

## CW-WZ-0156

### 2.4G/5.8G External Antenna

#### Key Features

Frequency: 2400-2500/5150-5850MHz

SMA Male Connector

Dimensions: 28\*8.1mm



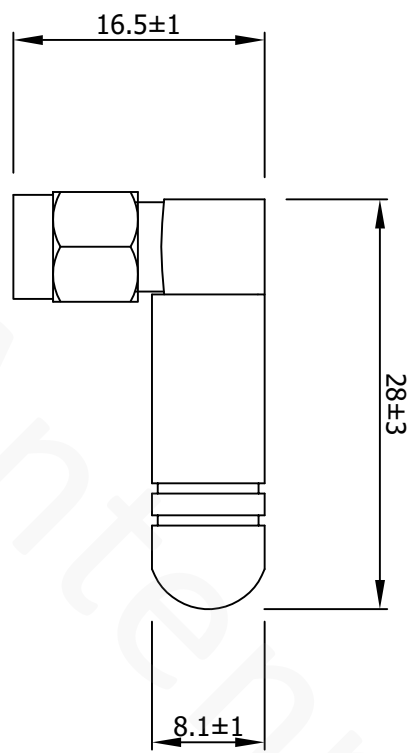
## 1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	2400-2500/5150-5850MHz
VSWR	≤2.0/5.0
Efficiency (%)	75.53%
Peak Gain (dBi)	3.69
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male

## 2. Material and environmental characteristics

External structure	TPEE
Inner structure	Brass
Cable Type	N/A
Connector Type	SMA
Dimensions (mm)	28*8.1 MM
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	2023/12/25	New issue



Specification(Free Test):  
 Frequency Range: 2.4-2.5G/5.15-5.85G  
 Impedance: 50Ω  
 V.S.W.R: ≤2.0/5.0  
 100% Continuity,short and open circuit test  
 Materials,parts and process must by environmentally (ROHS)

3	Radome	Black TPPEE	1		
2	Spring	Brass	1		
1	Connector	SMA 90° male	1		
NO	Name	Description	Q'TY	Remark	
XX	±5.0	Approved			
X	±3.0	Customer			
X	±1.0	Part NO.			
X	±1.0	Part name		External antenna	
XX	±0.2	CW P/NO.		CW-WZ-0156	
.XXX	±0.1	REV	Unit	File	
⊙		X1	m/m	Sheet :	1/1
⊙					



## 4. Antenna test parameters

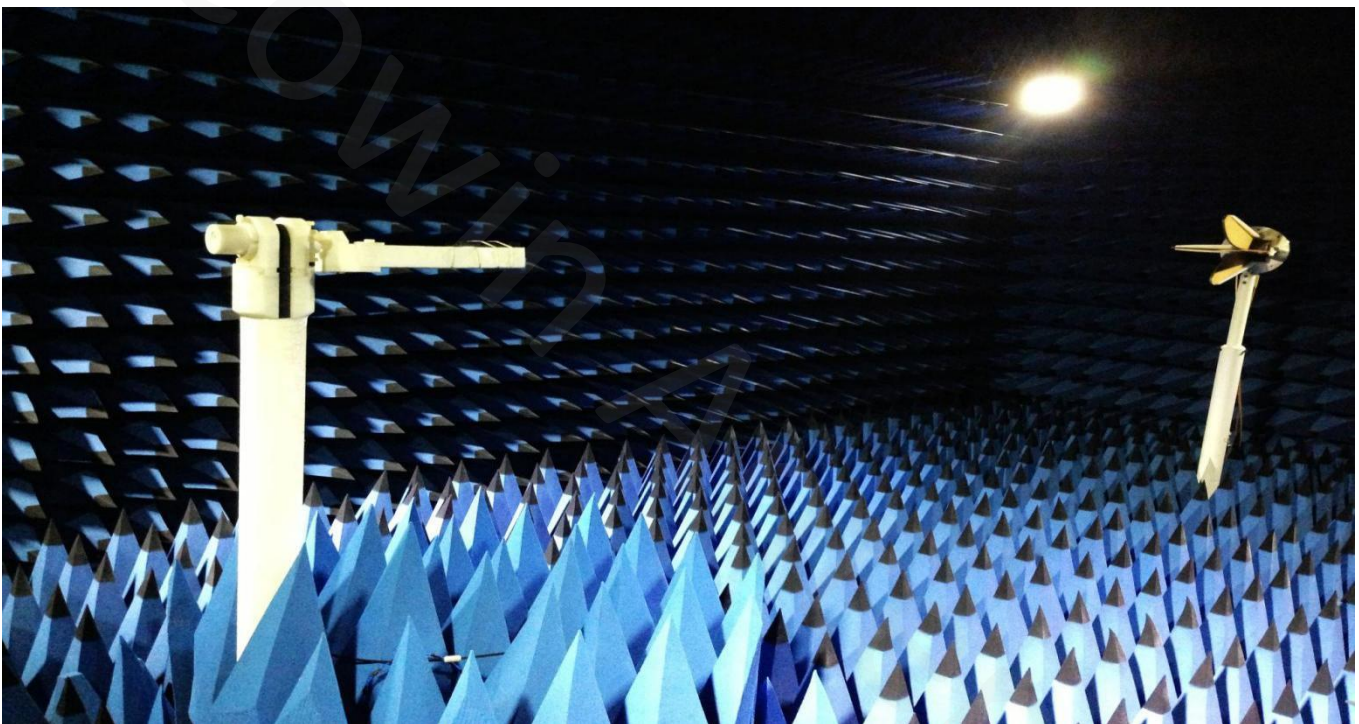
### Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

