

## **CW-WZ-0138**

### **2.4G External Antenna**

#### **Key Features**

Frequency: 2400-2500MHz

SMA Male Connector

Dimensions: 30\*14mm

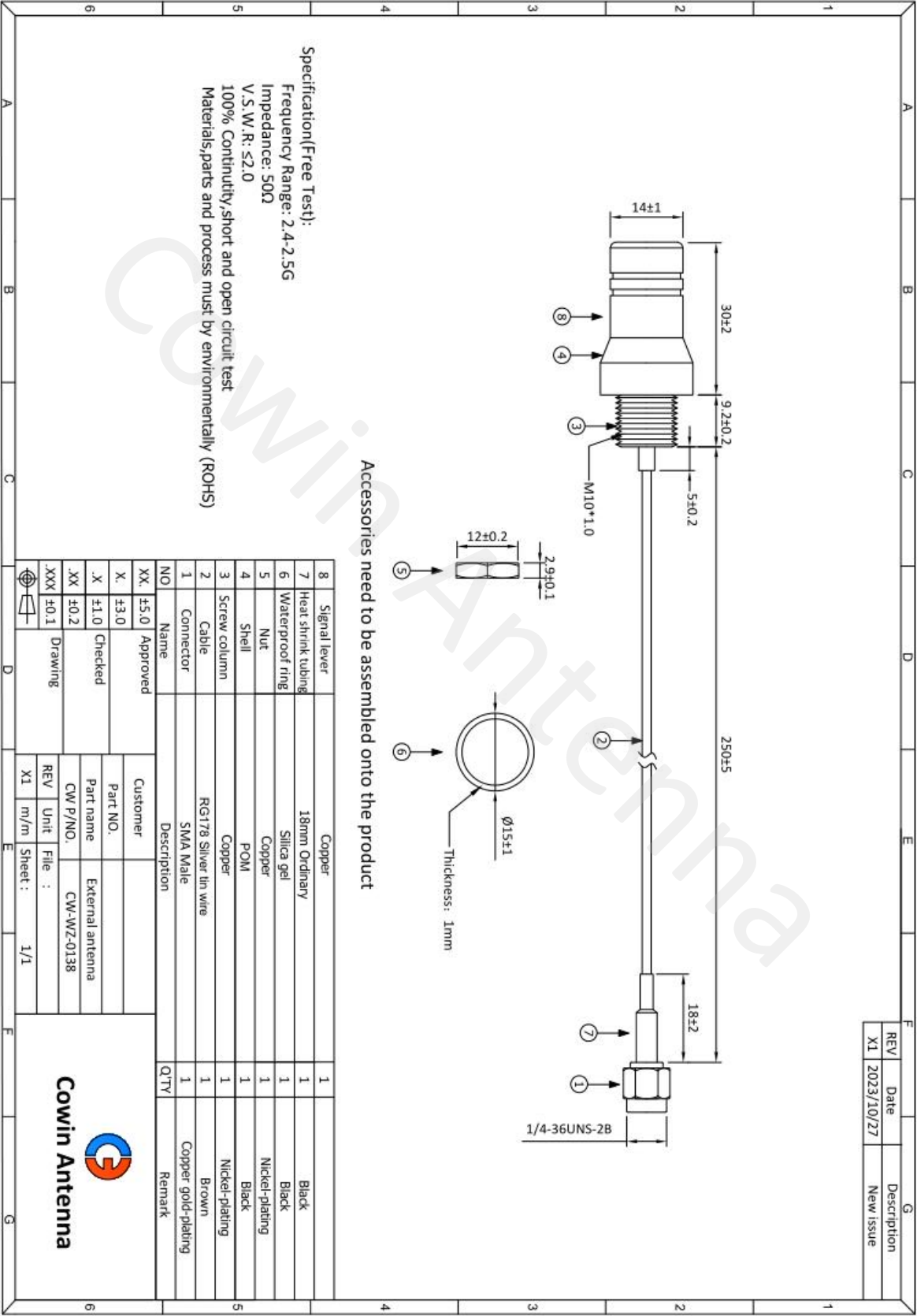


## 1. Antenna Electrical Characteristics

|                      |           |
|----------------------|-----------|
| Band (MHz)           |           |
| Frequency (MHz)      | 2400-2500 |
| VSWR                 | ≤2.0      |
| Efficiency (%)       | 49.93     |
| Peak Gain (dBi)      | 2.76      |
| Impedance (Ohm)      | 50        |
| Polarisation         | Vertical  |
| Max. Input Power (W) | 10        |
| Connector Type       | SMA Male  |

