

## CW-NZ-0188

### 800-6000MHz Internal Antenna

#### Key Features

Frequency: 800-6000MHz

SMA 90° Female Connector

Dimensions: 189\*149\*1.6mm

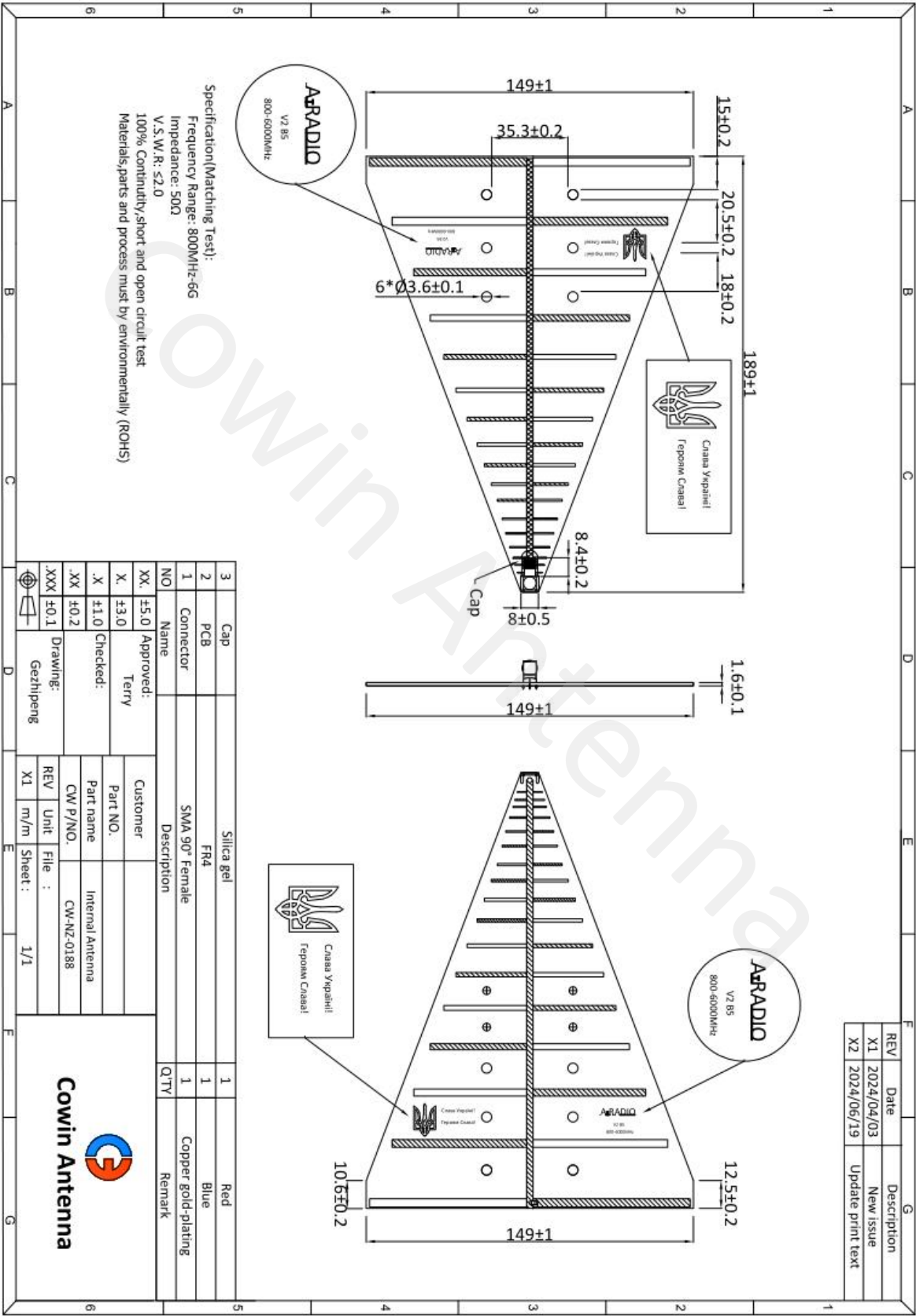


## 1. Antenna Electrical Characteristics

|                      |                |
|----------------------|----------------|
| Band (MHz)           |                |
| Frequency (MHz)      | 800-6000       |
| VSWR                 | ≤2.0           |
| Efficiency (%)       | 70.88          |
| Peak Gain (dBi)      | 5.55           |
| Impedance (Ohm)      | 50             |
| Polarisation         | Vertical       |
| Max. Input Power (W) | 10             |
| Connector Type       | SMA 90° Female |

## 2. Material and environmental characteristics

|                            |                |
|----------------------------|----------------|
| External Structure         | N/A            |
| Inner Structure            | PCB            |
| Cable Type                 | N/A            |
| Connector Type             | SMA 90° Female |
| Dimensions (mm)            | 189*149*1.6    |
| Antenna Colour             | Blue           |
| 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

