2 4G-1 Peak gain



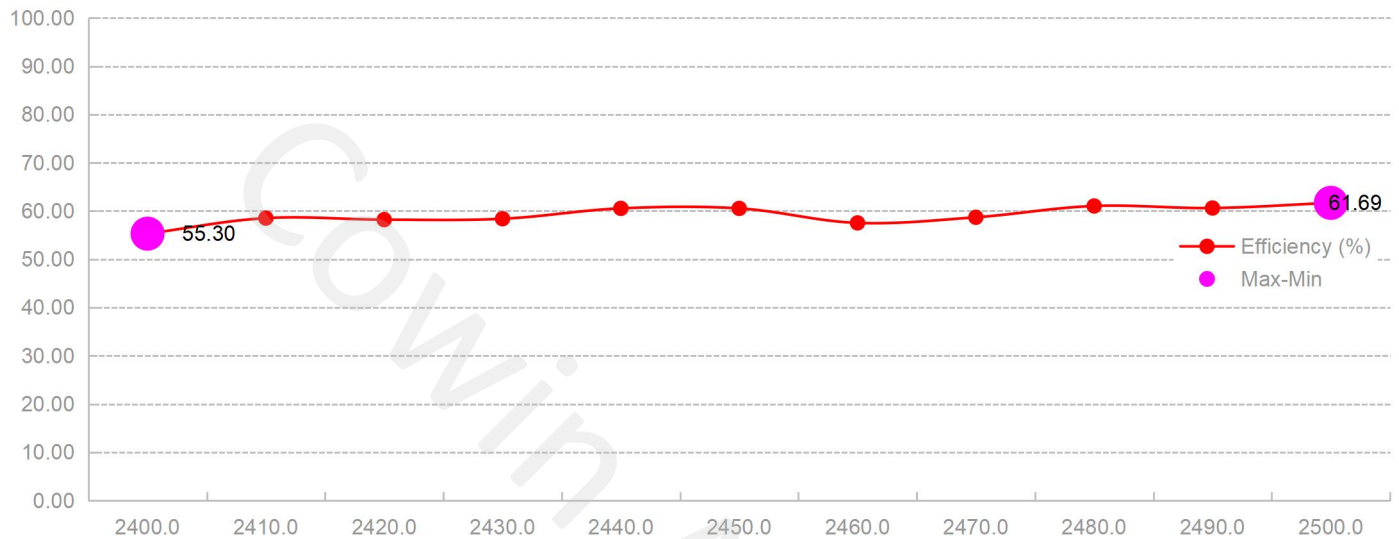
4.2.3 4G-2 Efficiency



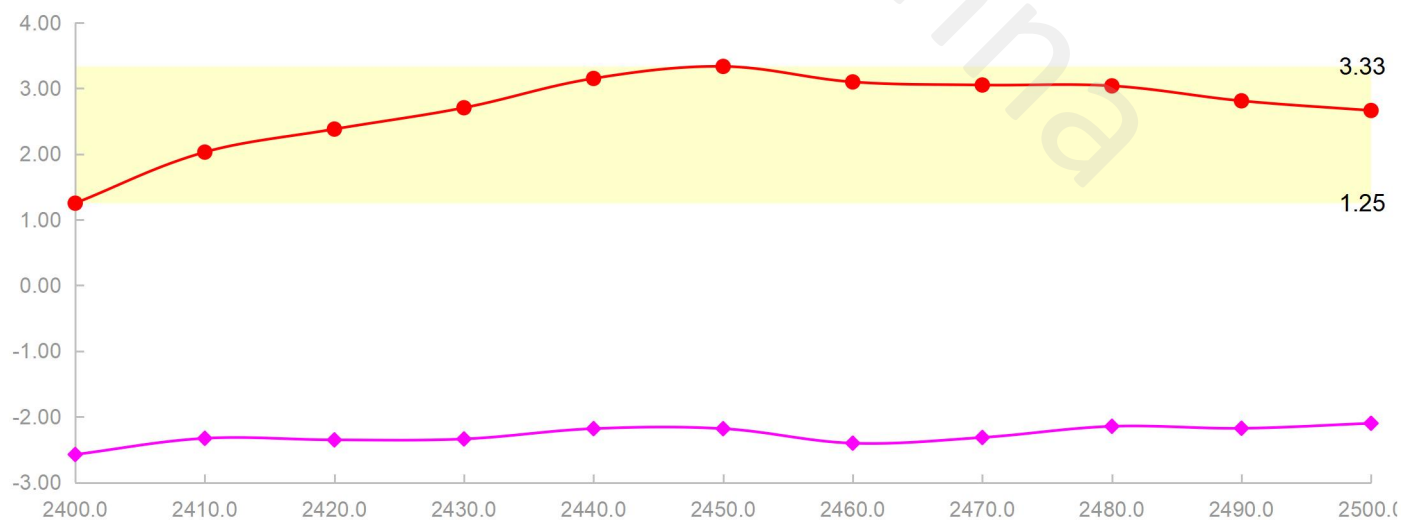
4.2.4 4G-2 Peak gain



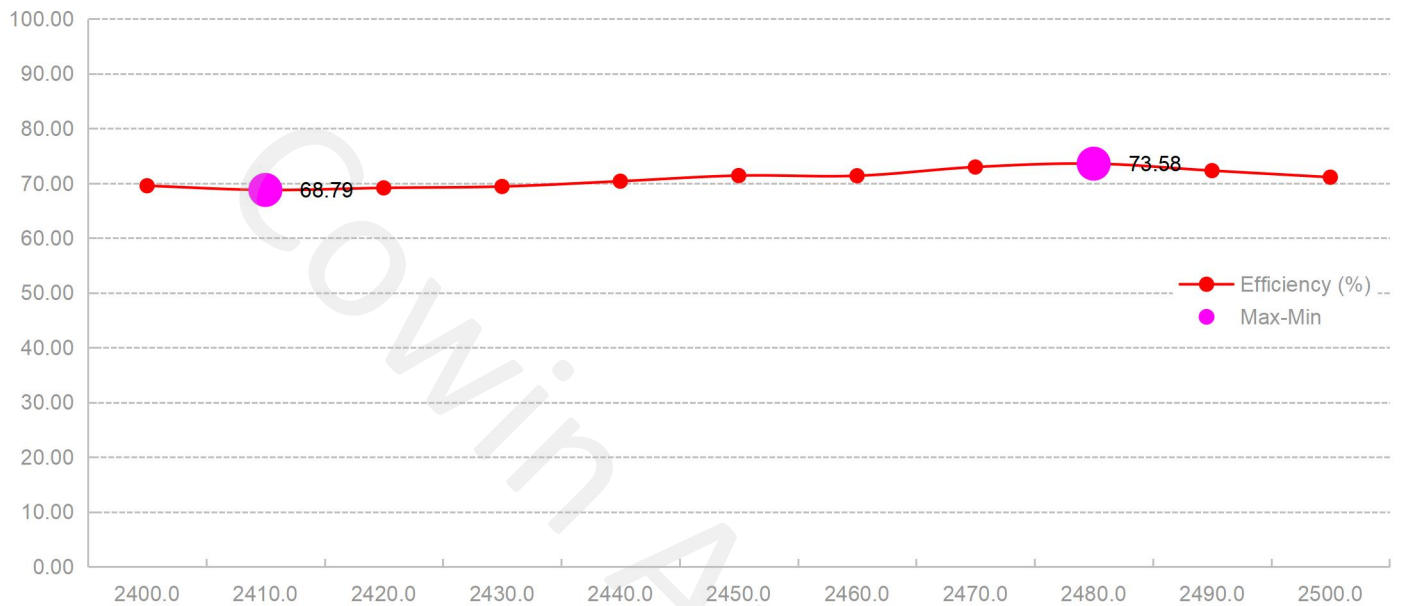
4.2.5 2.4G-1 Efficiency



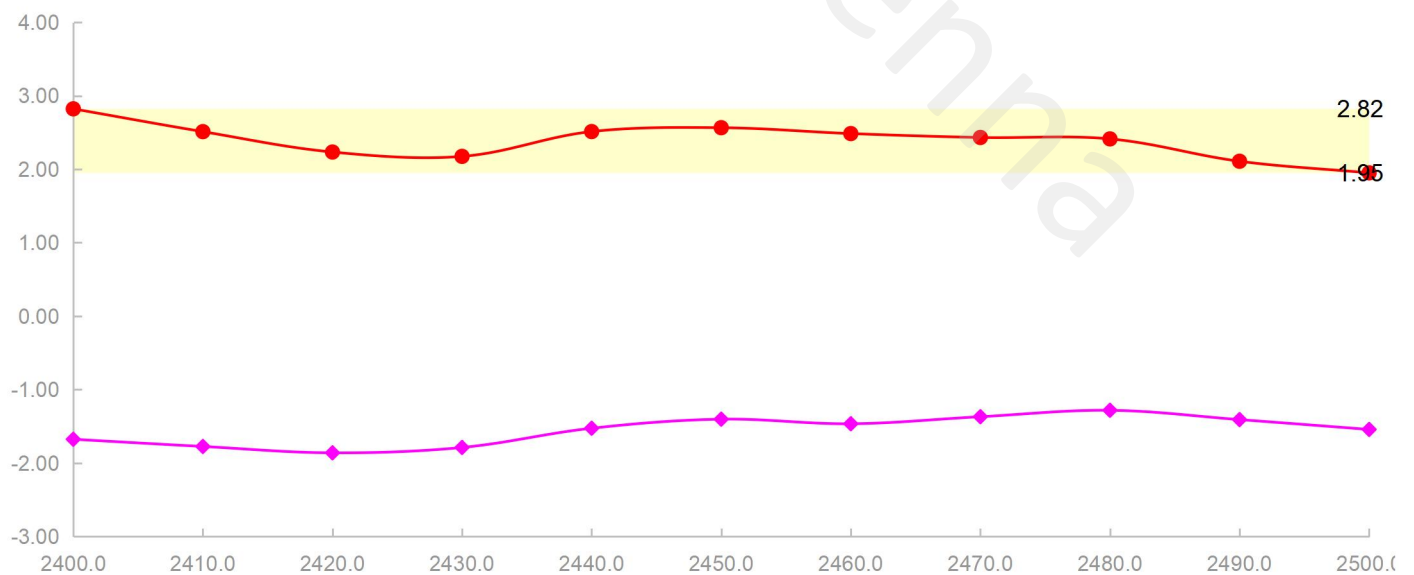
4.2.6 2.4G-1 Peak gain



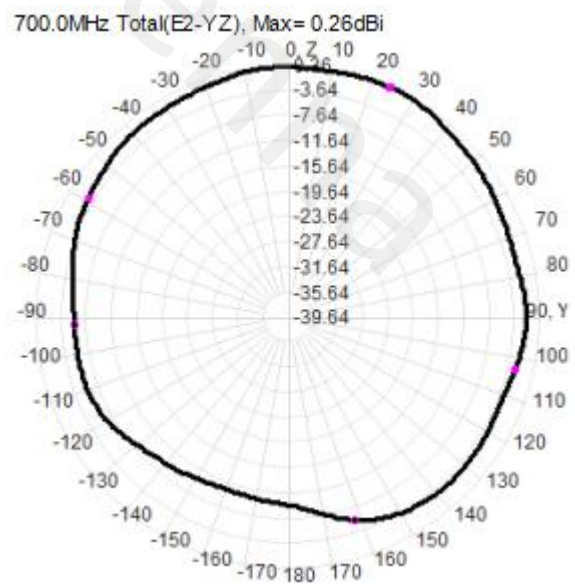
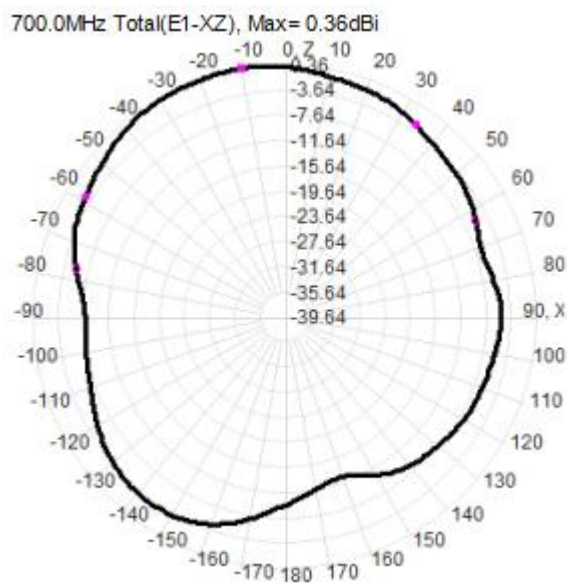
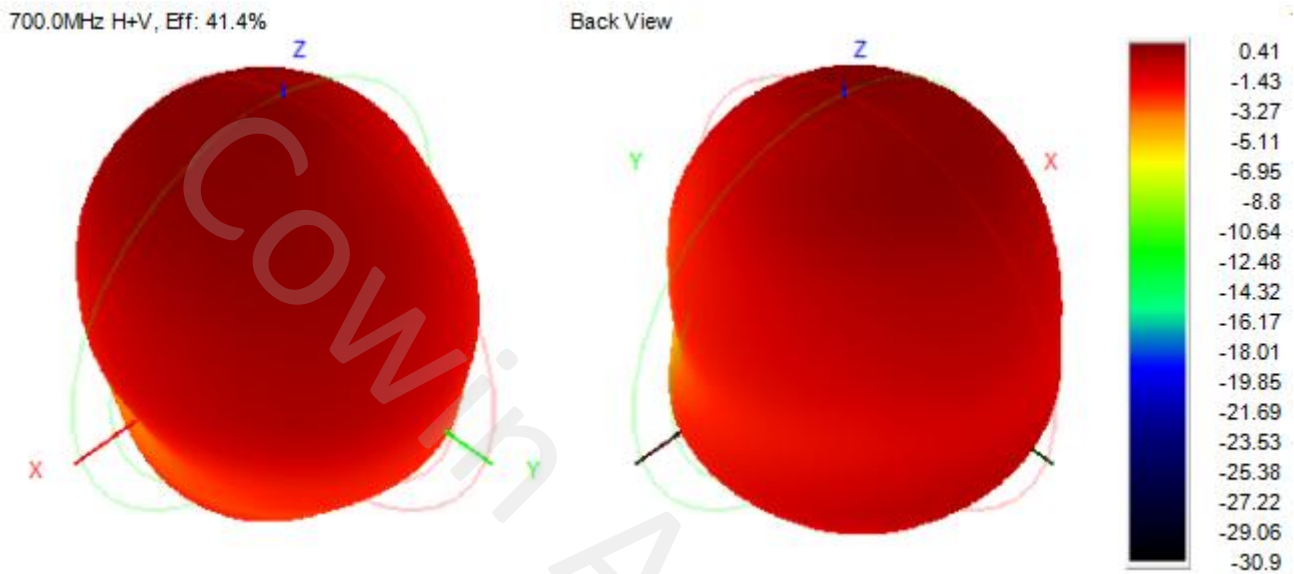
4.2.7 2.4G-2 Efficiency



