

## CW-WZ-0123

### 2.4/5.8G External Patch Antenna

#### Key Features

Frequency: 2.4-2.5G/4.9-5.85G

SMA Male Connector

3M Adhesive

Dimensions 116\*22 mm

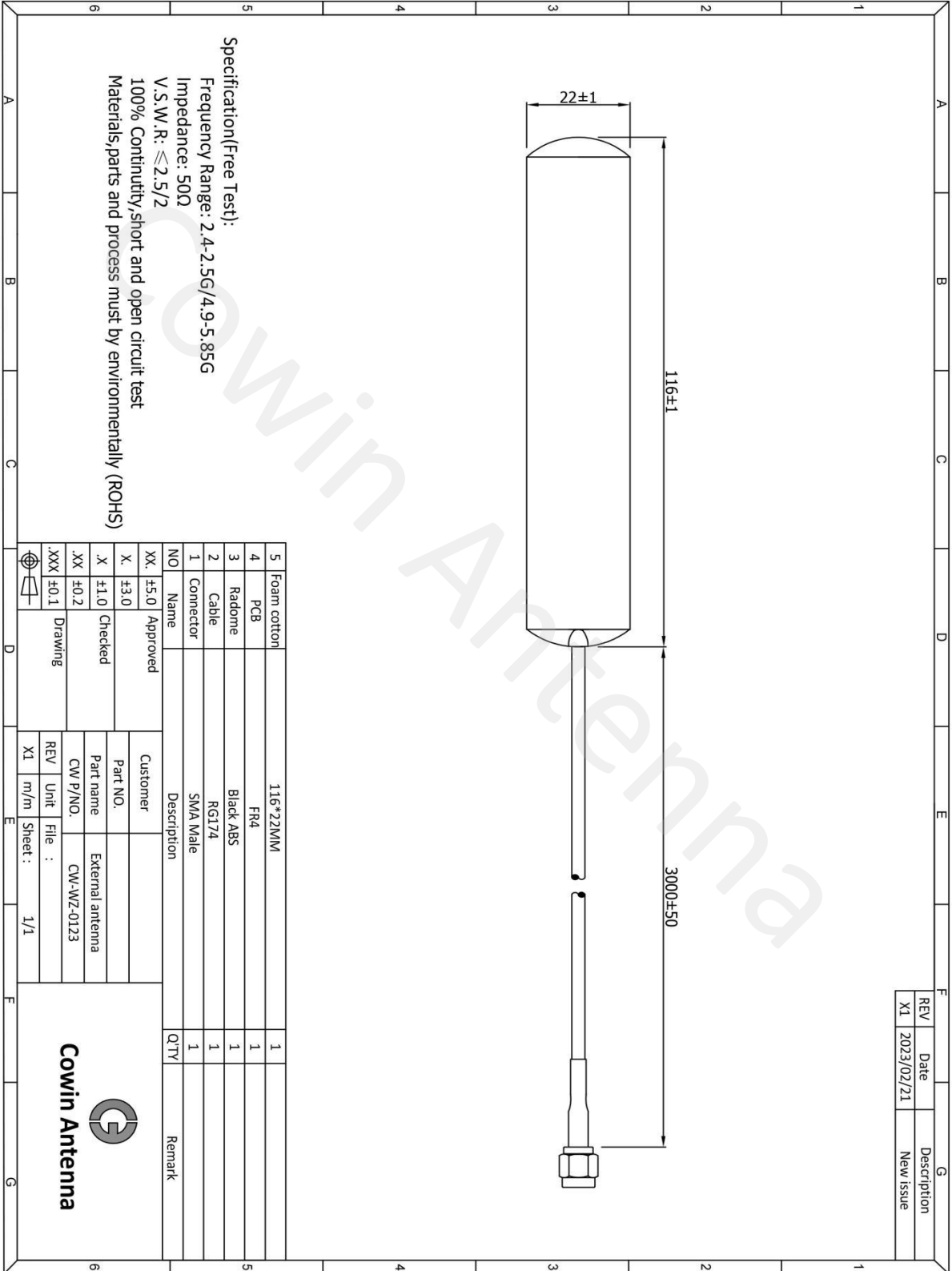


## 1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	2.4-2.5G/4.9-5.85G
VSWR	2.5/2
Efficiency (%)	74.86%/60.71%
Peak Gain (dBi)	3.49/5.02
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male

## 2. Material and environmental characteristics

Inner structure	PCB
Material of Plastic	ABS
Cable Type	RG174
Connector Type	SMA Male
Dimensions (mm)	116*22MM
Antenna color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS



Specification(Free Test):  
 Frequency Range: 2.4-2.5G/4.9-5.85G  
 Impedance: 50Ω  
 V.S.W.R: ≤2.5/2  
 100% Continuity,short and open circuit test  
 Materials,parts and process must by environmentally (ROHS)

5	Foam cotton	116*22MM	1		
4	PCB	FR4	1		
3	Radome	Black ABS	1		
2	Cable	RG174	1		
1	Connector	SMA Male	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		External antenna	
		CW P/NO.		CW-WZ-0123	
REV	Unit	File			
X1	m/m	Sheet :	1/1		

