

CW-WZ-0057

4G External Antenna

Key Features

Frequency: 824-960MHz/1710-2700MHz

SMA Male Connector

External Rubber

Dimensions 192*16 mm



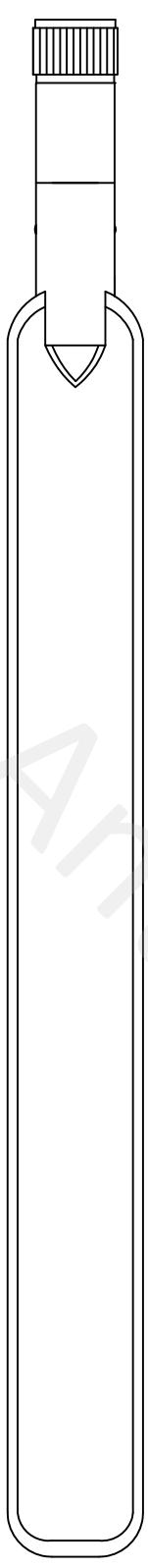
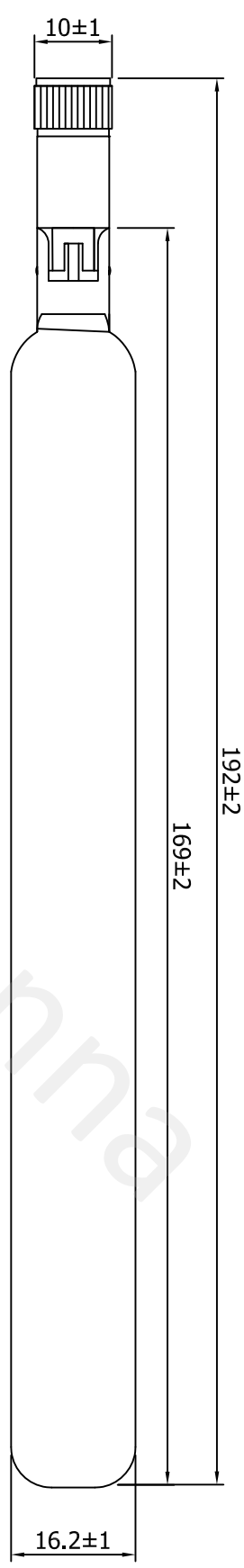
1. Antenna Electrical Characteristics

| | | |
|----------------------|------------|--------------|
| Band (MHz) | | |
| Frequency (MHz) | 824-960MHz | 1710-2700MHz |
| VSWR | 3:1 | 3:1 |
| Efficiency (%) | 71.19% | 62.79% |
| Peak Gain (dBi) | 2.62 | 3.16 |
| Impedance (Ohm) | | 50 |
| Polarisation | | Vertical |
| Max. Input Power (W) | | 10 |
| Connector Type | | SMA male |

2. Material and environmental characteristics

| | |
|----------------------------|------------|
| Material of PCB | FR4 |
| Material of Plastic | PC+PBT/ABS |
| Cable Type | RG178 |
| Connector Type | SMA male |
| Dimensions (mm) | 192*16MM |
| 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 | 2021/08/12 | New Issue |



Specification(Free Test):
 Frequency Range: 824-960MHZ/1710-2700MHZ
 Impedance: 50Ω
 V.S.W.R: ≤3/3.5

| | | | | | | | | | |
|------|-------------------|--------------------------|------|-----------|------------------|--------|-----|--|--|
| 6 | Radome | Black ABS | 1 | | | | | | |
| 5 | Lower fixing seat | Black PC+PBT | 1 | | | | | | |
| 4 | Upper fixing seat | Black PC+PBT | 1 | | | | | | |
| 3 | PCB | FR4 | 1 | | | | | | |
| 2 | Cable | RG178 Single silver wire | 1 | | | | | | |
| 1 | Connector | Black SMA male | 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-0057 | | | | |
| .XXX | ±0.1 | Drawing | | REV | Unit | File | | | |
| | | | | X1 | m/m | Sheet: | 1/1 | | |



Cowin Antenna

4. Antenna test parameters

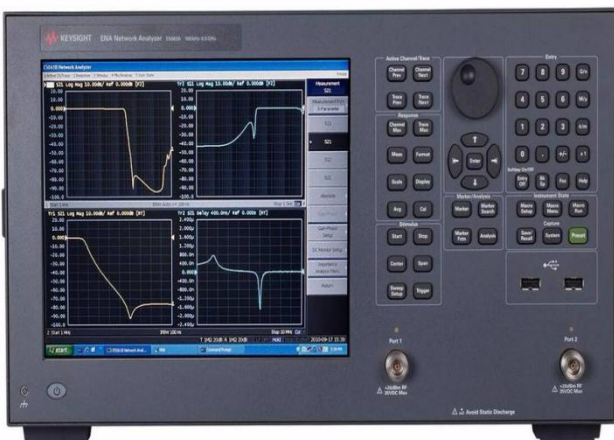
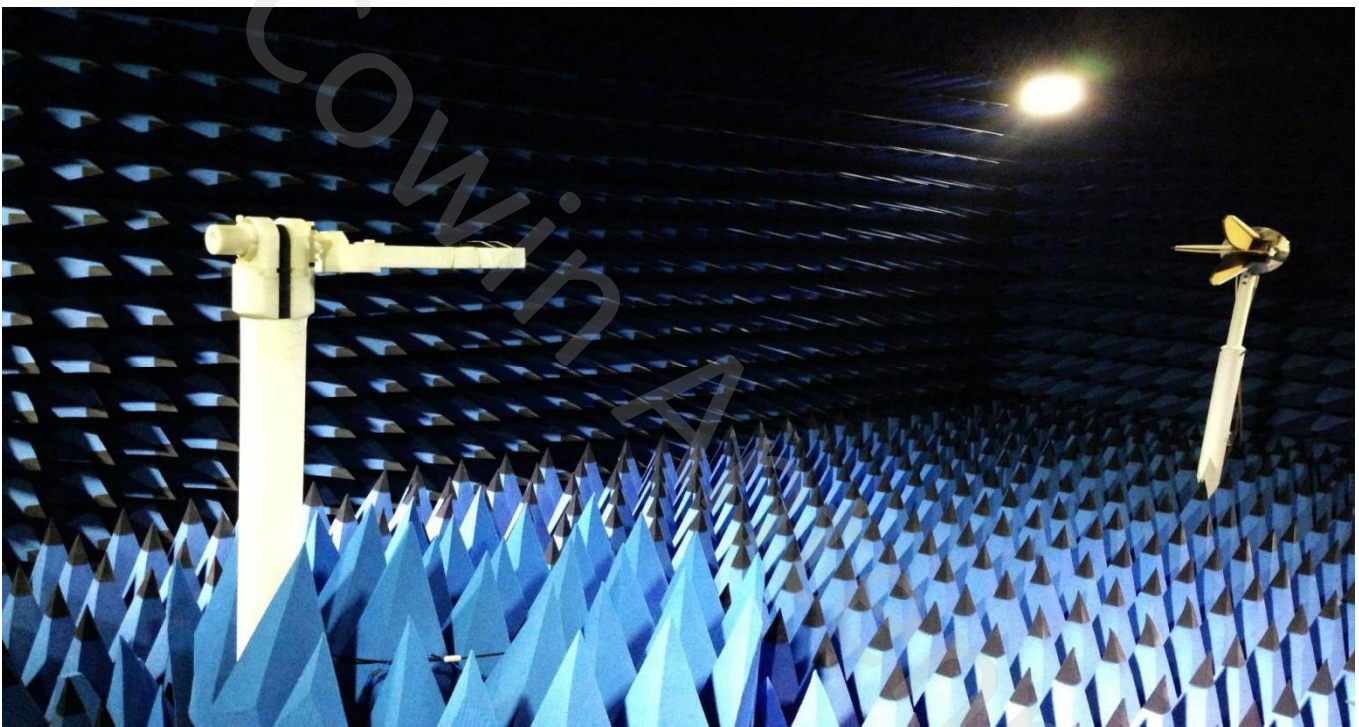
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

