

## CW-WZ-0064

### 2.4G/5.8G External Antenna

#### Key Features

Frequency: 2.4G-2.5G/4.9G-5.85G

SMA Male Connector

External Rubber

Dimensions 108\*7.9 mm



## 1. Antenna Electrical Characteristics

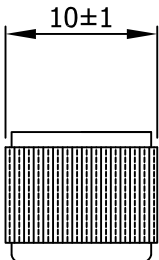
Band (MHz)		
Frequency (MHz)	2.4G-2.5G	4.9G-5.85G
VSWR	2:1	2:1
Efficiency (%)	62.99%	61.02%
Peak Gain (dBi)	3.28	3.73
Impedance (Ohm)		50
Polarisation		Vertical
Max. Input Power (W)		10
Connector Type		SMA male

## 2. Material and environmental characteristics

Material of PCB	N/A
Material of Plastic	PC+PBT/TPEE
Cable Type	RG178
Connector Type	SMA male
Dimensions (mm)	108*7.9MM
Antenna color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS

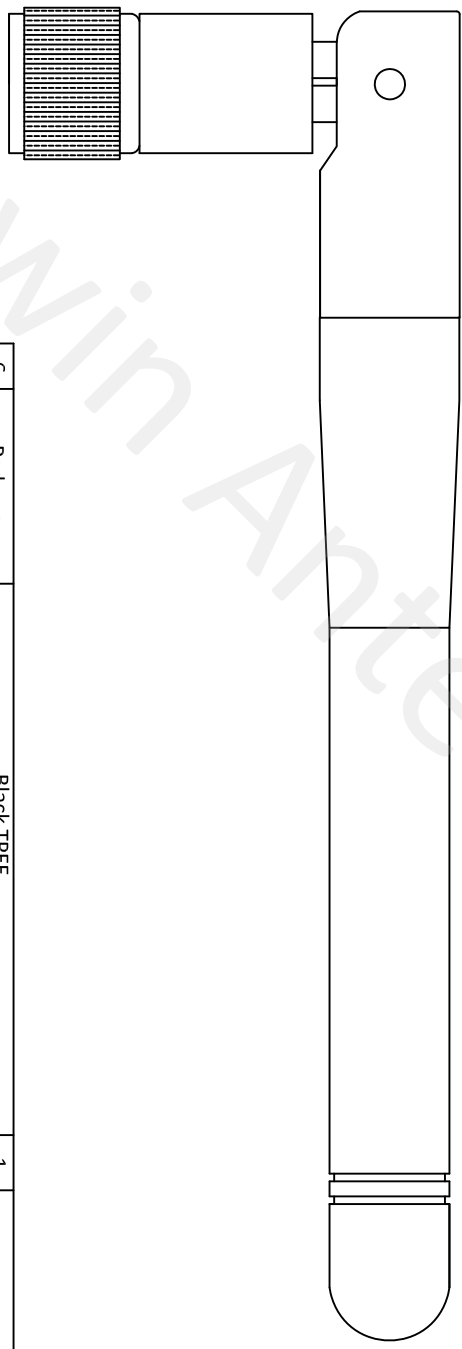
REV	Date	Description
X1	2021/09/06	New issue

108±2



7.9±1

88±2



Specification(Free Test):  
 Frequency Range: 2.4G-2.5G/4.9G-5.85G  
 Impedance: 50Ω  
 V.S.W.R: ≤2

6	Radome	Black TPEE	1					
5	Lower fixing seat	Black PC+PBT	1					
4	Upper fixing seat	Black PC+PBT	1					
3	Cable	RG178 Single silver wire	1					
2	Signal tube	Brass	2					
1	Connector	SMA male (Black)	1					
NO	Name	Description	Q'TY					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-0064		
.XXX	±0.1	Drawings			REV	Unit	File	
					X1	m/m	Sheet :	1/1



**Cowin Antenna**

## 4. Antenna test parameters

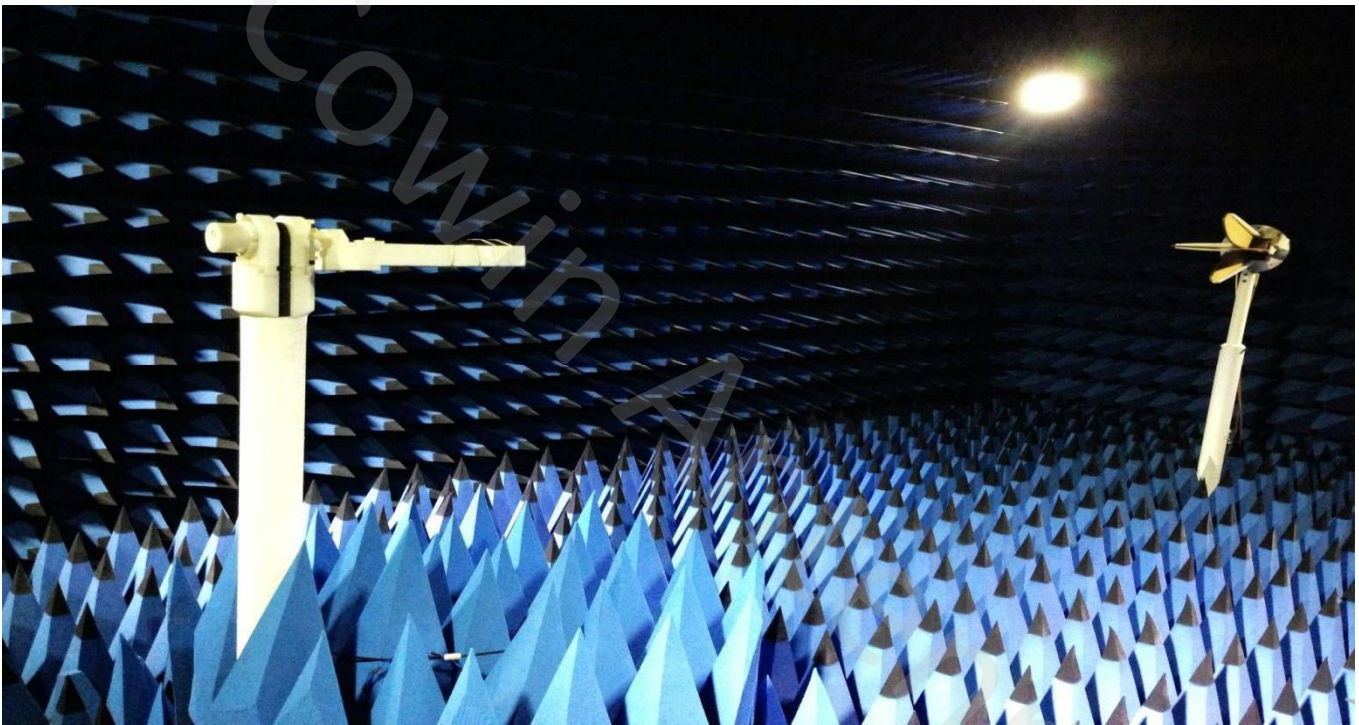
### Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

