

## CW-WZ-0108

### 2.4G External Antenna

#### Key Features

Frequency: 2.4-2.5G

IPEX Connector

External Rubber

Dimensions 43.3\*12 mm



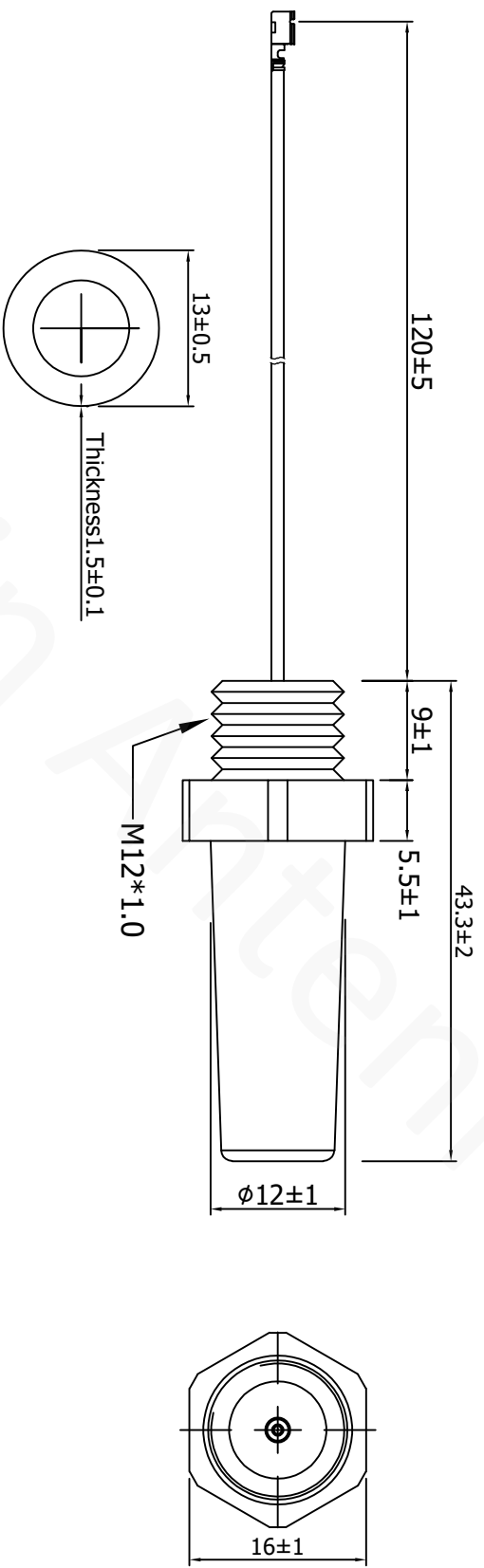
## 1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	2.4-2.5G
VSWR	≤2.5
Efficiency (%)	66.7%
Peak Gain (dBi)	4.01
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	IPEX

## 2. Material and environmental characteristics

Inner structure	Signal tube
Material of Plastic	ABS+PC
Cable Type	0.81
Connector Type	IPEX
Dimensions (mm)	43.3*12MM
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	2023/02/03	New issue
X2	2023/03/10	Modify stud size
X3	2023/03/28	Change IPEX model
X4	2023/04/28	Change IPEX model
X5	2023/05/18	Change wire length



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

5	Dust cap	Red silicone	1	
4	Radome	Black ABS+PC	1	
3	Fixing seat	Copper nickel plating	1	
2	Cable	φ0.81 Black double tin wire	1	
1	Connector	φ0.81 I-PEX III (equivalents)	1	
NO	Name	Description	QTY	Remark
XX	±5.0	Approved		
X	±3.0	Customer		
X	±1.0	Part NO.		
.XX	±0.2	Part name		External antenna
.XXX	±0.1	CW P/NO.		CW-WZ-0108
⊕	±0.1	REV	Unit	File
		X1	m/m	Sheet
				1/1



