

**CW-WZ-0087**

## **WIFI6E External Antenna**

### **Key Features**

Frequency: 2.4-2.5G/5.15-7.125G

SMA Male Connector

External Rubber

Dimensions 136\*19 mm



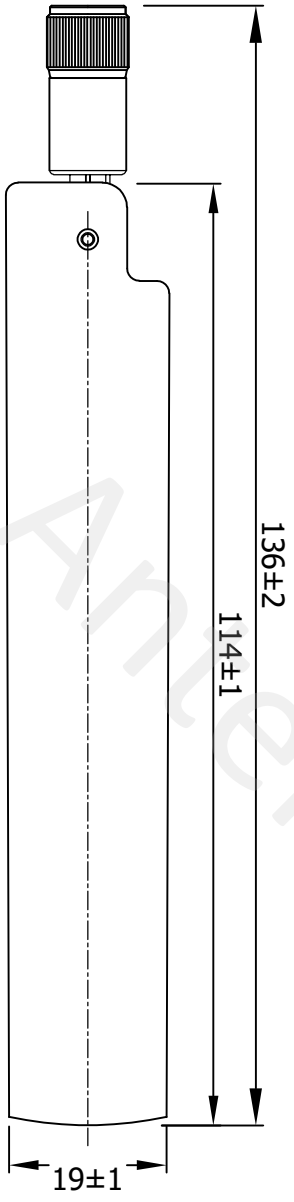
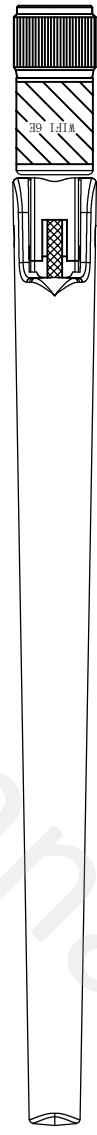
## 1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	2.4-2.5G/ 5.15-7.125G
VSWR	2/3
Efficiency (%)	68.23% /67.84%
Peak Gain (dBi)	1.92/3.95
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	PC+PBT/ABS
Cable Type	N/A
Connector Type	SMA Male
Dimensions (mm)	136*19MM
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	2022/05/18	New issue



Specification(Free Test):  
 Frequency Range: 2.4-2.5G/5.15-7.125G  
 Impedance: 50Ω  
 V.S.W.R: ≤2/3  
 100% Continuity,short and open circuit test  
 Materials,parts and process must by environmentally (ROHS)

5	Radome	Black ABS	1									
4	Lower fixing seat	Black PC+PBT	1									
3	PCB	FR4	1									
2	Cable	RG178 Single silver wire	1									
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-0087						
XXX	±0.1	Drawing			REV	Unit	File					
					X1	m/m	Sheet:	1/1				



## 4. Antenna test parameters

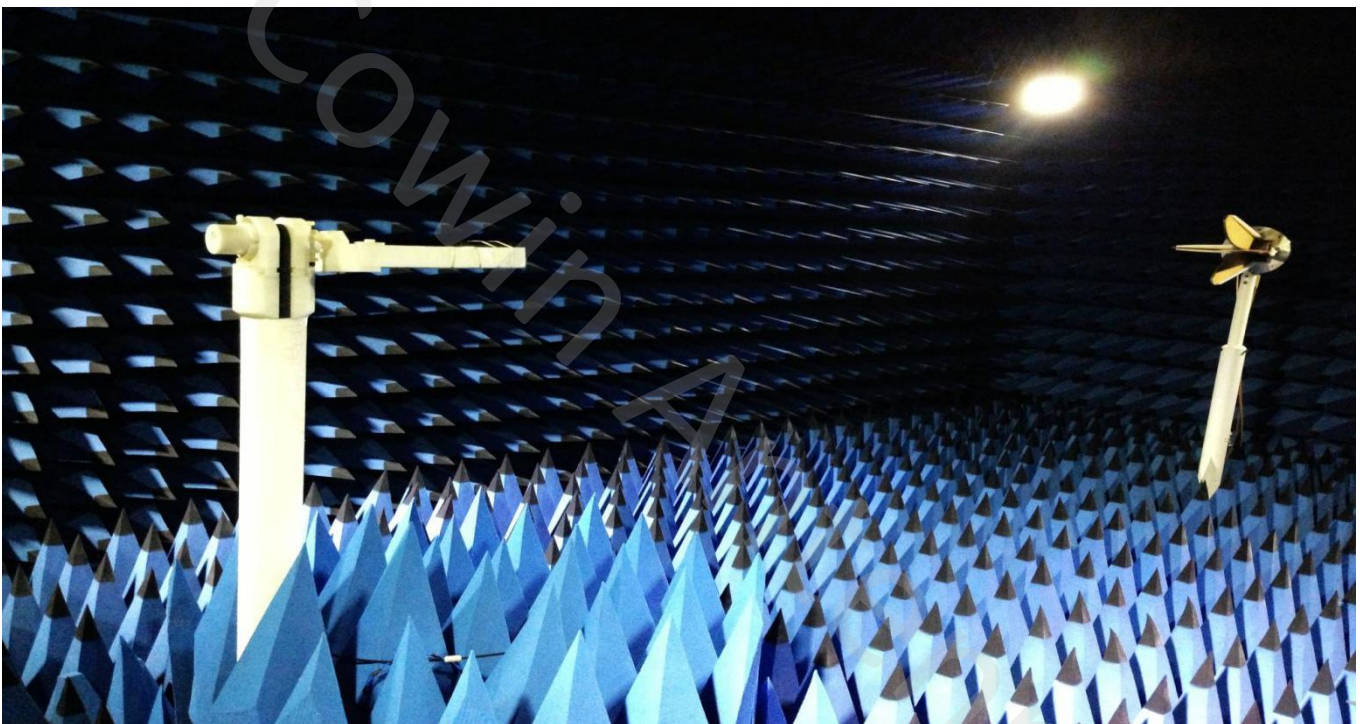
### Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