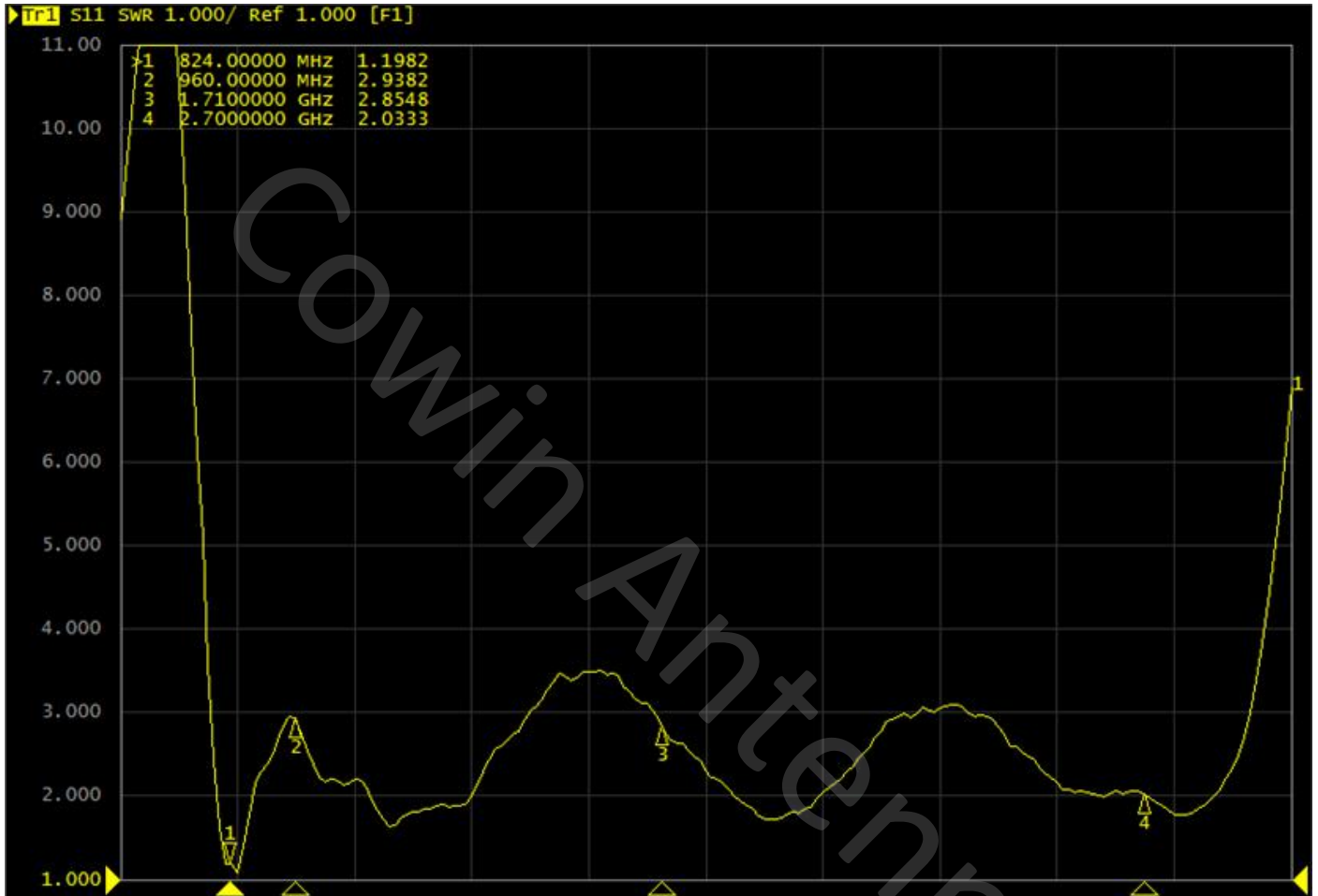
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

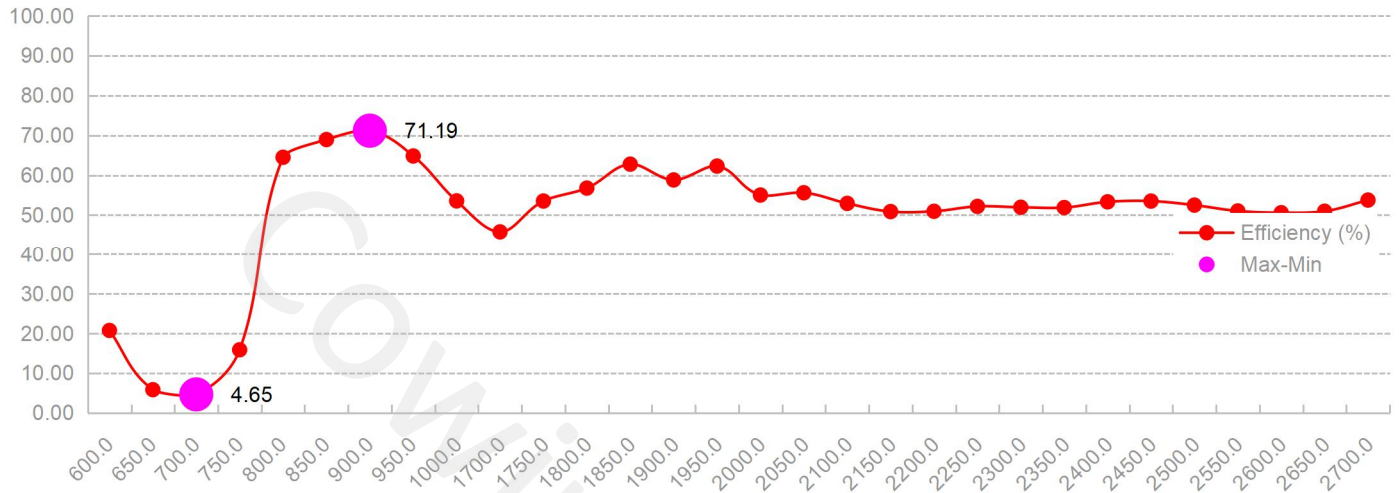
The comprehensive tester is Agilent cmv500