**Cowin Antenna**

## 4. Antenna test parameters

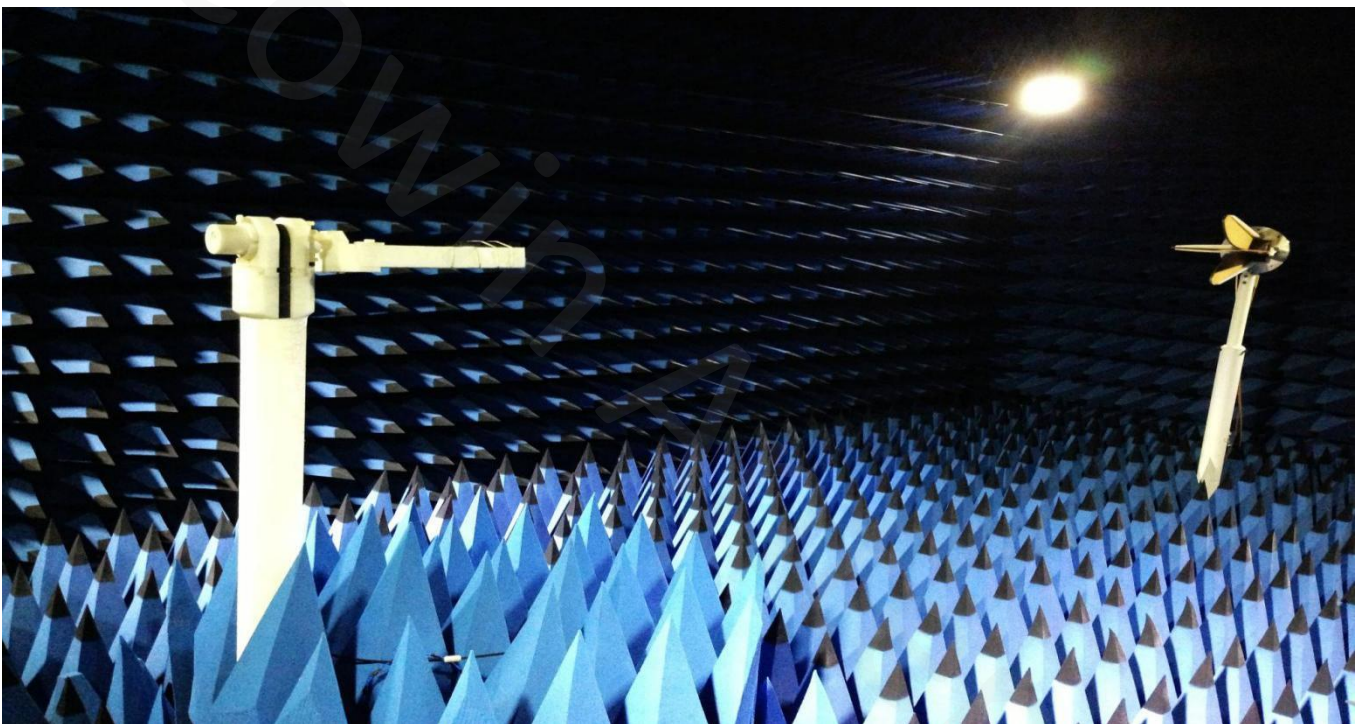
### Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