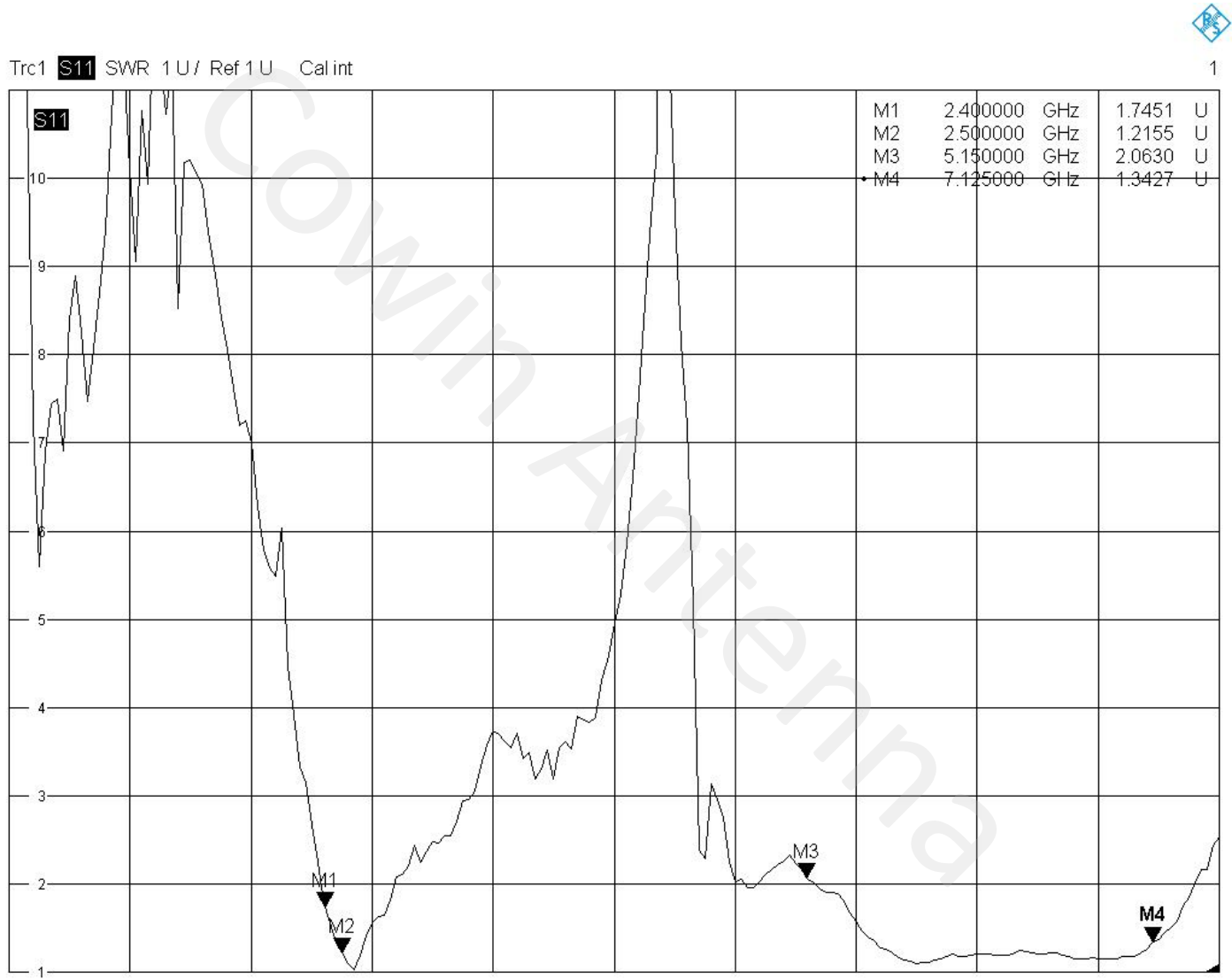
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