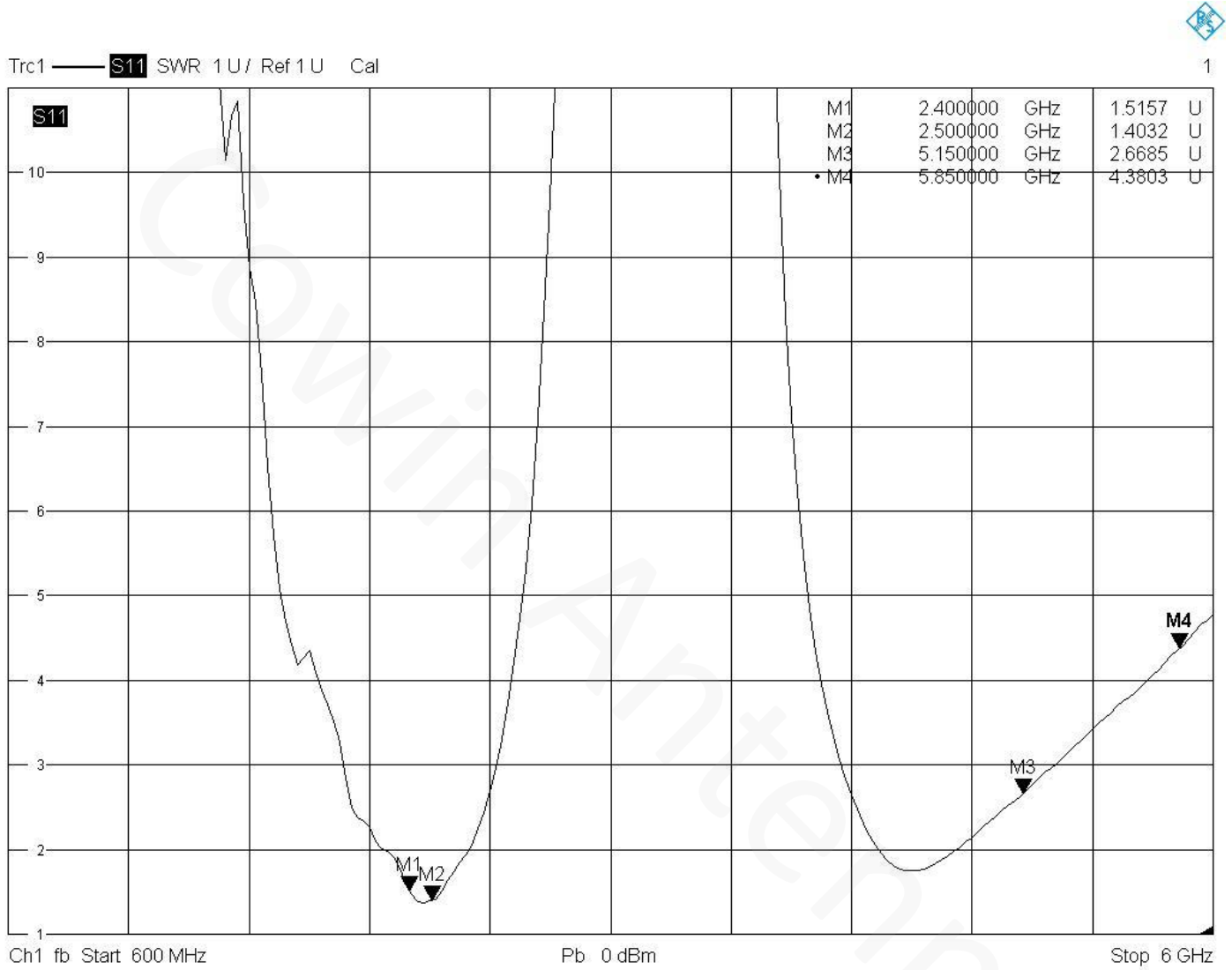
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