## 2. Material and environmental characteristics

|                            |              |
|----------------------------|--------------|
| External structure         | POM          |
| Inner structure            | Signal lever |
| Cable Type                 | RG 178 Brown |
| Connector Type             | SMA Male     |
| Dimensions (mm)            | 30*14 mm     |
| Antenna color              | Black        |
| Operation Temperature      | -40 to +80   |
| Storage Temperature        | -40 to +80   |
| Antenna Storage life(year) | 10           |
| Substance Compliance       | ROHS         |



## 4. Antenna test parameters

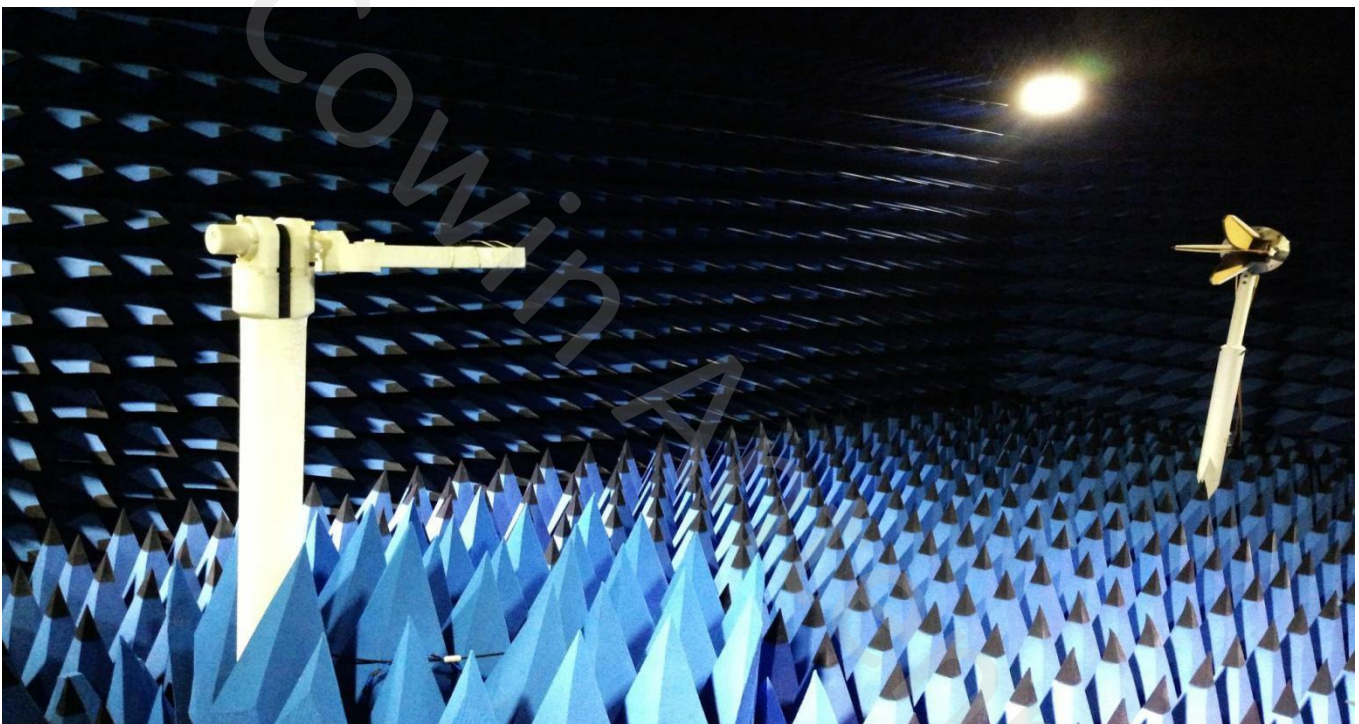
### Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