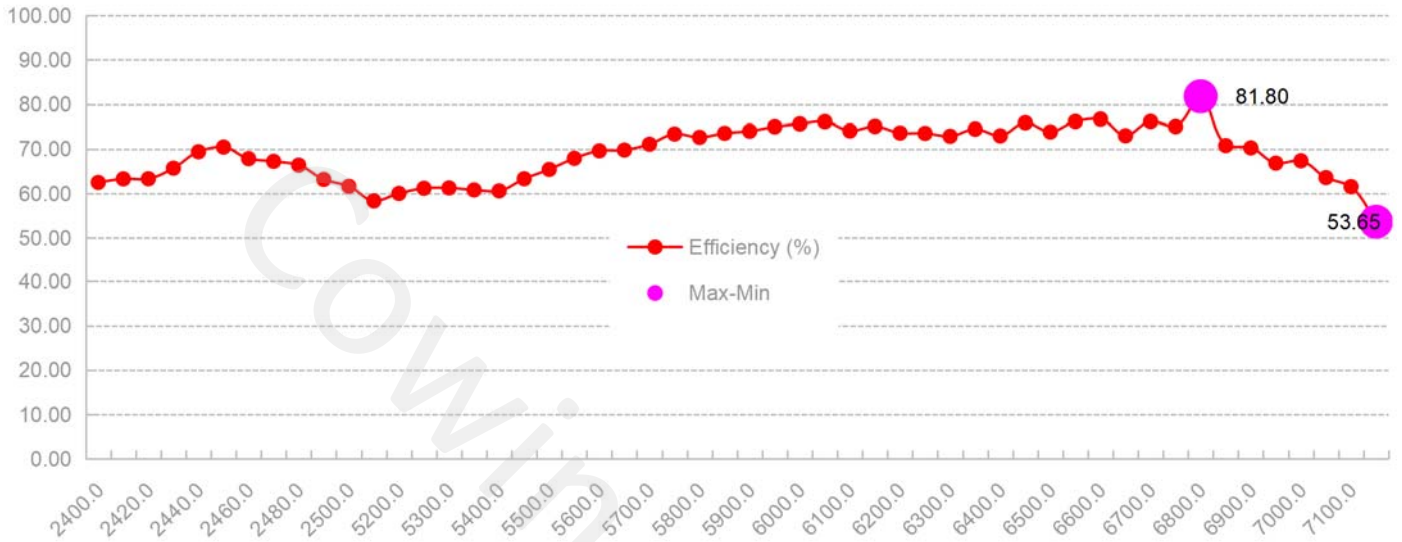


## 4.1 VSWR

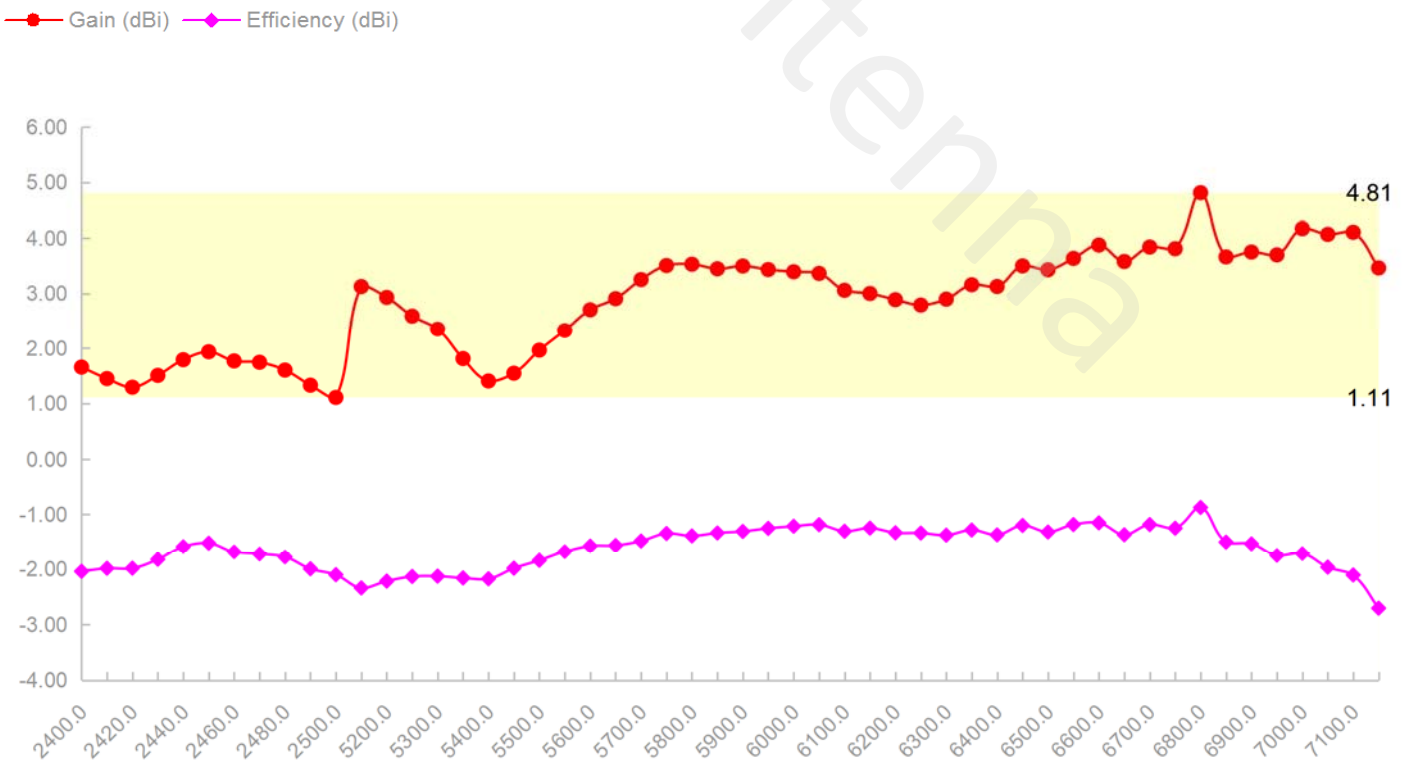


10/18/2022, 7:51 PM

## 4.2 Efficiency

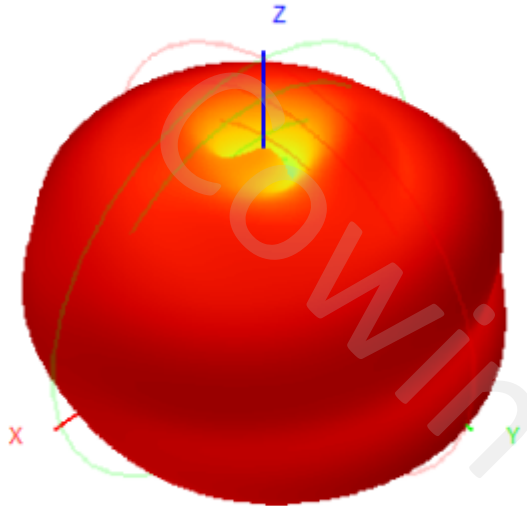


## 4.3 Peak gain

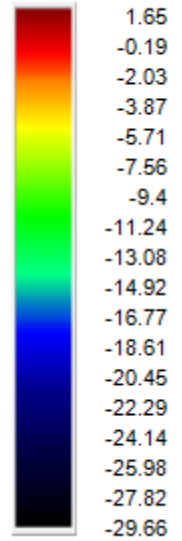
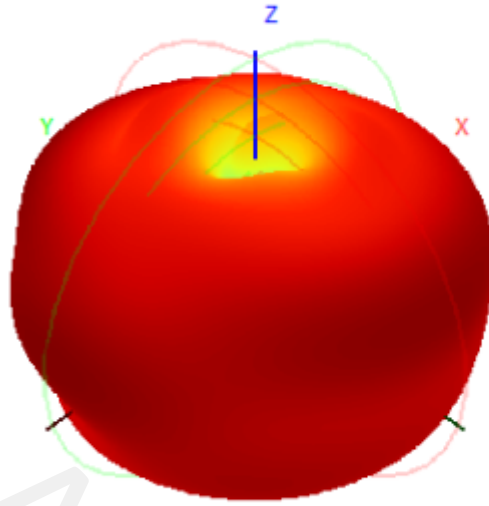