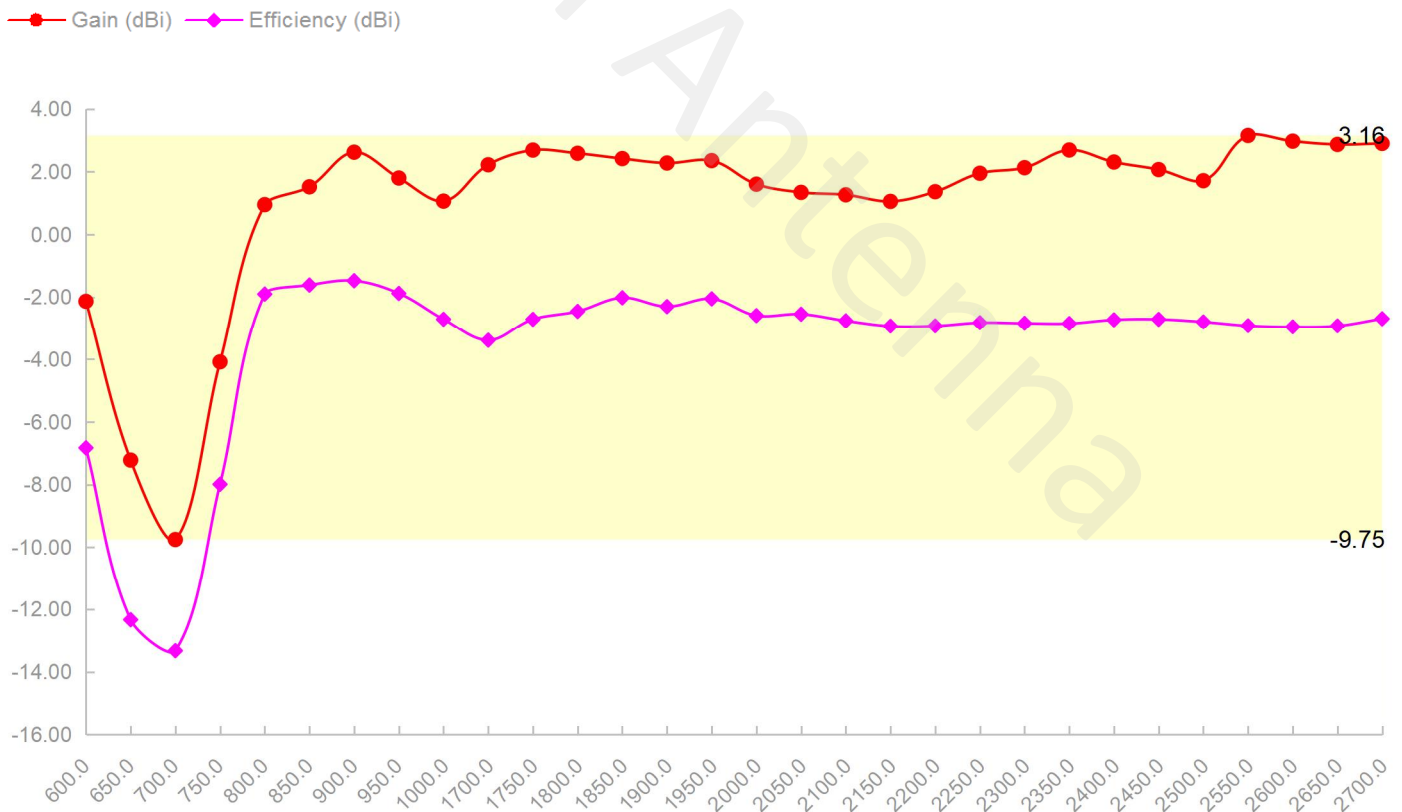
4.1 VSWR



4.2 Efficiency



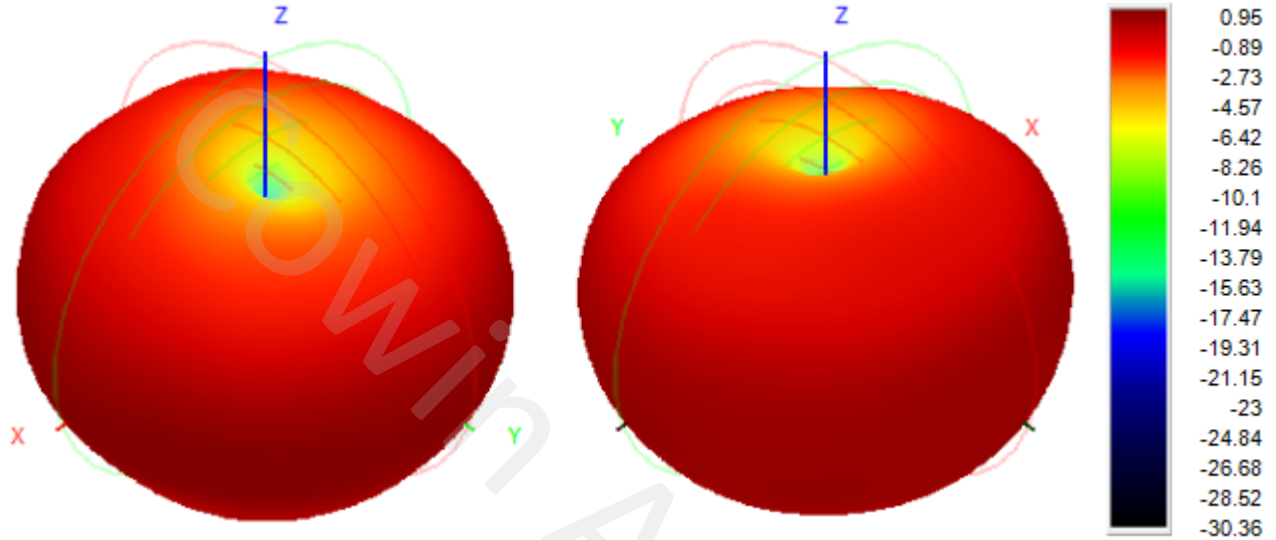
4.3 Peak gain



4.4 3D&2D Radiation Patterns

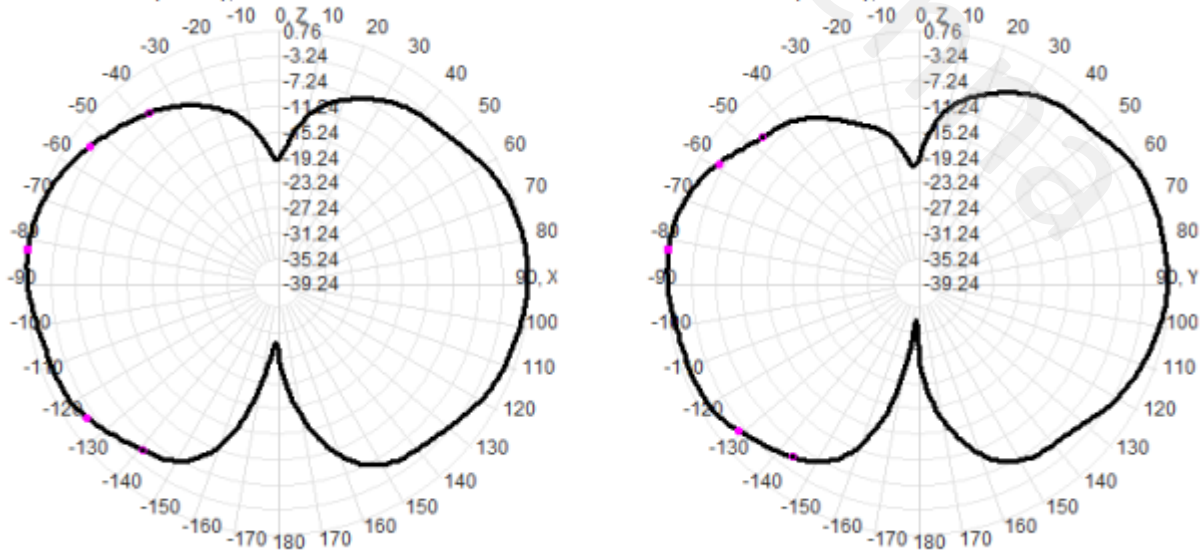
800.0MHz H+V, Eff: 64.5%

