

# **Antena Test Report**

**Customer name: Greatwall**

**Project name: A2369/A2470/A2770**

**Part description: WIFI Antenna, Dual Band 2.4/5.8G Built-in Iron Sheet - Black 1.37 Wires - 4th Generation Terminals - L=500mm**

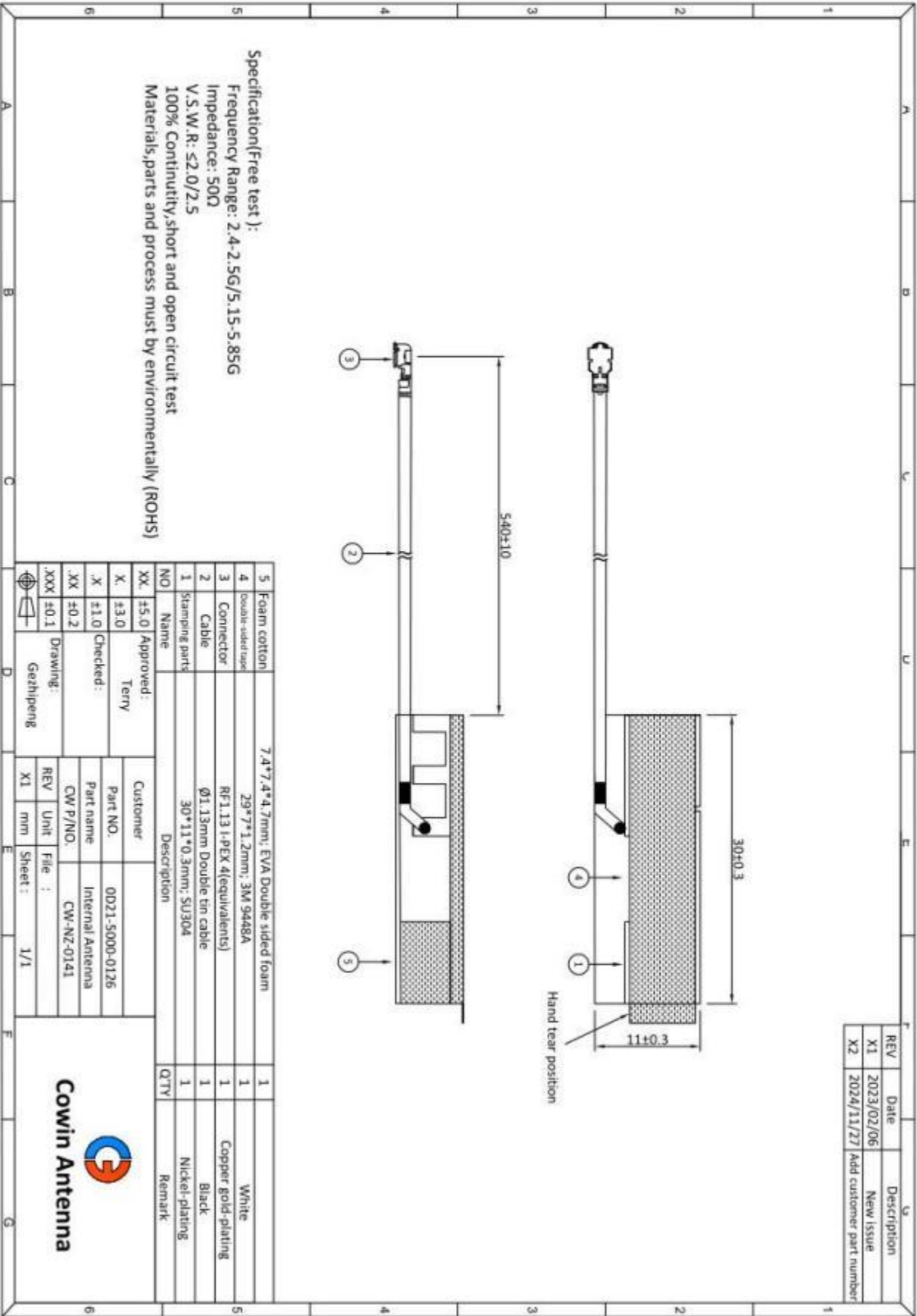
**Supplier: Suzhou Cowin Antenna Electronics Co., Ltd.**