REV	Date	Description
X1	2023/02/21	New issue



## 4. Antenna test parameters

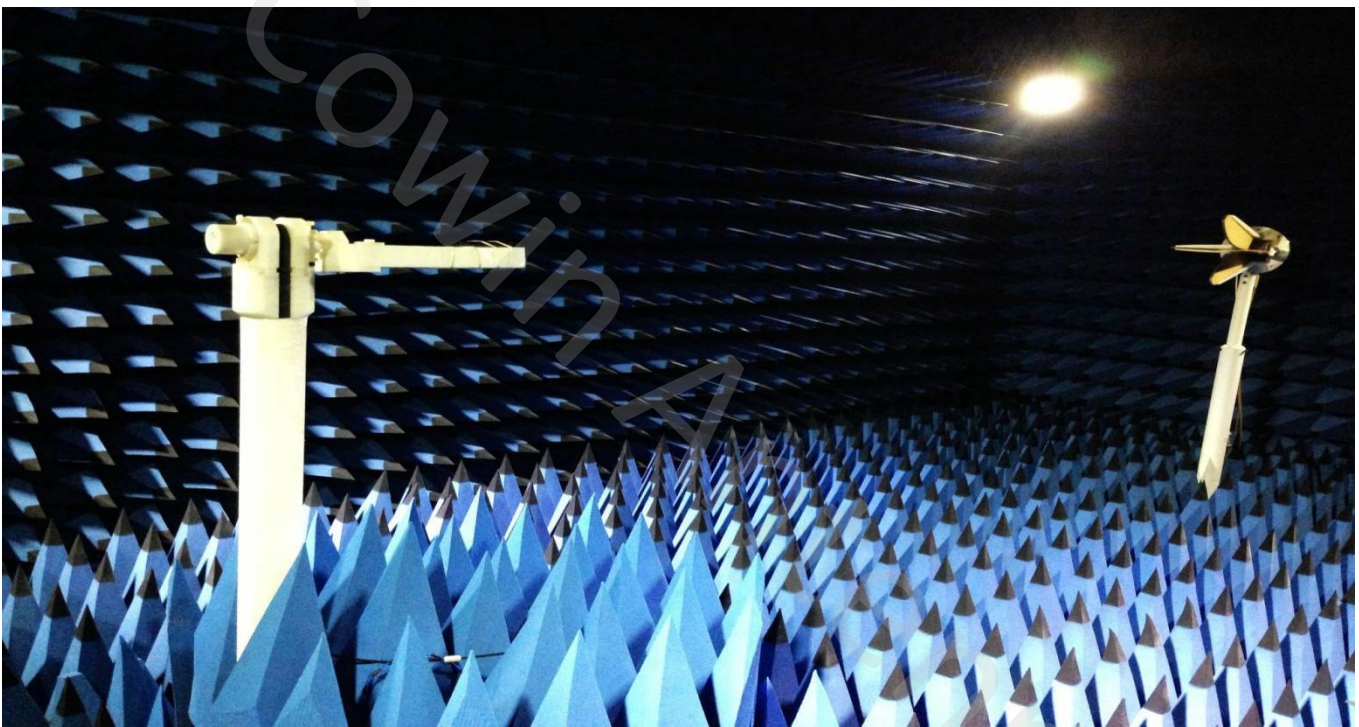
### Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

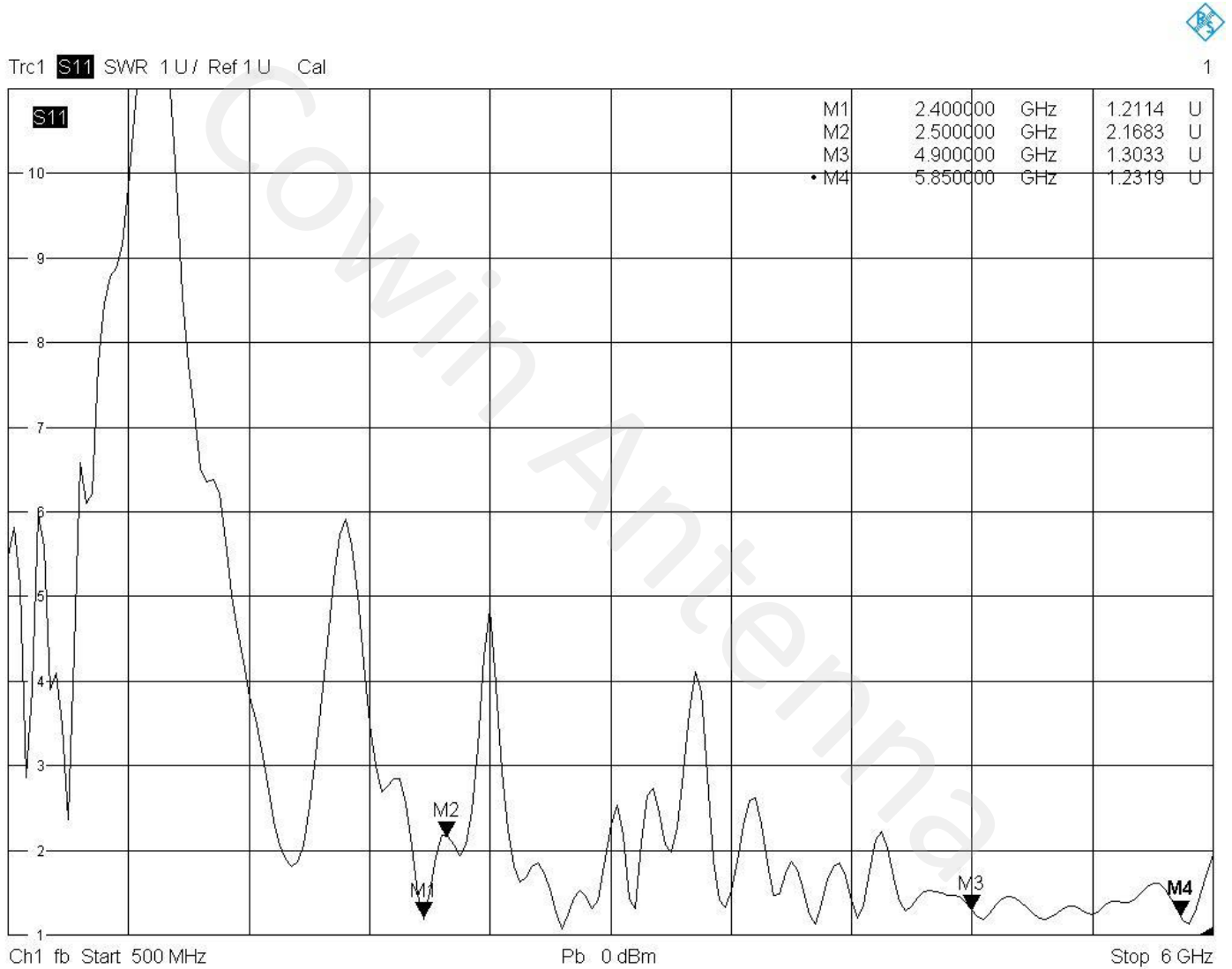
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