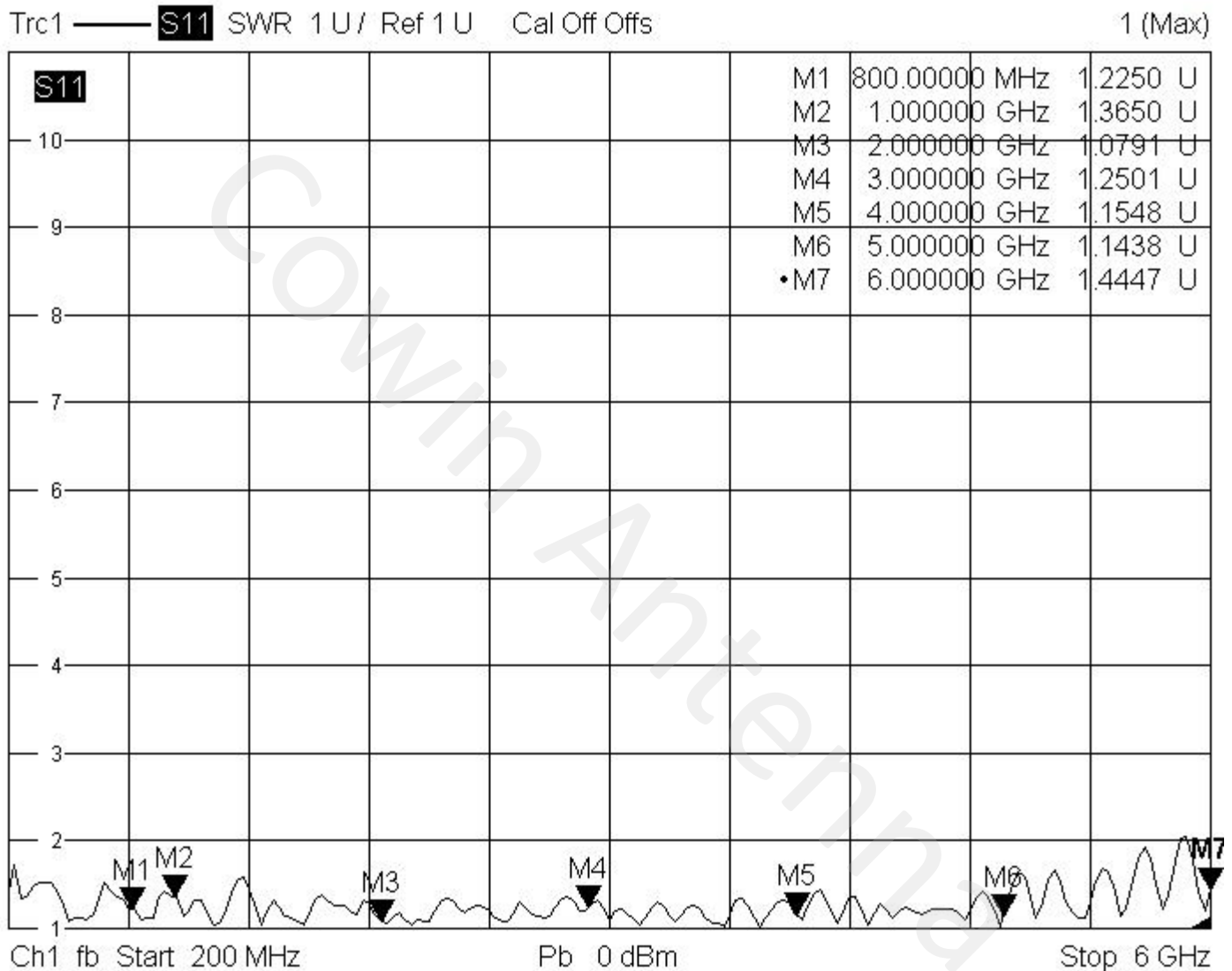
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

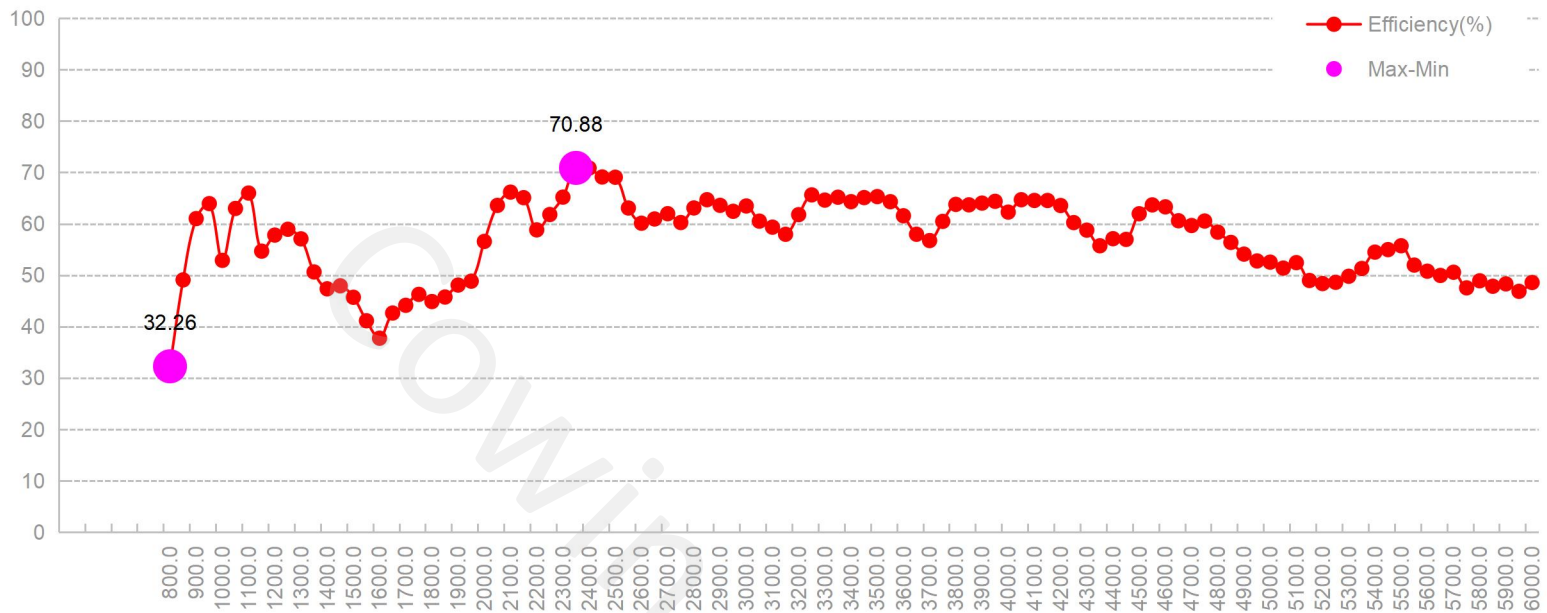
The comprehensive tester is Agilent cmv500