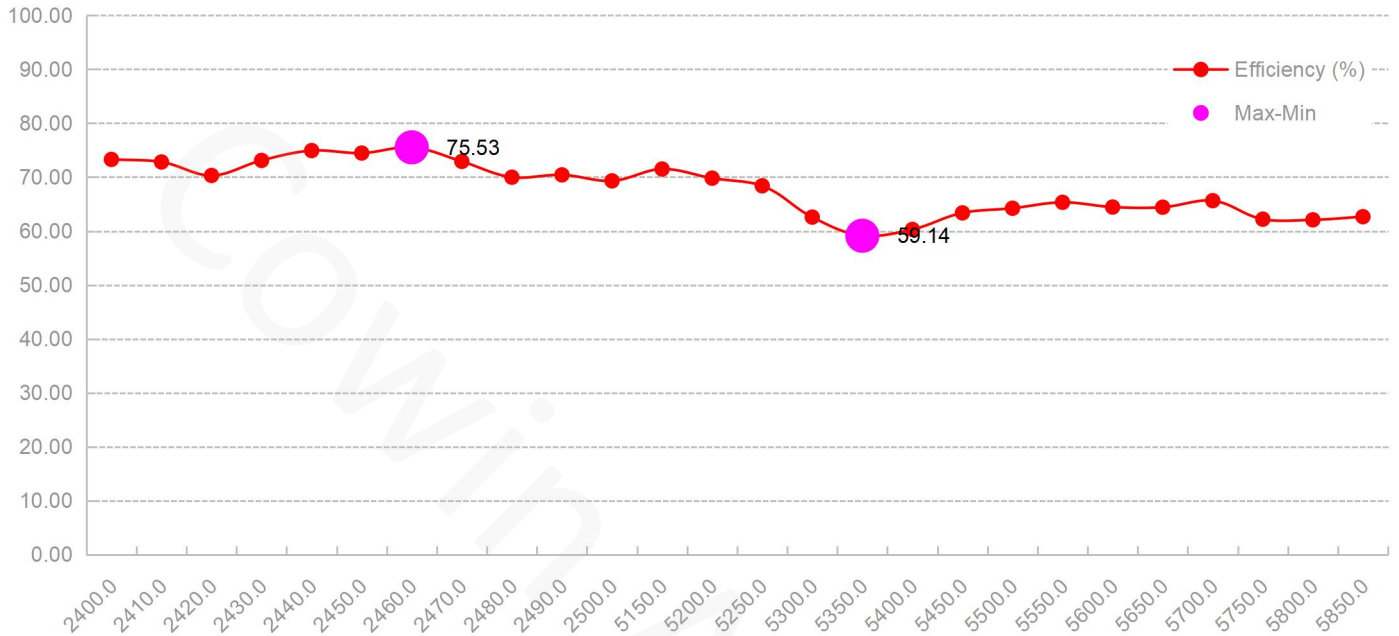


## 4.1 VSWR

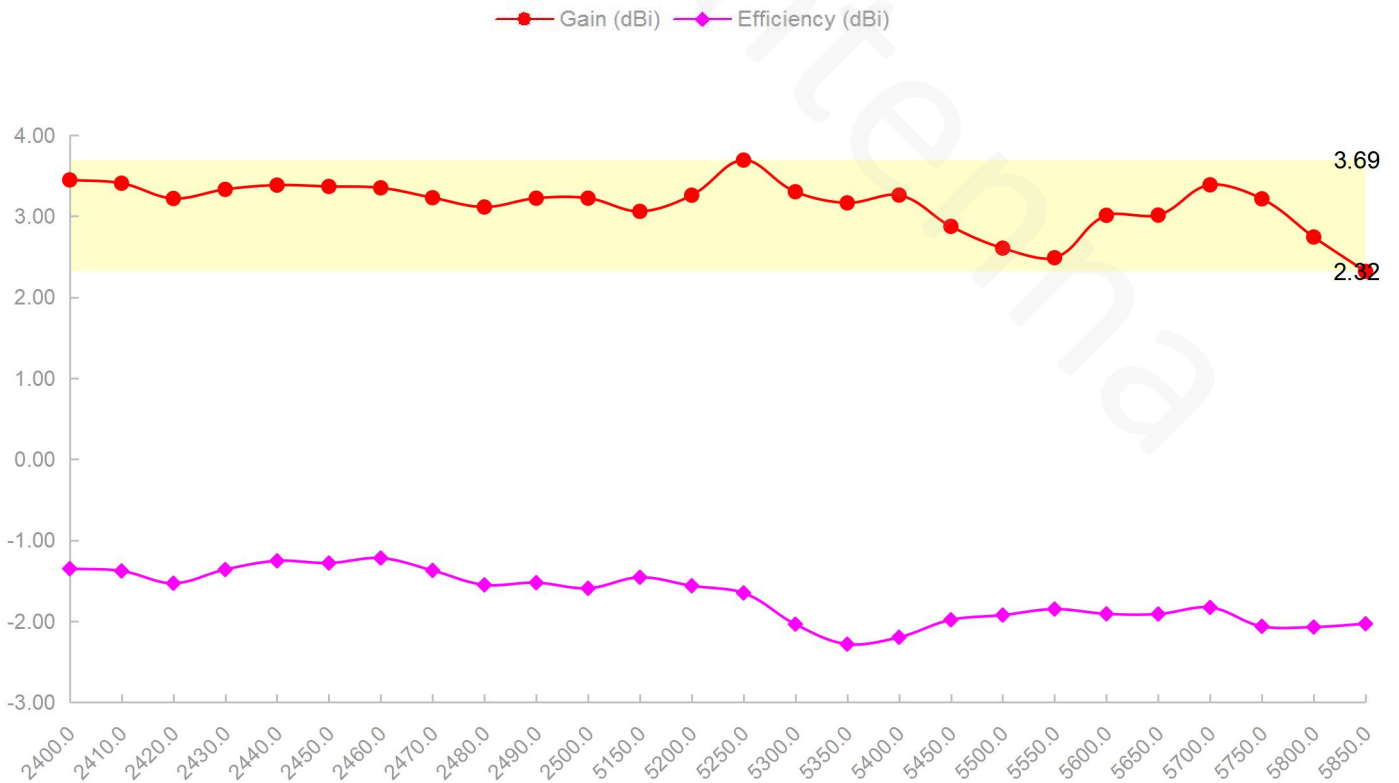


12/20/2023, 9:18 AM

## 4.2 Efficiency