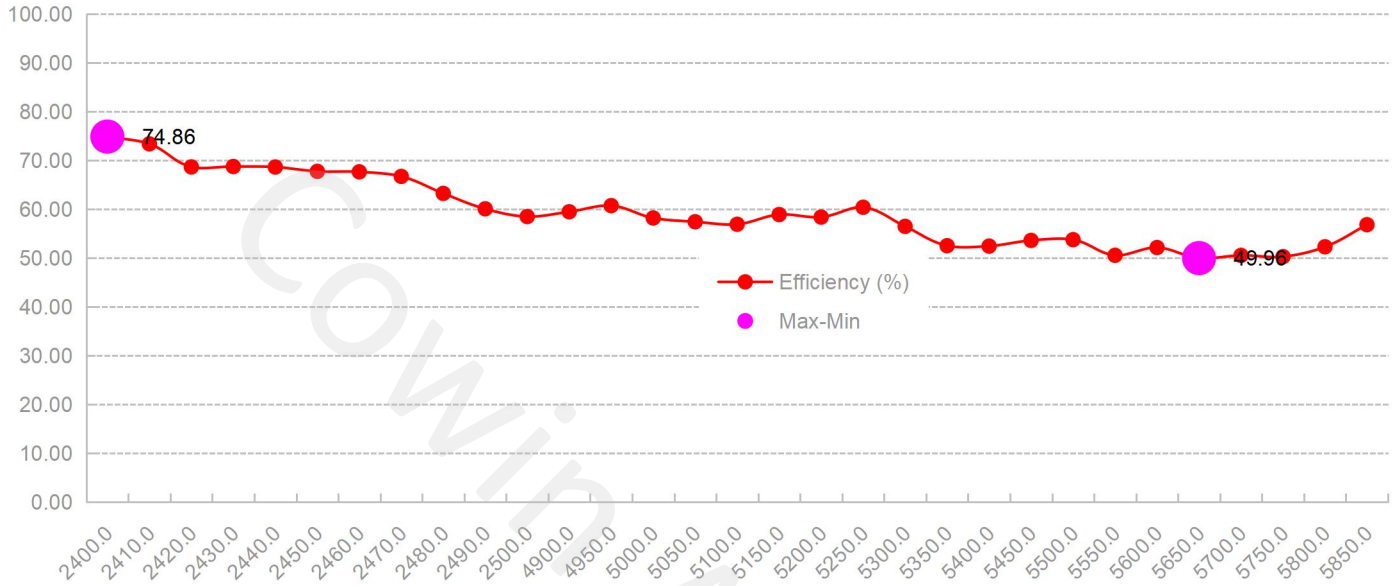


## 4.1 VSWR

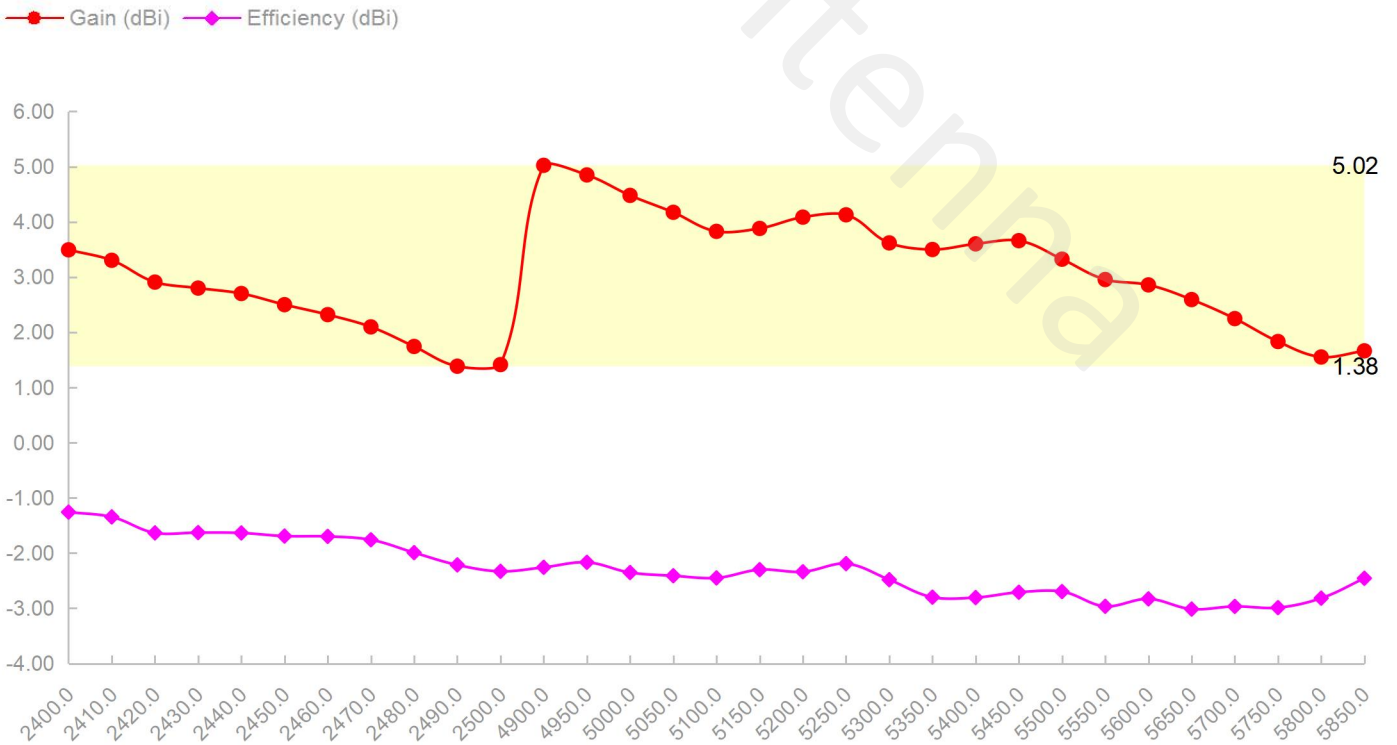


2/22/2023, 12:33 AM