**ADD:No. 156, Gangpu Middle Road, Zhangpu Town, Kunshan City,  
Jiangsu Province**

**TEL:0512-57382973**

**FAX:0512-57382973**

**EMAIL:peter@cowin-antenna.com**

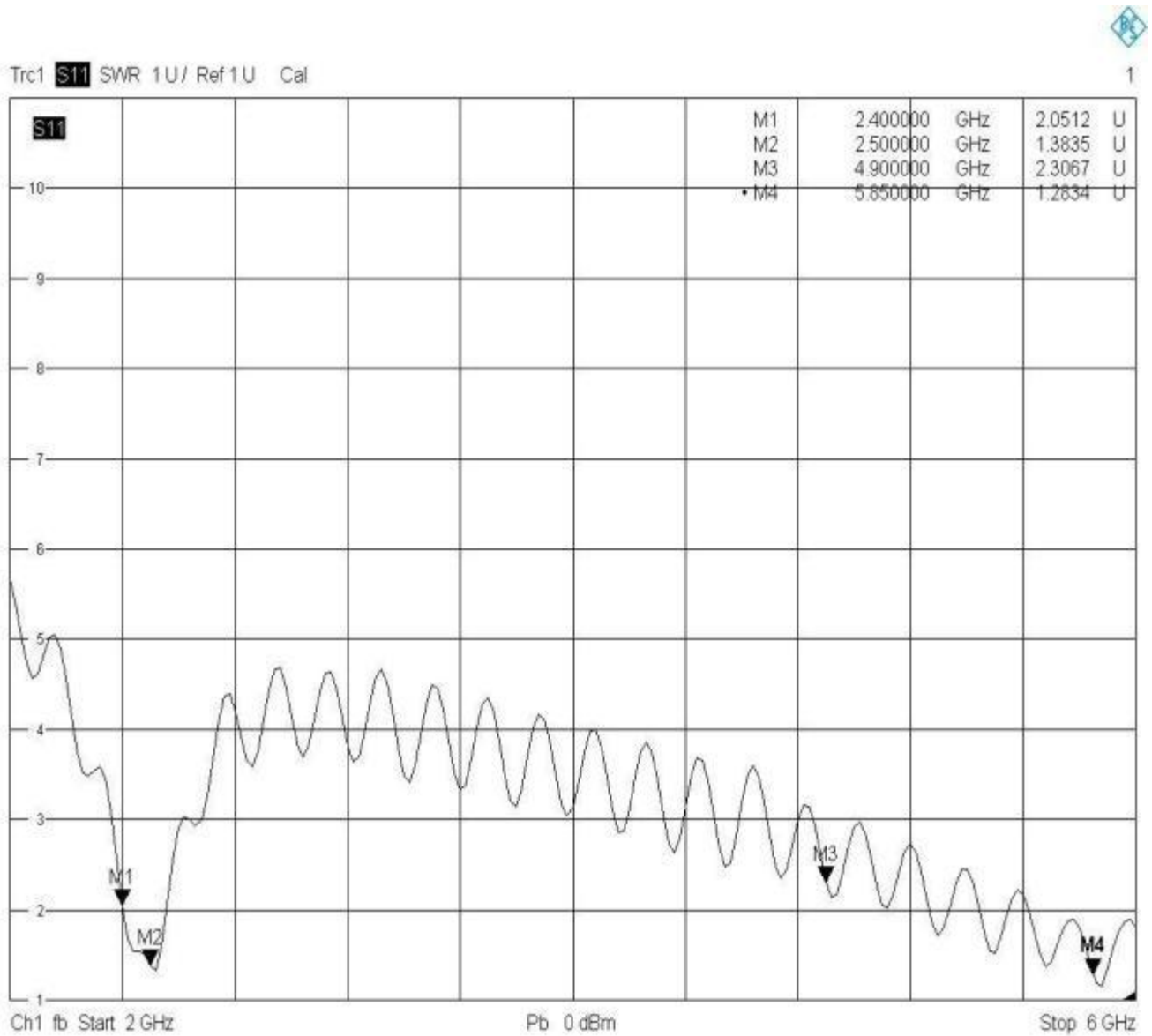


## 1. Performance parameter table

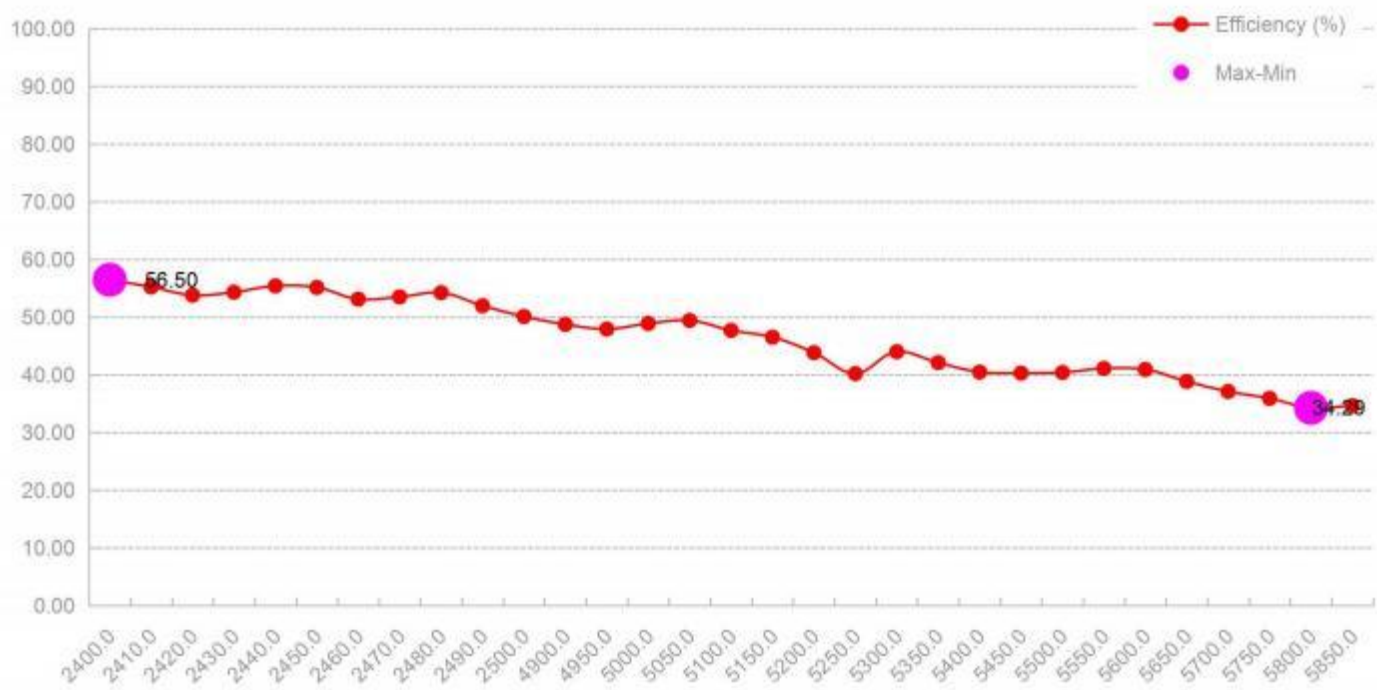
|                                                                                   |                       |
|-----------------------------------------------------------------------------------|-----------------------|
| Sample photo                                                                      |                       |
|  |                       |
| A.Electrical Characteristics                                                      |                       |
| Frequency                                                                         | 2.4-2.5G/5.15-5.85G   |
| V.S.W.R                                                                           | $\leq 2.0/2.5$        |
| Peak Gain                                                                         | 1.99/3.52 dBi         |
| Impedance                                                                         | 50 Ohm                |
| Radiation                                                                         | 全向 (Omni-directional) |
| Polarization                                                                      | 线极化 (Linear)          |
| Admitted Power                                                                    | <10W                  |
| B.Material & Mechanical Characteristics                                           |                       |
| Internal structure                                                                | SU304                 |
| External structure                                                                | N/A                   |
| Cable Type                                                                        | RF 1.13 Black         |
| Connector Type                                                                    | IPEX MHF4             |
| C.Environmental Characteristics)                                                  |                       |
| Operation Temperature                                                             | - 40 ℃ + 80 °C        |
| Storage Temperature                                                               | - 40 ℃ + 80 °C        |
| Antenna Storage life                                                              | 10 year               |