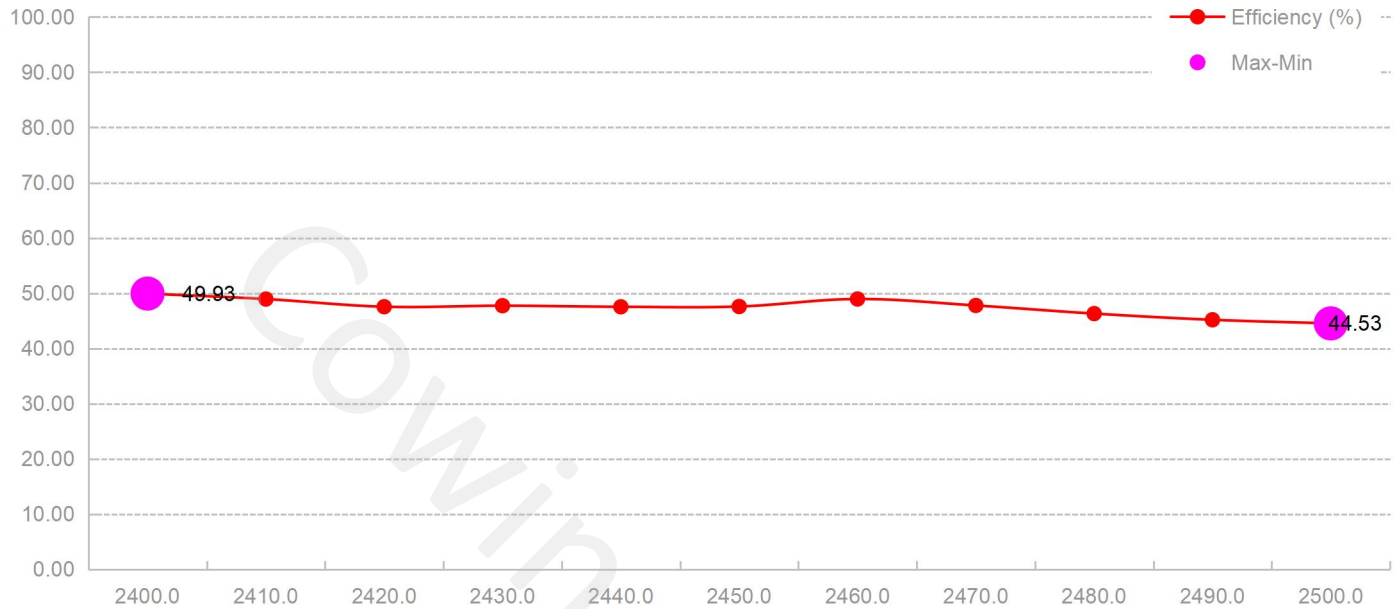
The comprehensive tester is Agilent cmv500