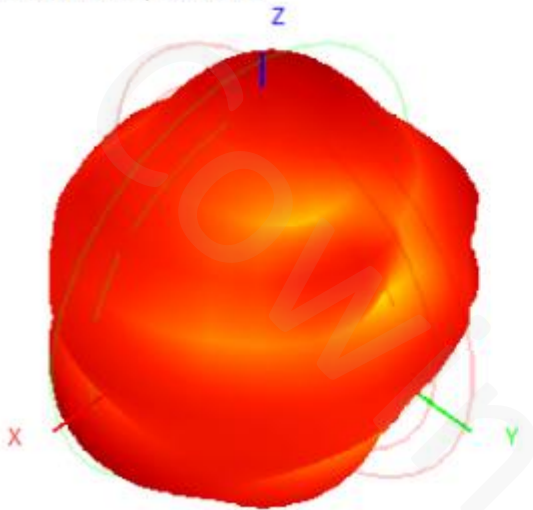
## 4.3 Peak gain



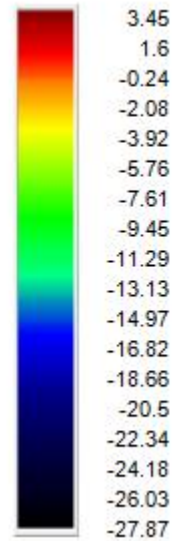
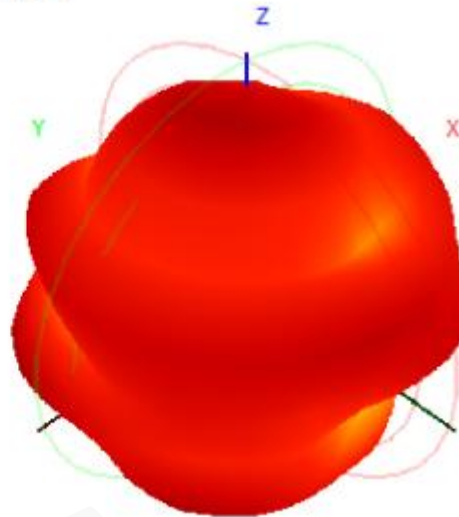