4.2.8 2.4G-2 Peak gain

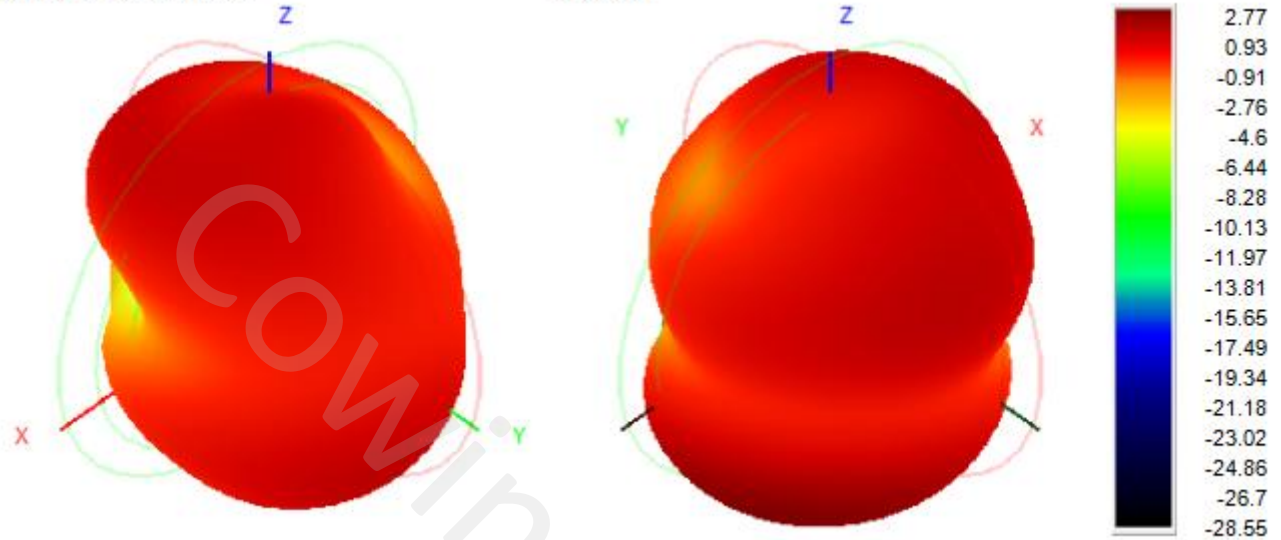


4.3.1 4G-1 3D&2D Radiation Patterns

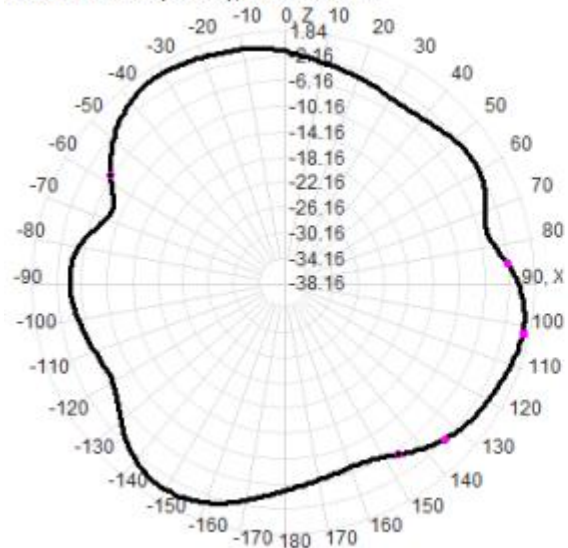


860.0MHz H+V, Eff: 63.9%

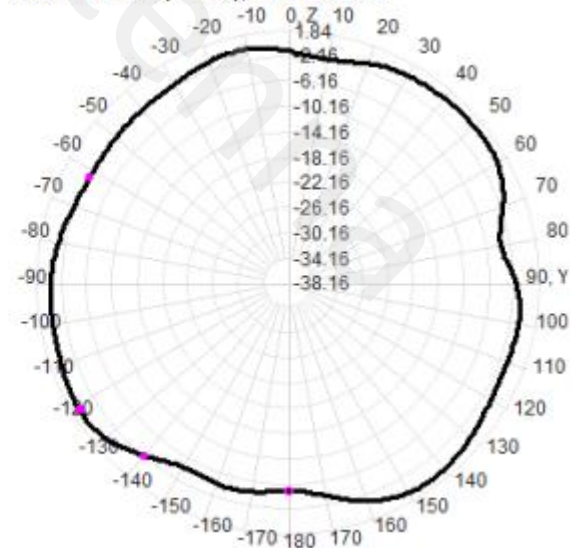
Back View



860.0MHz Total(E1-XZ), Max= 0.48dBi

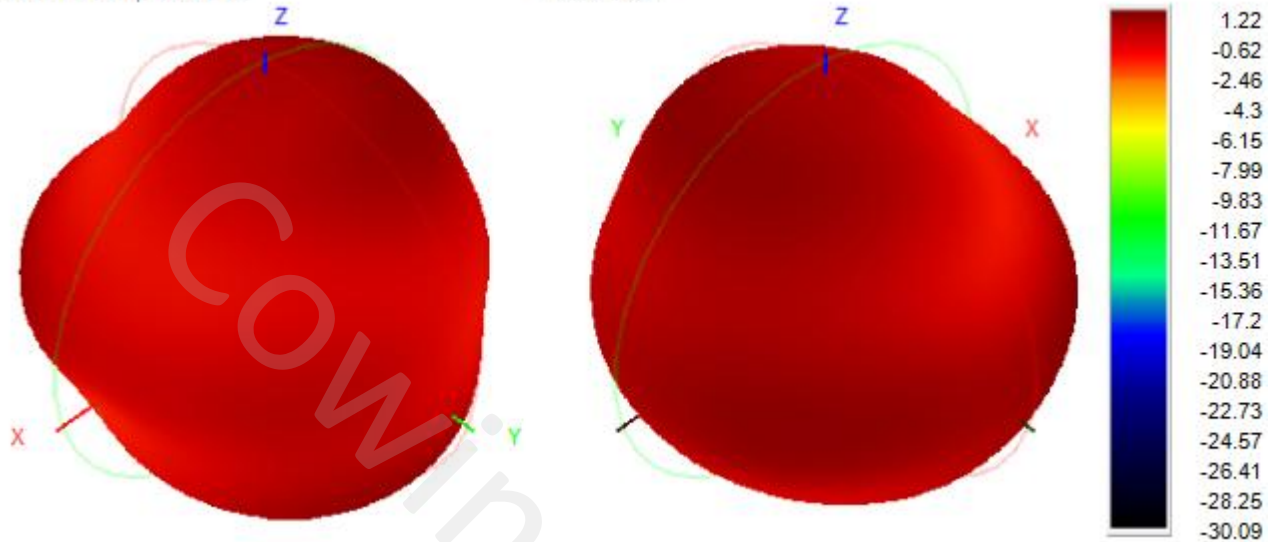


860.0MHz Total(E2-YZ), Max= 0.50dBi



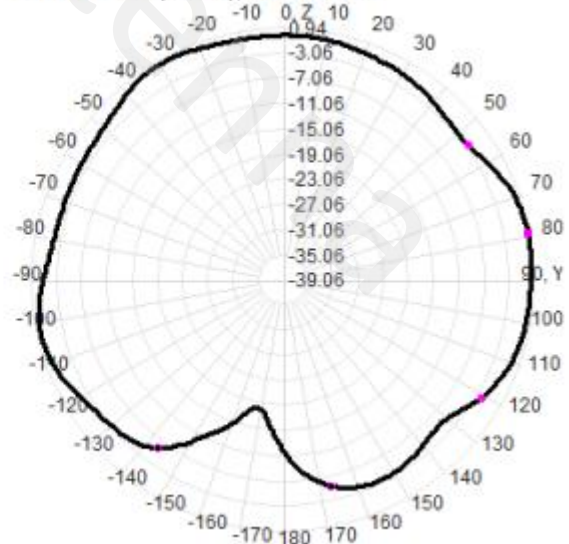
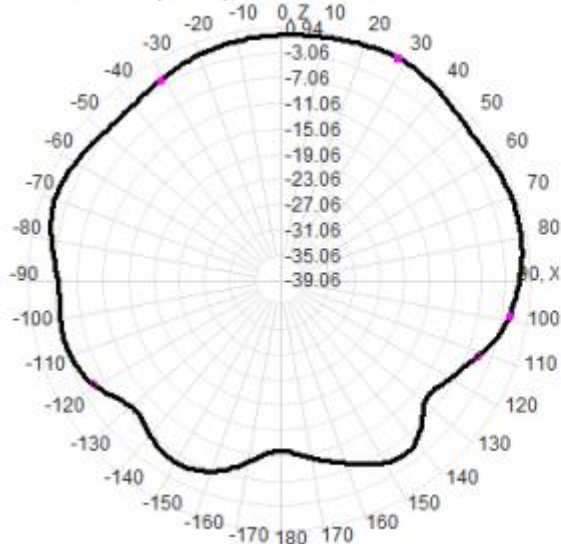