Back View



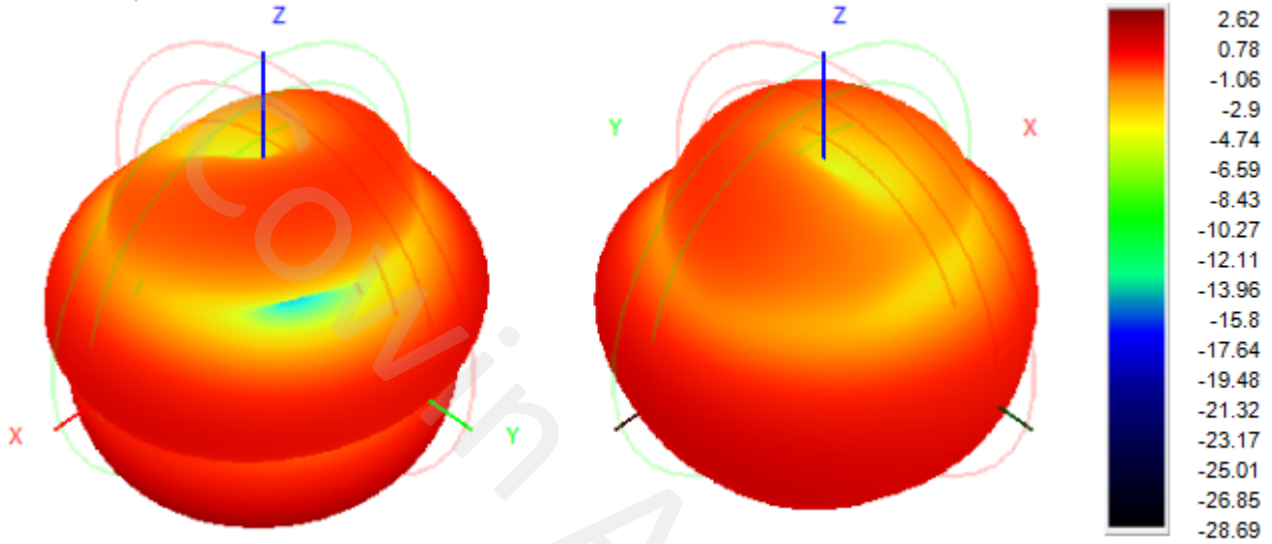
800.0MHz Total(E1-XZ), Max= 0.76dBi

800.0MHz Total(E2-YZ), Max= 0.72dBi



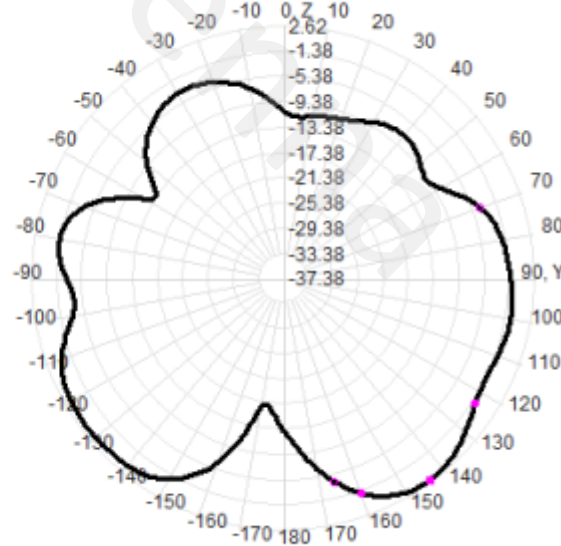
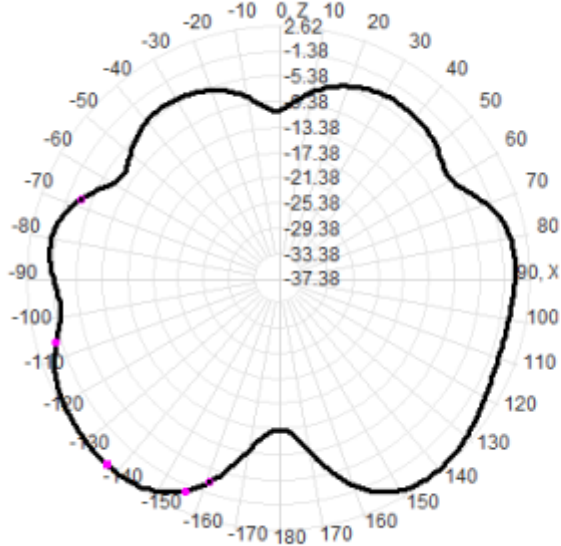
900.0MHz H+V, Eff: 71.2%