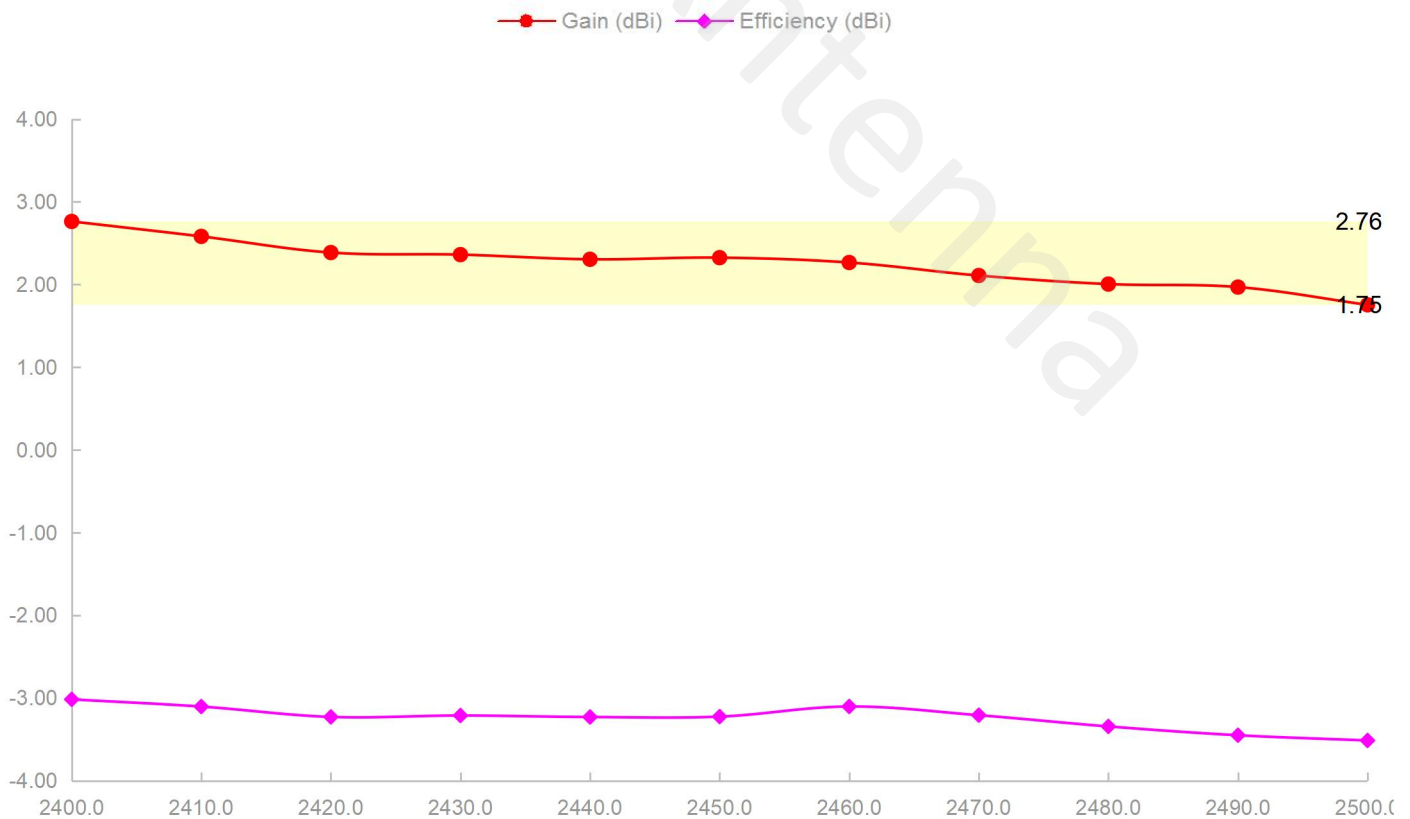
## 4.1 VSWR



## 4.2 Efficiency



## 4.3 Peak gain

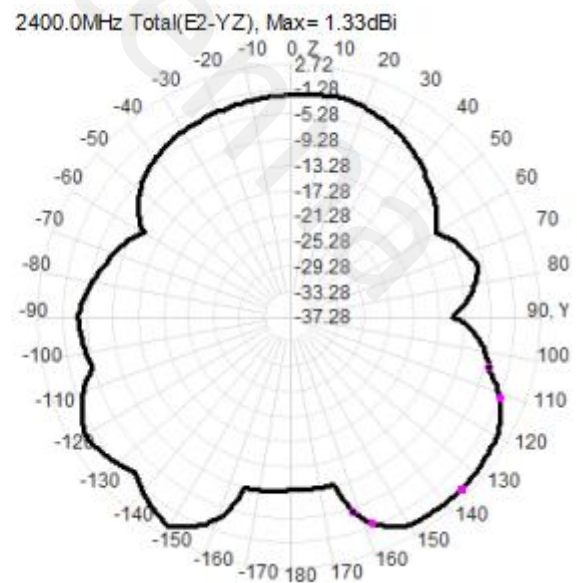
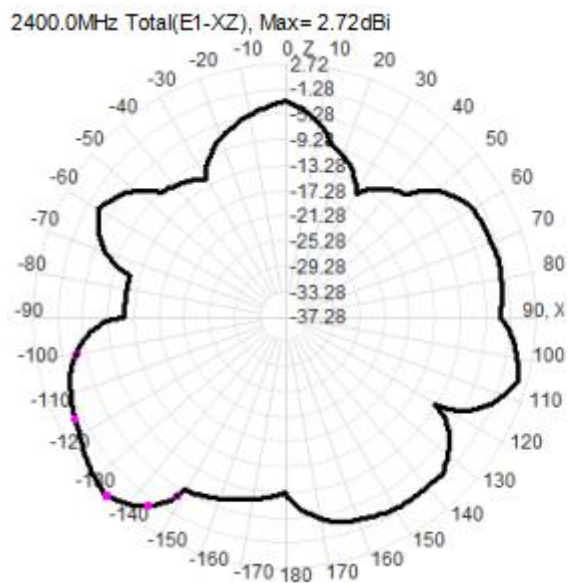
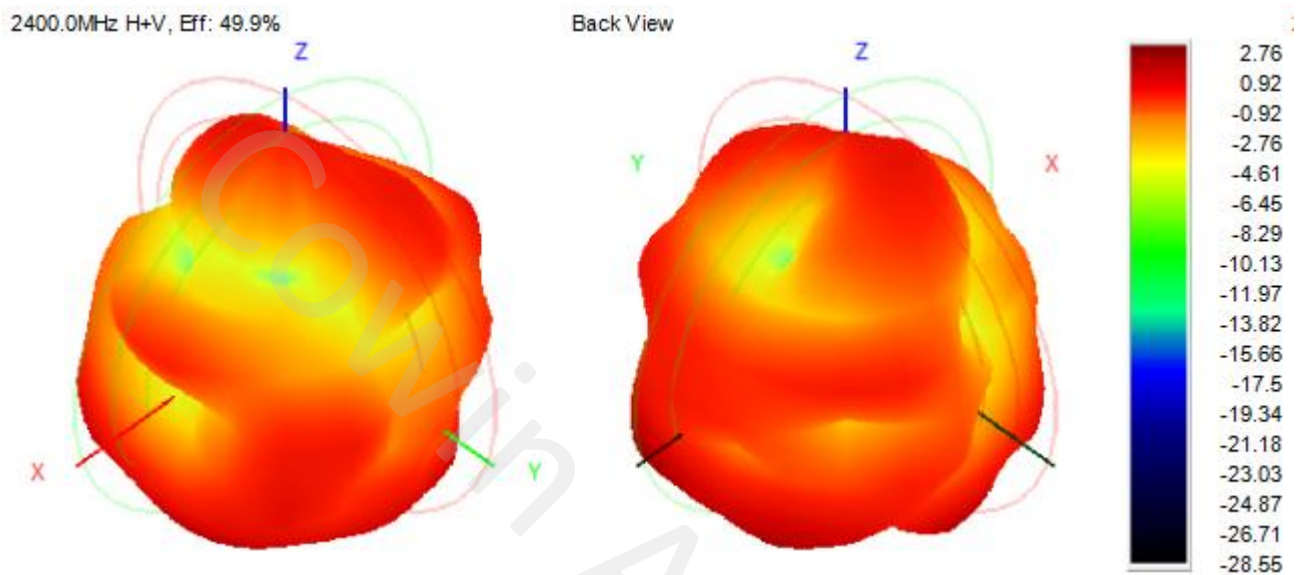


## 4.4 Data summary

| Frequency (MHz) | Gain (dBi) | Efficiency (%) |
|-----------------|------------|----------------|
| 2400.0          | 2.76       | 49.93          |
| 2410.0          | 2.58       | 48.94          |
| 2420.0          | 2.39       | 47.55          |
| 2430.0          | 2.36       | 47.74          |
| 2440.0          | 2.31       | 47.54          |
| 2450.0          | 2.33       | 47.59          |
| 2460.0          | 2.27       | 48.95          |
| 2470.0          | 2.11       | 47.78          |
| 2480.0          | 2.01       | 46.31          |
| 2490.0          | 1.97       | 45.18          |
| 2500.0          | 1.75       | 44.53          |