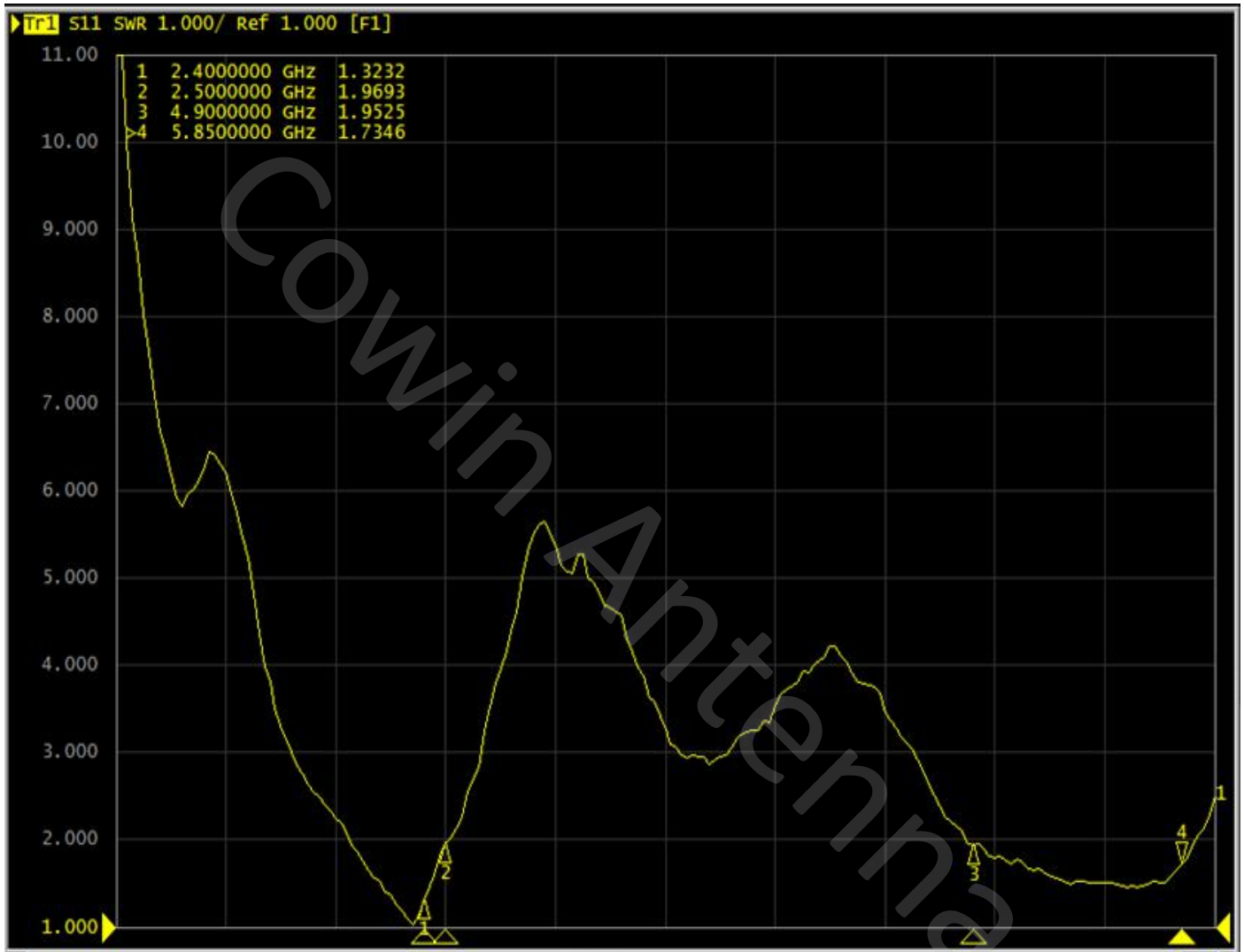
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