## 2. Electrical performance test

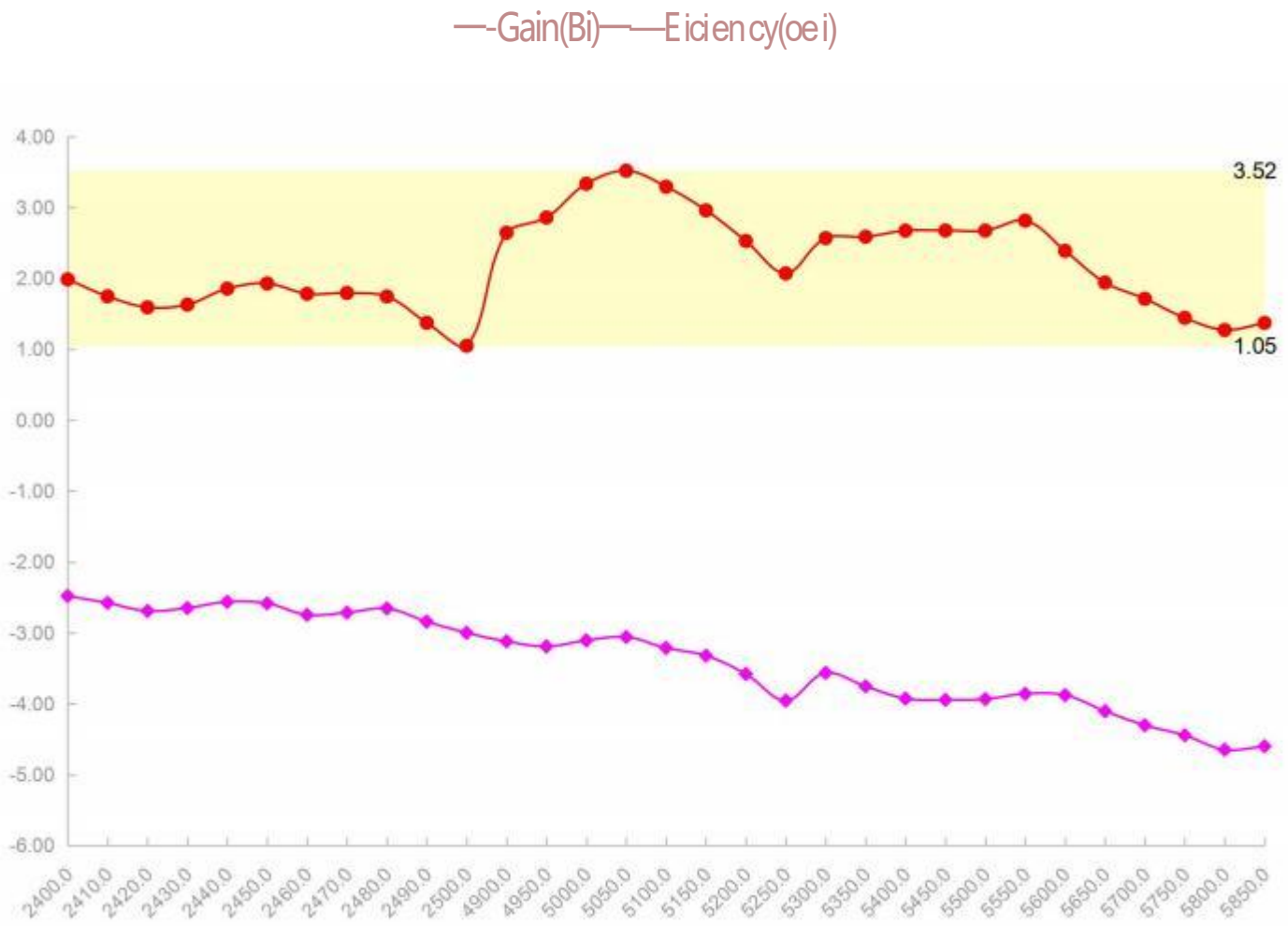
### 2.1 VSWR



2.2 Efficiency



2.3 Peak gain

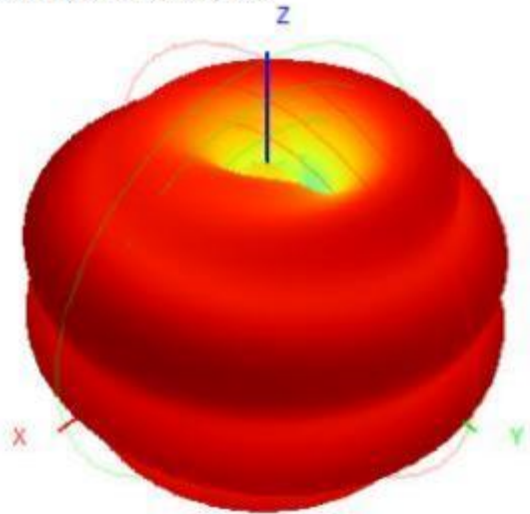


## 2.4 Data summary

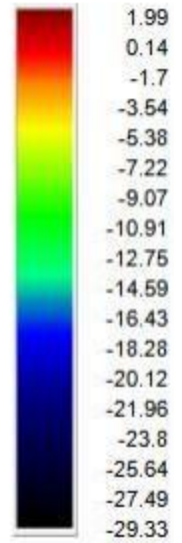
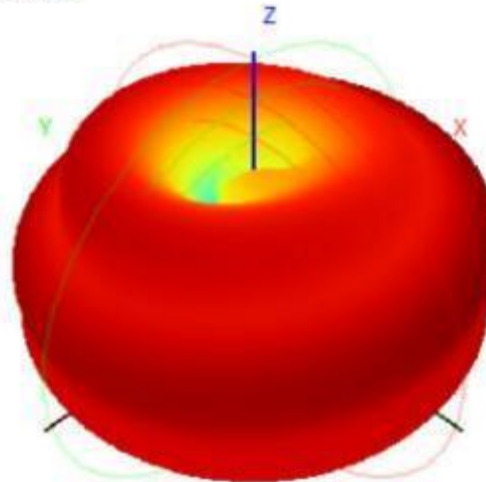
| Frequency (MHz) | Gain (dBi) | Efficiency (%) |
|-----------------|------------|----------------|
| 2400.0          | 1.99       | 56.50          |
| 2410.0          | 1.75       | 55.25          |
| 2420.0          | 1.59       | 53.82          |
| 2430.0          | 1.63       | 54.34          |
| 2440.0          | 1.86       | 55.44          |
| 2450.0          | 1.93       | 55.16          |
| 2460.0          | 1.78       | 53.14          |
| 2470.0          | 1.79       | 53.52          |
| 2480.0          | 1.75       | 54.26          |
| 2490.0          | 1.37       | 51.99          |
| 2500.0          | 1.05       | 50.13          |
| 4900.0          | 2.64       | 48.76          |
| 4950.0          | 2.86       | 47.96          |
| 5000.0          | 3.33       | 48.91          |
| 5050.0          | 3.52       | 49.45          |
| 5100.0          | 3.29       | 47.73          |
| 5150.0          | 2.96       | 46.55          |
| 5200.0          | 2.53       | 43.85          |
| 5250.0          | 2.07       | 40.22          |
| 5300.0          | 2.57       | 44.02          |
| 5350.0          | 2.59       | 42.13          |
| 5400.0          | 2.67       | 40.49          |
| 5450.0          | 2.68       | 40.32          |
| 5500.0          | 2.67       | 40.42          |
| 5550.0          | 2.82       | 41.13          |
| 5600.0          | 2.39       | 40.95          |
| 5650.0          | 1.94       | 38.87          |
| 5700.0          | 1.71       | 37.13          |
| 5750.0          | 1.44       | 35.94          |
| 5800.0          | 1.27       | 34.29          |
| 5850.0          | 1.37       | 34.68          |