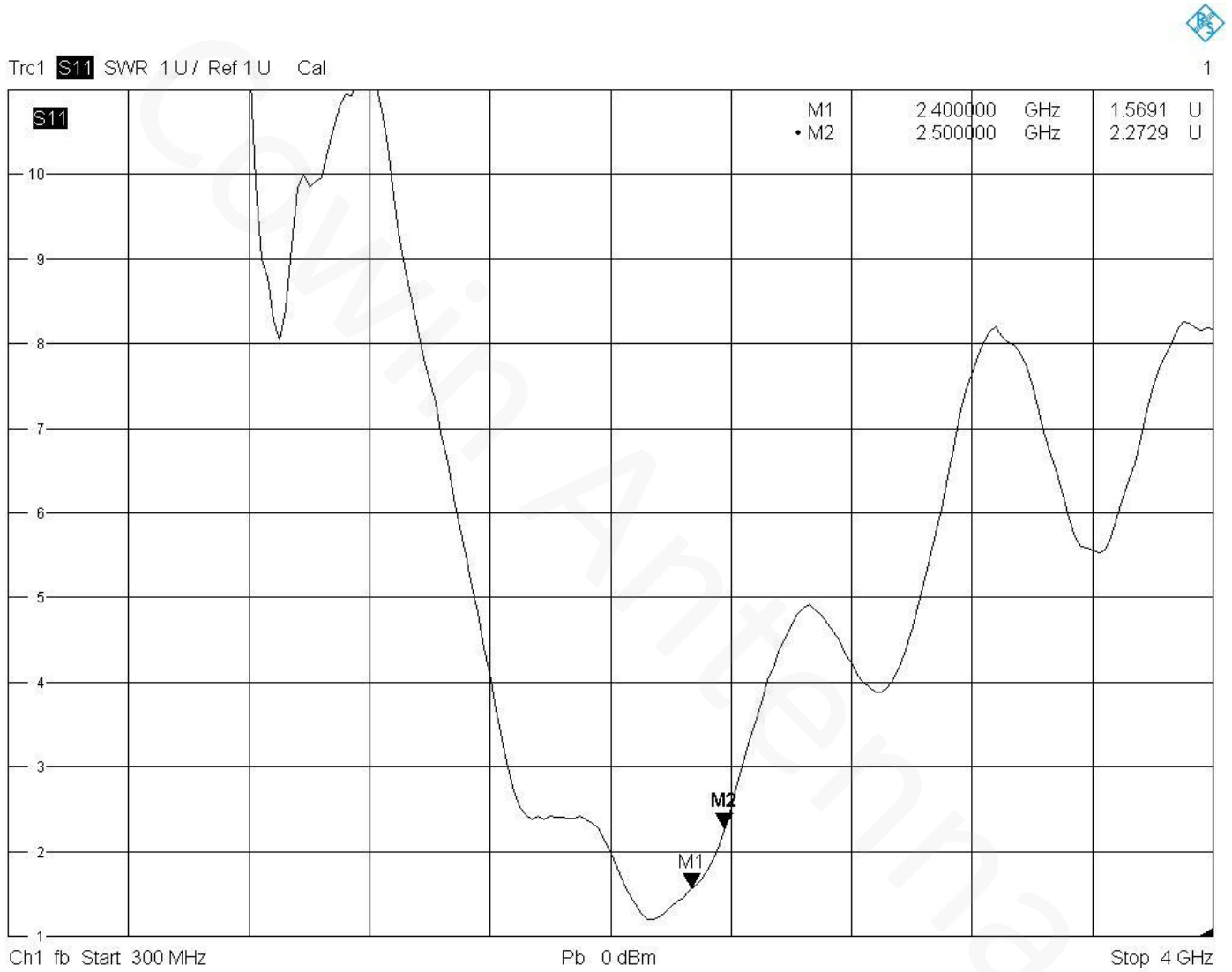
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