960.0MHz H+V, Eff: 64.3%

Back View



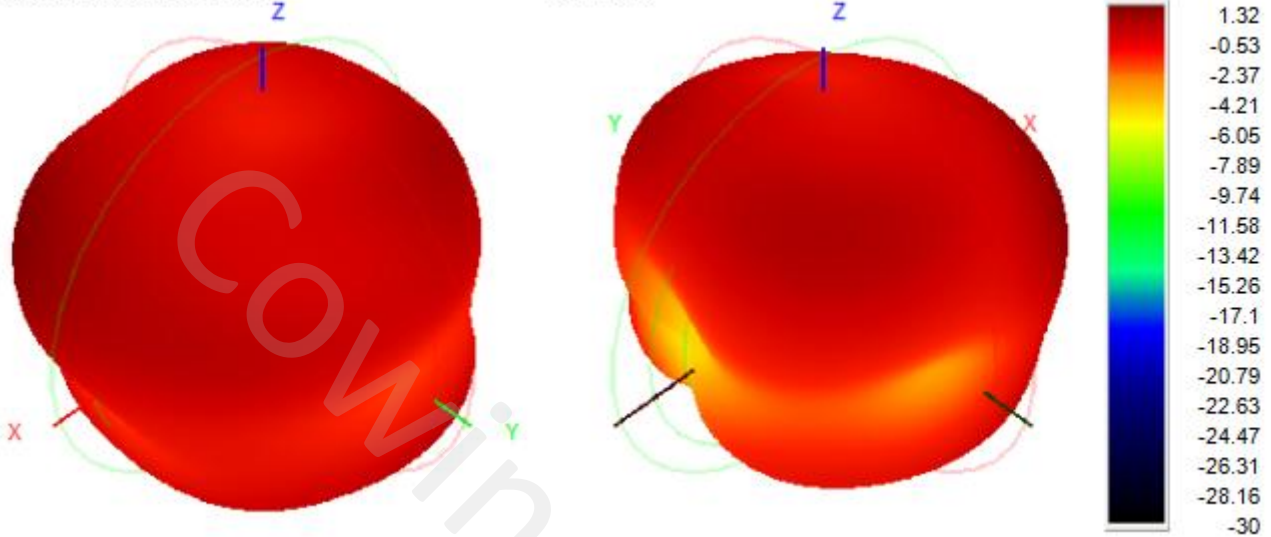
960.0MHz Total(E1-XZ), Max= 0.83dBi

960.0MHz Total(E2-YZ), Max= 0.36dBi



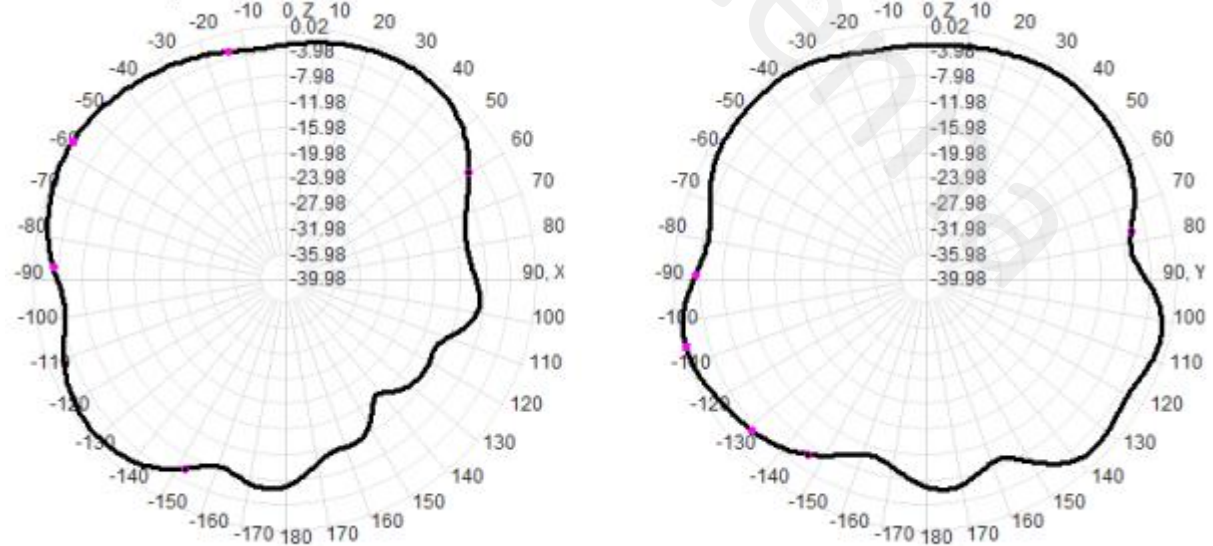
1710.0MHz H+V, Eff: 53.8%

Back View



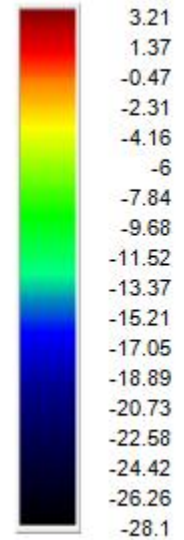
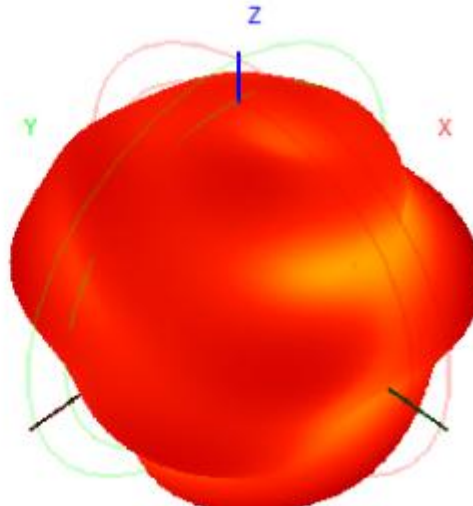
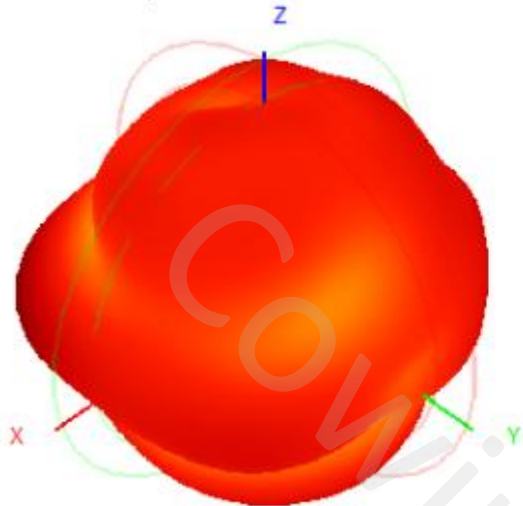
1710.0MHz Total(E1-XZ), Max= 0.02dBi