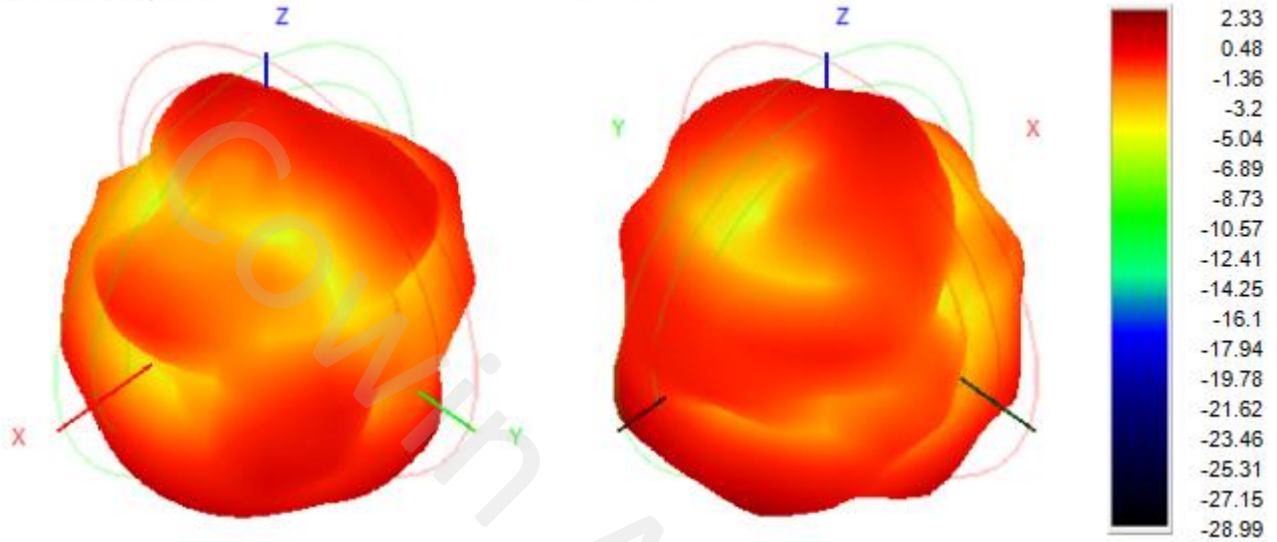
## 4.5 3D&2D Radiation Patterns





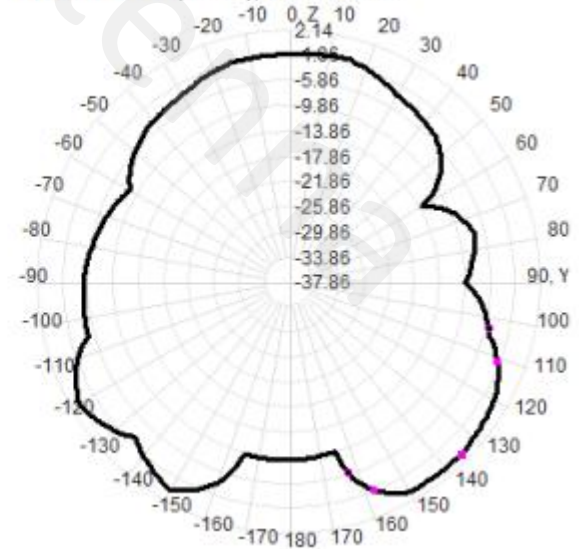
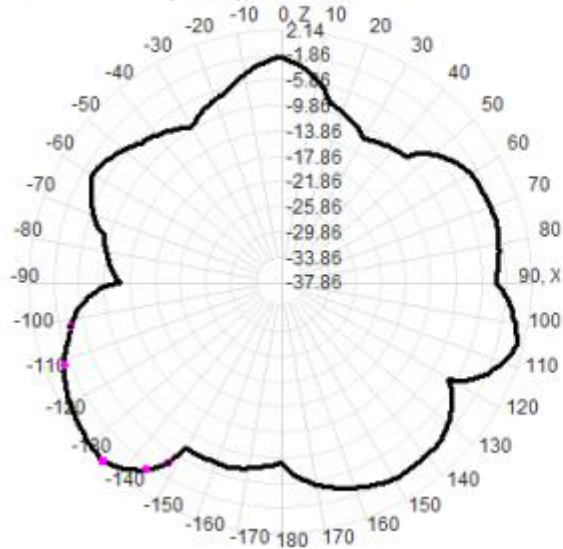
2450.0MHz H+V, Eff: 47.6%