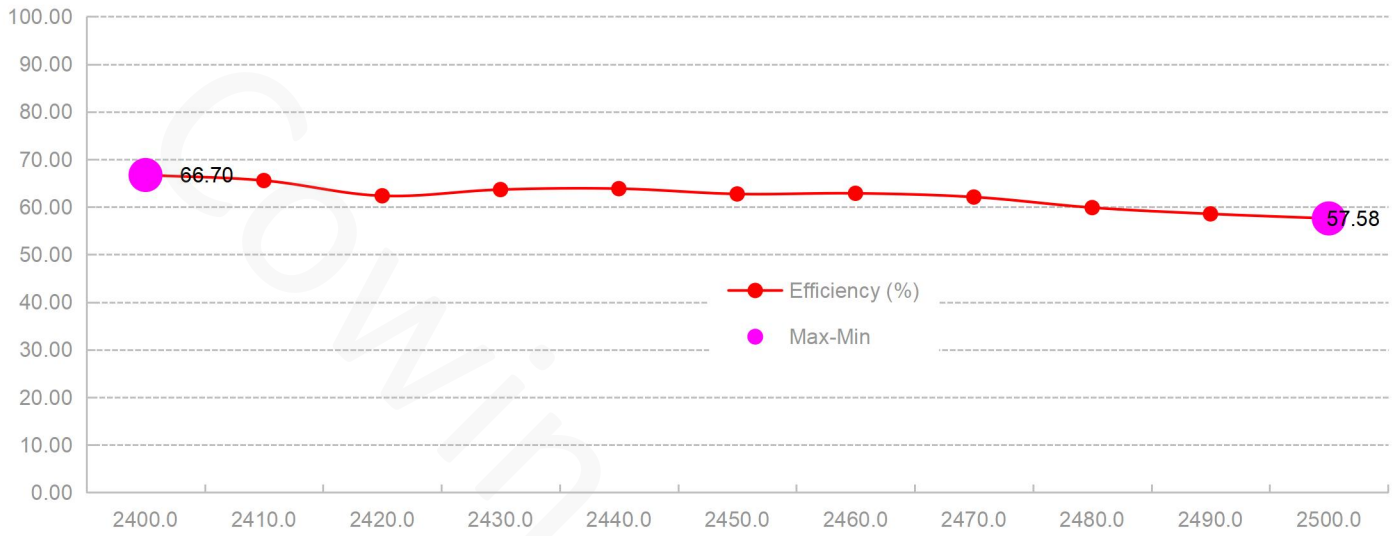


## 4.1 VSWR

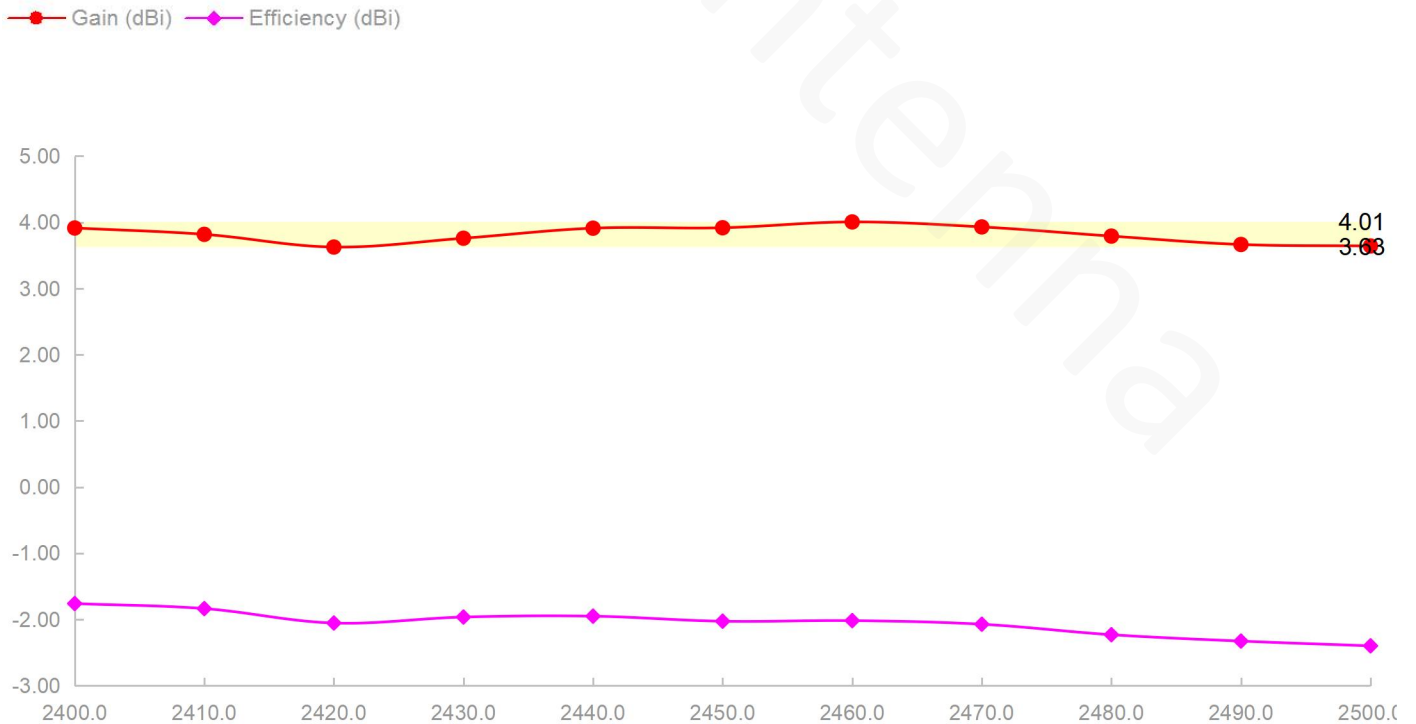


2/3/2023, 12:09 AM

## 4.2 Efficiency