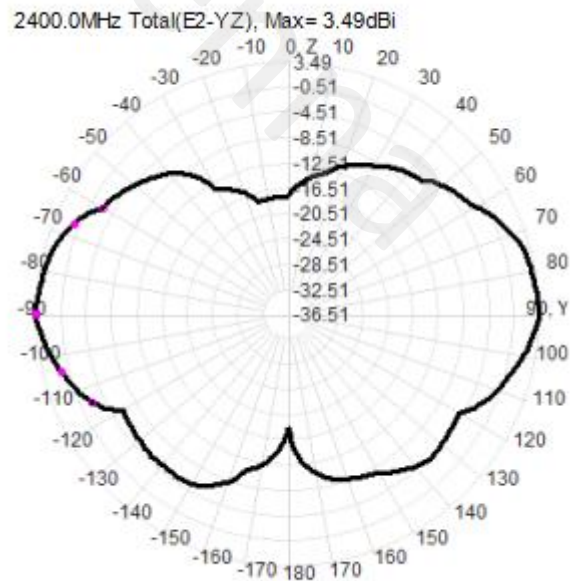
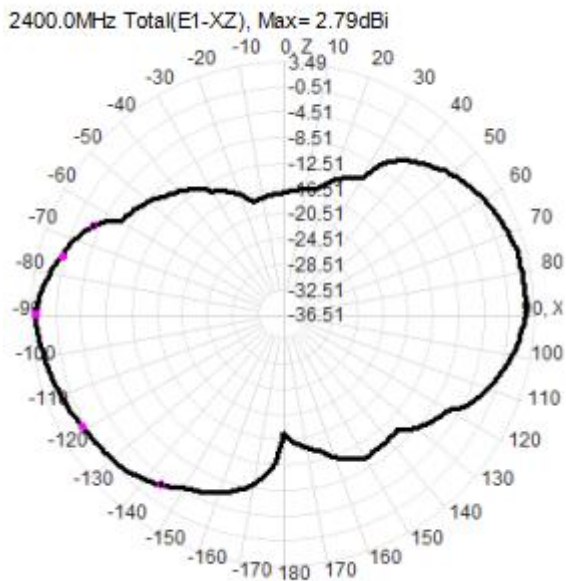
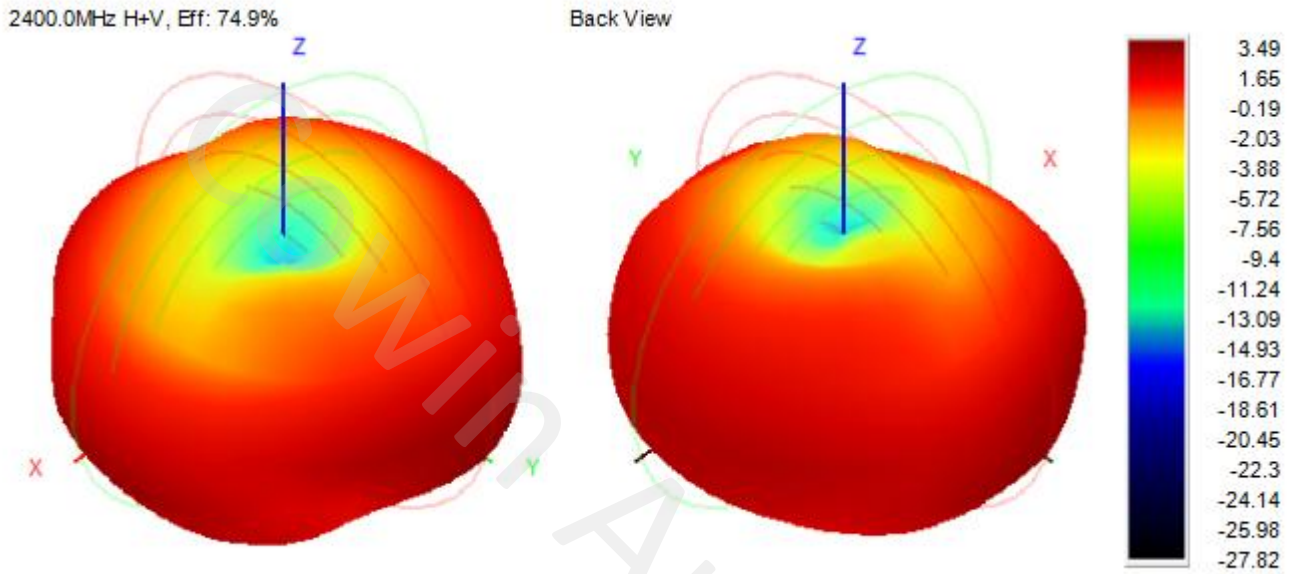
## 4.2 Efficiency