1710.0MHz Total(E2-YZ), Max= -0.49dBi

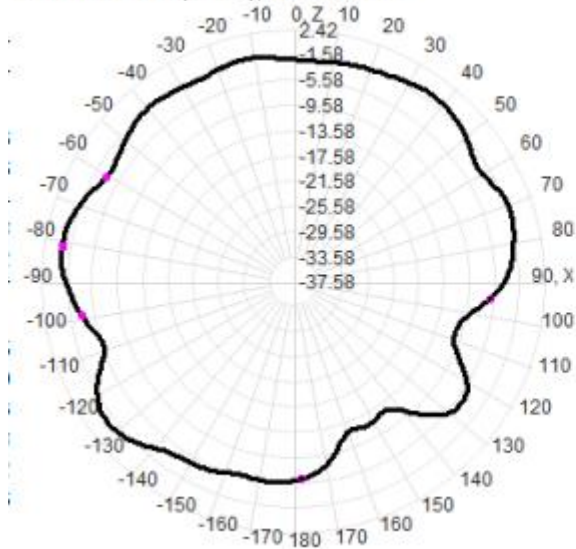


2210.0MHz H+V, Eff: 60.0%

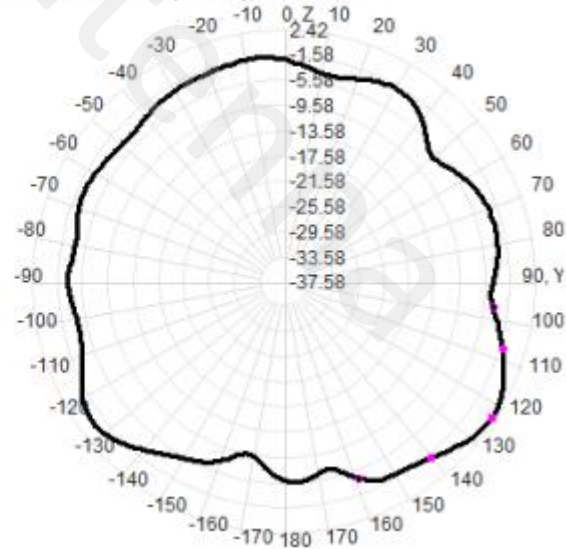
Back View



2210.0MHz Total(E1-XZ), Max= -0.39dBi

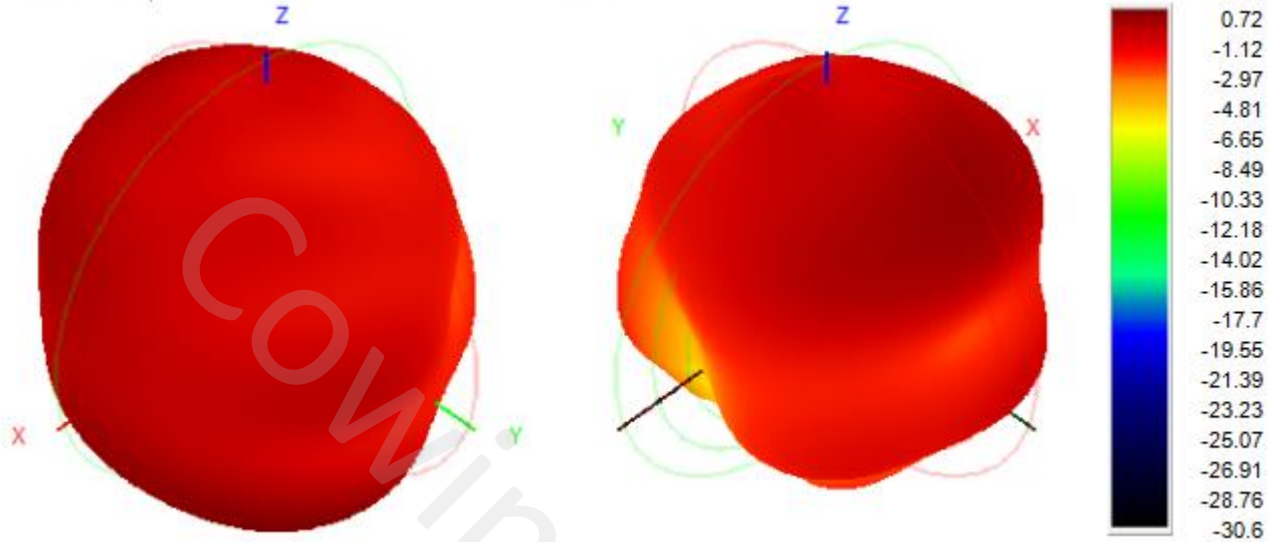


2210.0MHz Total(E2-YZ), Max= 1.72dBi

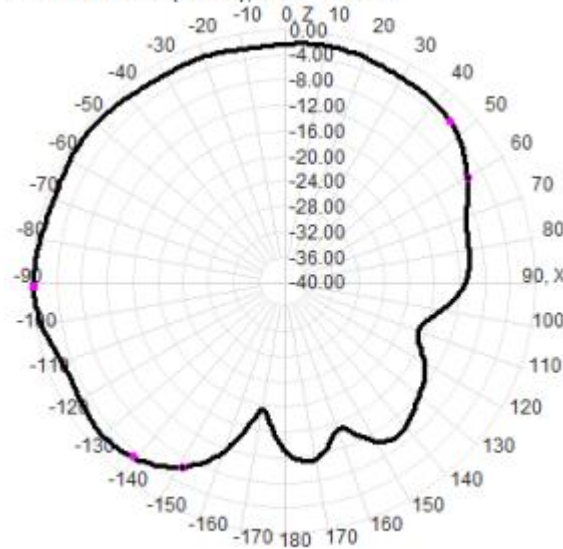


2710.0MHz H+V, Eff: 45.5%

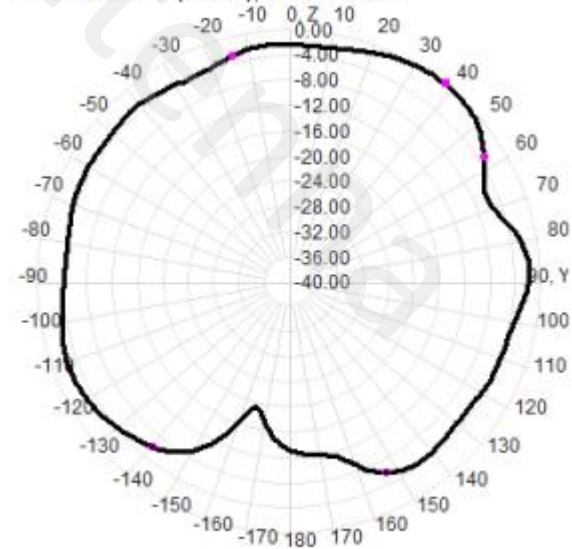
Back View



2710.0MHz Total(E1-XZ), Max= -0.33dBi

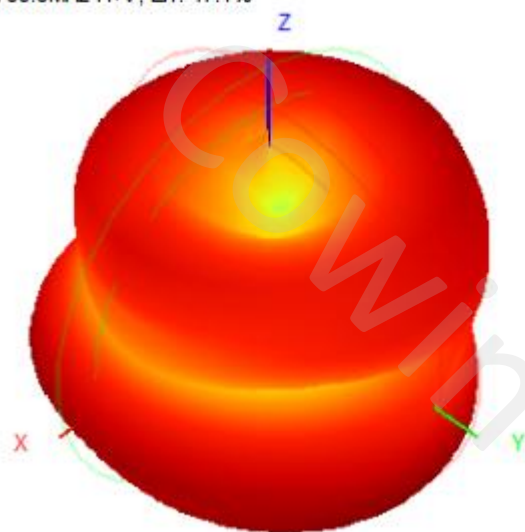


2710.0MHz Total(E2-YZ), Max= 0.00dBi

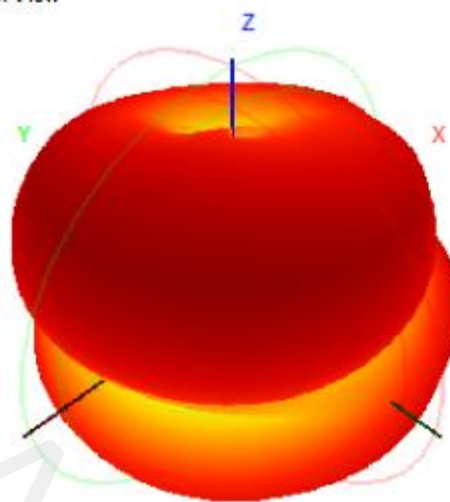


4.3.2 4G-2 3D&2D Radiation Patterns

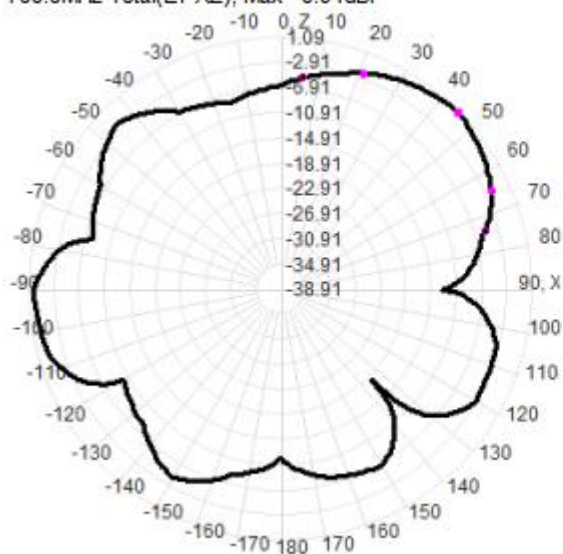
700.0MHz H+V, Eff: 47.1%



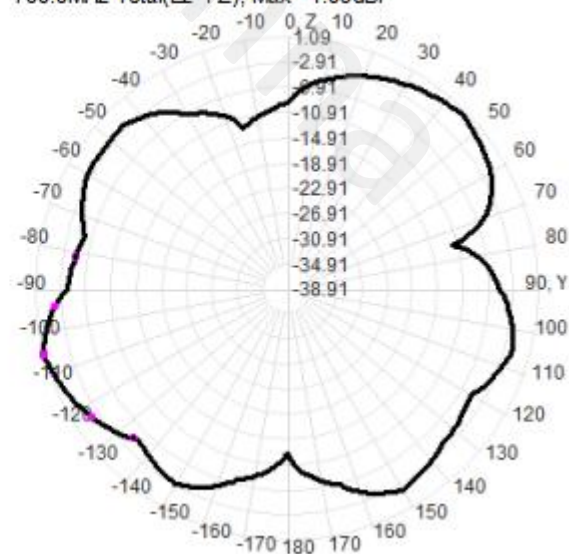
Back View



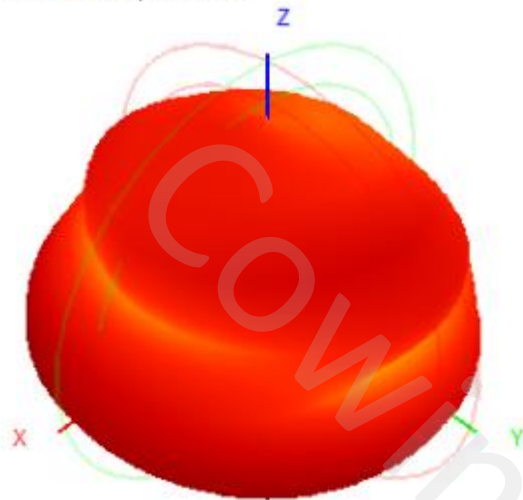
700.0MHz Total(E1-XZ), Max= 0.84dBi



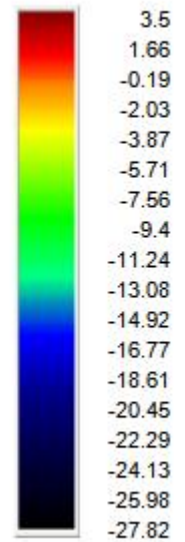
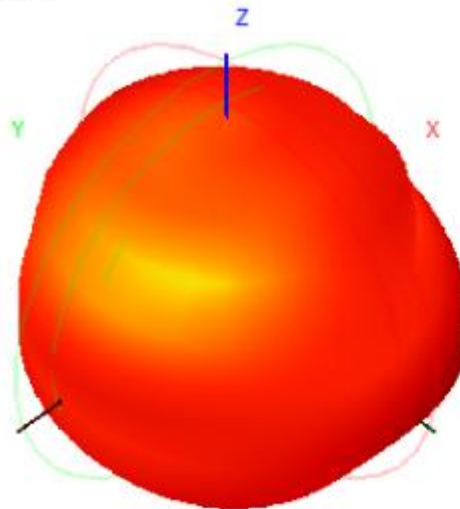
700.0MHz Total(E2-YZ), Max= 1.09dBi