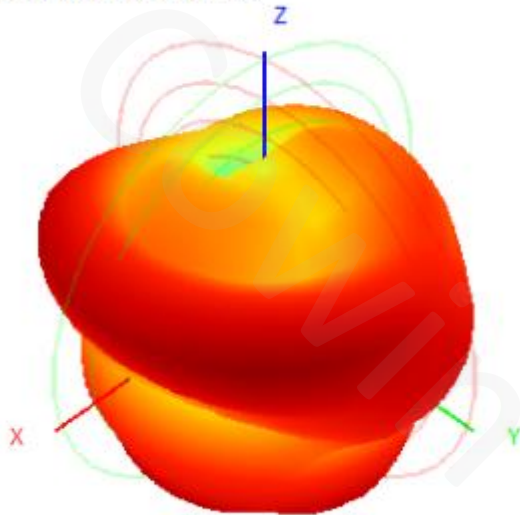


## 4.3 Peak gain

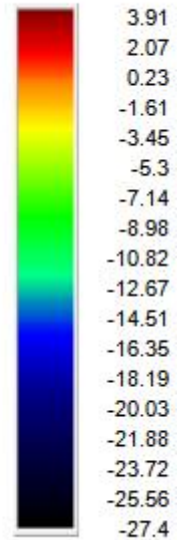
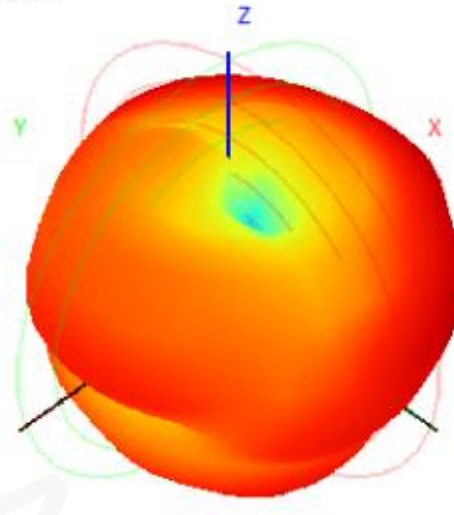


