



# 深圳市烨盛通讯技术有限公司

shenzhenyeshengcommunicationTechnologyco.,Ltd.

## Test report

customer :

project Name:02

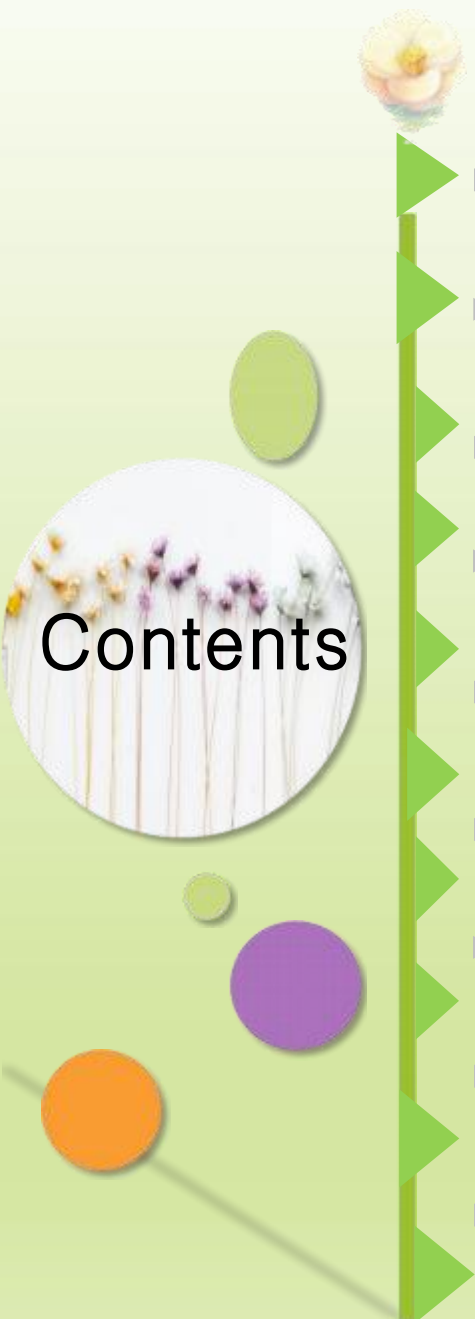
Mobile phone type: interactive mouse

Date: 2024-04-30

structure mode: PCB

Antenna type: Built-in antenna

Frequency Range : 2400MHZ-2500MHZ

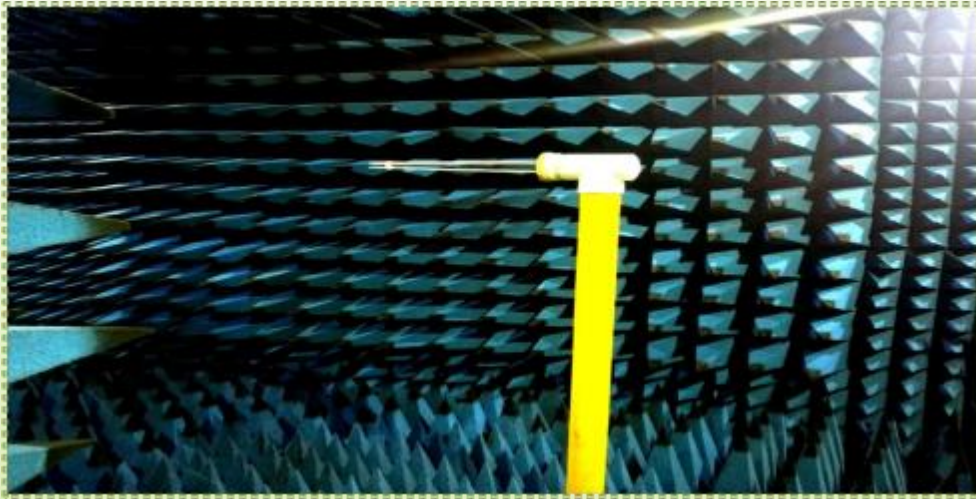


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- ▶ WSR
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- ▶ Direction map
- ▶ Antenna diagram
- ▶ Test environment
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## 1.0 Test equipment