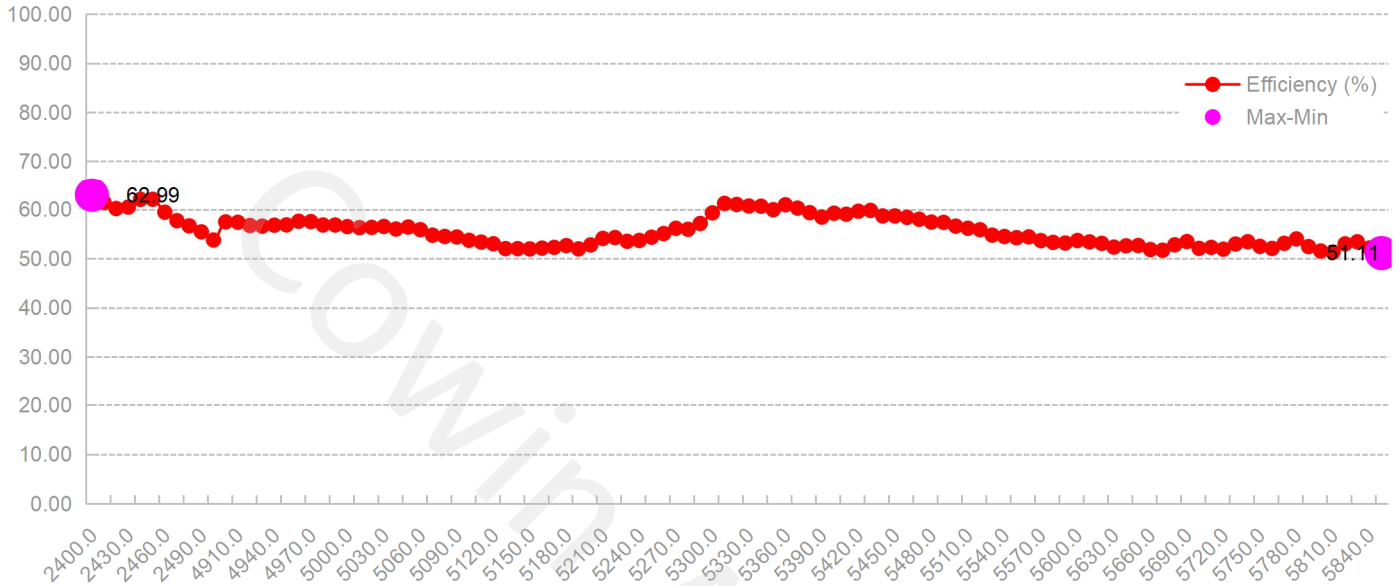
The comprehensive tester is Agilent cmv500