Back View

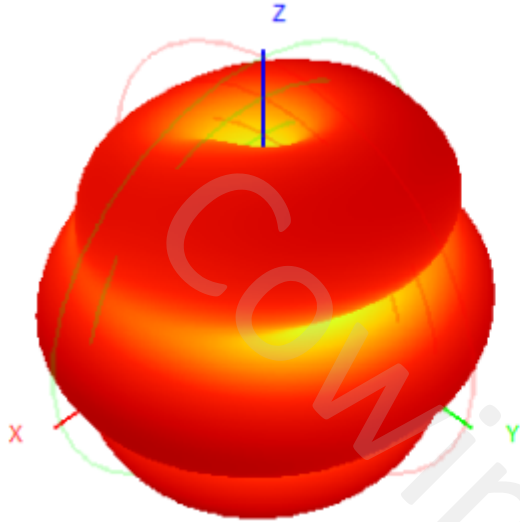


900.0MHz Total(E1-XZ), Max= 2.62dBi

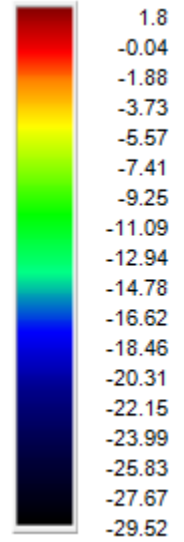
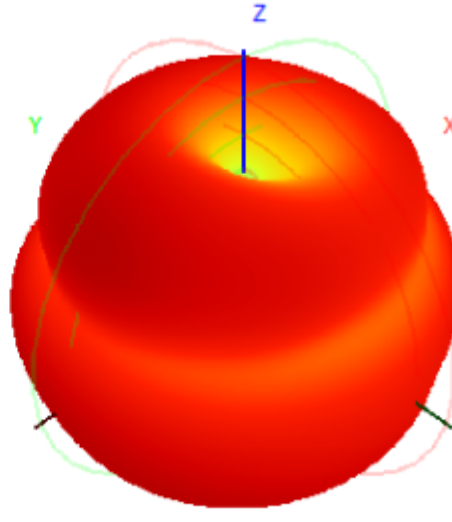
900.0MHz Total(E2-YZ), Max= 1.99dBi



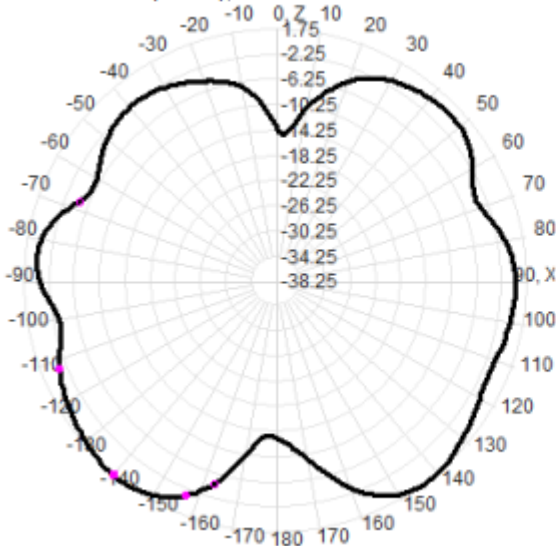
950.0MHz H+V, Eff: 64.8%



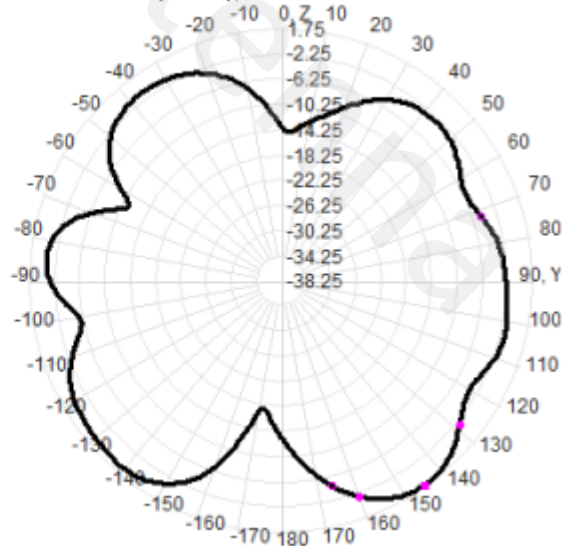
Back View



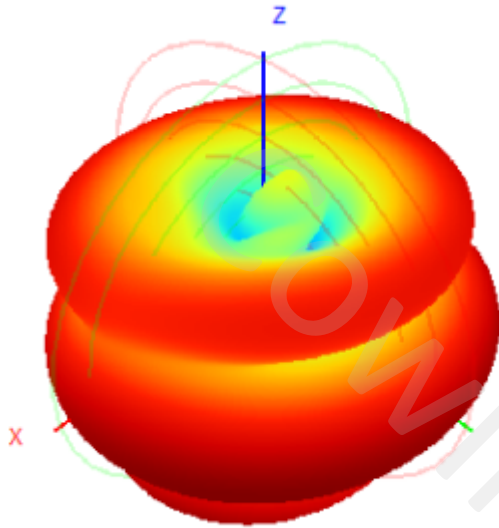
950.0MHz Total(E1-XZ), Max= 1.75dBi



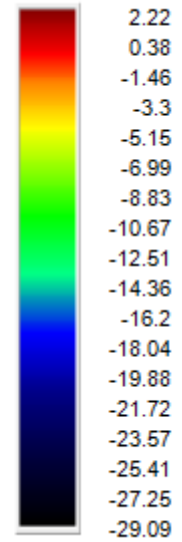
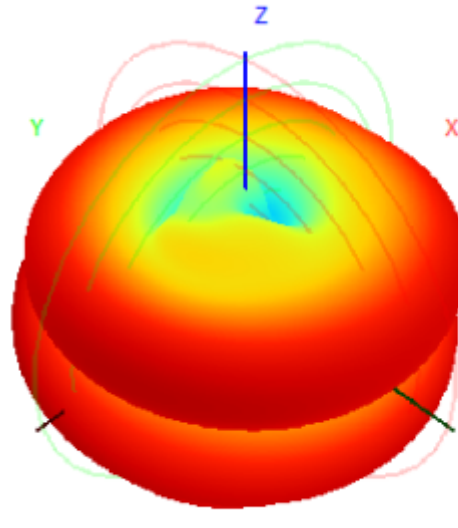
950.0MHz Total(E2-YZ), Max= 1.18dBi