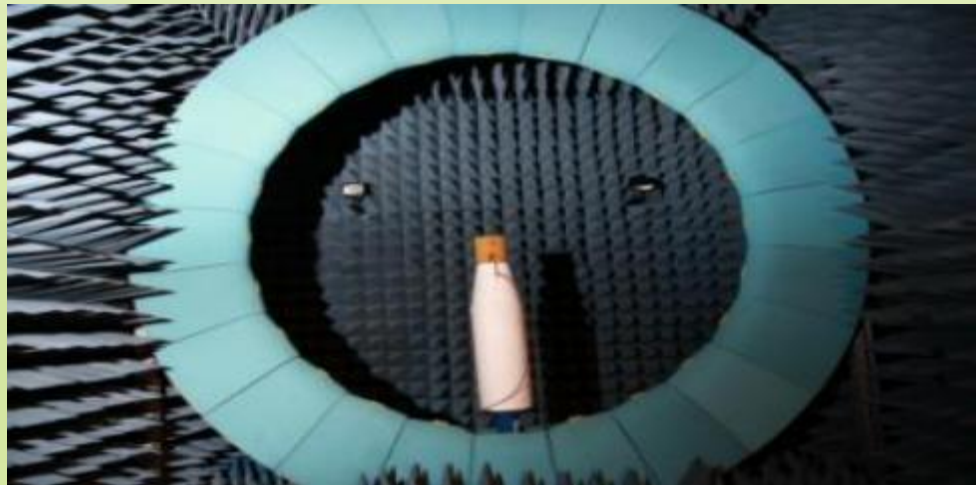
ETS

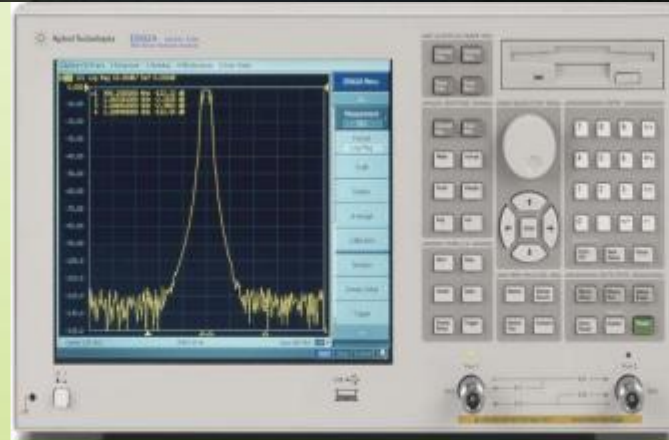


SATIMO--24



Rodesvac shielding box





Test the system

Active testing

Passive testing

SATIMO

In the tank2G/3G/4G

600MHZ-----6G

ETS

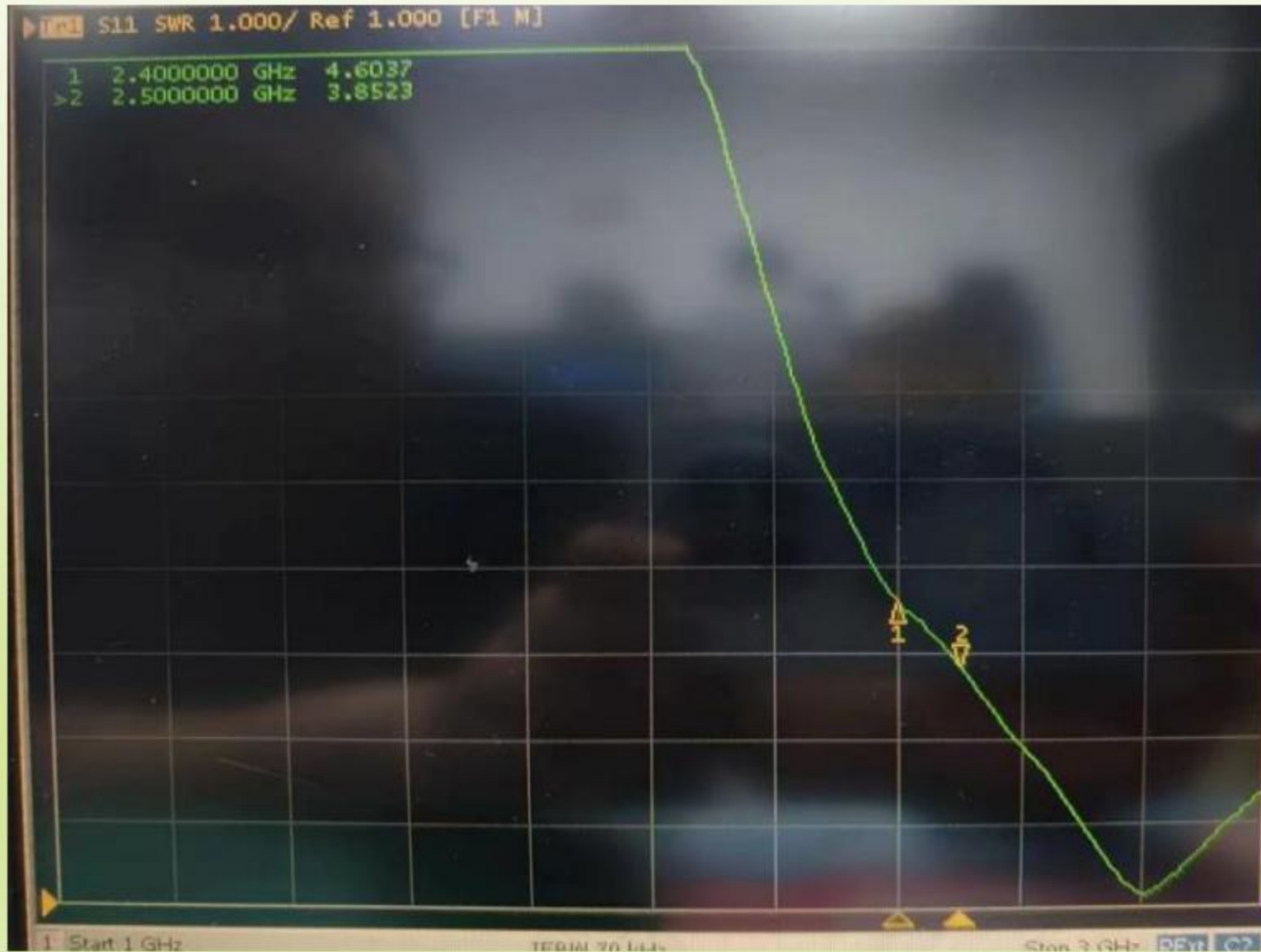
**2.0**

Exterior drawing



3.0

WSR

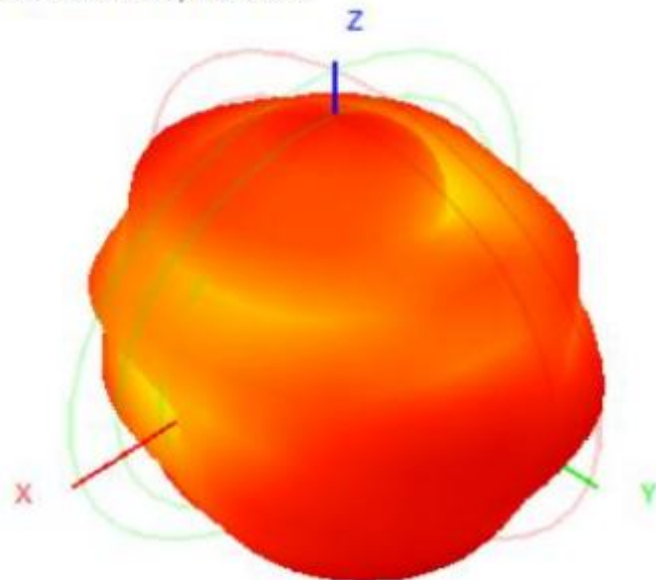


## 4.0 Gain efficiency

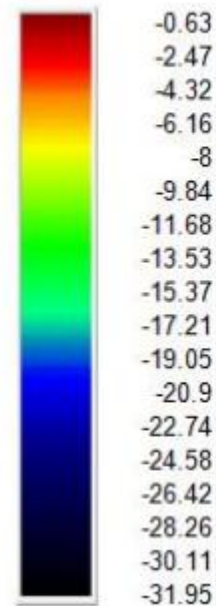
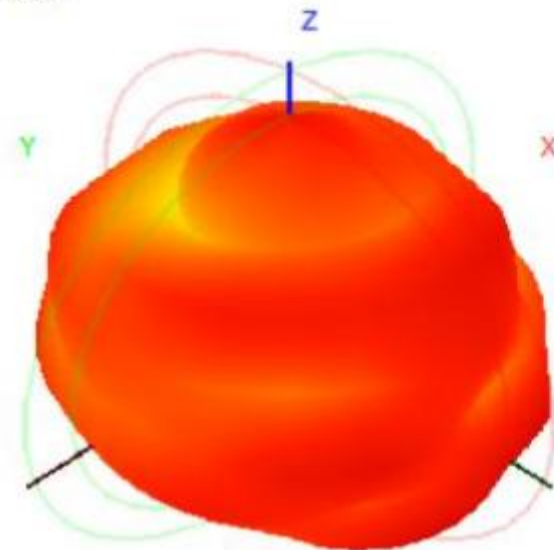
| Frequency ID               | 1      | 2      | 3      | 4      | 5      | 6      |