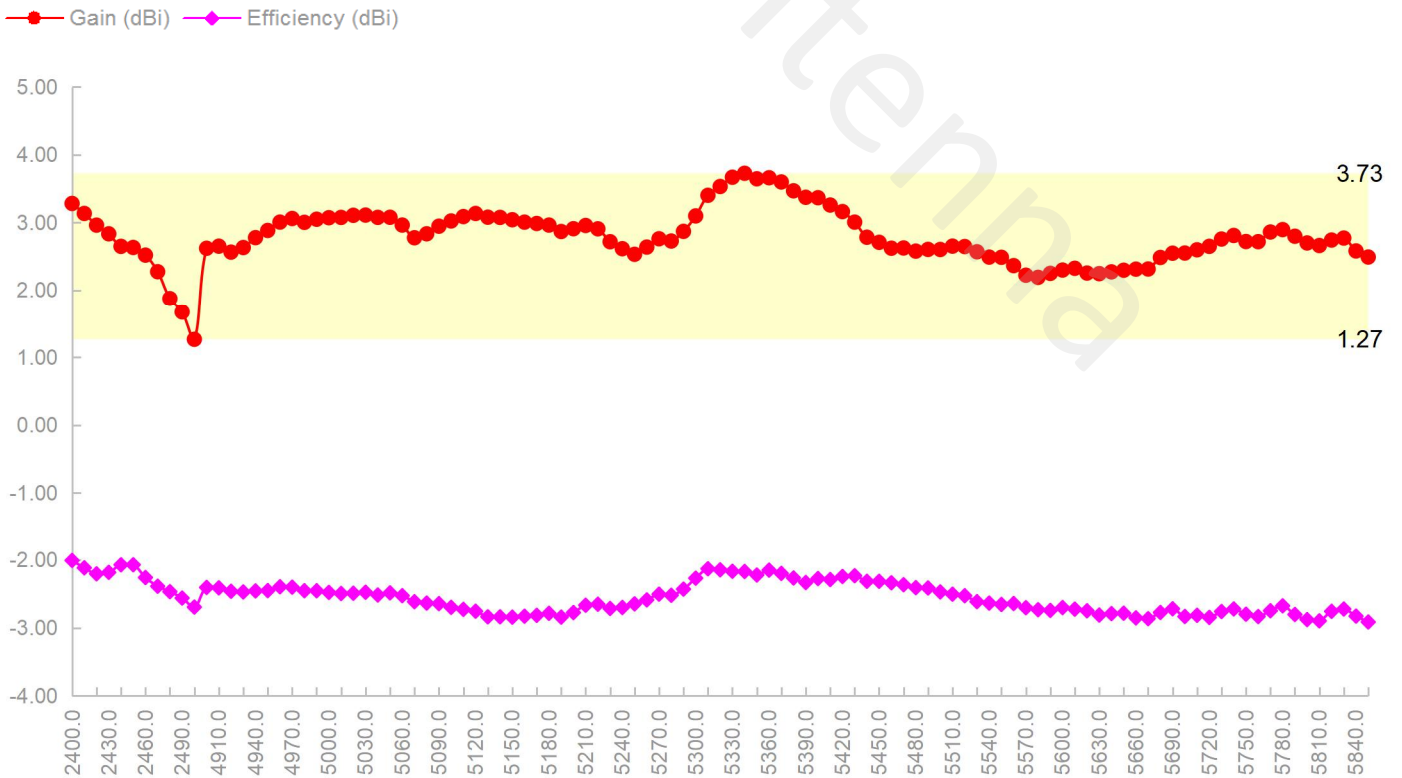
## 4.1 VSWR



## 4.2 Efficiency



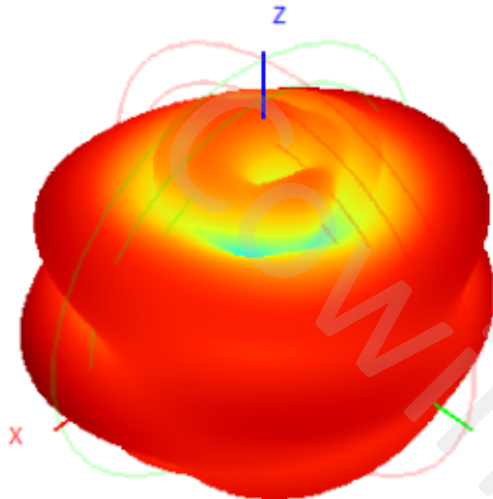
## 4.3 Peak gain



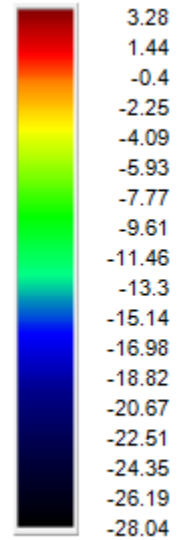
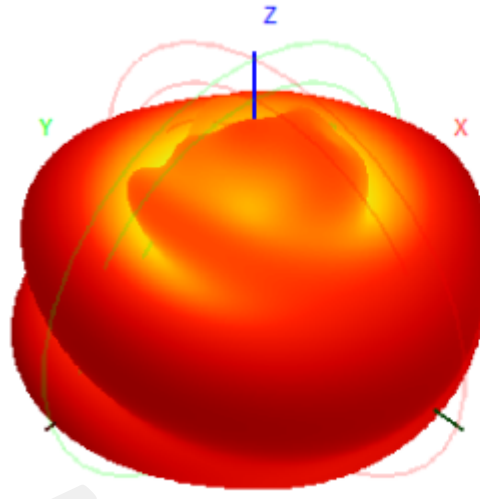


## 4.4 3D&2D Radiation Patterns

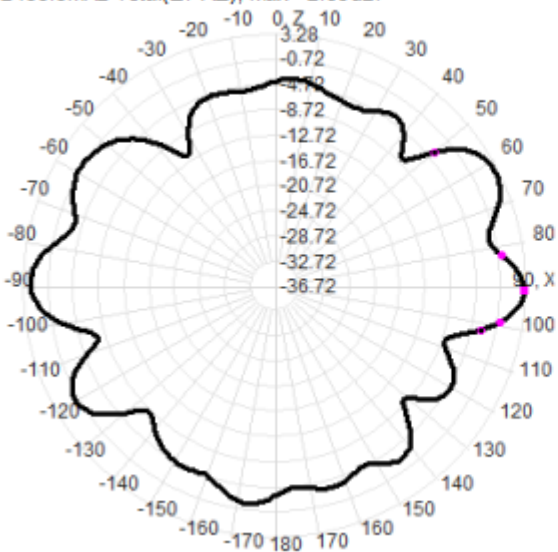
2400.0MHz H+V, Eff: 63.0%



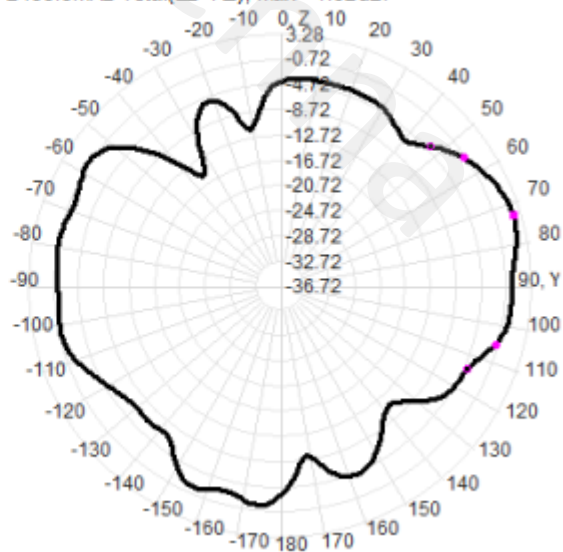
Back View



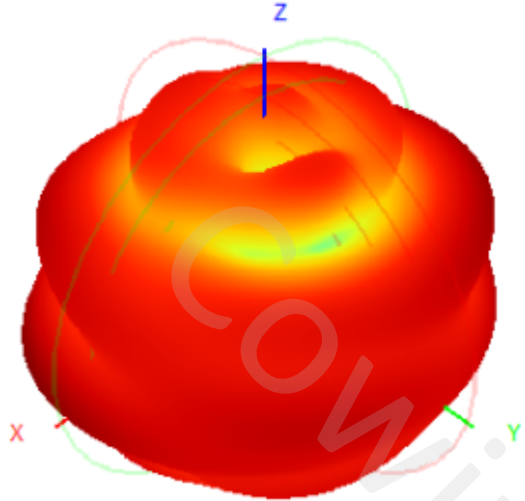
2400.0MHz Total(E1-XZ), Max= 2.69dBi



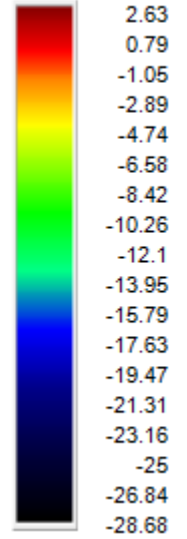
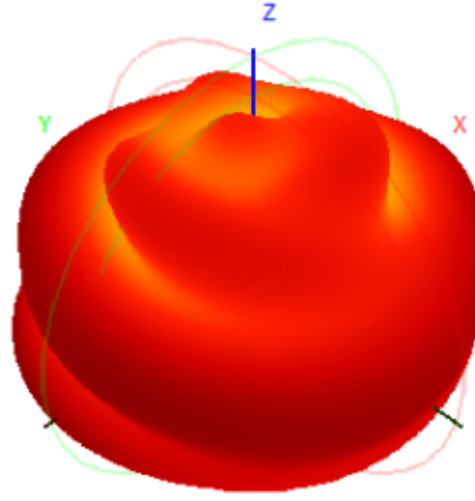
2400.0MHz Total(E2-YZ), Max= 1.82dBi