## 4.4 3D&2D Radiation Patterns

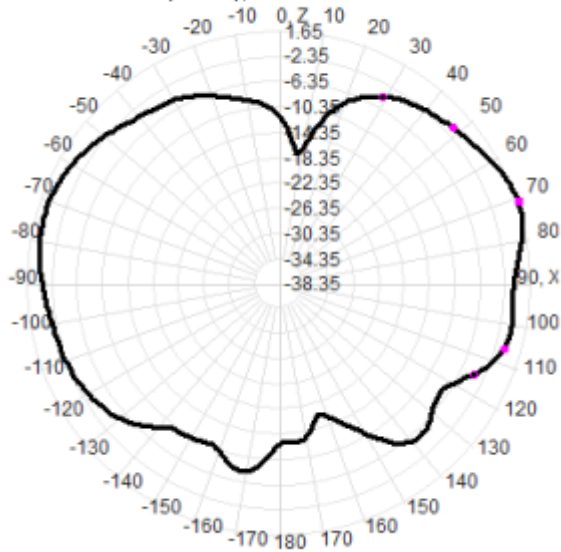
2400.0MHz H+V, Eff: 62.5%



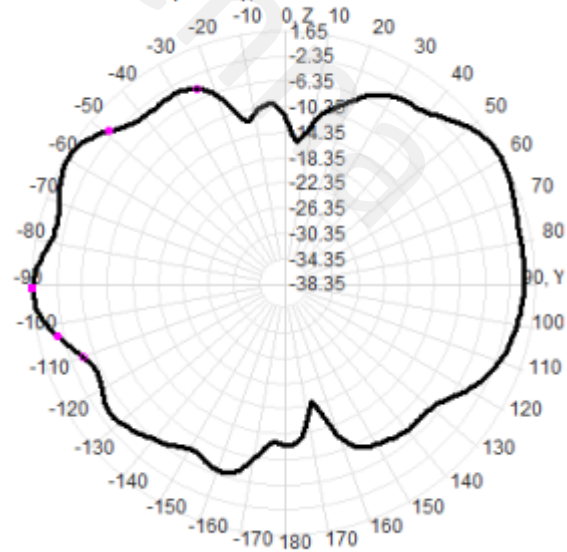
Back View



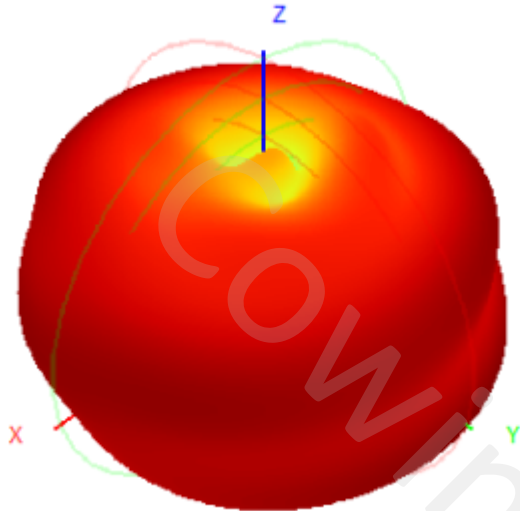
2400.0MHz Total(E1-XZ), Max= 1.65dBi



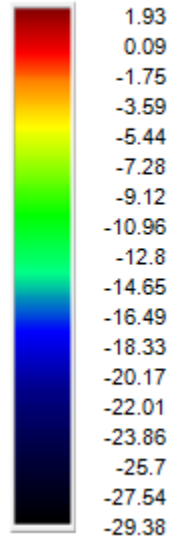
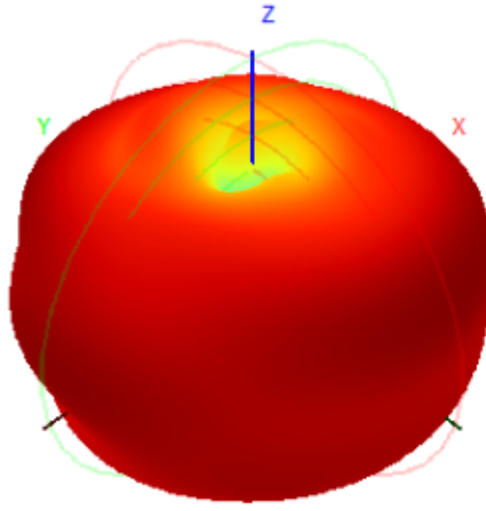
2400.0MHz Total(E2-YZ), Max= 1.48dBi