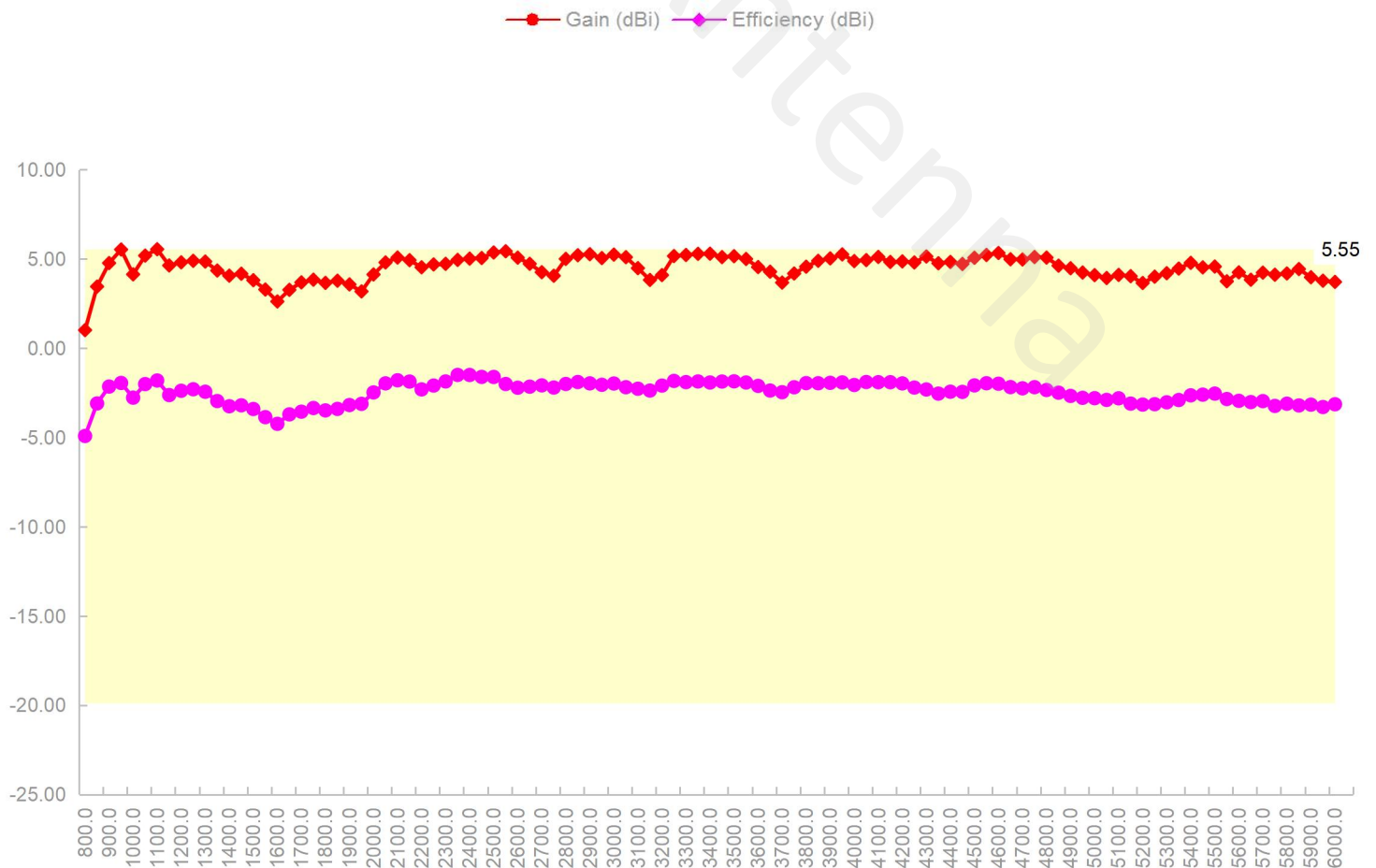
## 4.1 VSWR



## 4.2 Efficiency



## 4.3 Peak gain



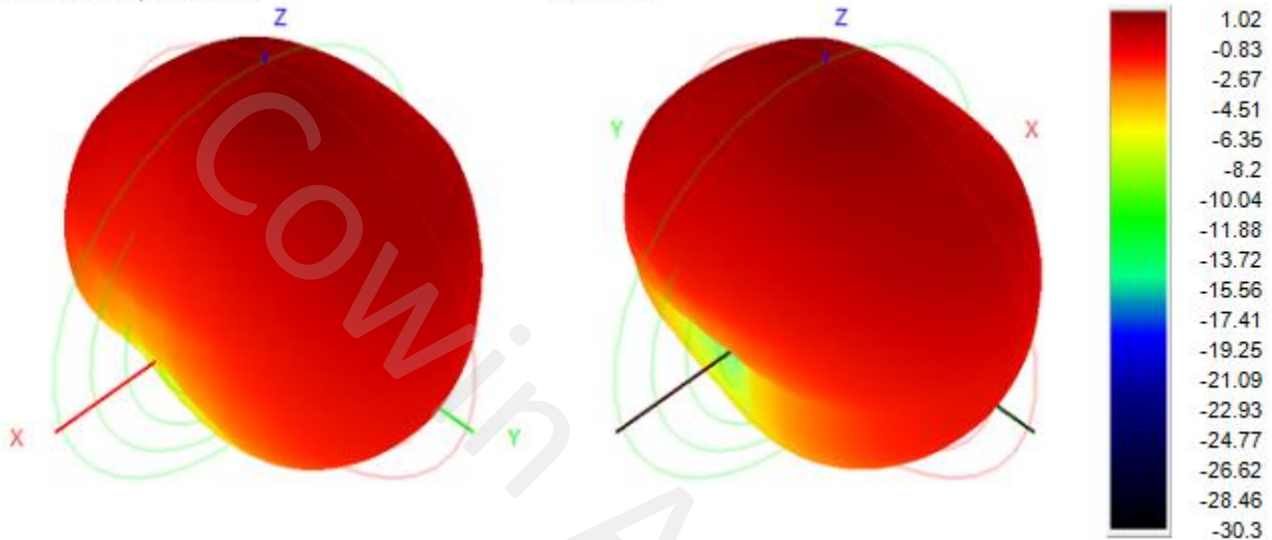
## 4.4 Data summary

| Frequency (MHz) | Gain (dBi) | Efficiency (%) |
|-----------------|------------|----------------|
| 800.0           | 1.02       | 32.26          |
| 1000.0          | 4.14       | 52.88          |
| 1500.0          | 3.81       | 45.69          |
| 2000.0          | 4.13       | 56.56          |
| 2500.0          | 5.36       | 69.05          |
| 3000.0          | 5.24       | 63.46          |
| 3500.0          | 5.16       | 65.29          |
| 4000.0          | 4.88       | 62.27          |
| 4500.0          | 5.07       | 61.95          |
| 5000.0          | 4.09       | 52.53          |
| 5500.0          | 4.58       | 55.72          |
| 6000.0          | 3.72       | 48.57          |