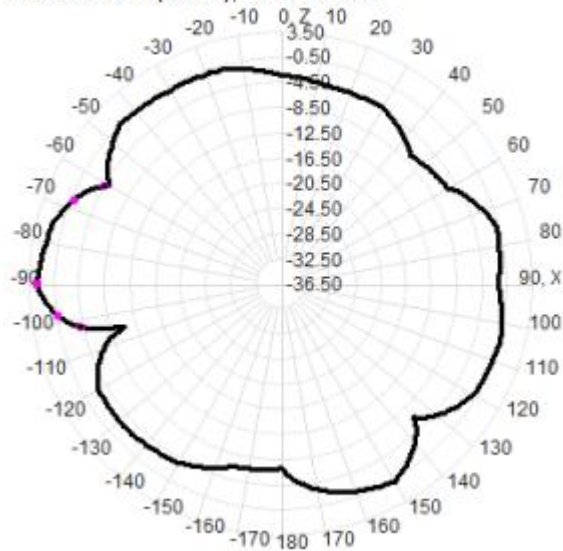
860.0MHz H+V, Eff: 70.9%



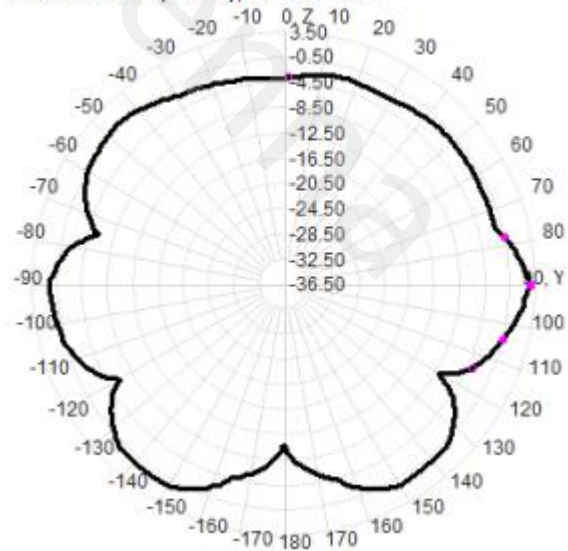
Back View



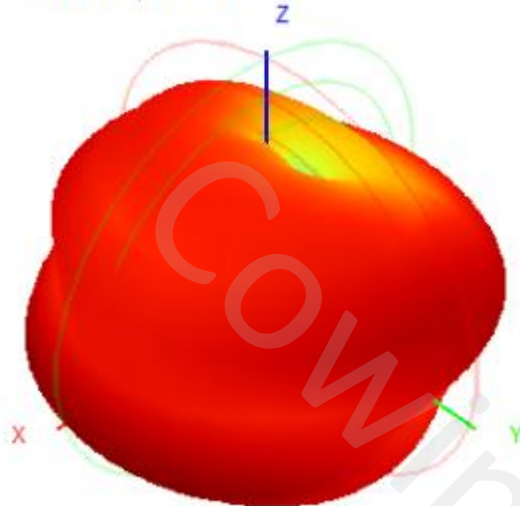
860.0MHz Total(E1-XZ), Max= 2.17dBi



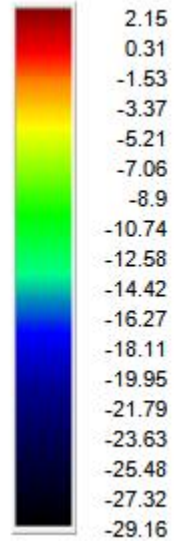
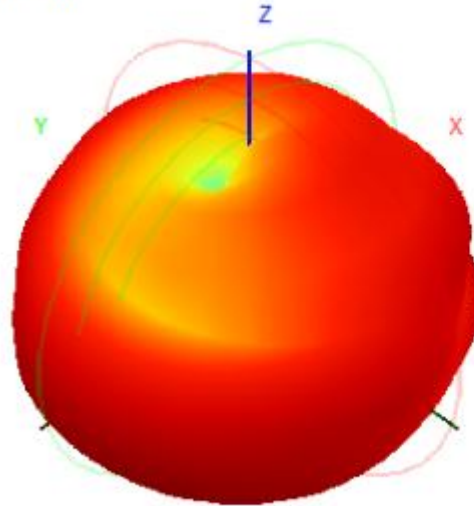
860.0MHz Total(E2-YZ), Max= 2.31dBi



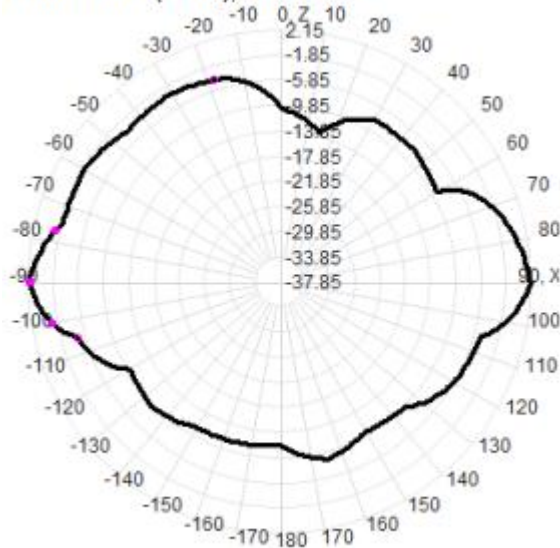
960.0MHz H+V, Eff: 52.9%



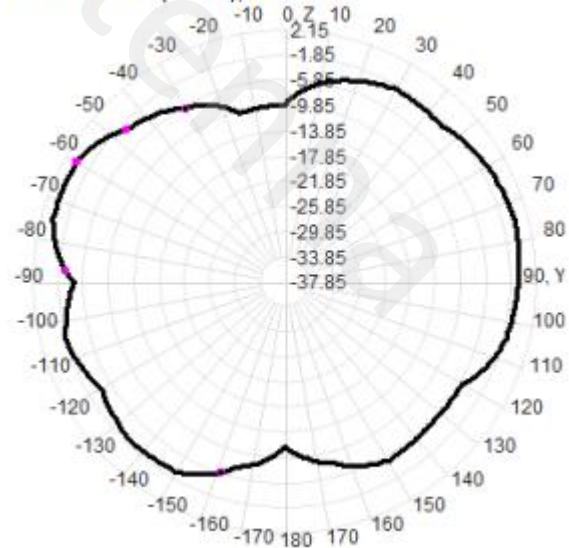
Back View



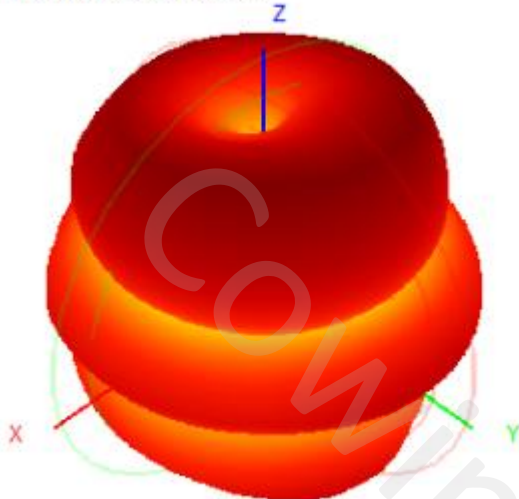
960.0MHz Total(E1-XZ), Max= 1.92dBi



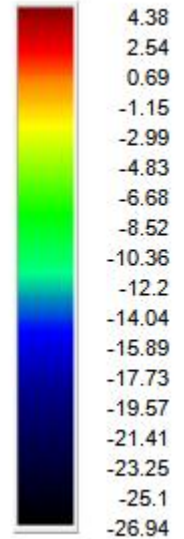
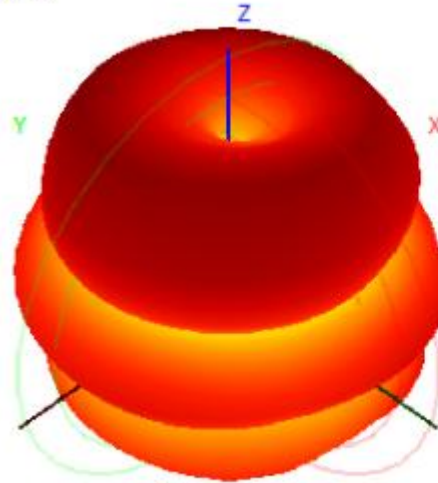
960.0MHz Total(E2-YZ), Max= 0.28dBi



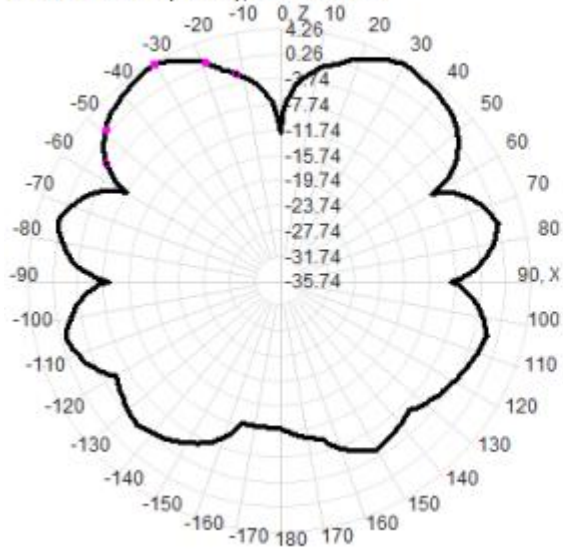
1710.0MHz H+V, Eff: 71.3%



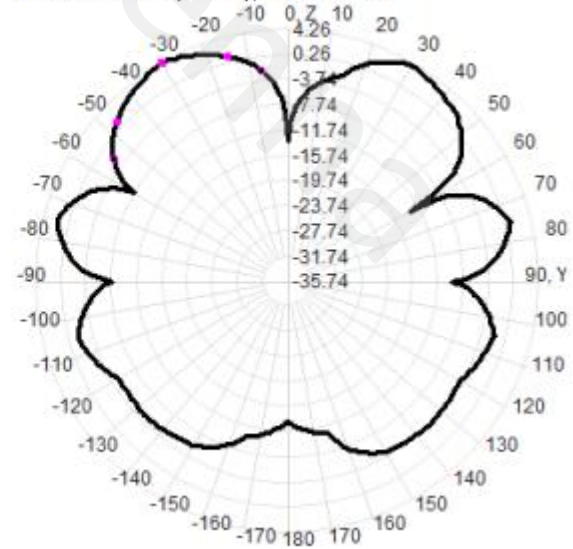
Back View



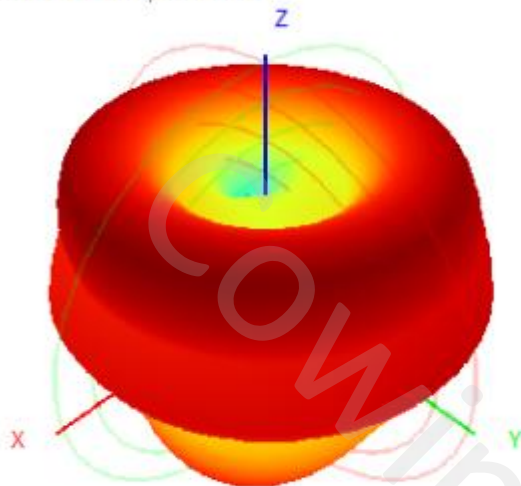
1710.0MHz Total(E1-XZ), Max= 3.97dBi



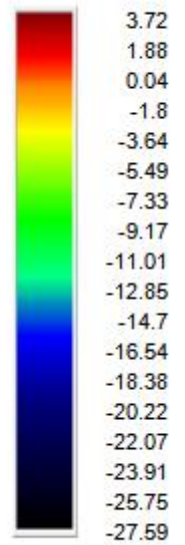
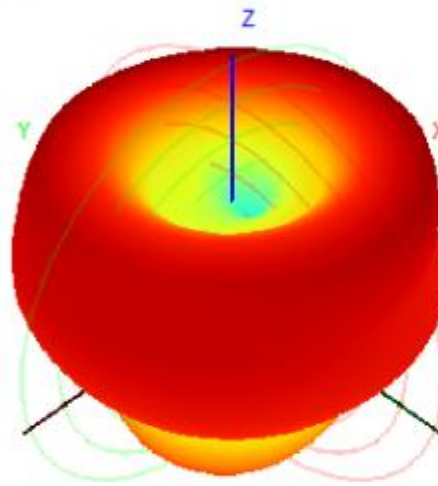
1710.0MHz Total(E2-YZ), Max= 4.26dBi