## 4.4 3D&2D Radiation Patterns

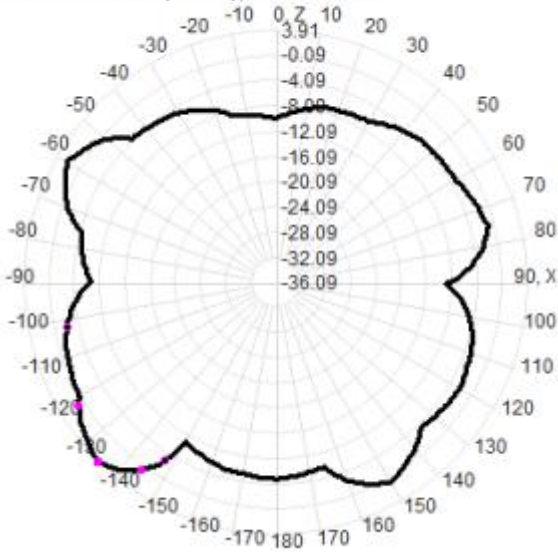
2400.0MHz H+V, Eff: 66.7%



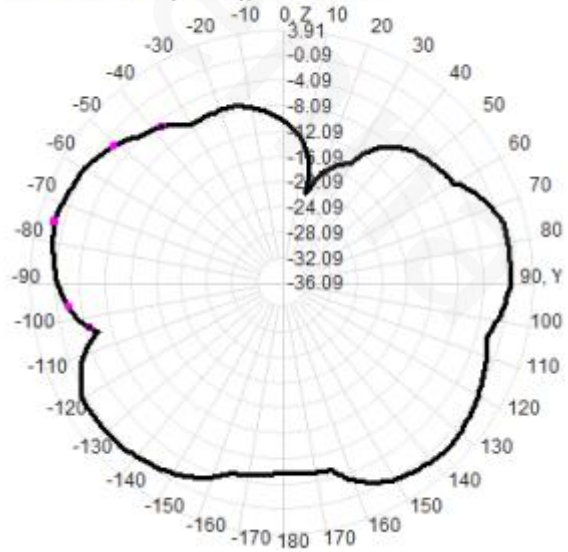
Back View



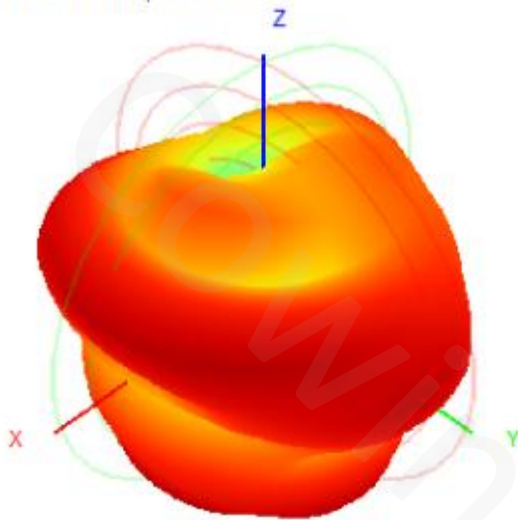
2400.0MHz Total(E1-XZ), Max= 3.91dBi



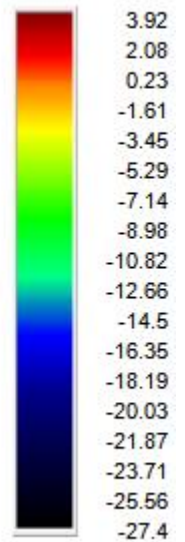
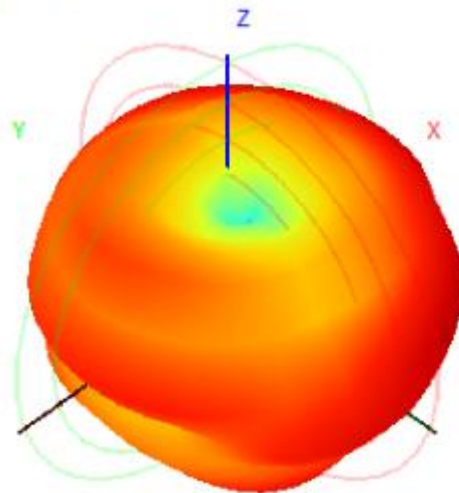
2400.0MHz Total(E2-YZ), Max= 1.26dBi