## 2.5 3D&2D Radiation Patterns

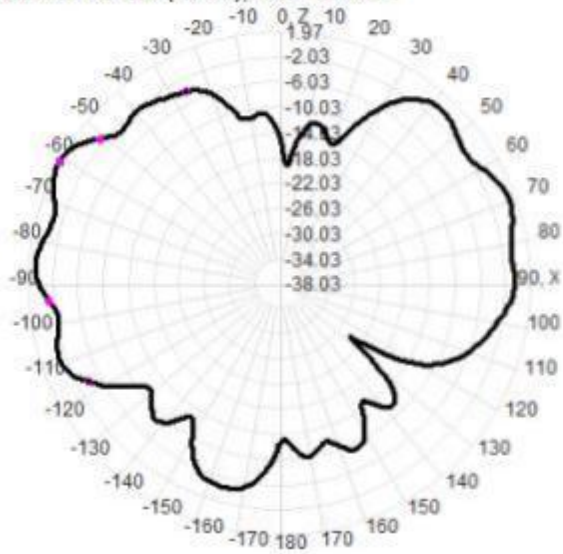
2400.0MHz H+V, Eff: 56.5%



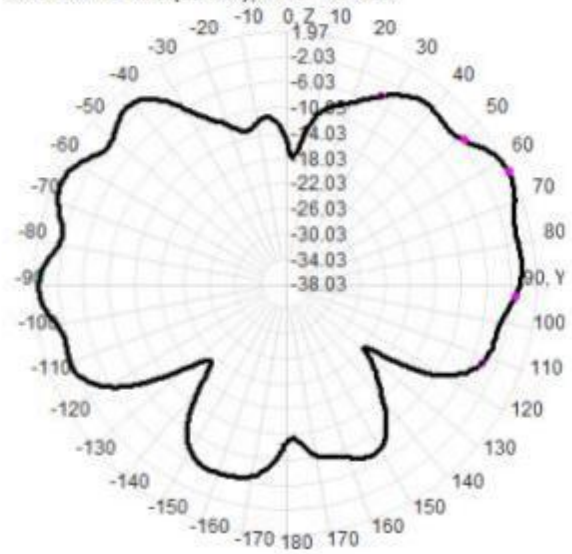
Back View



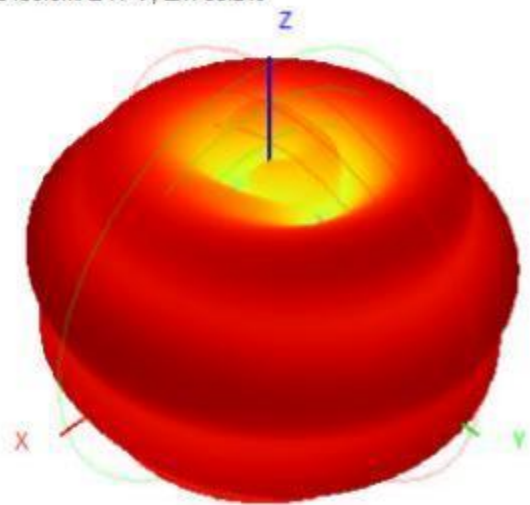
2400.0MHz Total(E1-XZ), Max= 1.97dBi



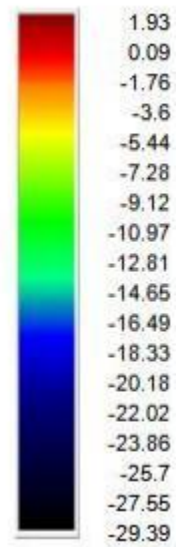
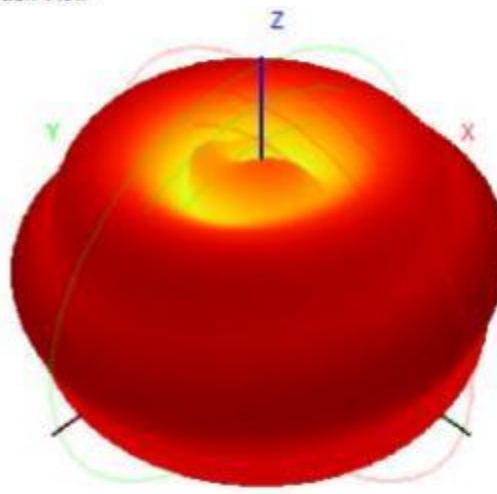
2400.0MHz Total(E2-YZ), Max= 1.54dBi