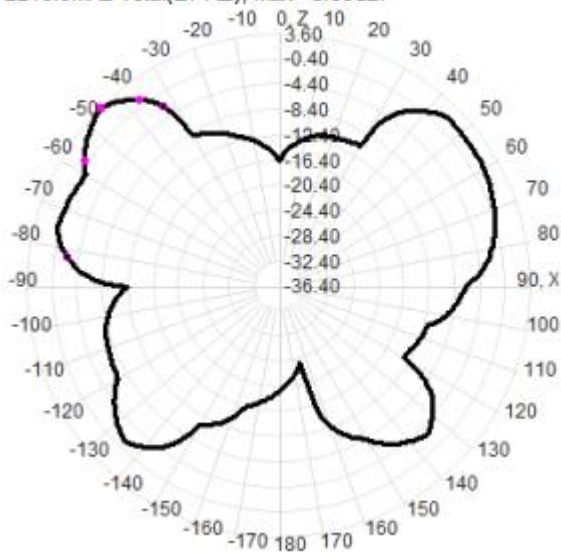
2210.0MHz H+V, Eff: 52.2%



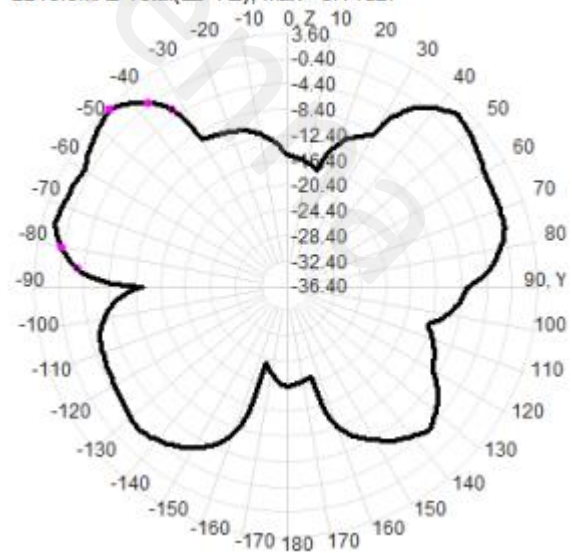
Back View



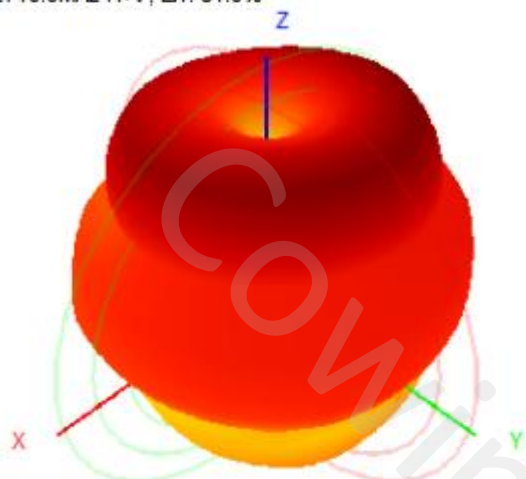
2210.0MHz Total(E1-XZ), Max= 3.60dBi



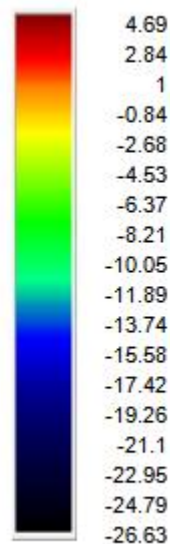
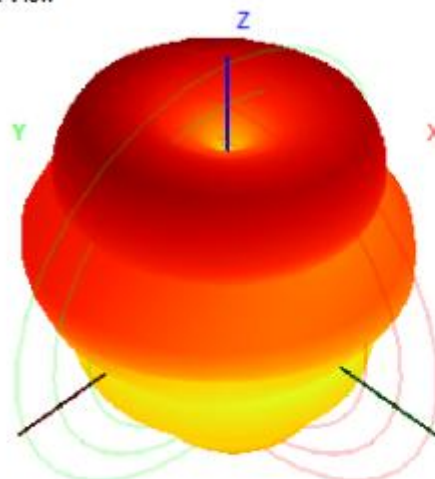
2210.0MHz Total(E2-YZ), Max= 3.14dBi



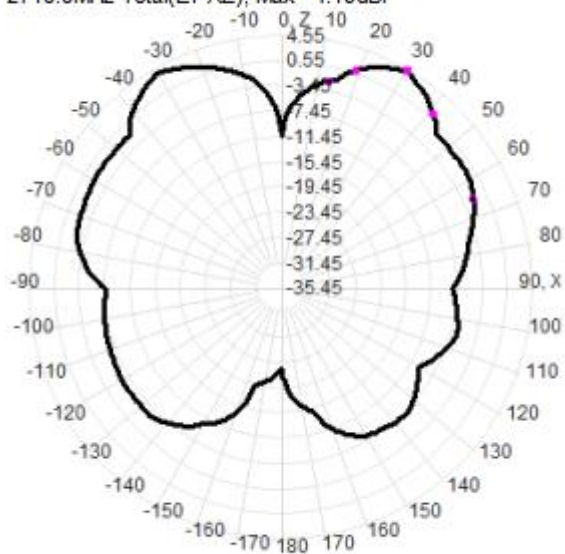
2710.0MHz H+V, Eff: 51.0%



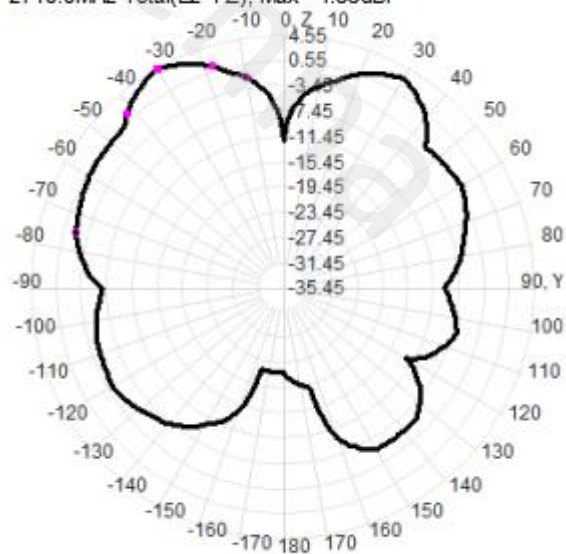
Back View



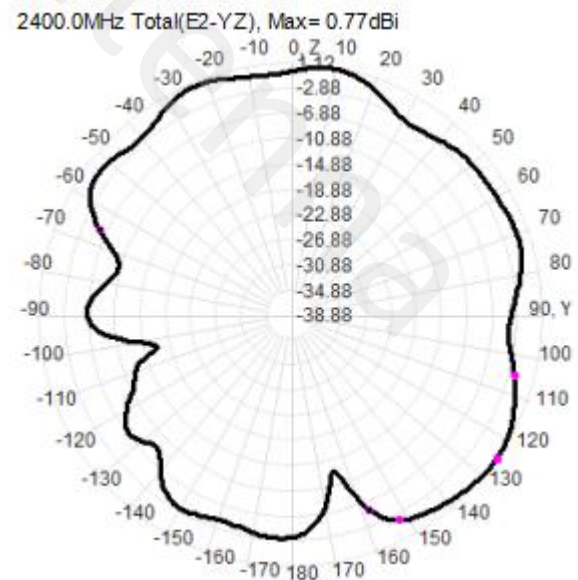
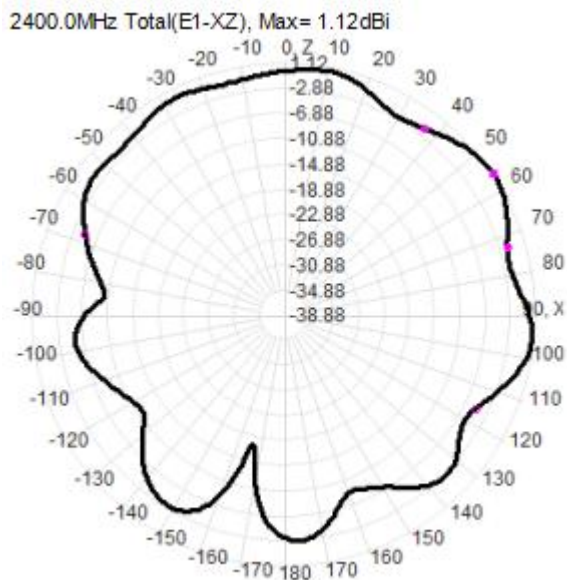
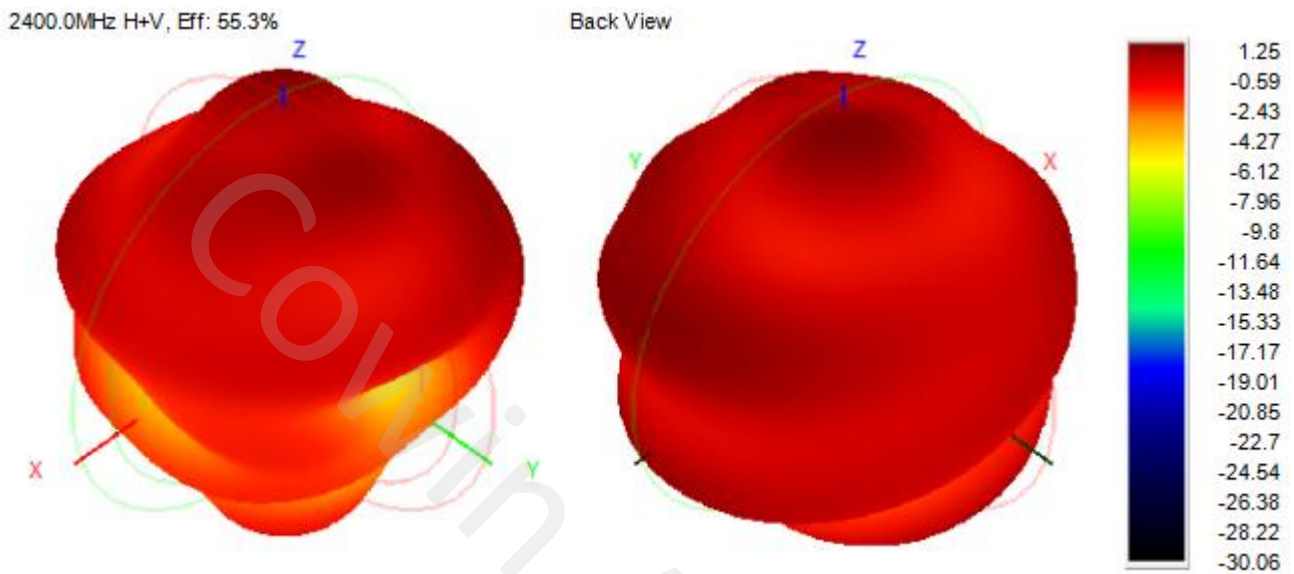
2710.0MHz Total(E1-XZ), Max= 4.18dBi