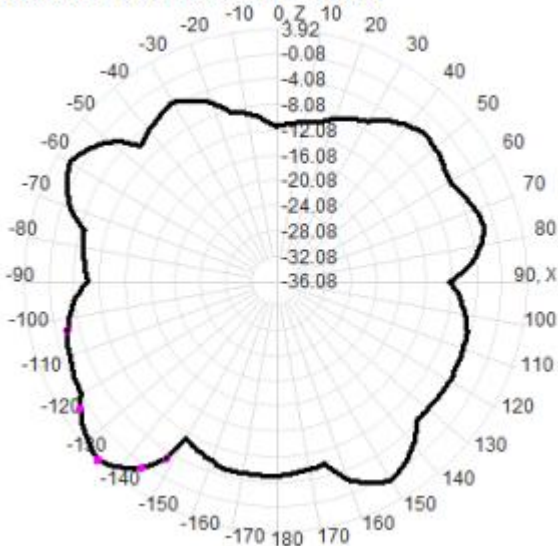
2450.0MHz H+V, Eff: 62.7%



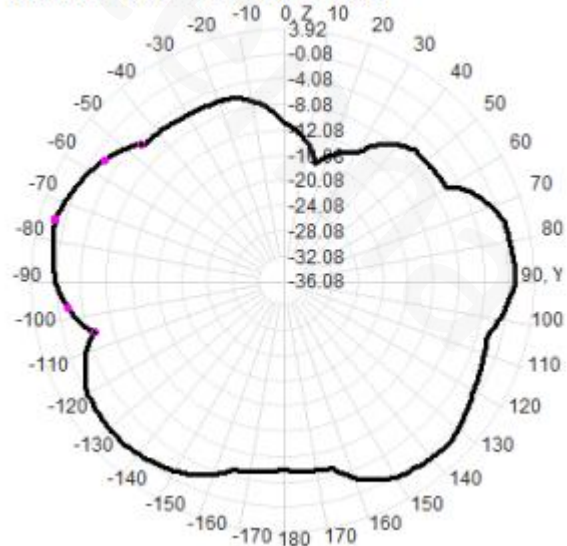
Back View



2450.0MHz Total(E1-XZ), Max= 3.92dBi

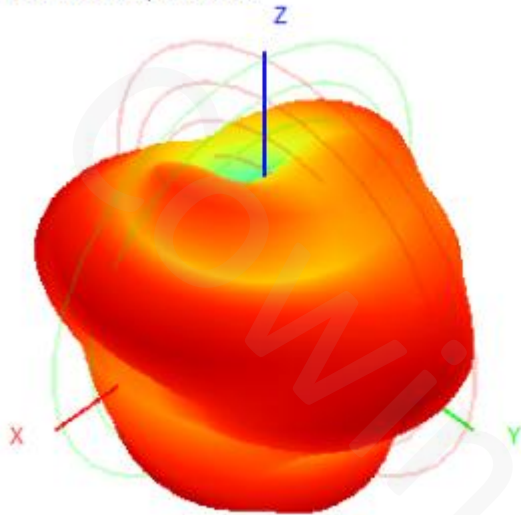


2450.0MHz Total(E2-YZ), Max= 1.31dBi

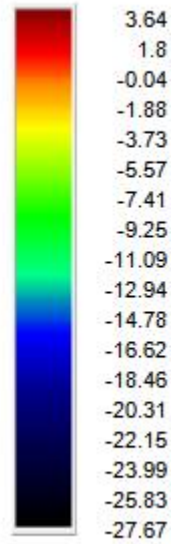
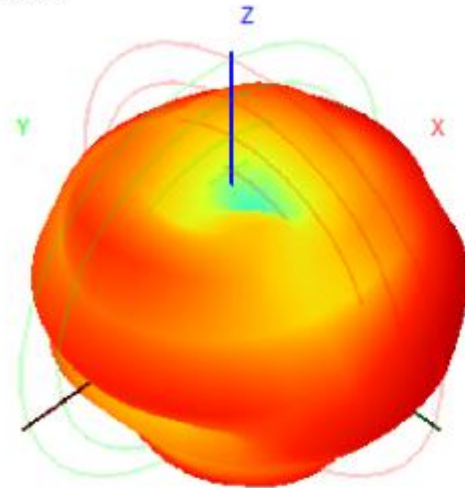




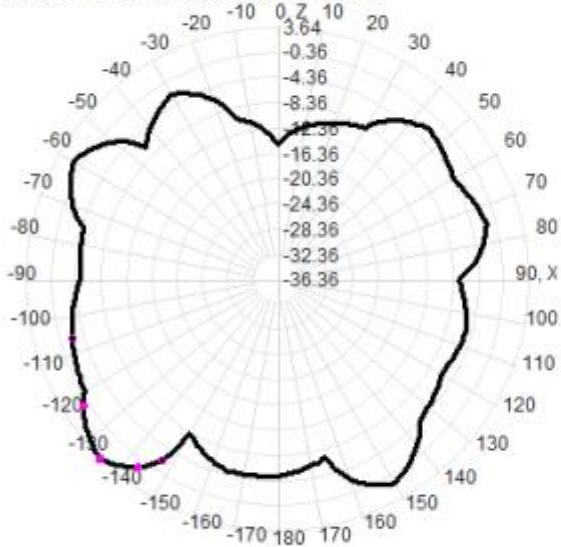
2500.0MHz H+V, Eff: 57.6%



Back View



2500.0MHz Total(E1-XZ), Max= 3.64dBi



2500.0MHz Total(E2-YZ), Max= 1.14dBi