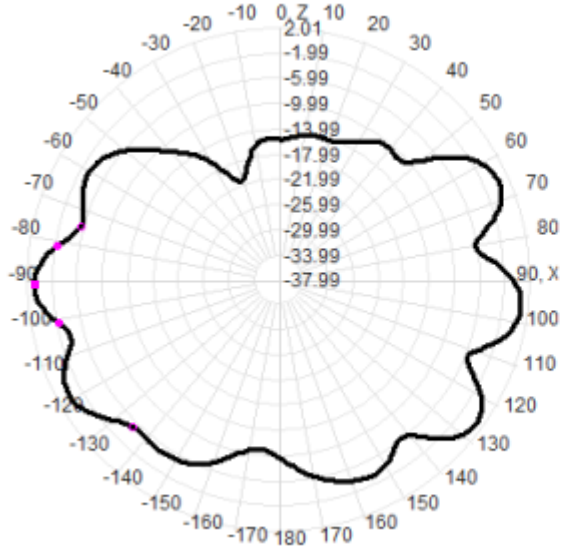
1700.0MHz H+V, Eff: 45.8%



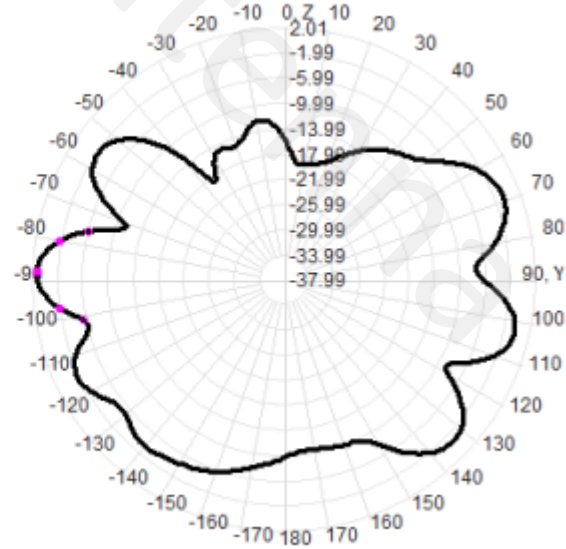
Back View



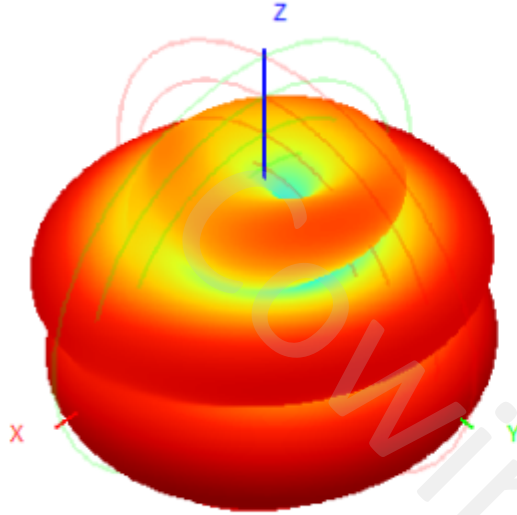
1700.0MHz Total(E1-XZ), Max= 0.78dBi



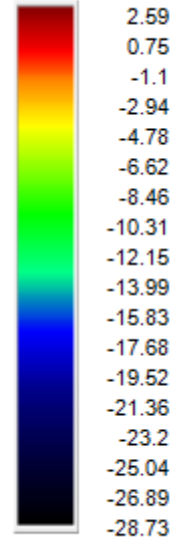
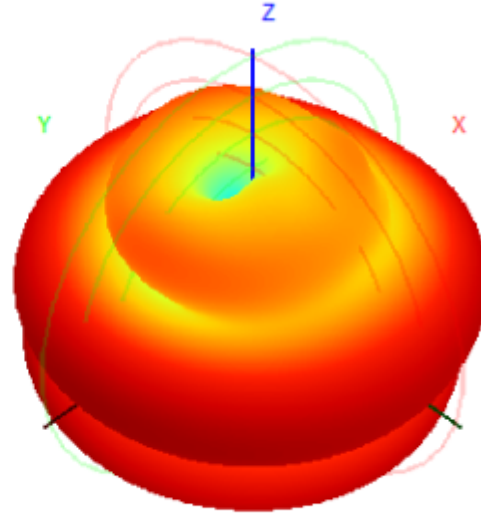
1700.0MHz Total(E2-YZ), Max= 1.25dBi