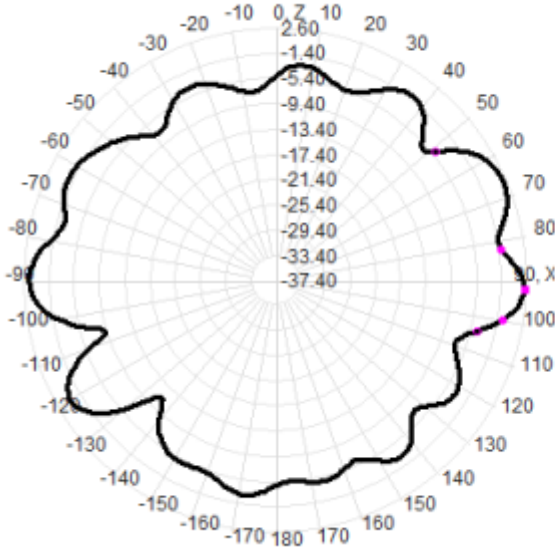
2450.0MHz H+V, Eff: 62.1%



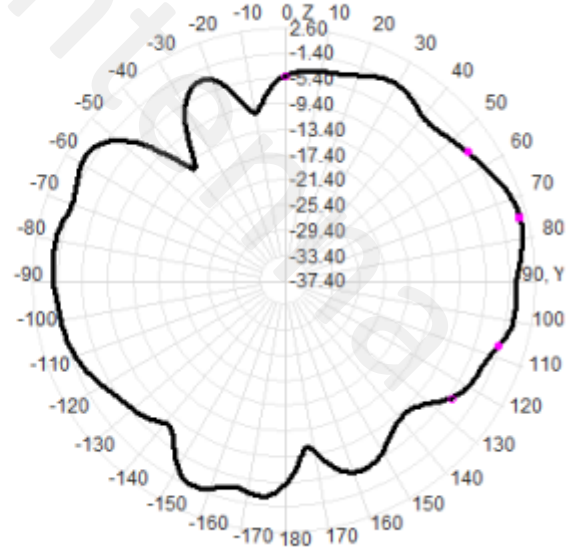
Back View



2450.0MHz Total(E1-XZ), Max= 1.94dBi

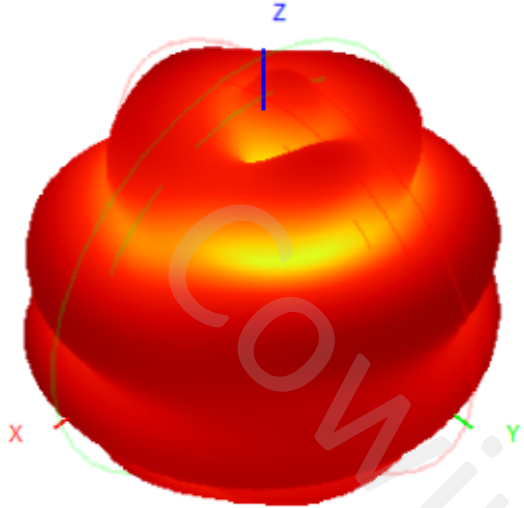


2450.0MHz Total(E2-YZ), Max= 1.17dBi

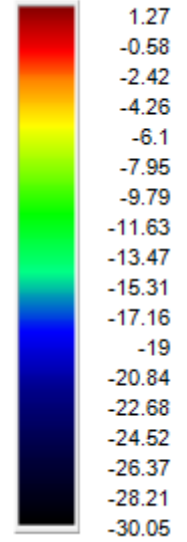
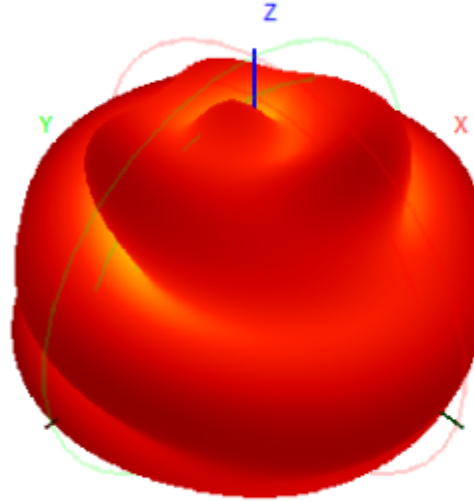