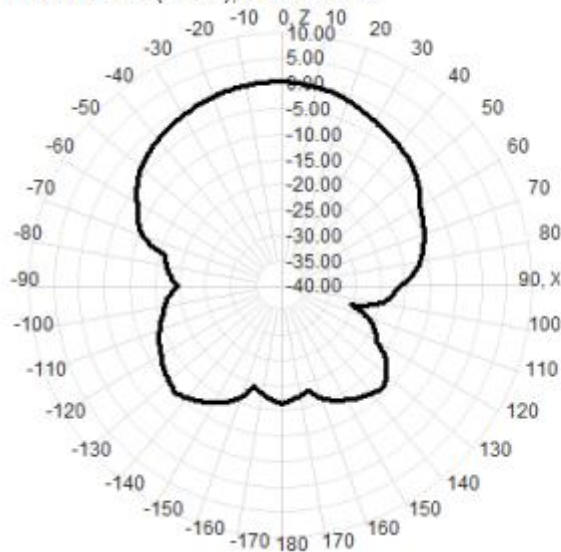
## 4.5 3D&2D Radiation Patterns

800.0MHz Total, Eff: 32.3%

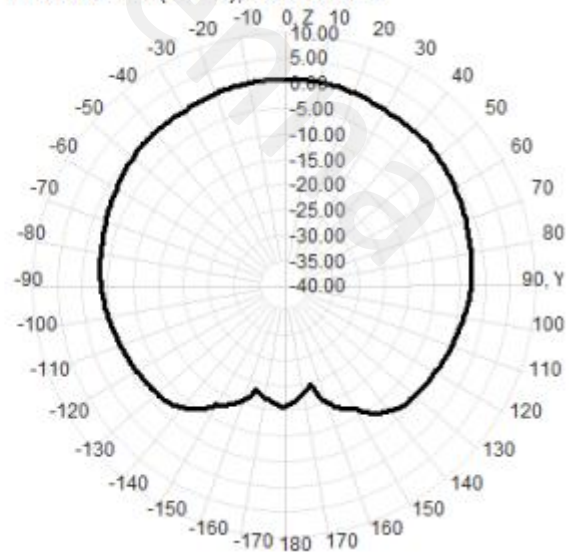
Back View



800.0MHz Total(E1-XZ), Max= 0.48dBi

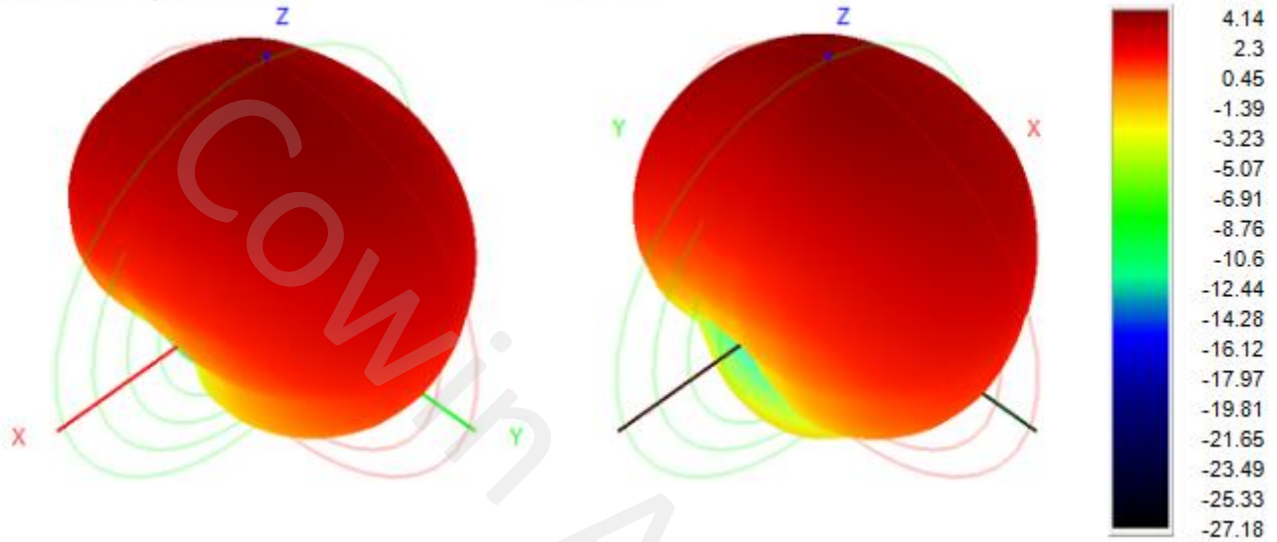


800.0MHz Total(E2-YZ), Max= 0.88dBi



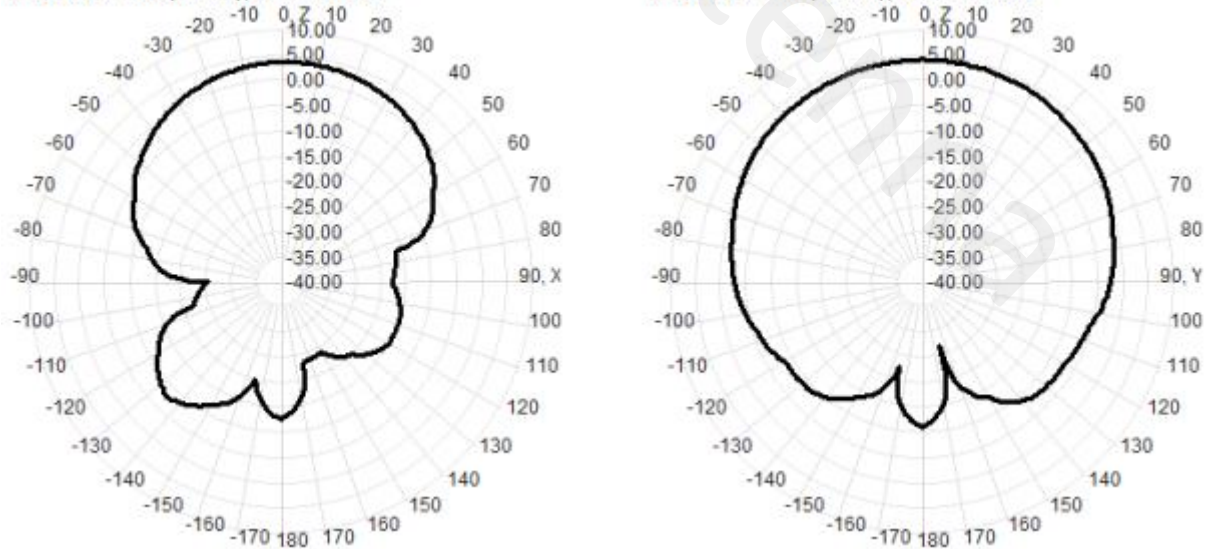