Back View



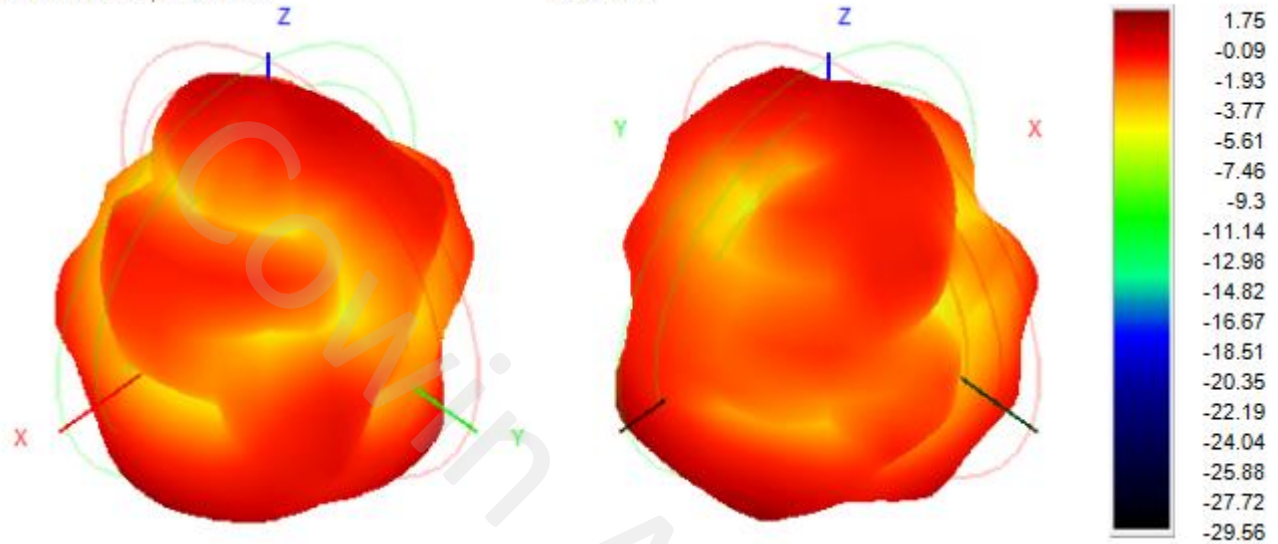
2450.0MHz Total(E1-XZ), Max= 2.14dBi

2450.0MHz Total(E2-YZ), Max= 0.66dBi

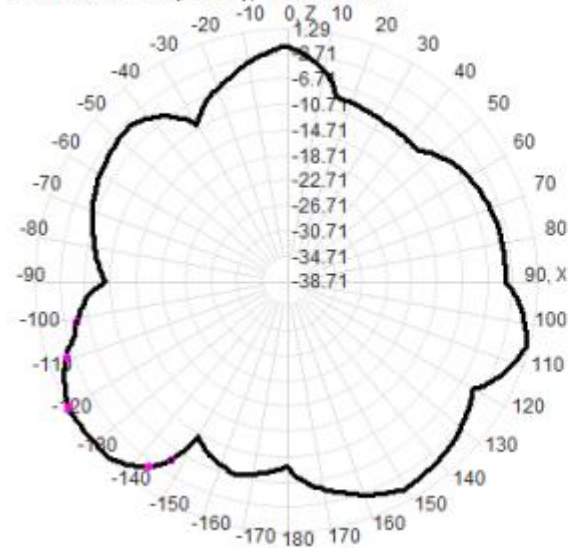


2500.0MHz H+V, Eff: 44.5%

Back View



2500.0MHz Total(E1-XZ), Max= 1.29dBi



2500.0MHz Total(E2-YZ), Max= 0.29dBi