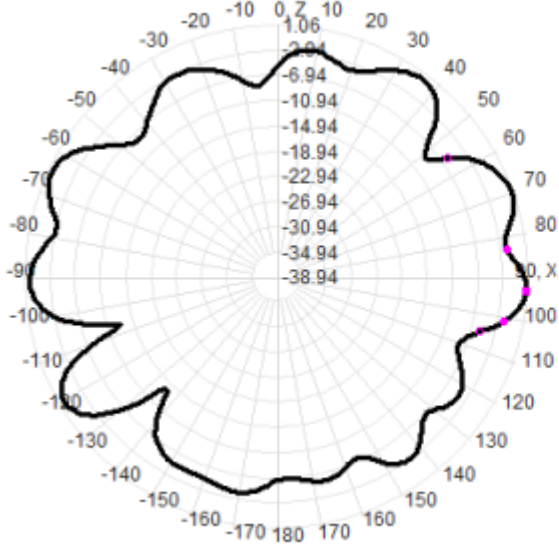
2500.0MHz H+V, Eff: 53.8%



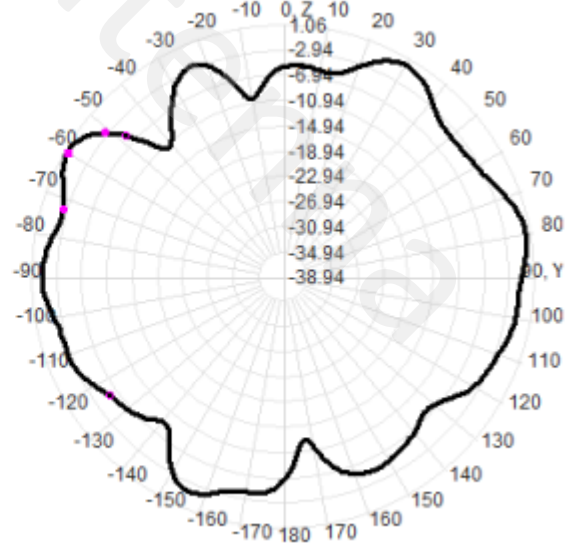
Back View



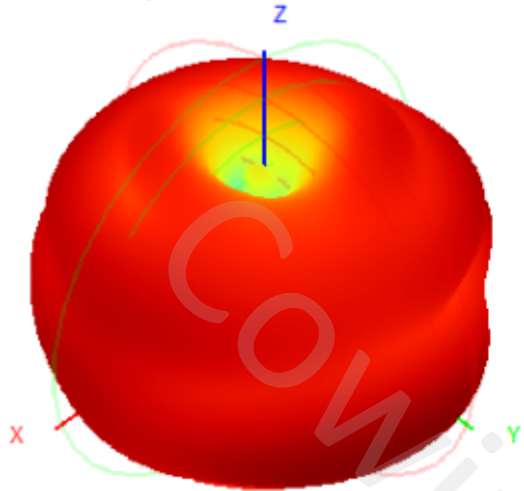
2500.0MHz Total(E1-XZ), Max= 0.63dBi



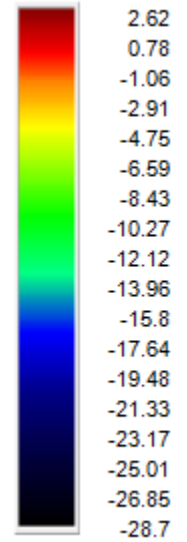
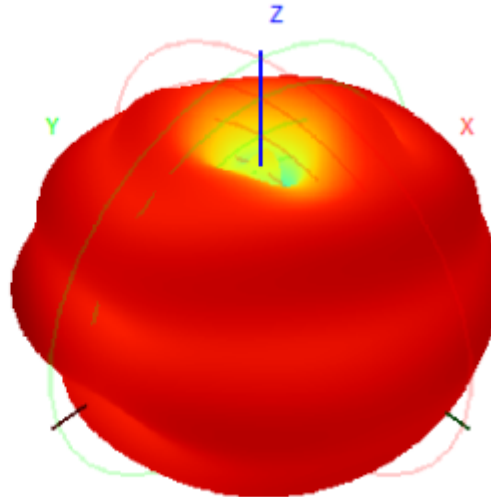
2500.0MHz Total(E2-YZ), Max= 0.59dBi