## 4.4 3D&2D Radiation Patterns

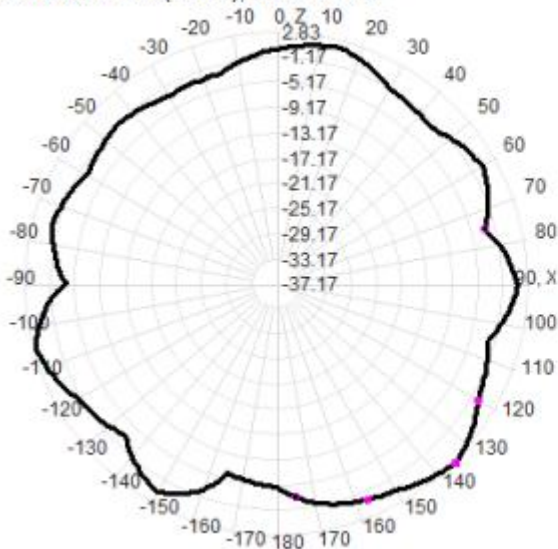
2400.0MHz H+V, Eff: 73.3%



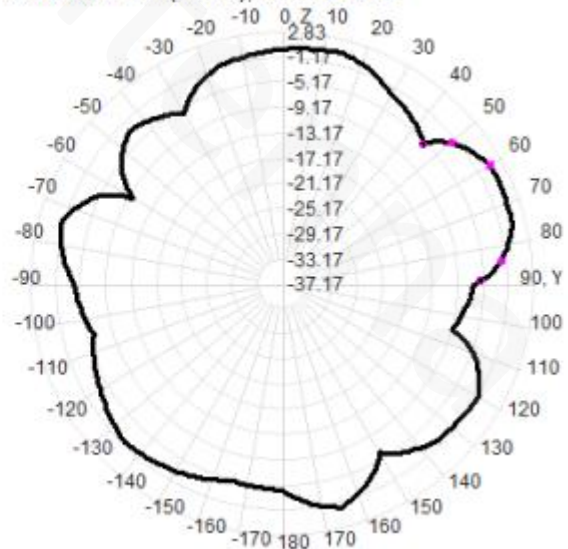
Back View



2400.0MHz Total(E1-XZ), Max= 2.83dBi

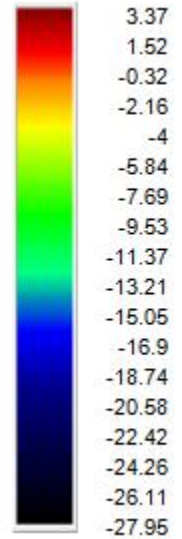
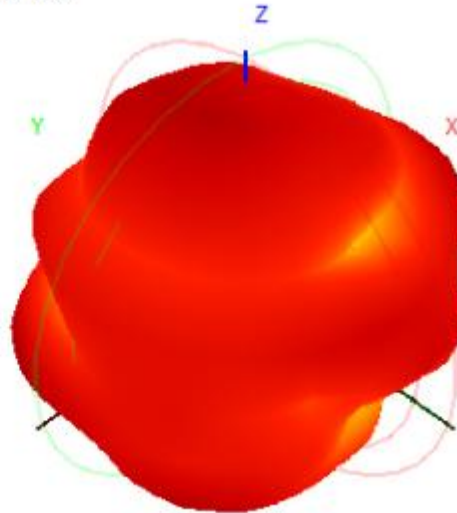
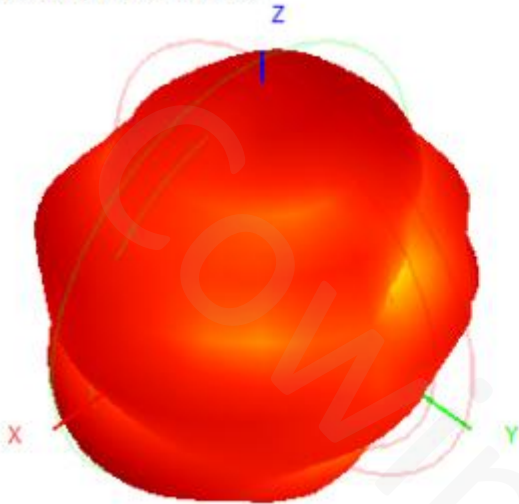


2400.0MHz Total(E2-YZ), Max= 0.74dBi



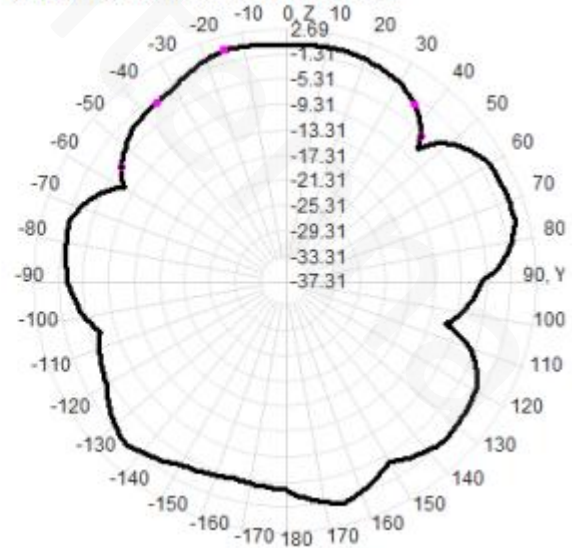
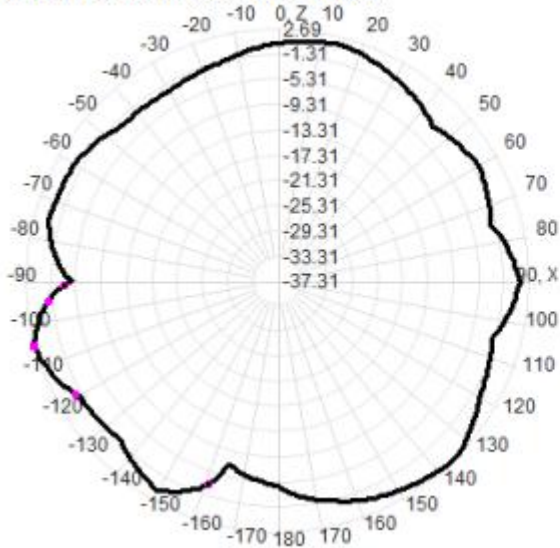
2450.0MHz H+V, Eff: 74.5%