|----------------------------|--------|--------|--------|--------|--------|--------|
| Frequency (MHz)            | 2400.0 | 2420.0 | 2440.0 | 2460.0 | 2480.0 | 2500.0 |
| Efficiency (dBi)           | -6.32  | -6.49  | -6.63  | -6.12  | -5.97  | -5.90  |
| Gain (dBi)                 | -0.63  | -0.86  | -0.84  | -0.62  | -0.42  | -0.35  |
| Efficiency (%)             | 23.34  | 22.44  | 21.75  | 24.46  | 25.31  | 25.68  |
| Directivity (dB)           | 5.69   | 5.63   | 5.79   | 5.49   | 5.54   | 5.55   |
| Peak Gain Position (Theta) | 150.00 | 150.00 | 150.00 | 150.00 | 150.00 | 150.00 |
| Peak Gain Position (Phi)   | 330.00 | 330.00 | 315.00 | 315.00 | 315.00 | 315.00 |
| Efficiency ThetaPol (%)    | 9.53   | 8.86   | 9.07   | 9.90   | 10.13  | 10.21  |
| Efficiency PhiPol (%)      | 13.81  | 13.59  | 12.68  | 14.56  | 15.18  | 15.47  |
| Upper Hem. Efficiency (%)  | 8.84   | 8.83   | 8.77   | 10.03  | 10.80  | 11.18  |
| Lower Hem. Efficiency (%)  | 14.50  | 13.62  | 12.97  | 14.43  | 14.51  | 14.50  |