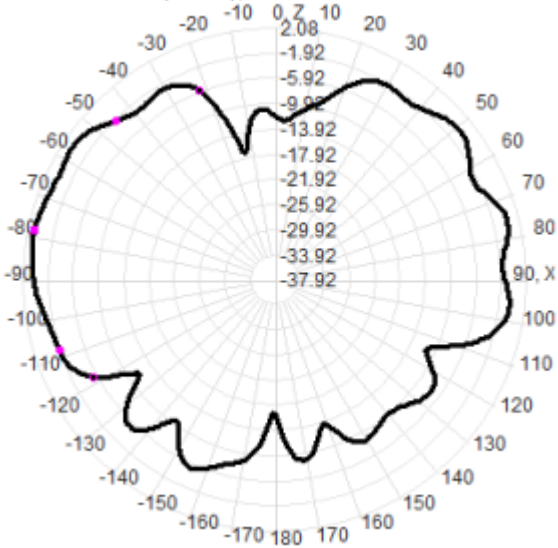
4900.0MHz H+V, Eff: 57.5%



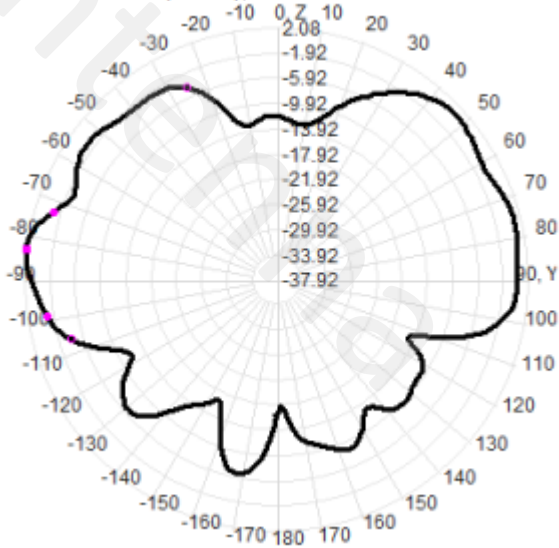
Back View



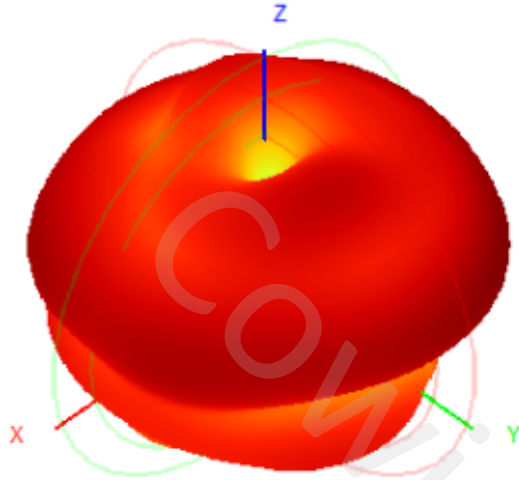
4900.0MHz Total(E1-XZ), Max= 1.06dBi



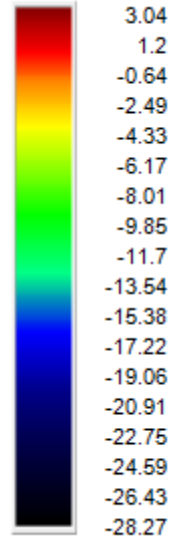
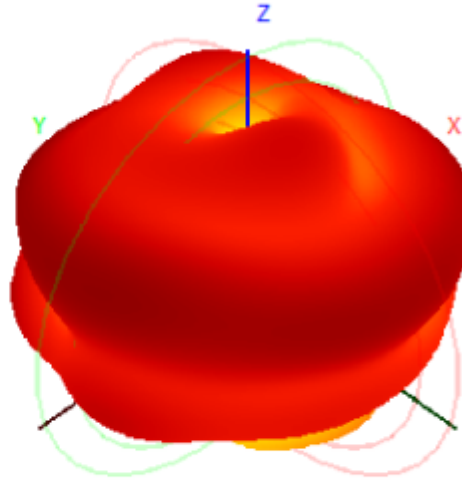
4900.0MHz Total(E2-YZ), Max= 2.08dBi



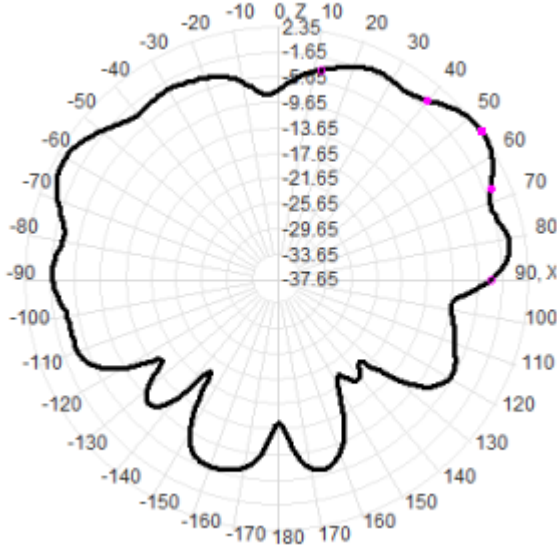
5150.0MHz H+V, Eff: 52.0%



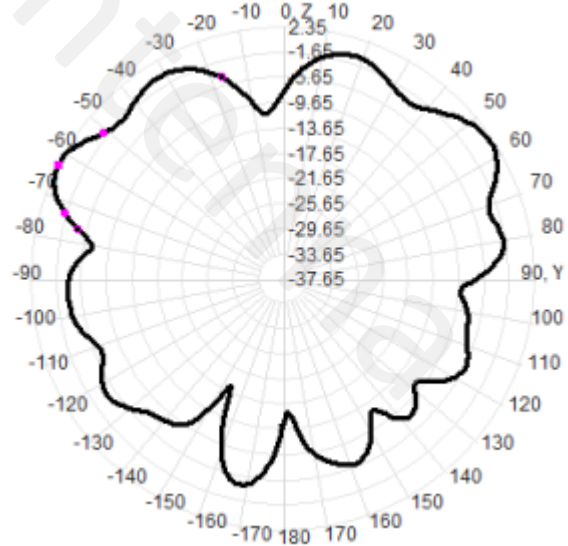
Back View



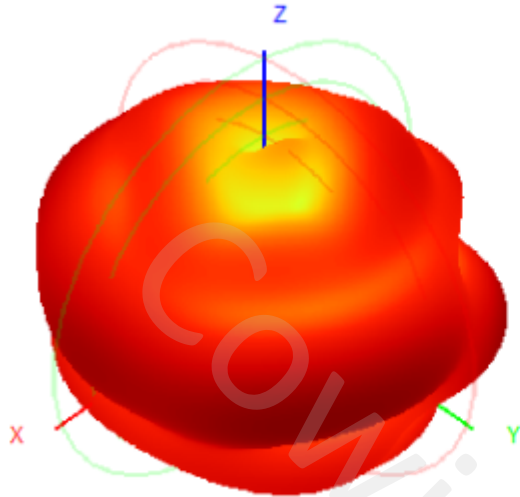
5150.0MHz Total(E1-XZ), Max= 2.35dBi



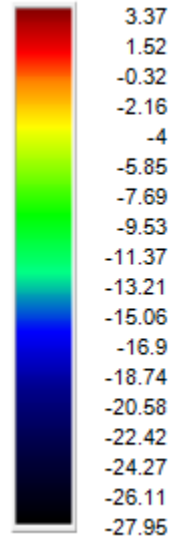
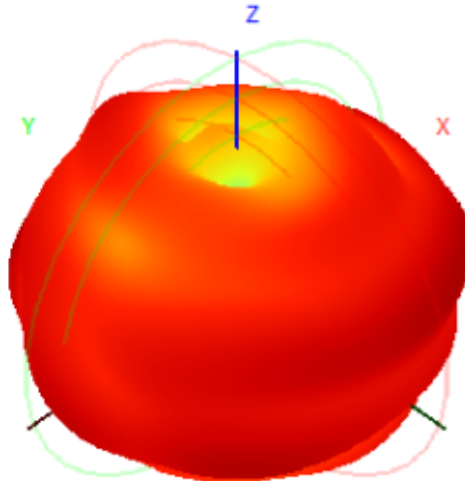
5150.0MHz Total(E2-YZ), Max= 2.28dBi