2710.0MHz Total(E2-YZ), Max= 4.55dBi

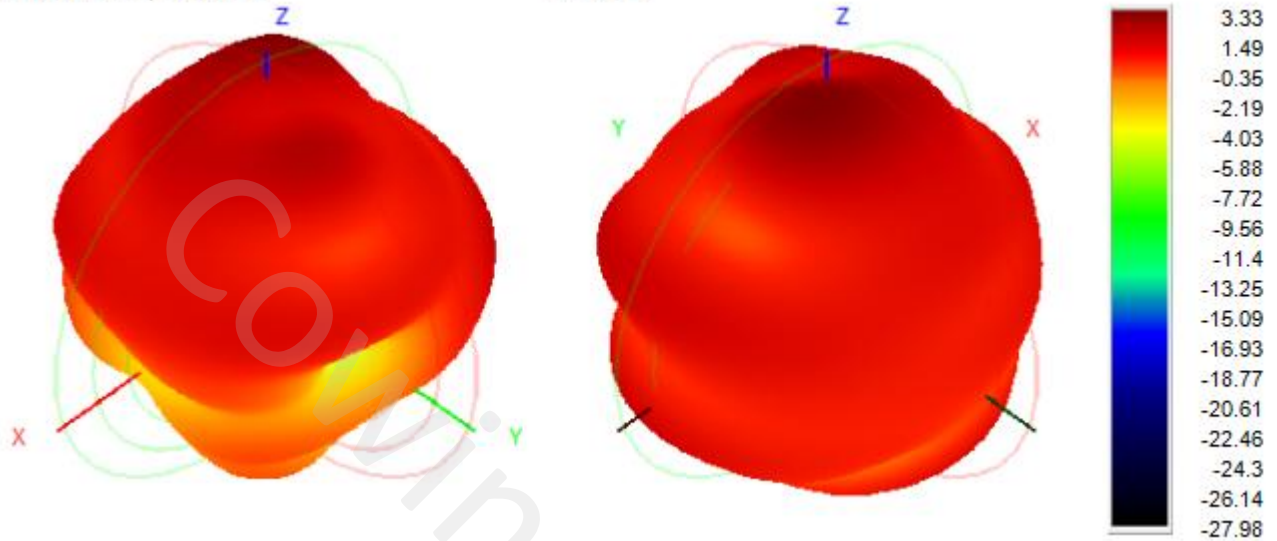


4.3.3 2.4G-1 3D&2D Radiation Patterns

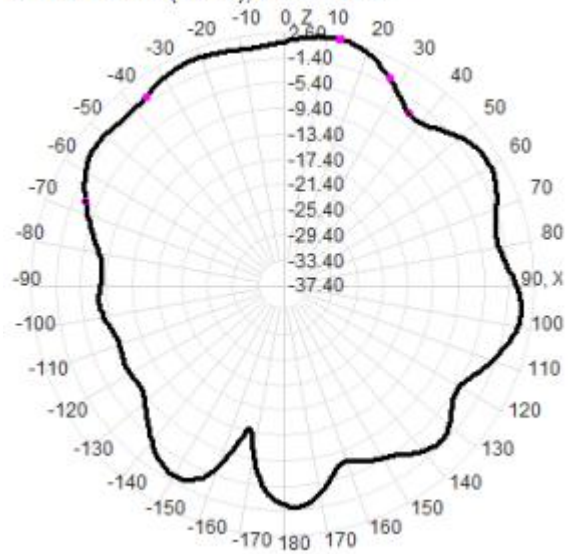


2450.0MHz H+V, Eff: 60.5%

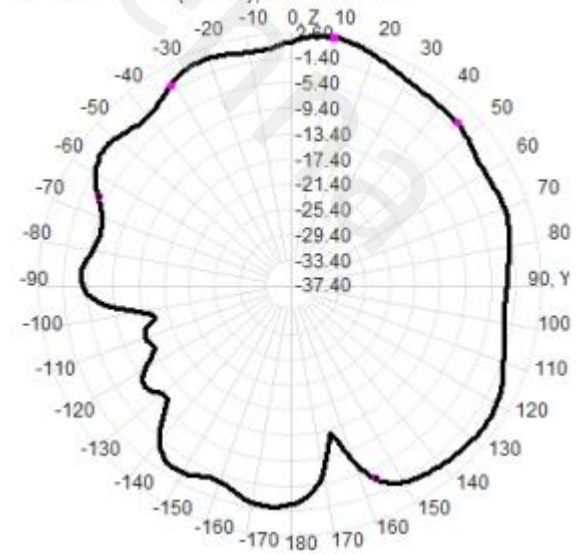
Back View



2450.0MHz Total(E1-XZ), Max= 2.60dBi

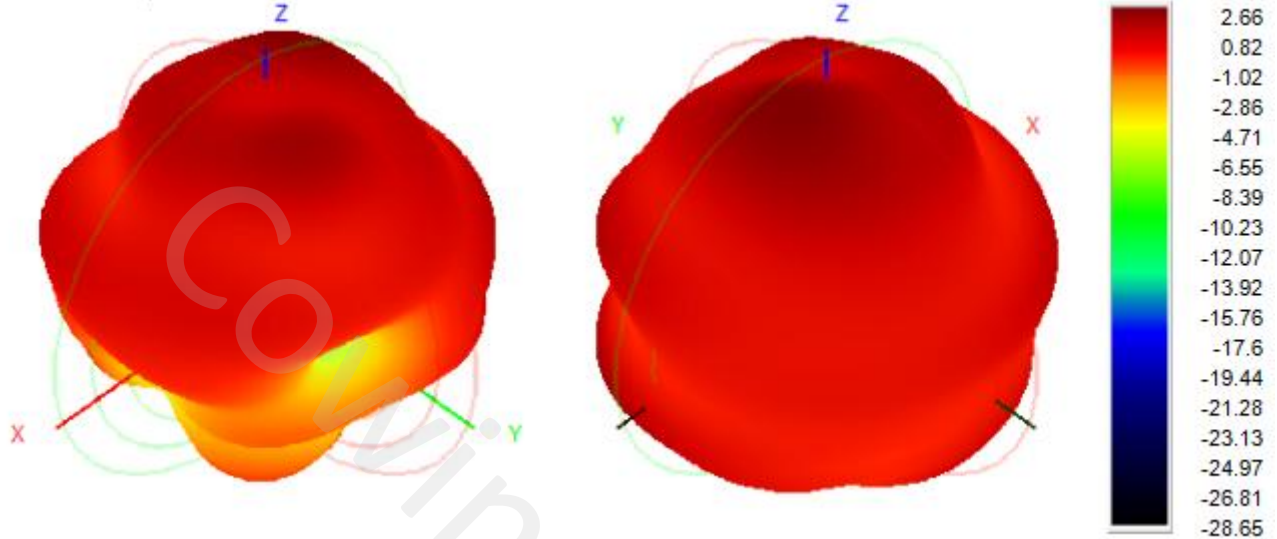


2450.0MHz Total(E2-YZ), Max= 2.50dBi



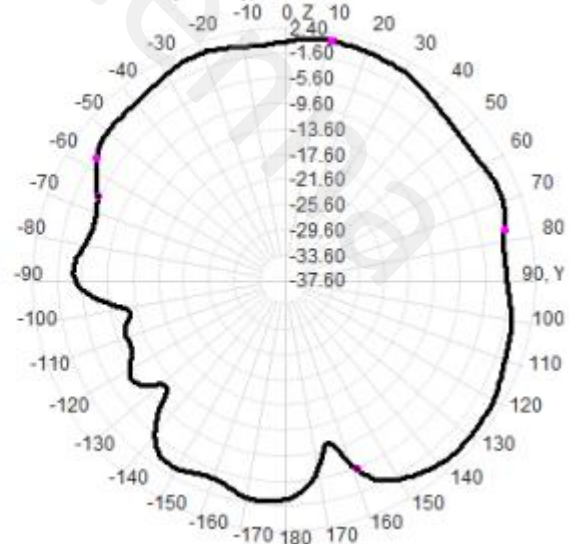
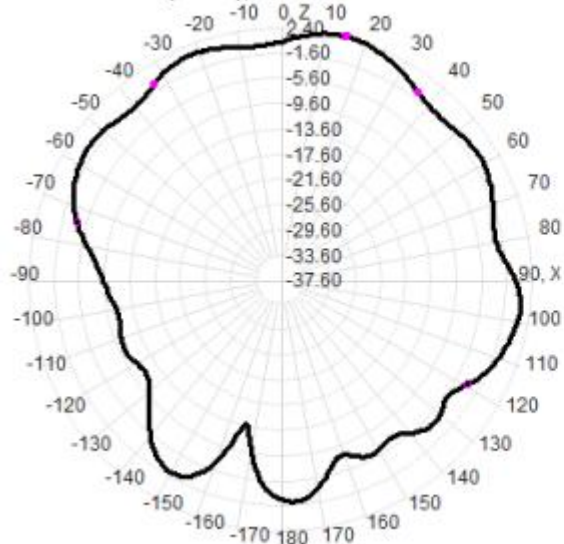
2500.0MHz H+V, Eff: 61.7%