1000.0MHz Total, Eff: 52.9%

Back View



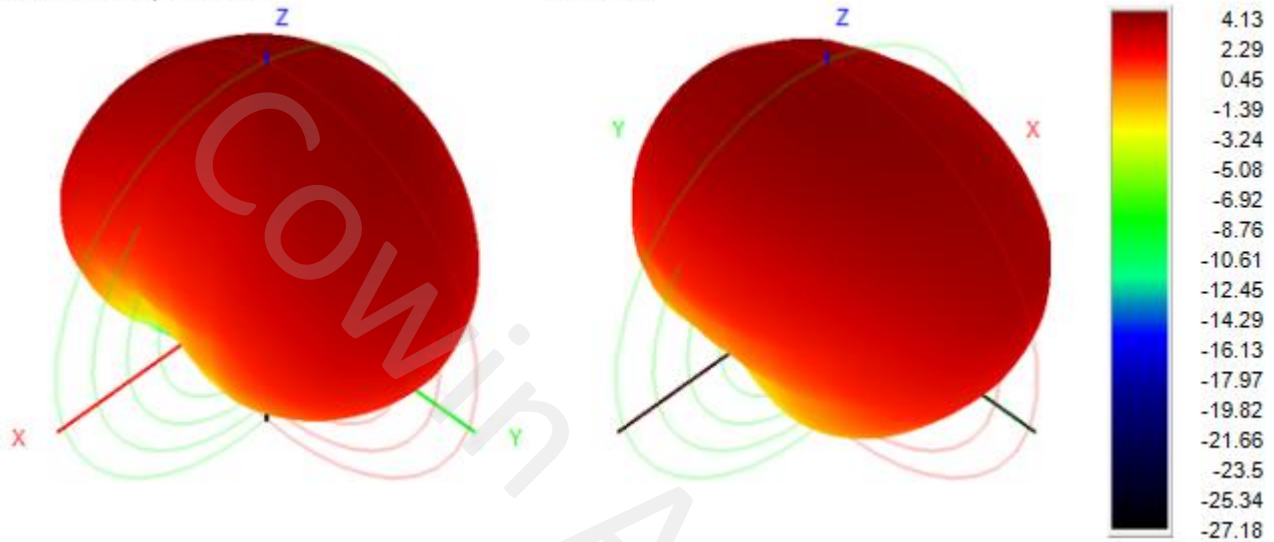
1000.0MHz Total(E1-XZ), Max= 3.75dBi

1000.0MHz Total(E2-YZ), Max= 4.07dBi



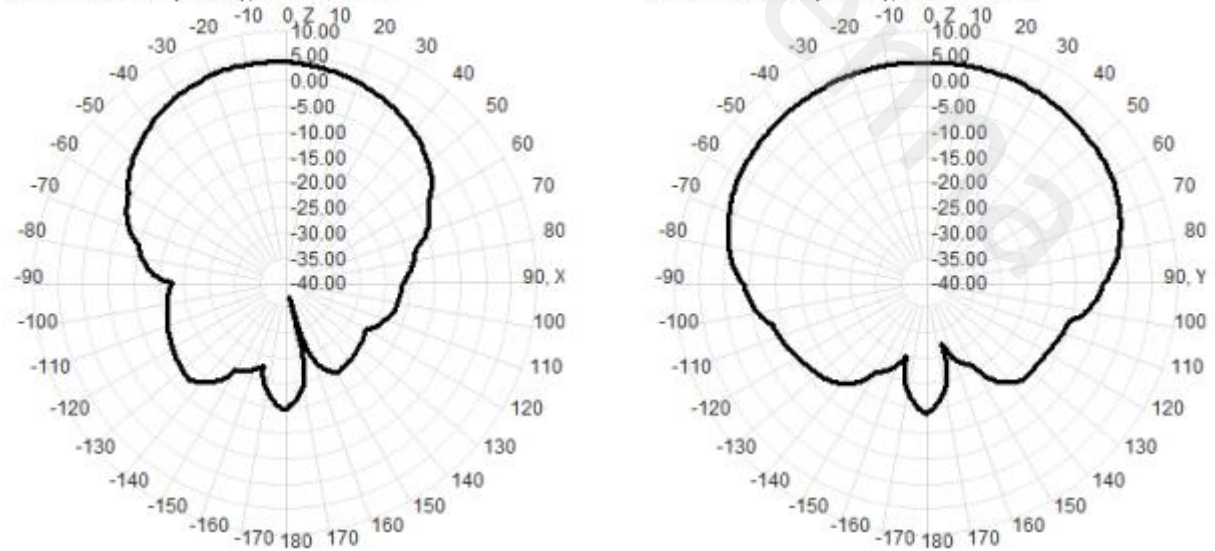
2000.0MHz Total, Eff: 56.6%

Back View



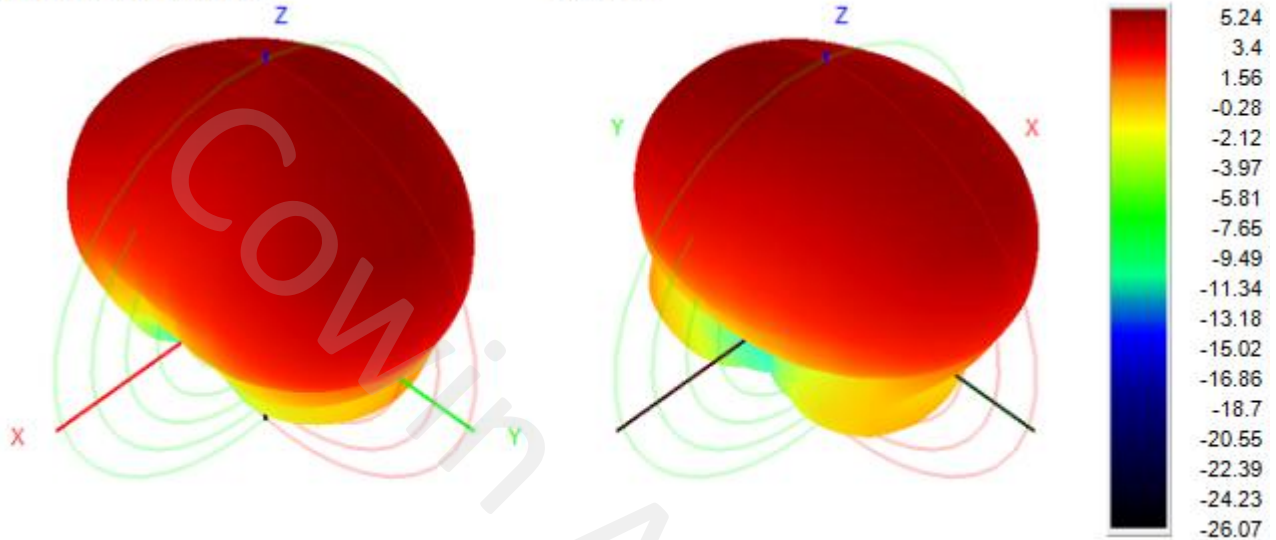
2000.0MHz Total(E1-XZ), Max= 3.94dBi