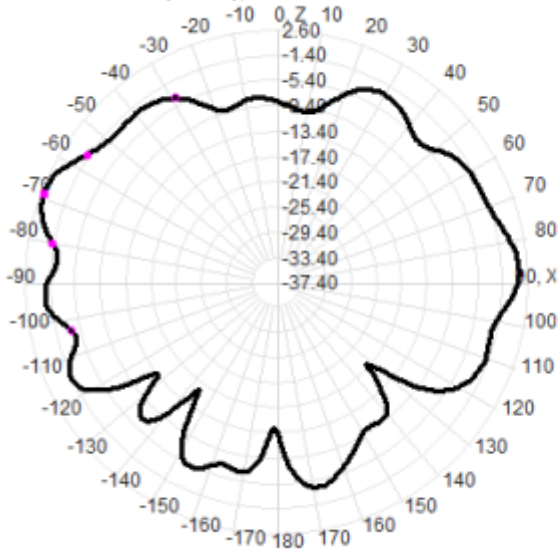
5400.0MHz H+V, Eff: 59.2%



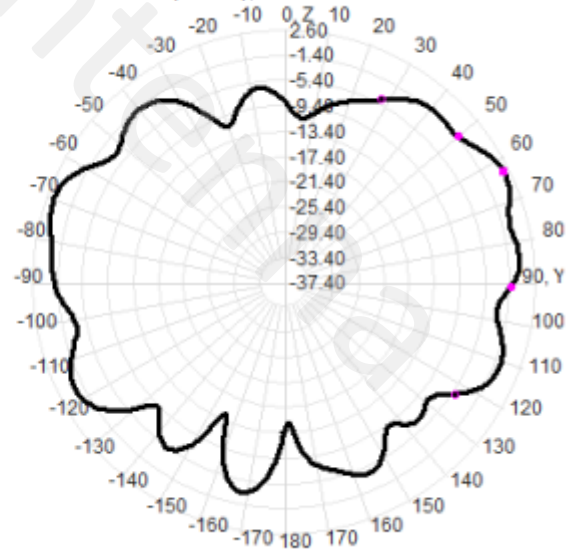
Back View



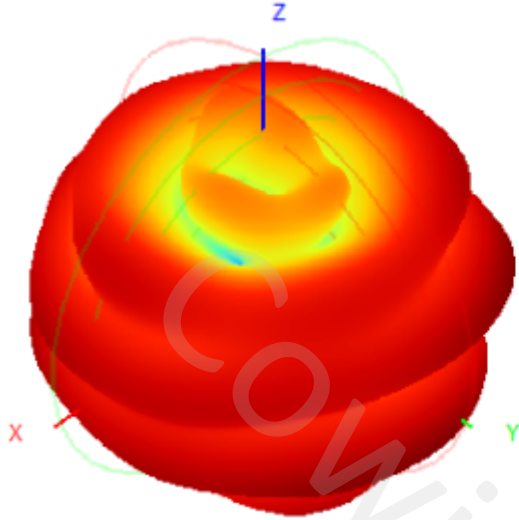
5400.0MHz Total(E1-XZ), Max= 2.15dBi



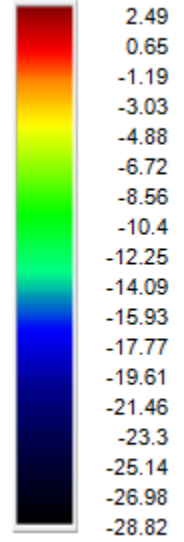
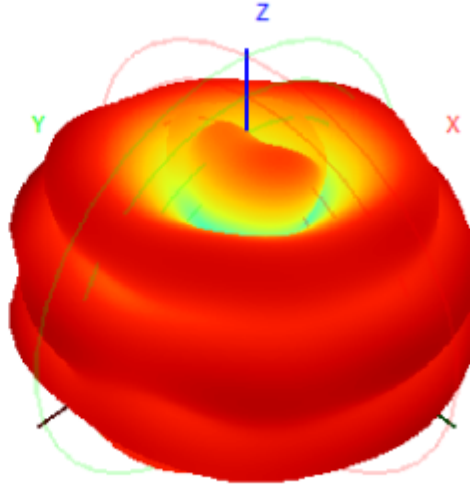
5400.0MHz Total(E2-YZ), Max= 1.55dBi



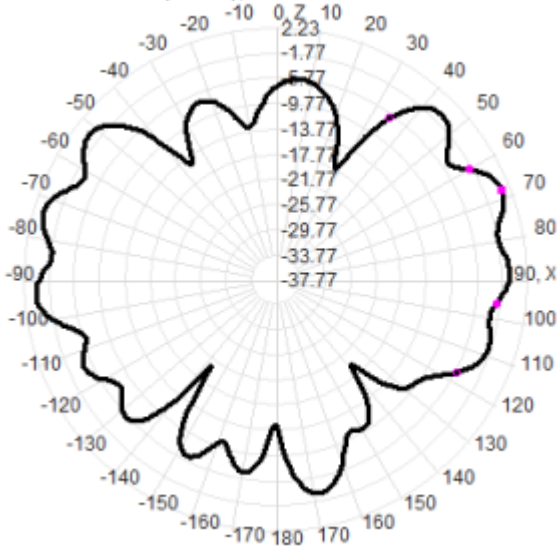
5850.0MHz H+V, Eff: 51.1%



Back View



5850.0MHz Total(E1-XZ), Max= 0.65dBi



5850.0MHz Total(E2-YZ), Max= 2.23dBi