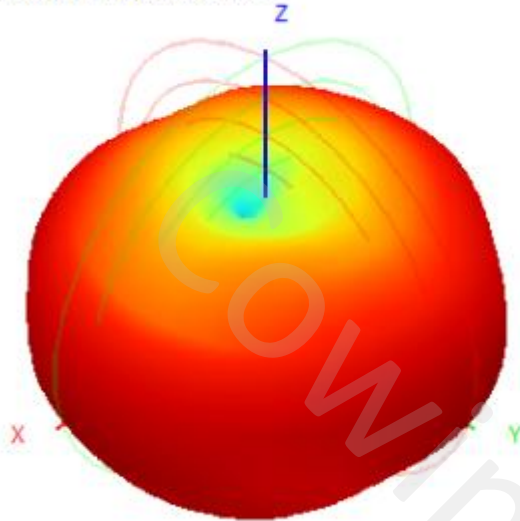
## 4.3 Peak gain



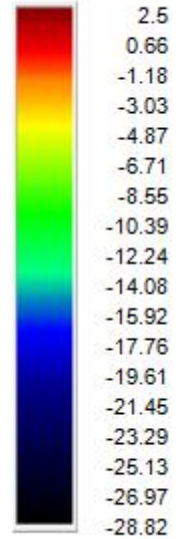
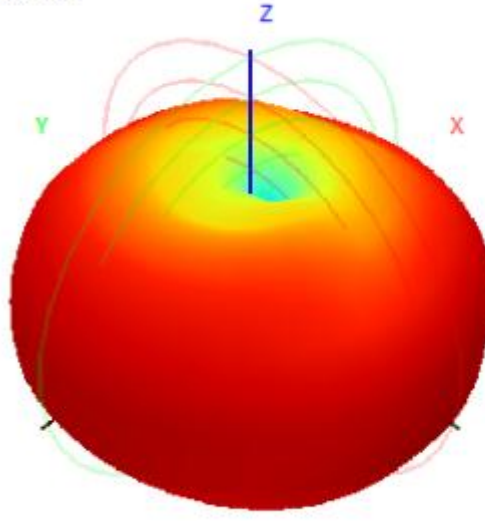
## 4.4 3D&2D Radiation Patterns