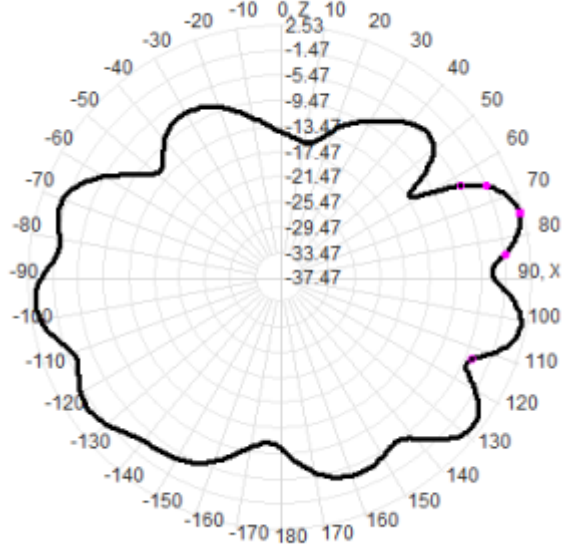
1800.0MHz H+V, Eff: 56.8%



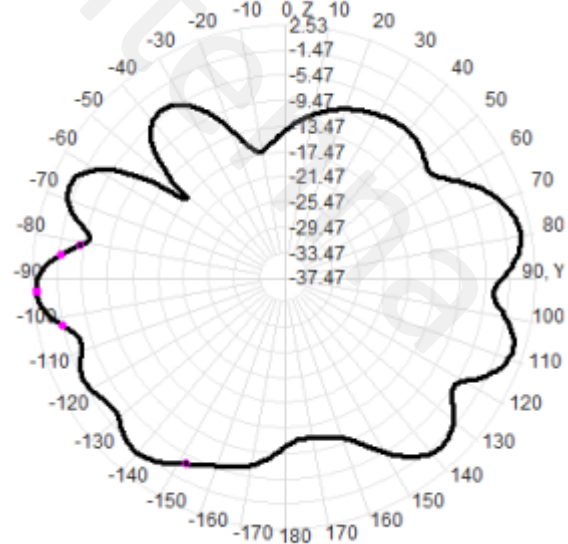
Back View



1800.0MHz Total(E1-XZ), Max= 1.73dBi

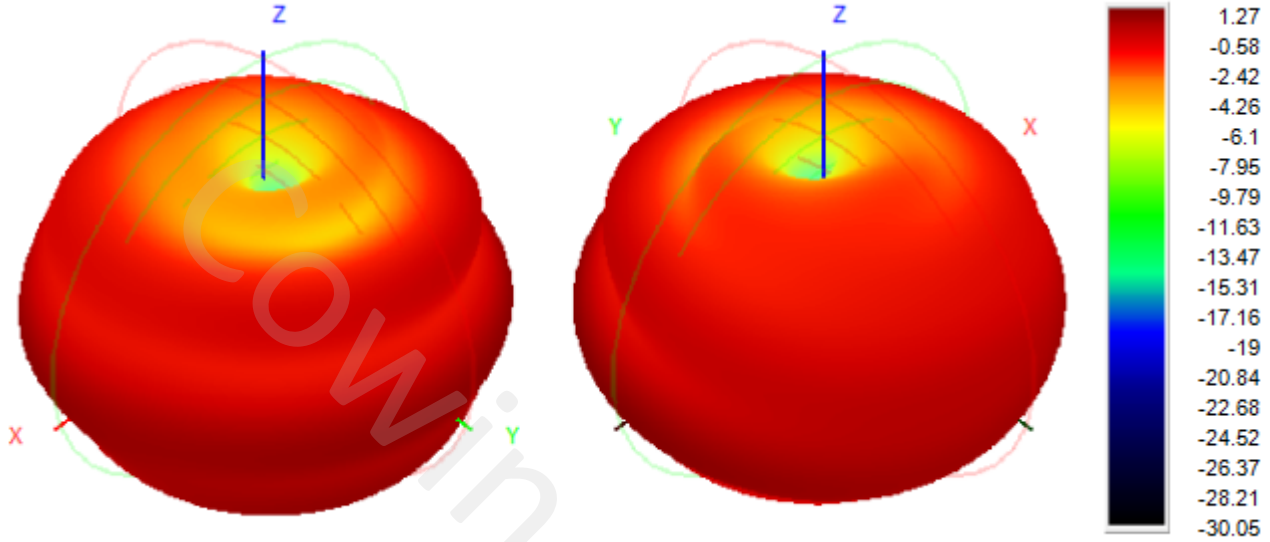


1800.0MHz Total(E2-YZ), Max= 1.87dBi



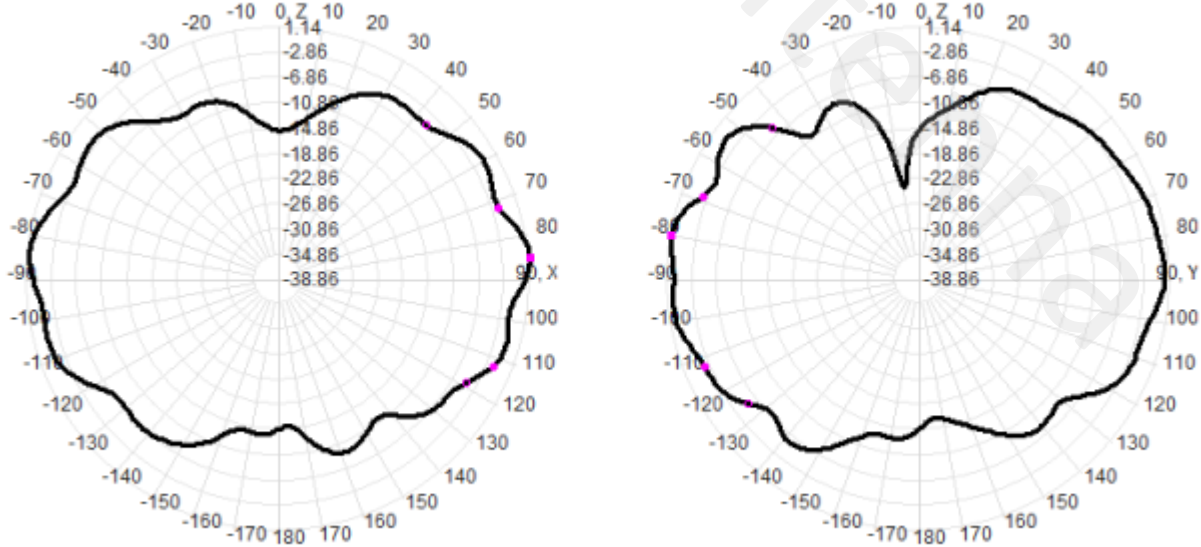
2100.0MHz H+V, Eff: 53.0%

Back View

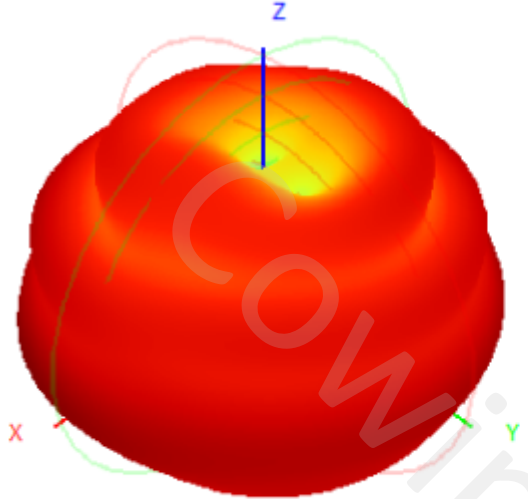


2100.0MHz Total(E1-XZ), Max= 1.14dBi

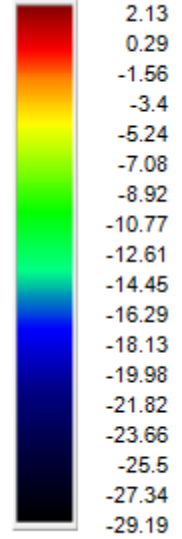
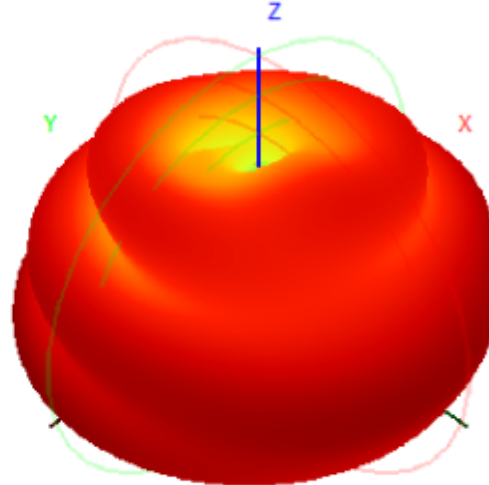
2100.0MHz Total(E2-YZ), Max= 0.81dBi