Back View



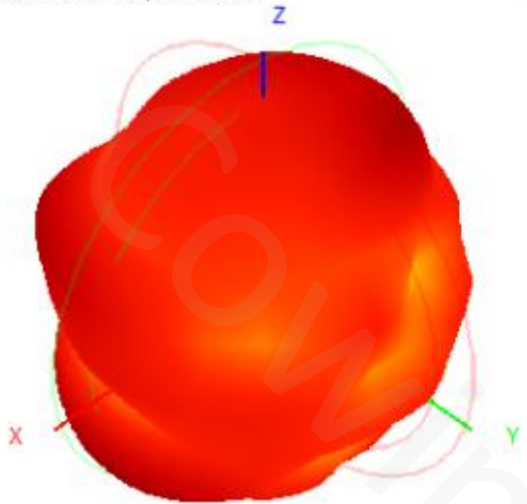
2450.0MHz Total(E1-XZ), Max= 2.69dBi

2450.0MHz Total(E2-YZ), Max= 0.54dBi

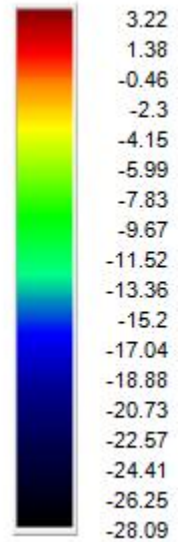
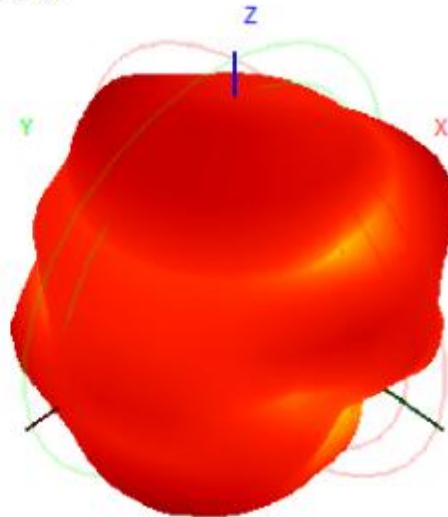




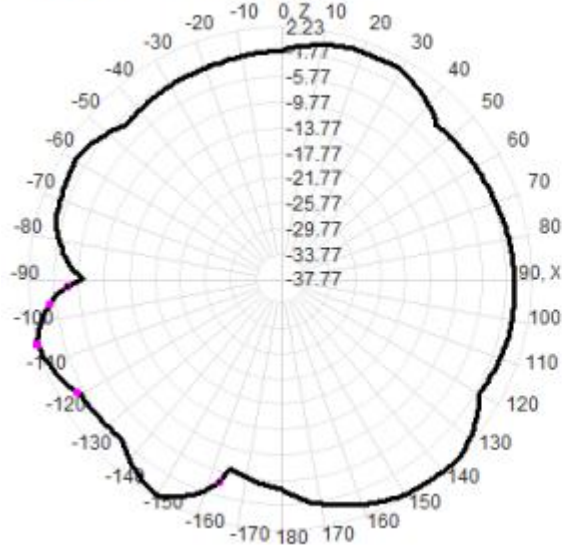
2500.0MHz H+V, Eff: 69.3%



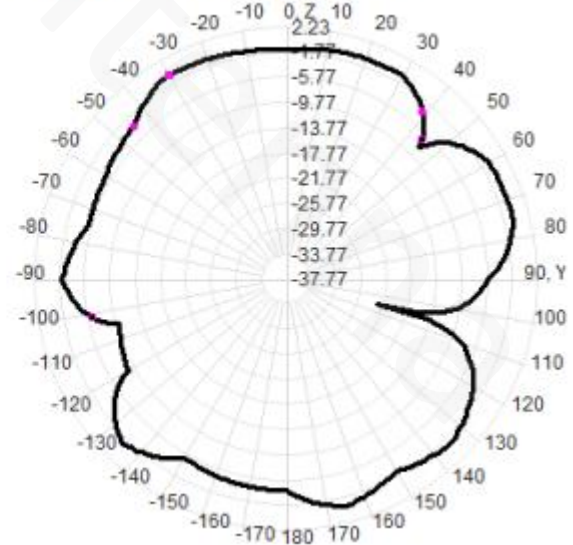
Back View



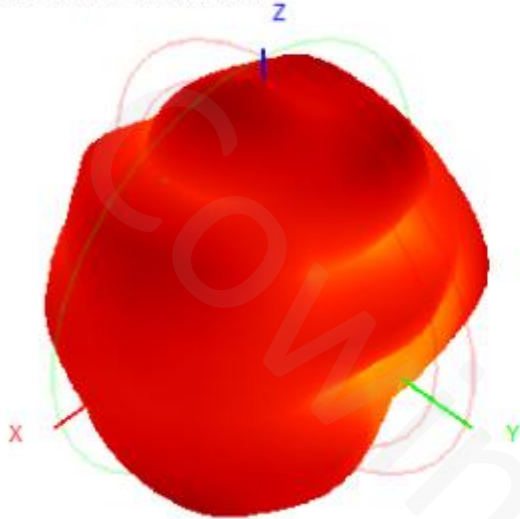
2500.0MHz Total(E1-XZ), Max= 2.23dBi



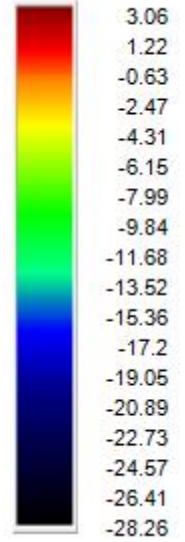
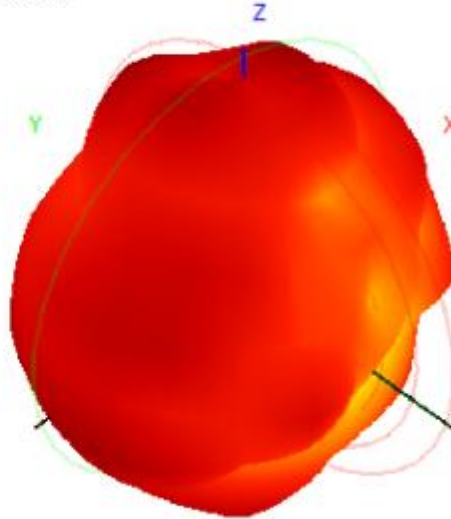
2500.0MHz Total(E2-YZ), Max= -0.37dBi