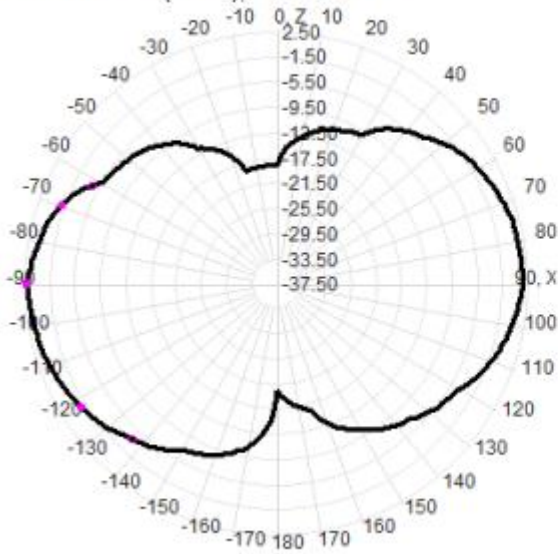
2450.0MHz H+V, Eff: 67.7%



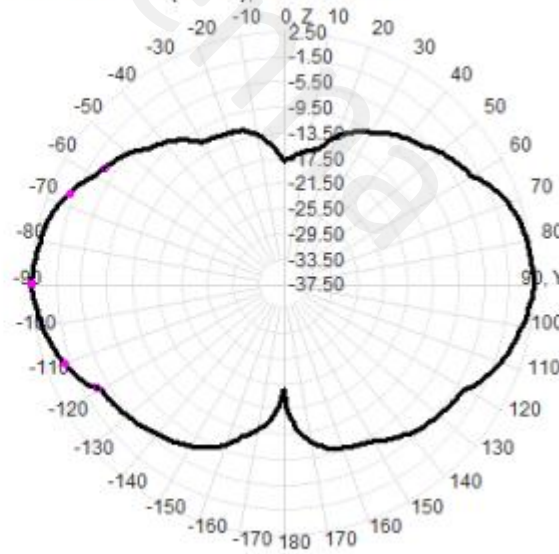
Back View



2450.0MHz Total(E1-XZ), Max= 2.10dBi



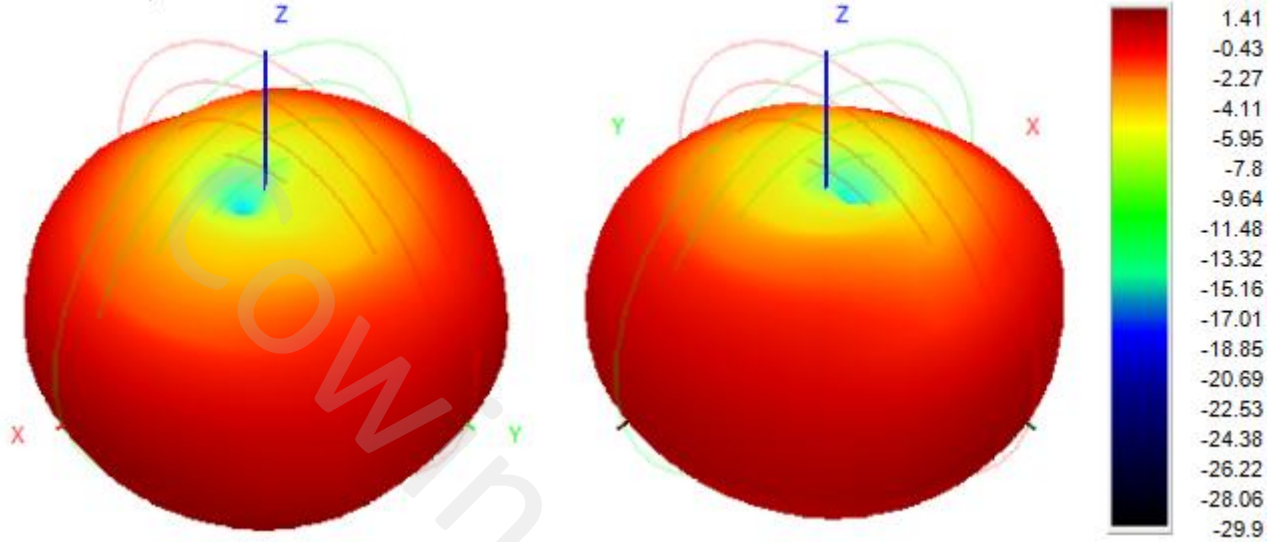
2450.0MHz Total(E2-YZ), Max= 2.50dBi





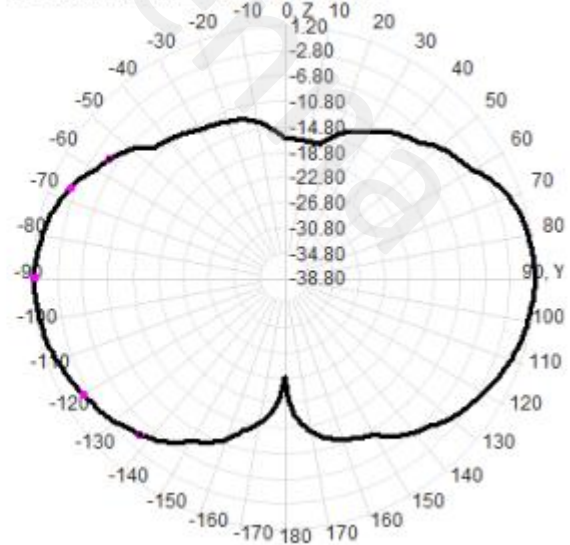
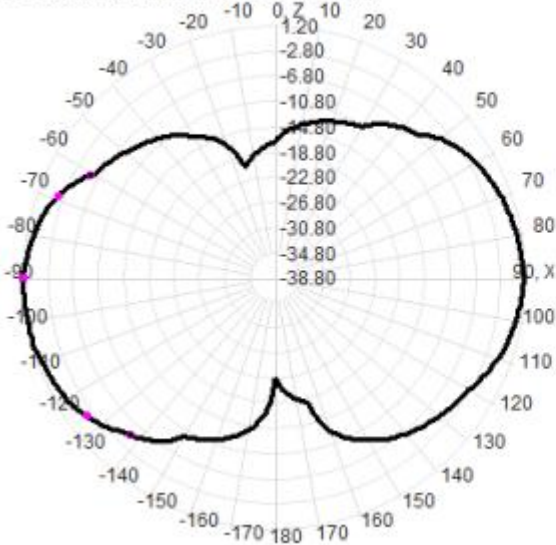
2500.0MHz H+V, Eff: 58.5%