2000.0MHz Total(E2-YZ), Max= 3.87dBi

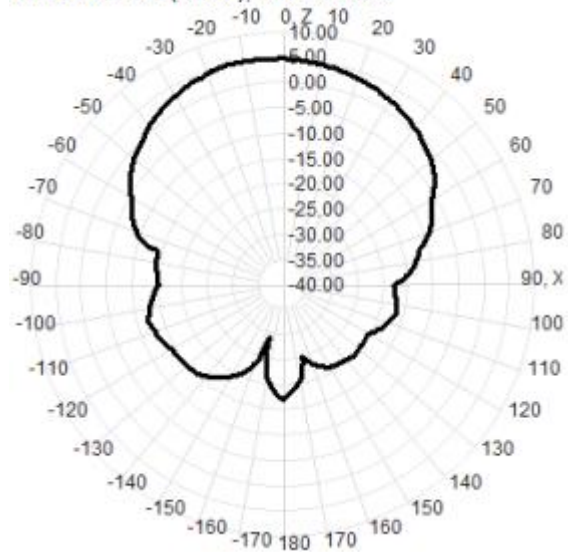


3000.0MHz Total, Eff: 63.5%

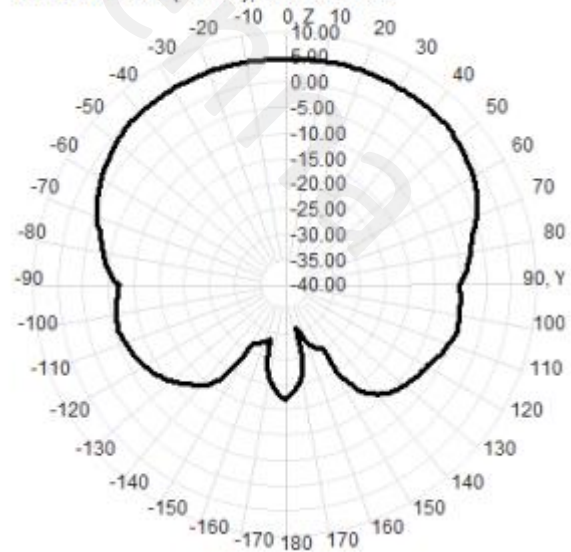
Back View



3000.0MHz Total(E1-XZ), Max= 4.79dBi

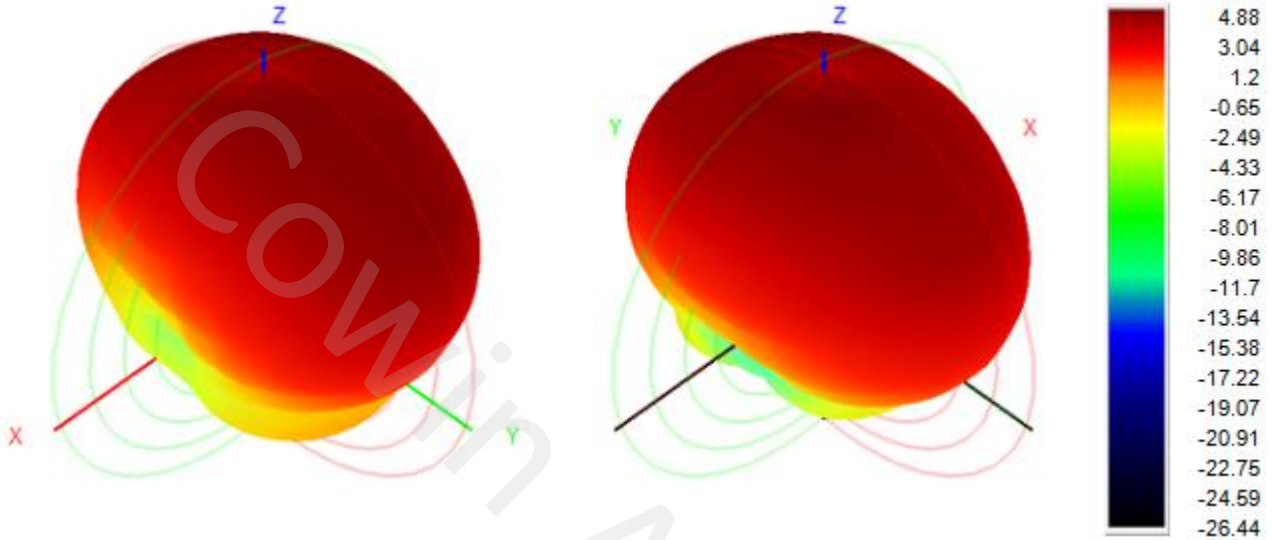


3000.0MHz Total(E2-YZ), Max= 5.00dBi

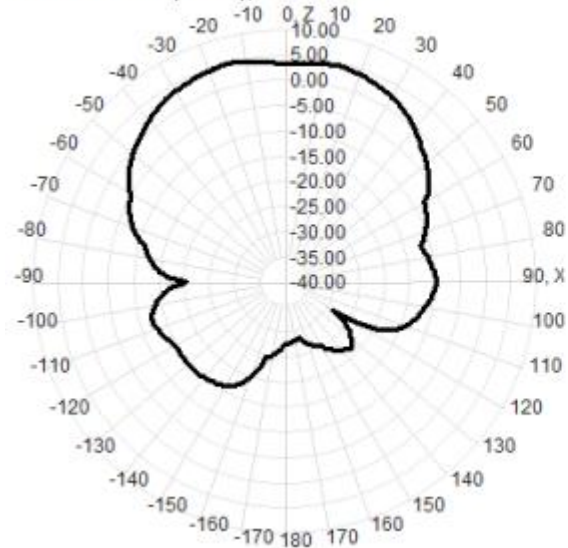