## Direction map

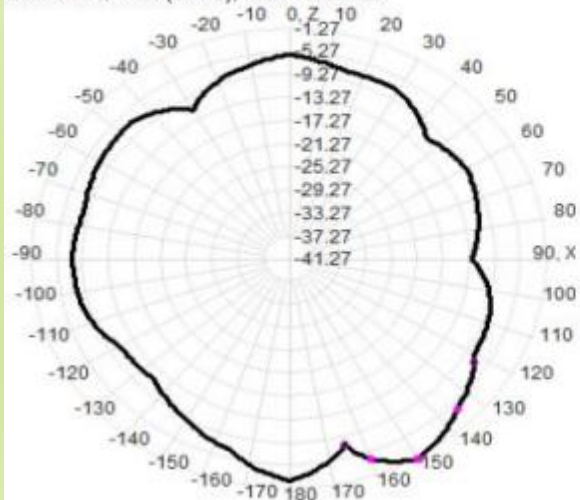
2400.0MHz H+V, Eff. 23.3%



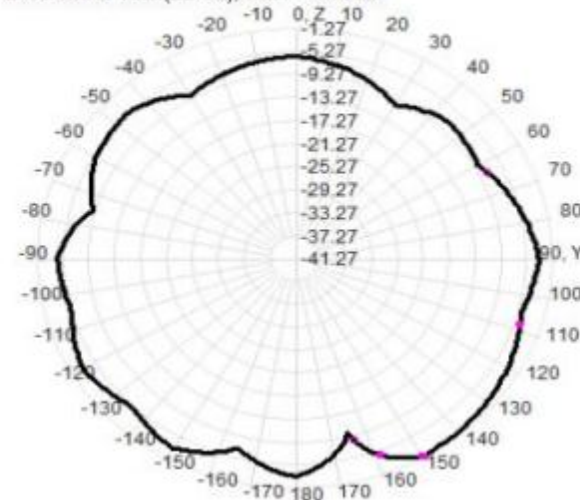
Back View



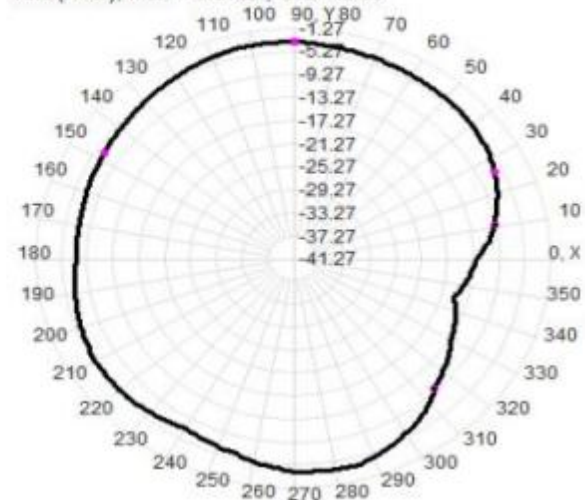
2400.0MHz Total(E1-XZ), Max= -1.27dBi



2400.0MHz Total(E2-YZ), Max= -1.79dBi

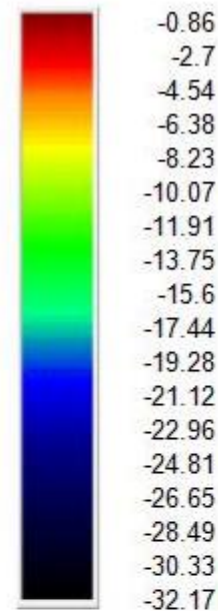
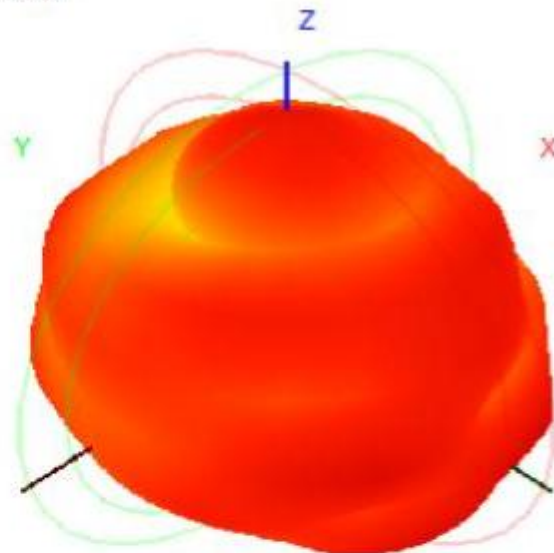
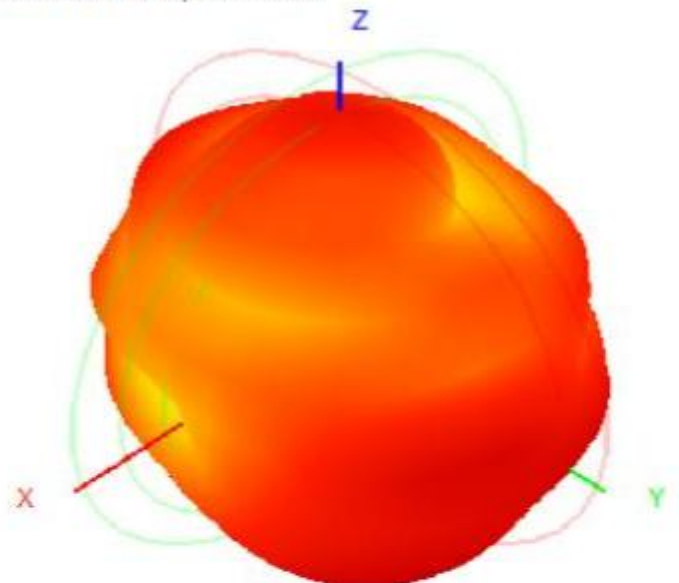