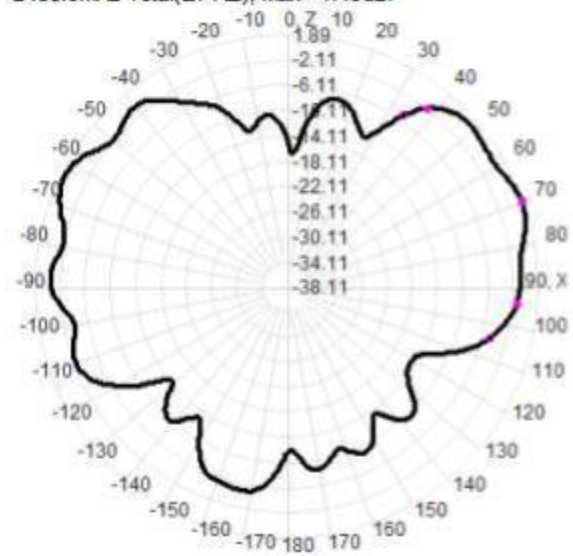
2450.0MHz H+V, Eff: 55.2%



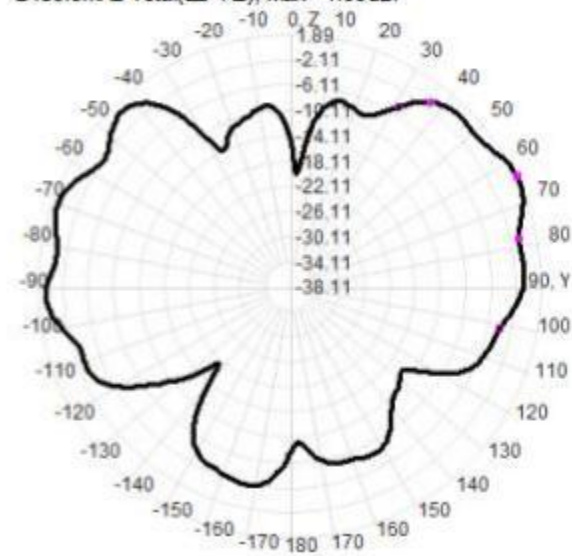
Back View



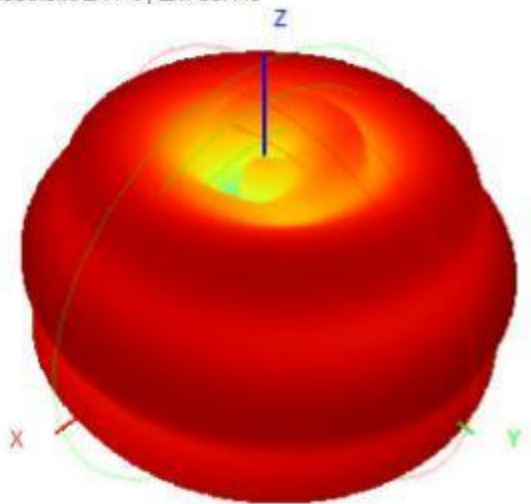
2450.0MHz Total(E1-XZ), Max= 1.40dBi



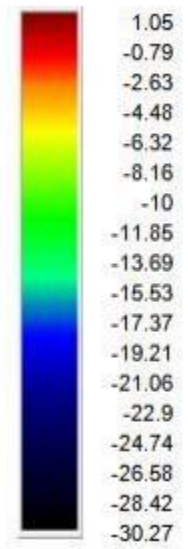
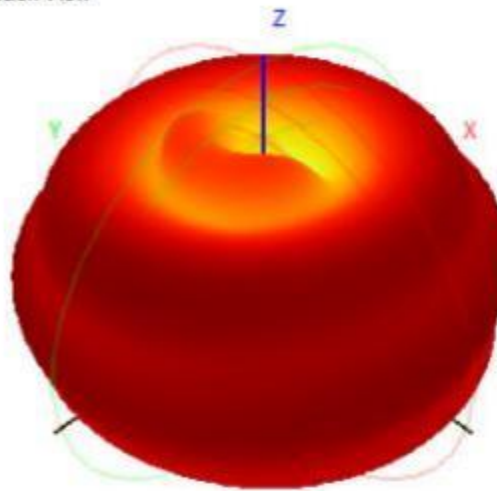
2450.0MHz Total(E2-YZ), Max= 1.89dBi