4000.0MHz Total, Eff: 62.3%

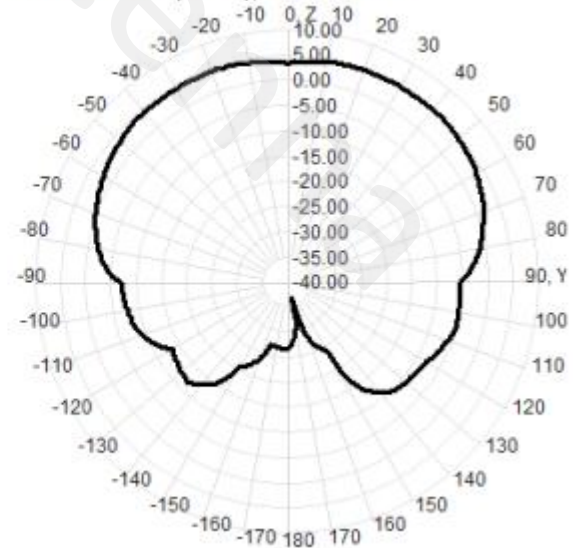
Back View



4000.0MHz Total(E1-XZ), Max= 4.76dBi

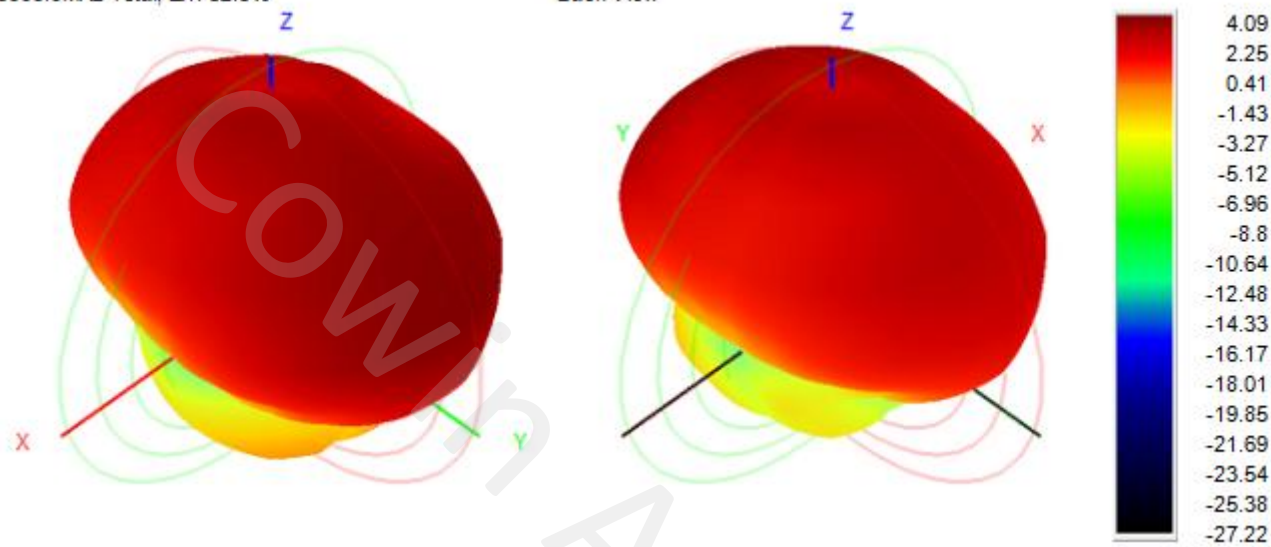


4000.0MHz Total(E2-YZ), Max= 4.74dBi

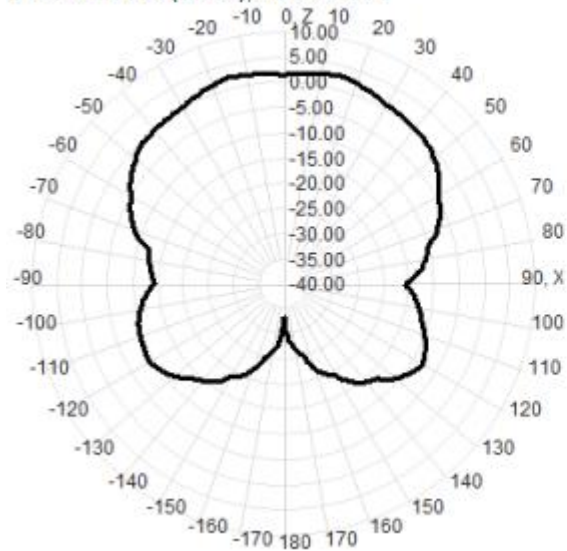


5000.0MHz Total, Eff: 52.5%

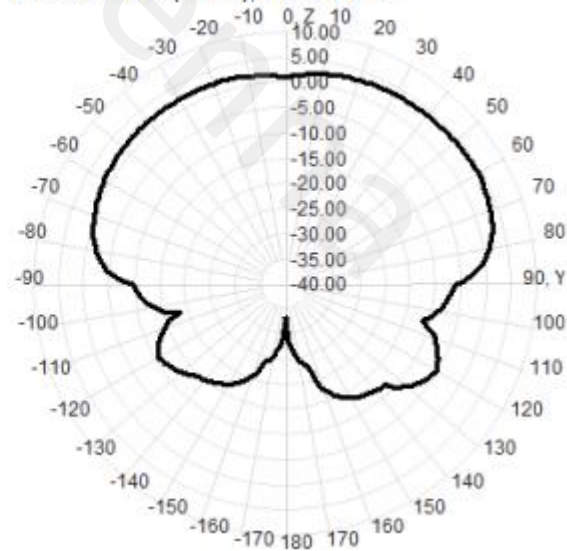