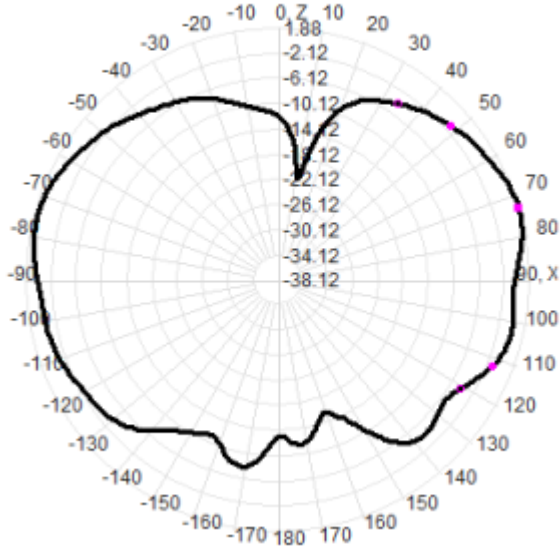
2450.0MHz H+V, Eff: 70.5%



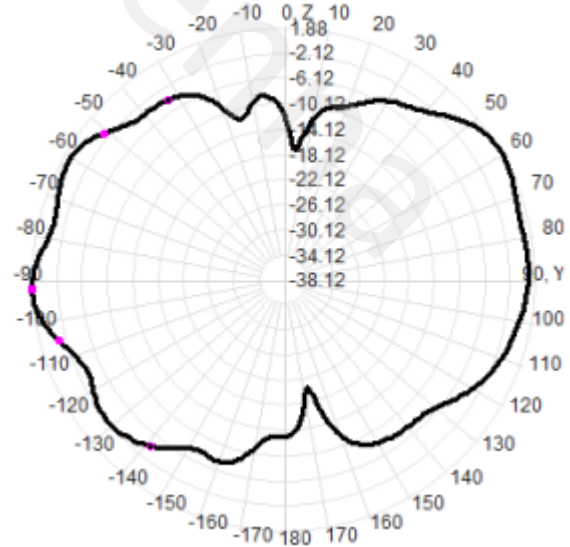
Back View



2450.0MHz Total(E1-XZ), Max= 1.64dBi

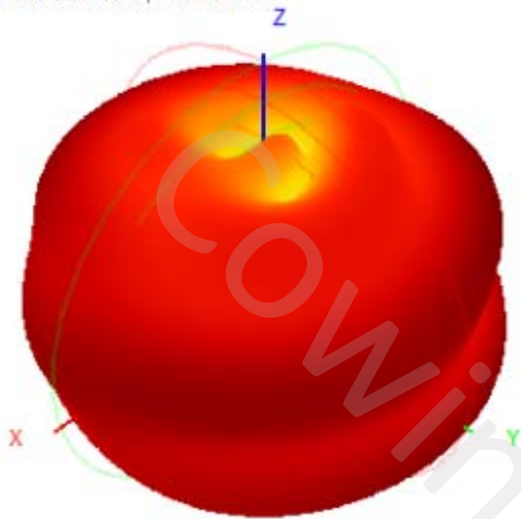


2450.0MHz Total(E2-YZ), Max= 1.87dBi

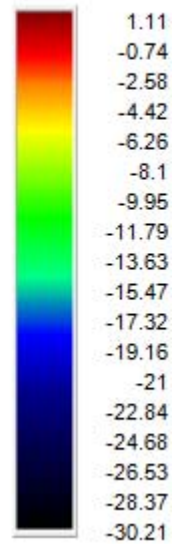
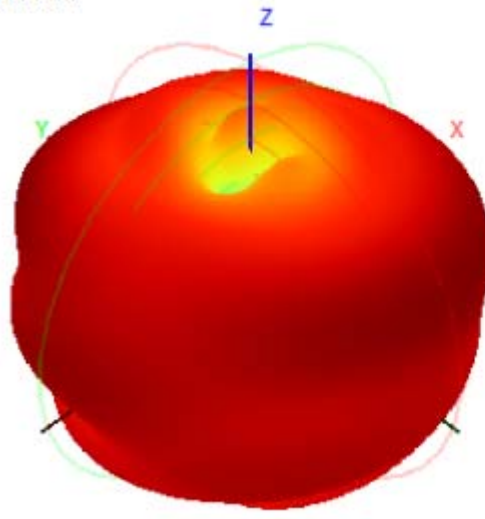