Back View



2500.0MHz Total(E1-XZ), Max= 2.40dBi

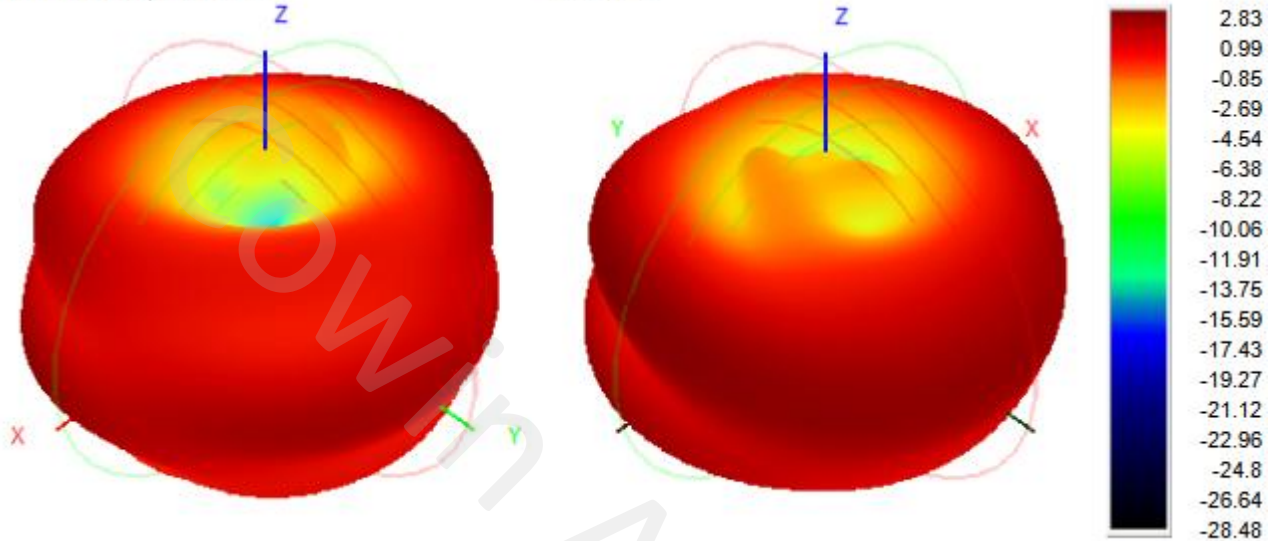
2500.0MHz Total(E2-YZ), Max= 1.09dBi



4.3.4 2.4G-2 3D&2D Radiation Patterns

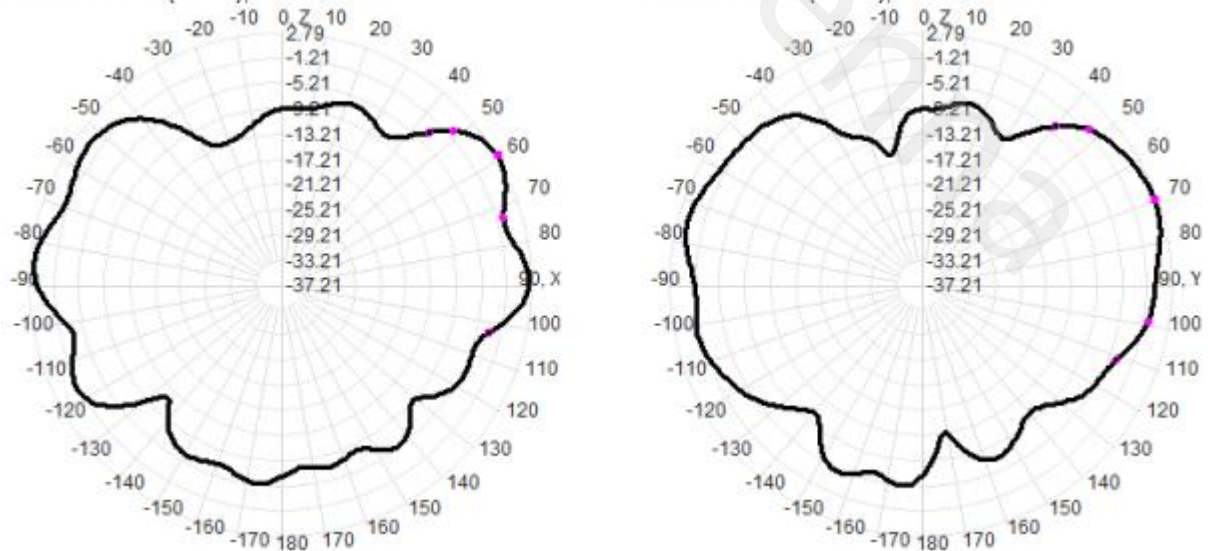
2400.0MHz H+V, Eff: 69.6%

Back View

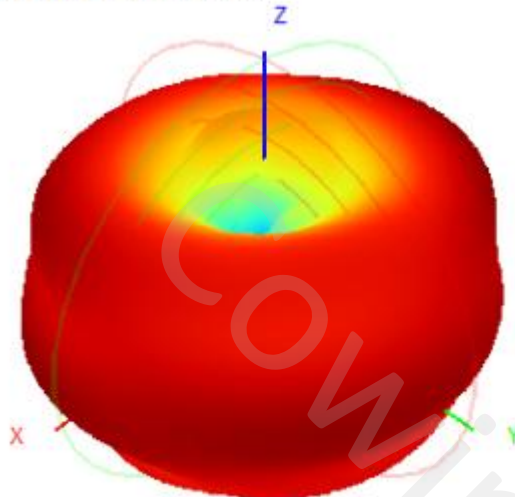


2400.0MHz Total(E1-XZ), Max= 2.79dBi

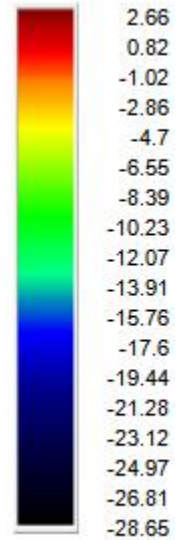
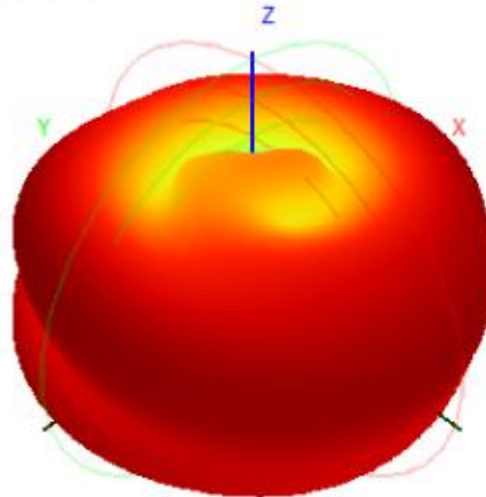
2400.0MHz Total(E2-YZ), Max= 2.12dBi



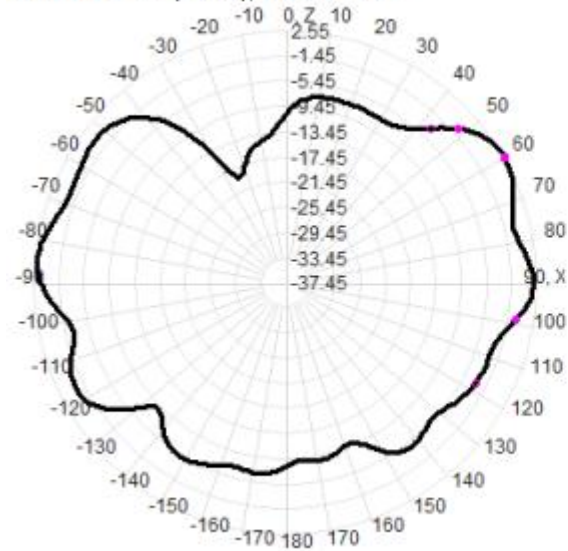
2450.0MHz H+V, Eff: 71.4%



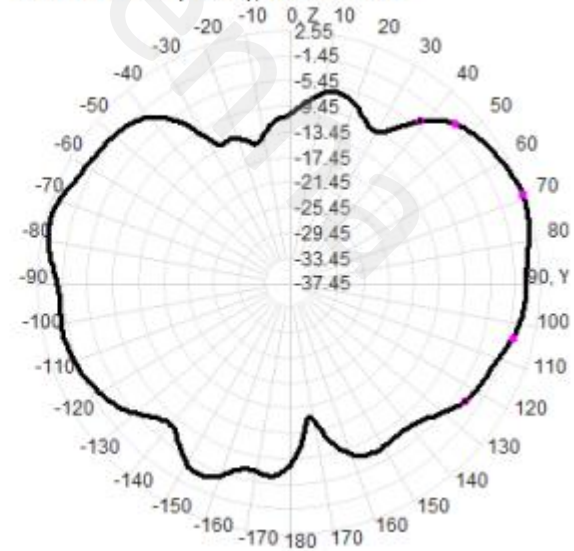
Back View



2450.0MHz Total(E1-XZ), Max= 2.55dBi

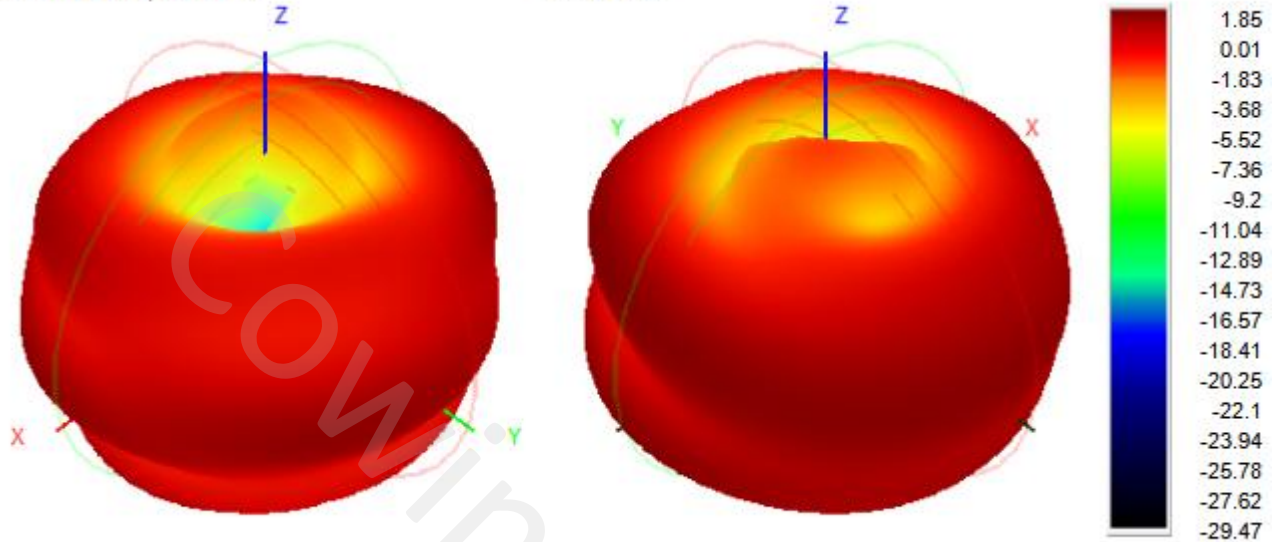


2450.0MHz Total(E2-YZ), Max= 2.02dBi



2500.0MHz H+V, Eff: 71.1%

Back View



2500.0MHz Total(E1-XZ), Max= 1.82dBi

2500.0MHz Total(E2-YZ), Max= 1.44dBi