Back View



5000.0MHz Total(E1-XZ), Max= 2.75dBi

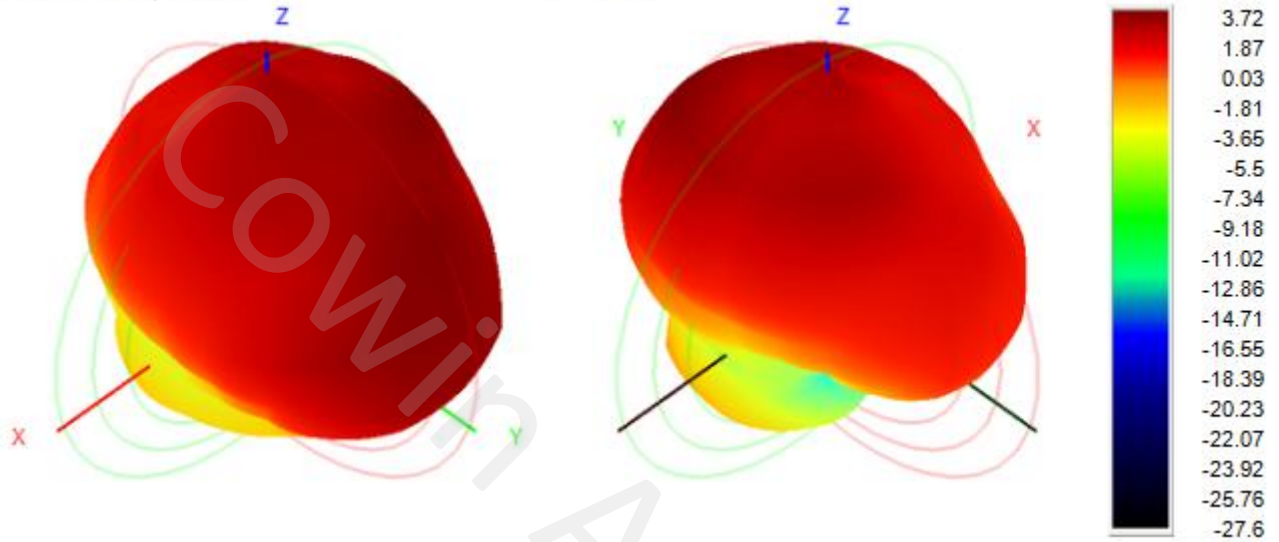


5000.0MHz Total(E2-YZ), Max= 4.09dBi

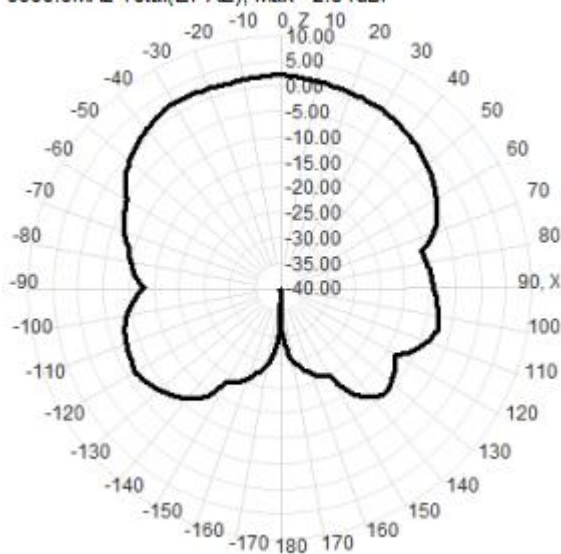


6000.0MHz Total, Eff: 48.6%

Back View



6000.0MHz Total(E1-XZ), Max= 2.34dBi



6000.0MHz Total(E2-YZ), Max= 3.72dBi