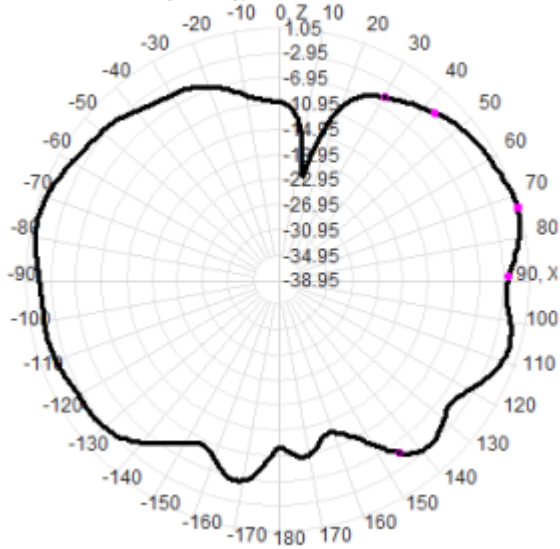
2500.0MHz H+V, Eff: 61.6%



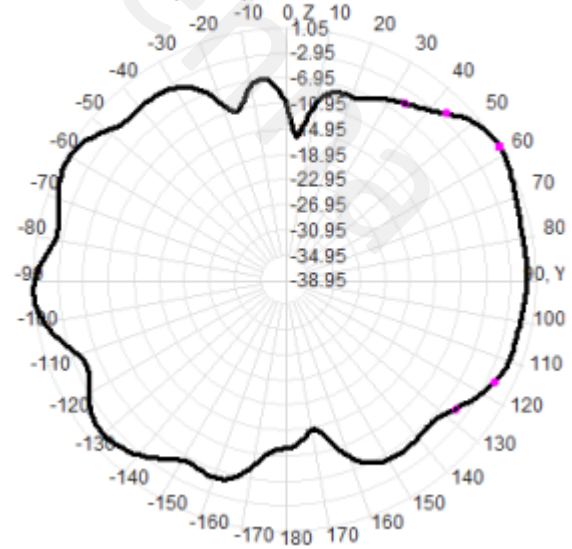
Back View



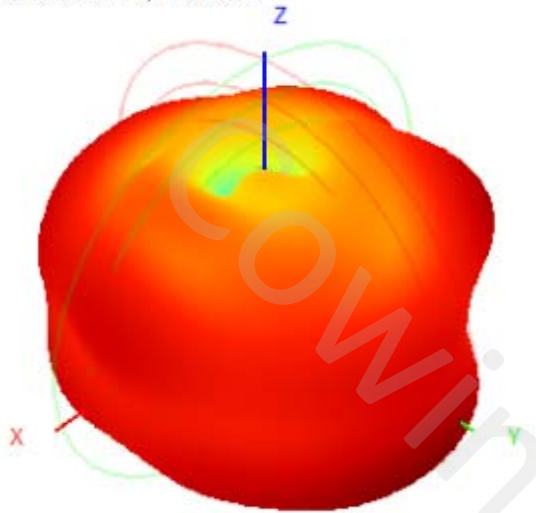
2500.0MHz Total(E1-XZ), Max= 0.58dBi



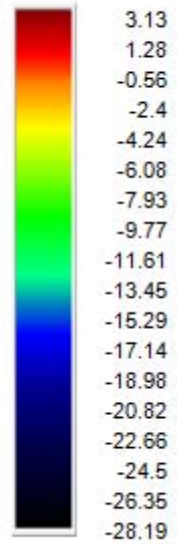
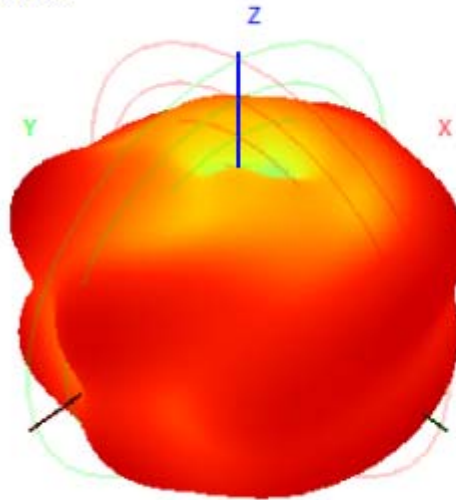
2500.0MHz Total(E2-YZ), Max= 1.05dBi