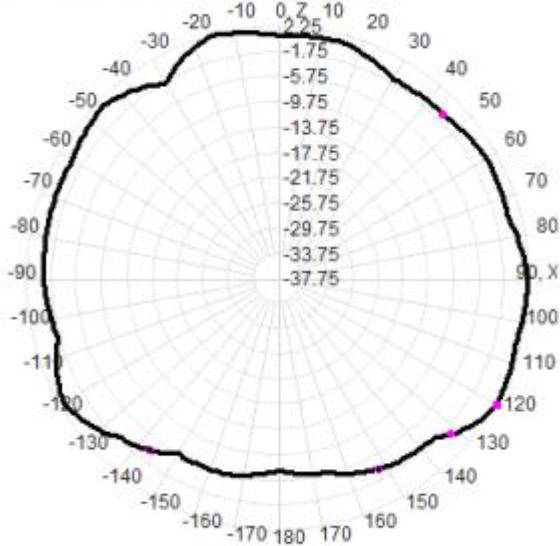
5150.0MHz H+V, Eff: 71.5%



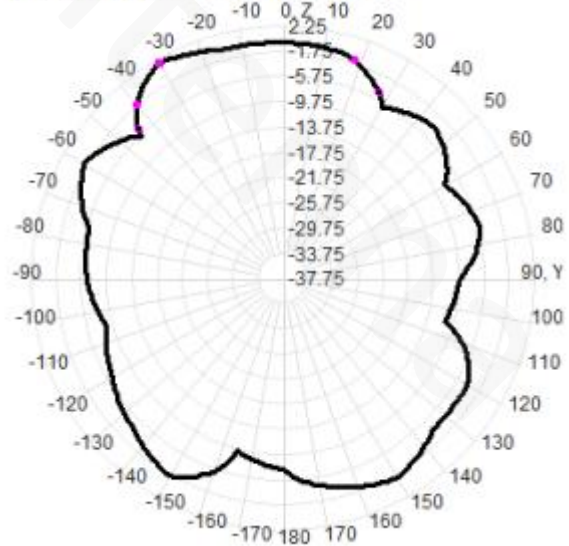
Back View



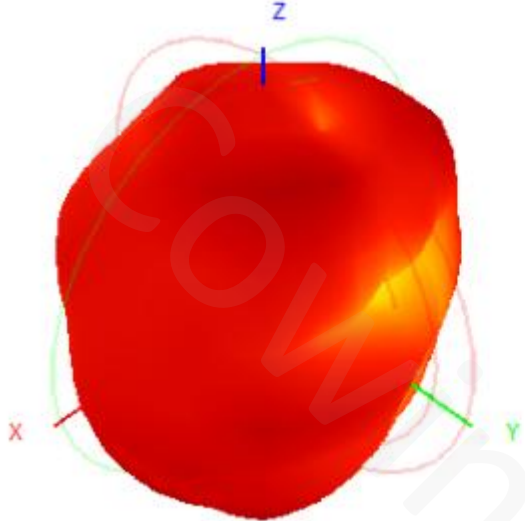
5150.0MHz Total(E1-XZ), Max= 2.25dBi



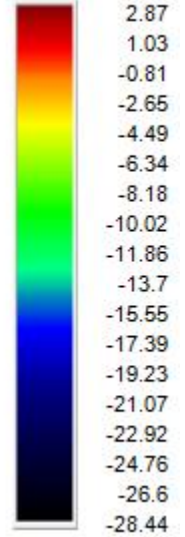
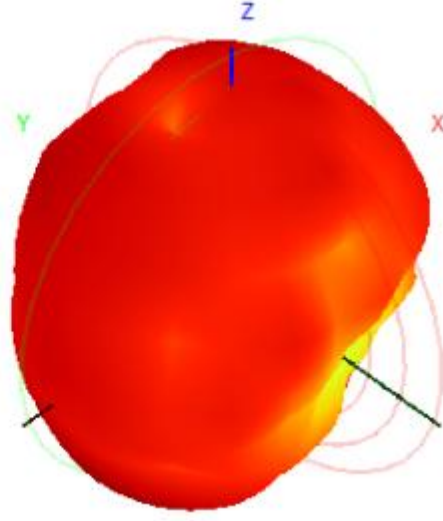
5150.0MHz Total(E2-YZ), Max= 1.62dBi