Back View

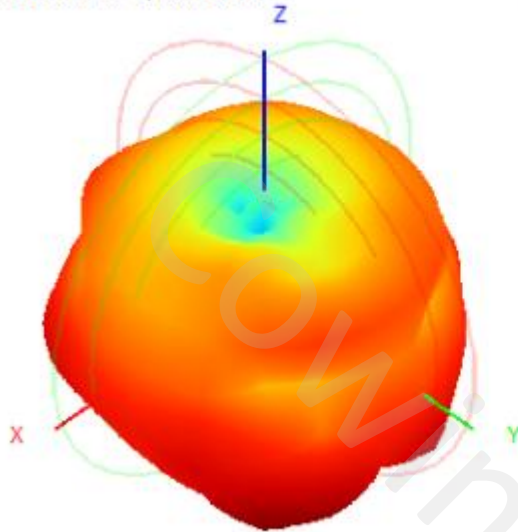


2500.0MHz Total(E1-XZ), Max= 1.13dBi

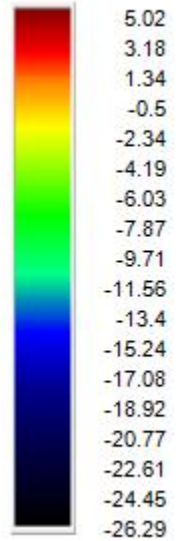
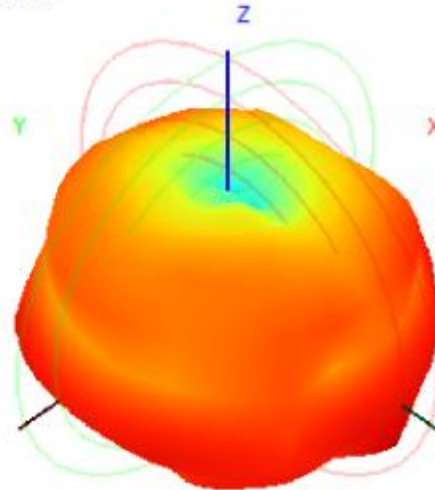
2500.0MHz Total(E2-YZ), Max= 1.01dBi



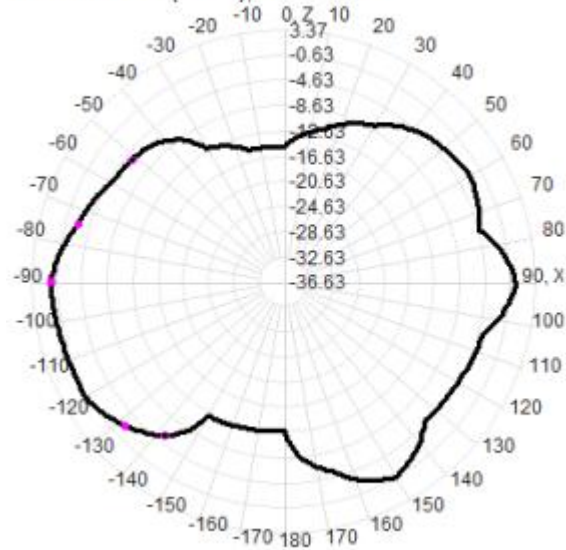
4900.0MHz H+V, Eff: 59.5%



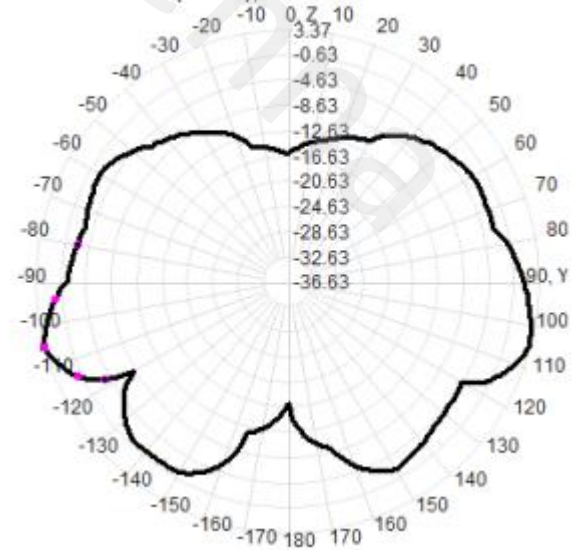
Back View



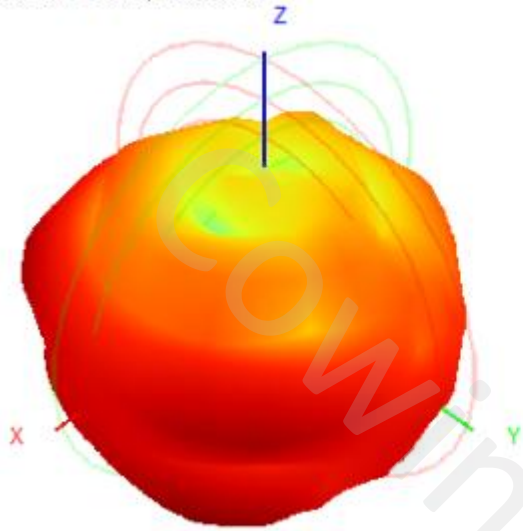
4900.0MHz Total(E1-XZ), Max= 0.33dBi



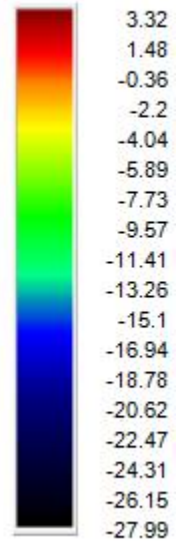
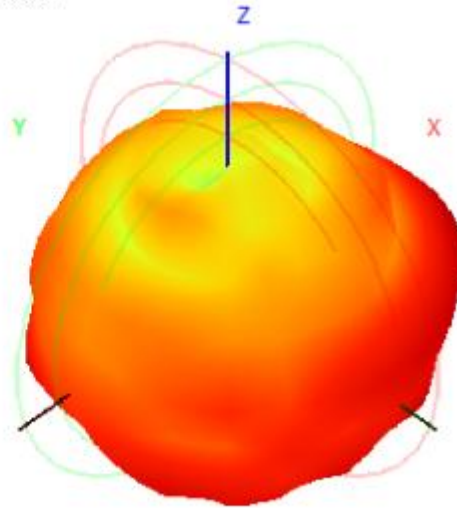
4900.0MHz Total(E2-YZ), Max= 3.37dBi