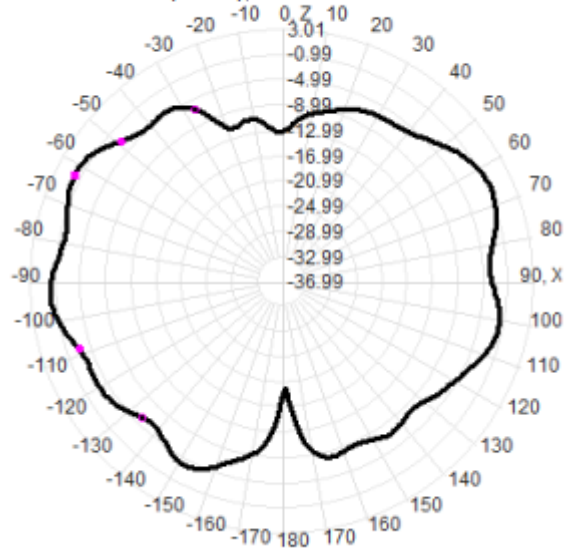
5150.0MHz H+V, Eff: 58.4%



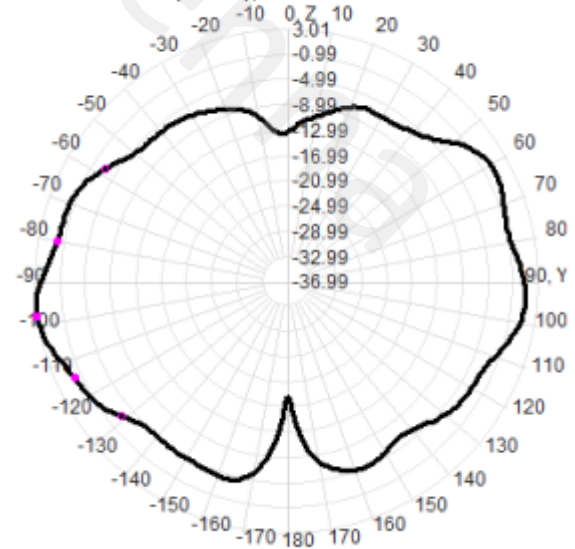
Back View



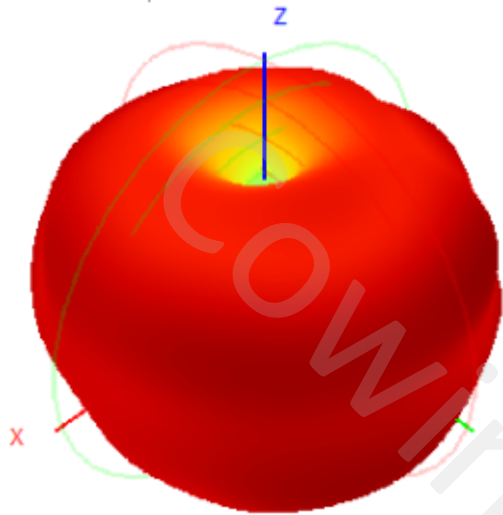
5150.0MHz Total(E1-XZ), Max= -0.06dBi



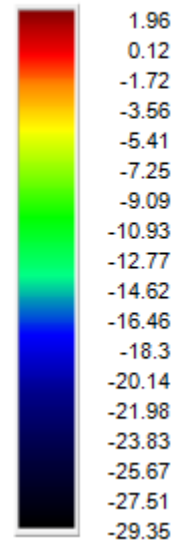
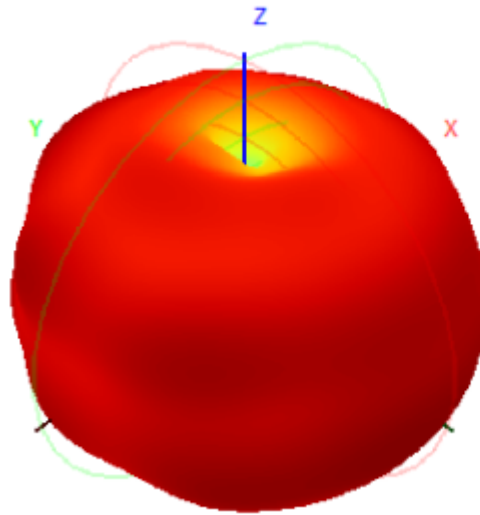
5150.0MHz Total(E2-YZ), Max= 3.01dBi