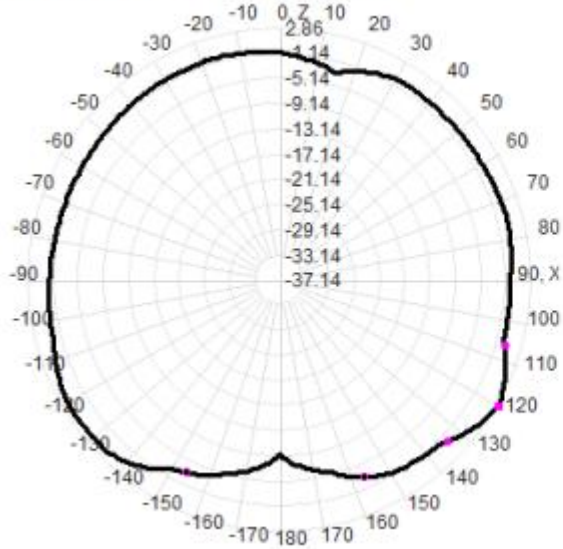
5450.0MHz H+V, Eff: 63.4%



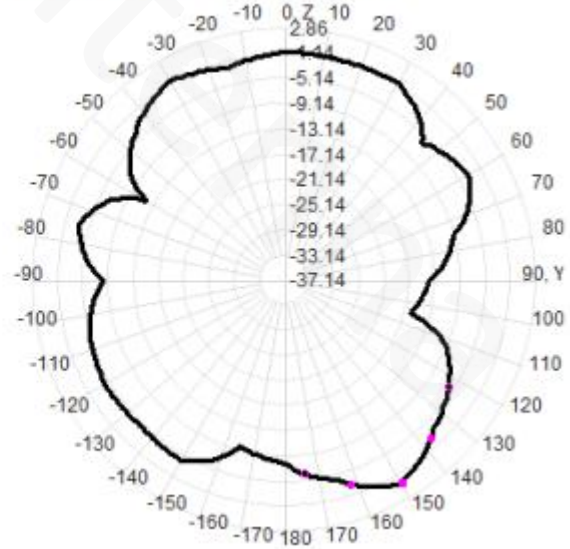
Back View



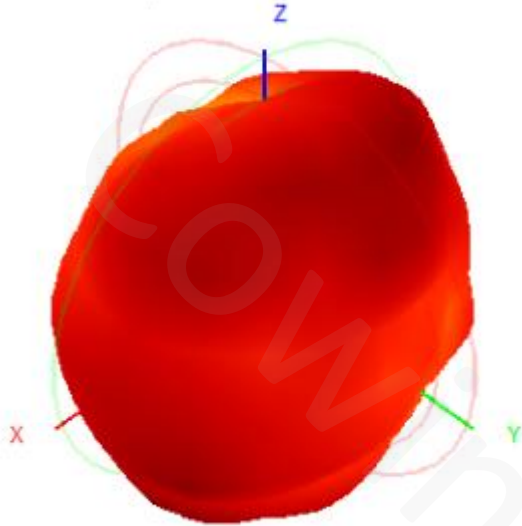
5450.0MHz Total(E1-XZ), Max= 2.86dBi



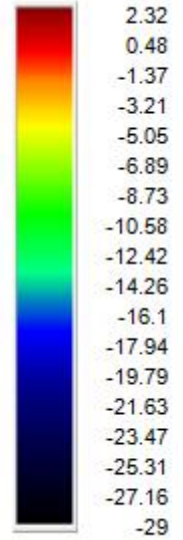
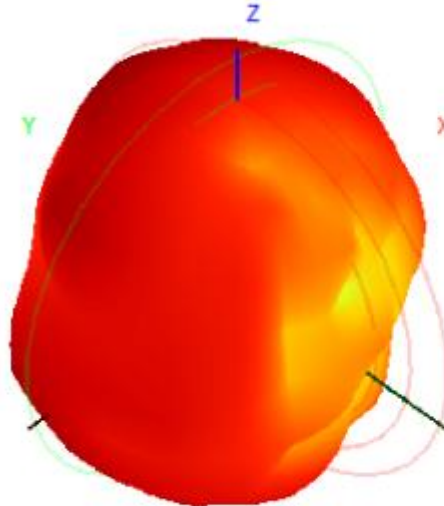
5450.0MHz Total(E2-YZ), Max= -0.10dBi



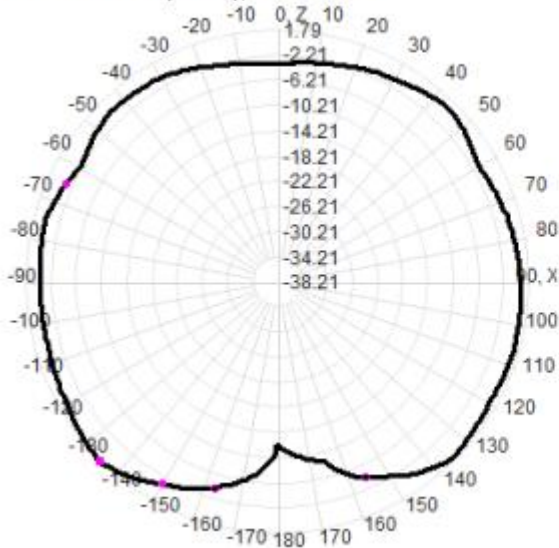
5850.0MHz H+V, Eff: 62.7%



Back View



5850.0MHz Total(E1-XZ), Max= 1.79dBi



5850.0MHz Total(E2-YZ), Max= 1.49dBi