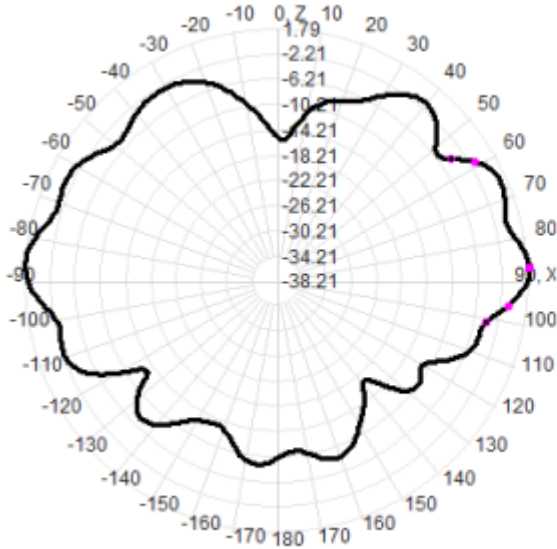
2300.0MHz H+V, Eff: 52.0%



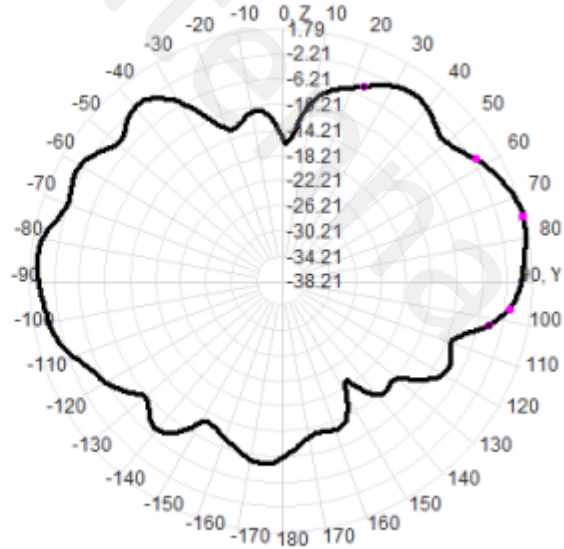
Back View



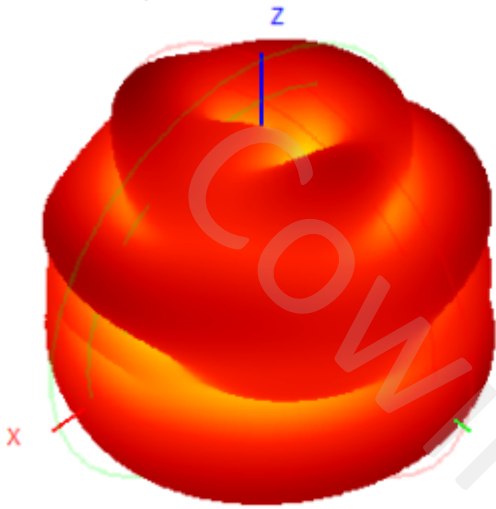
2300.0MHz Total(E1-XZ), Max= 1.79dBi



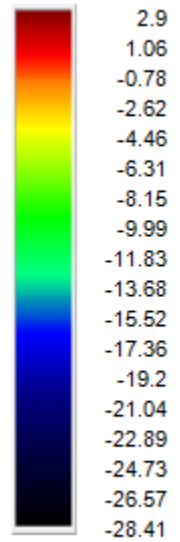
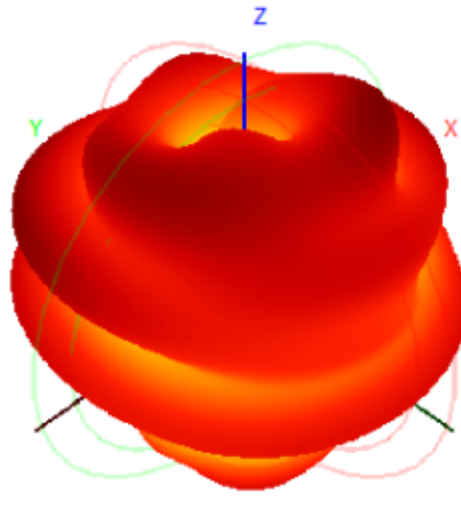
2300.0MHz Total(E2-YZ), Max= 1.37dBi



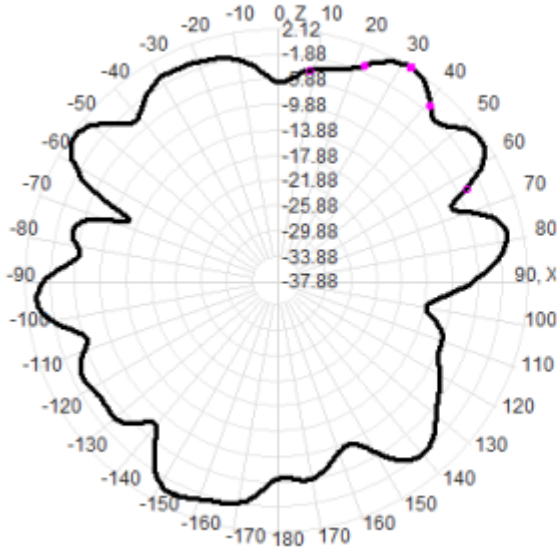
2700.0MHz H+V, Eff: 53.8%



Back View



2700.0MHz Total(E1-XZ), Max= 2.12dBi



2700.0MHz Total(E2-YZ), Max= 1.91dBi