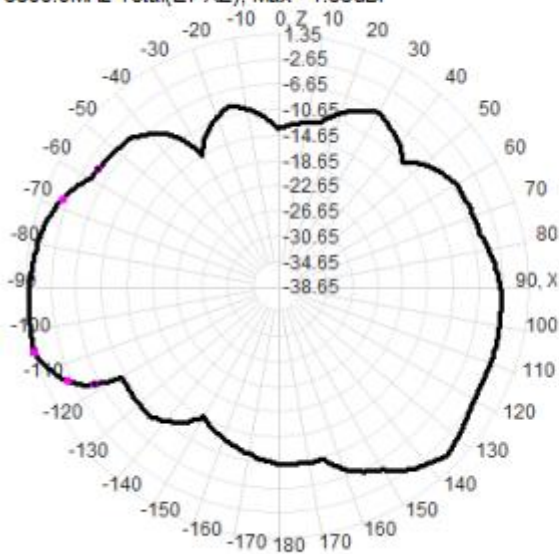
5500.0MHz H+V, Eff: 53.7%



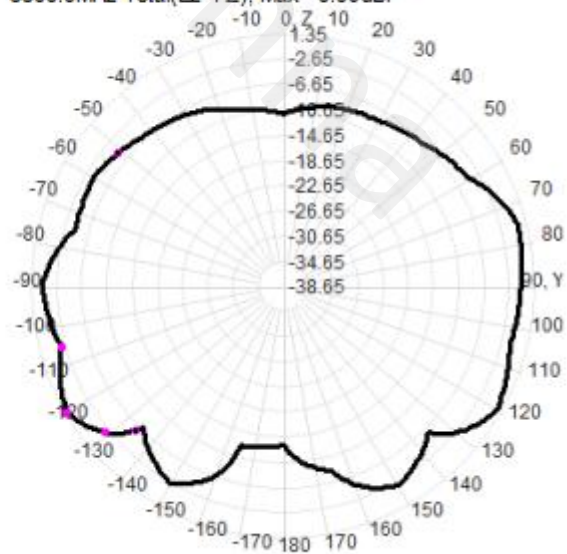
Back View



5500.0MHz Total(E1-XZ), Max= 1.35dBi

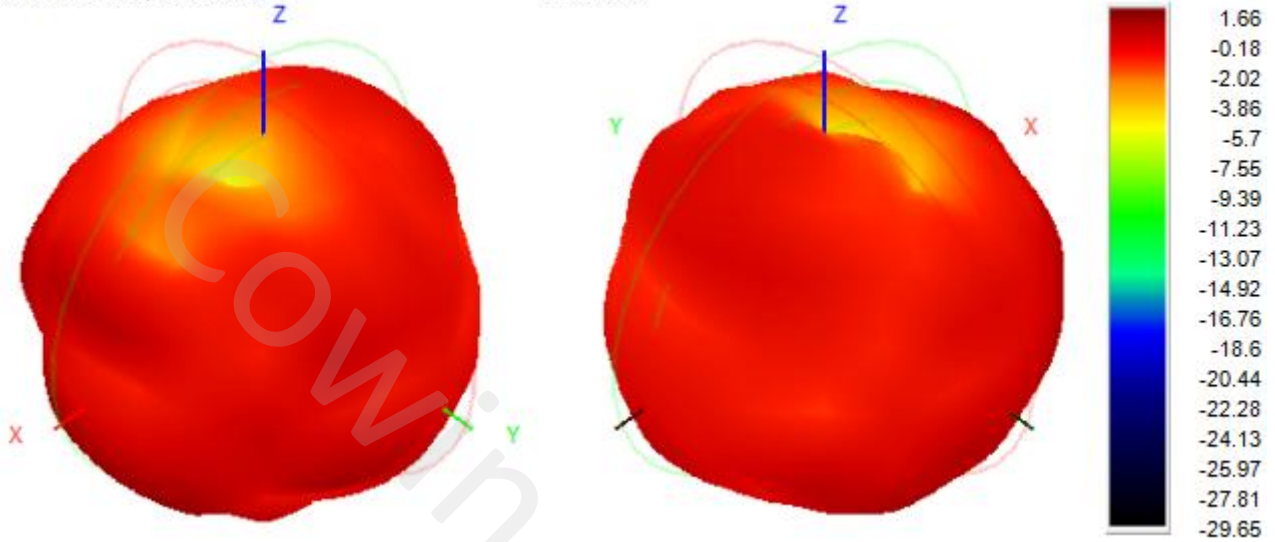


5500.0MHz Total(E2-YZ), Max= 0.98dBi



5850.0MHz H+V, Eff: 56.8%

Back View



5850.0MHz Total(E1-XZ), Max= 1.10dBi

5850.0MHz Total(E2-YZ), Max= 0.49dBi