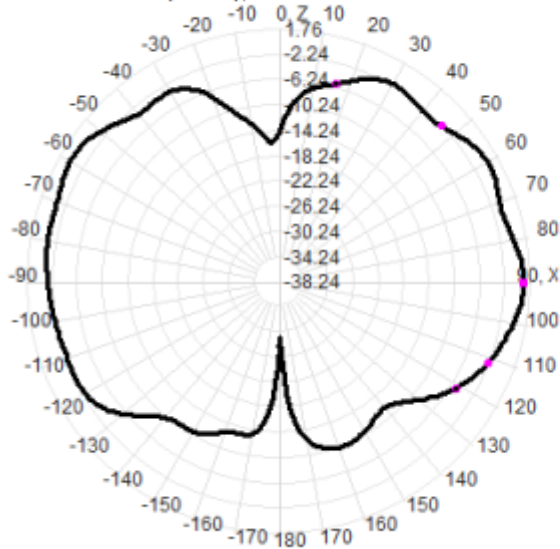
5500.0MHz H+V, Eff: 65.4%



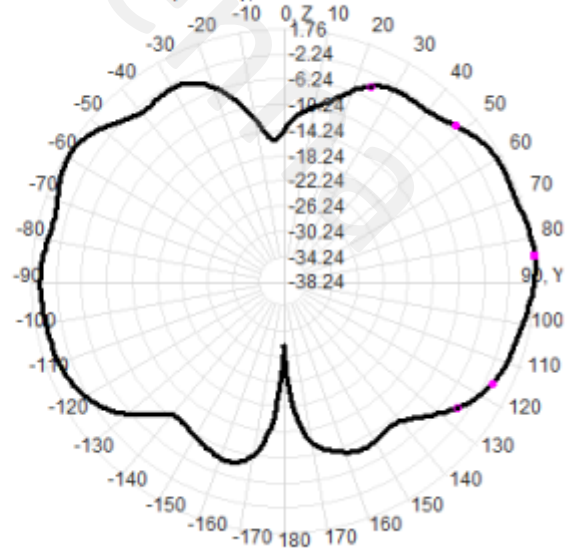
Back View



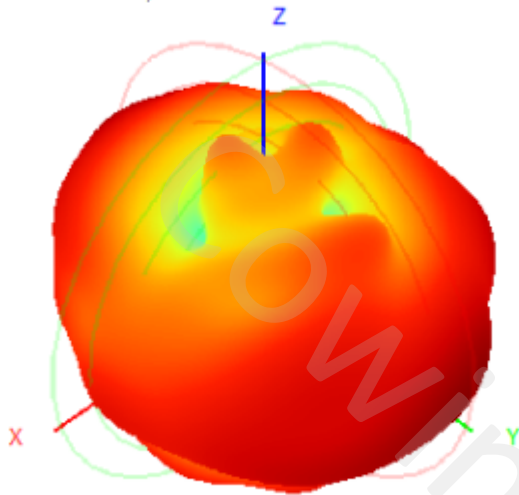
5500.0MHz Total(E1-XZ), Max= 0.53dBi



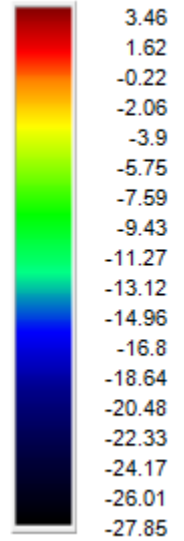
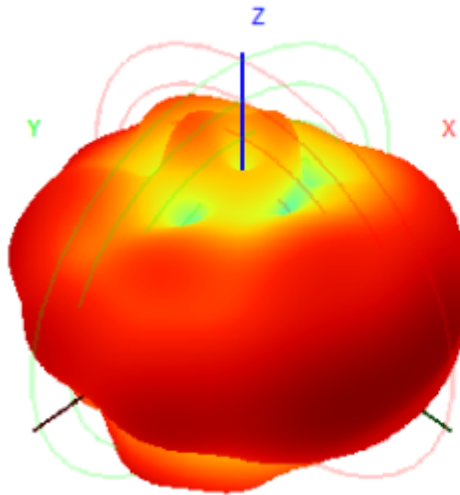
5500.0MHz Total(E2-YZ), Max= 1.76dBi



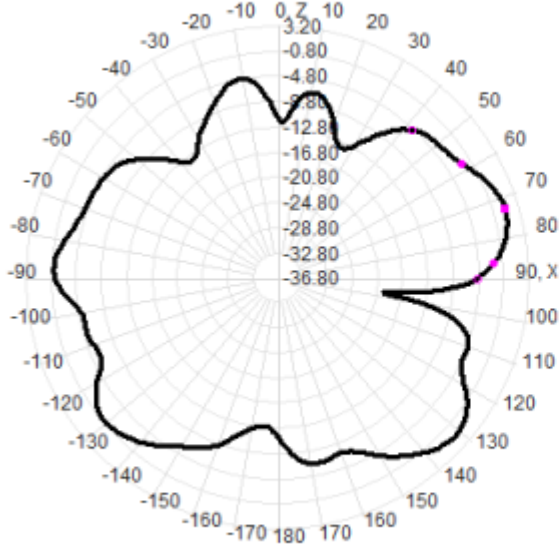
7150.0MHz H+V, Eff: 53.7%



Back View



7150.0MHz Total(E1-XZ), Max= 0.82dBi



7150.0MHz Total(E2-YZ), Max= 3.20dBi