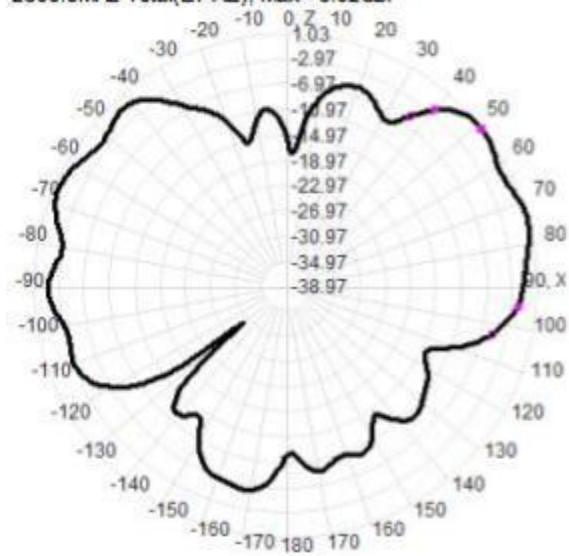
2500.0MHz H+V, Eff: 50.1%



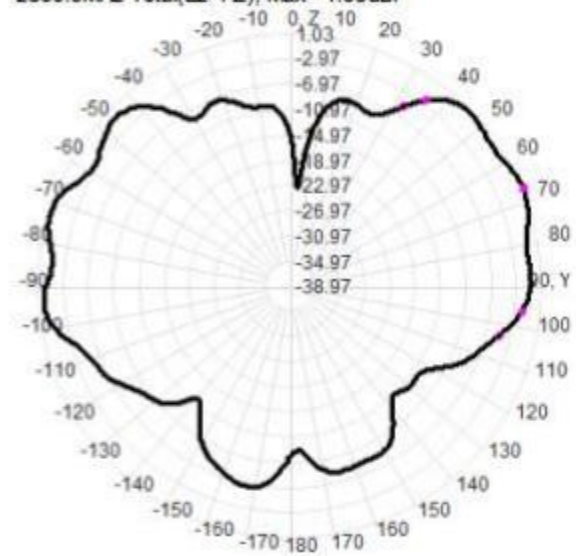
Back View



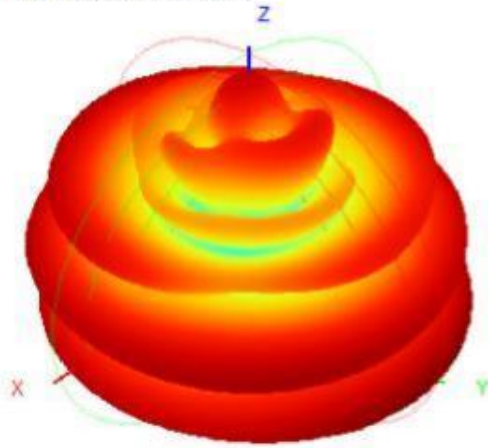
2500.0MHz Total(E1-XZ), Max= 0.82dBi



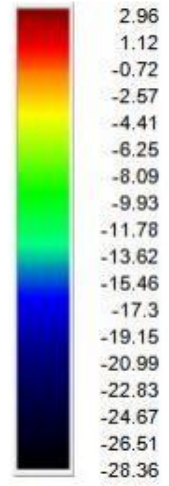
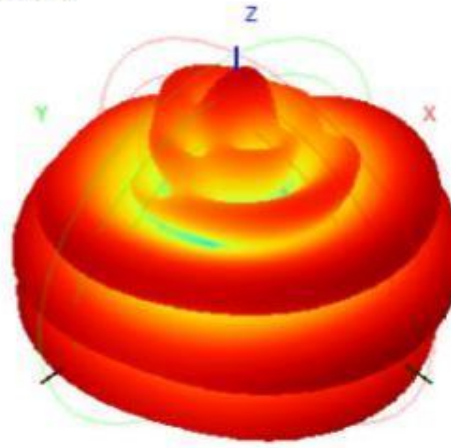
2500.0MHz Total(E2-YZ), Max= 1.03dBi



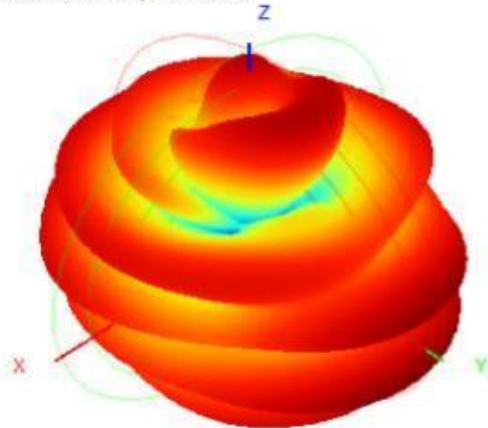
5150.0MHz H+V, Eff: 46.5%



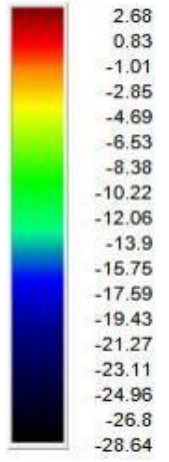
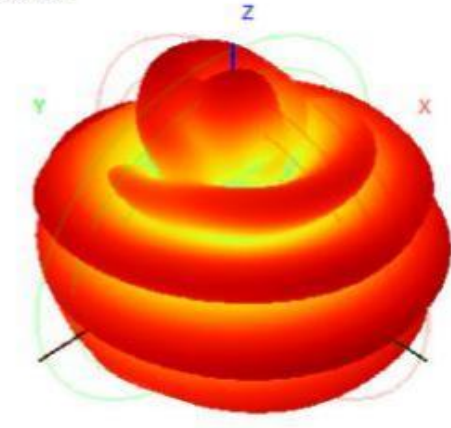
Back View



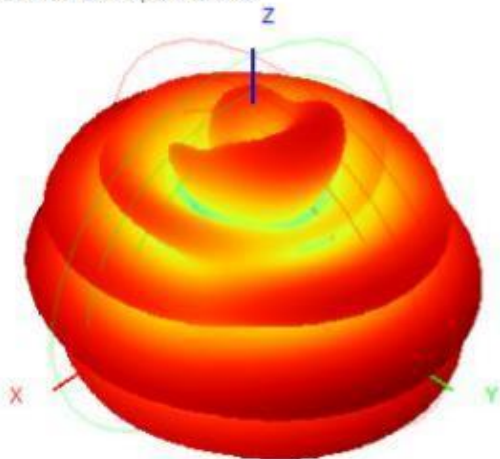
5450.0MHz H+V, Eff: 40.3%



Back View



5850.0MHz H+V, Eff: 34.7%



Back View