Total(H-XY), Max= -3.64dBi, CirD=12.03

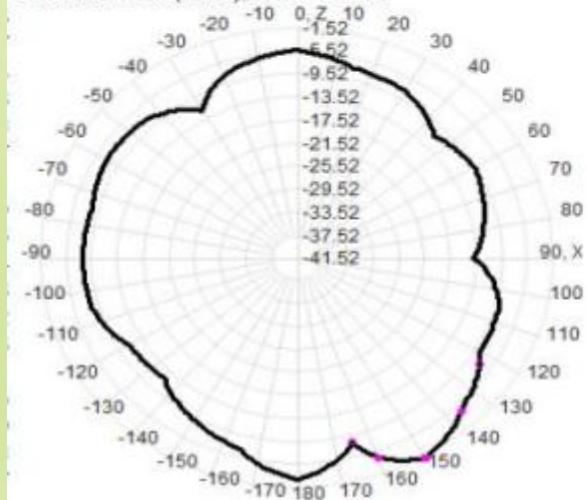


2420.0MHz H+V, Eff 22.4%

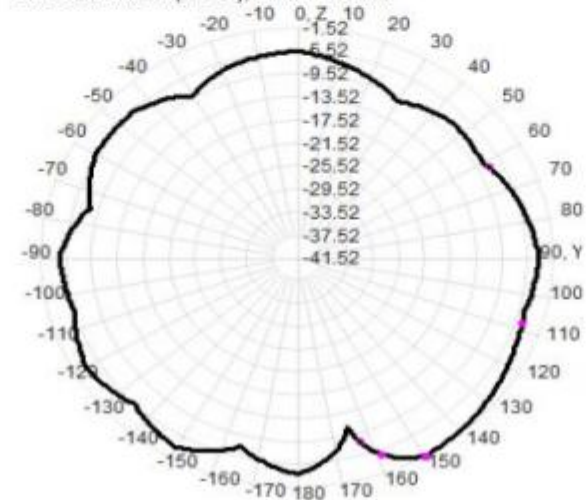
Back View



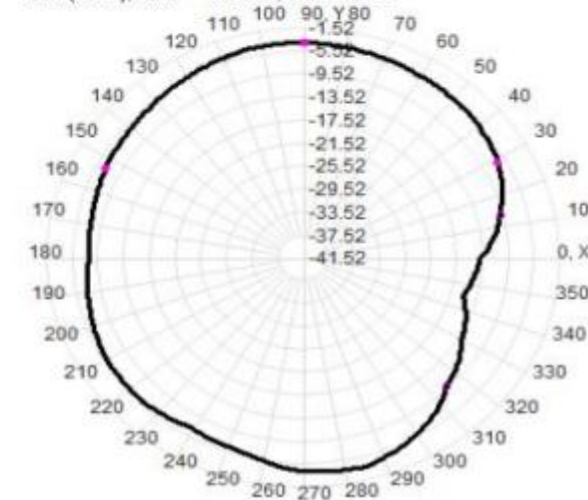
2420.0MHz Total(E1-XZ), Max= -1.52dBi



2420.0MHz Total(E2-YZ), Max= -1.82dBi

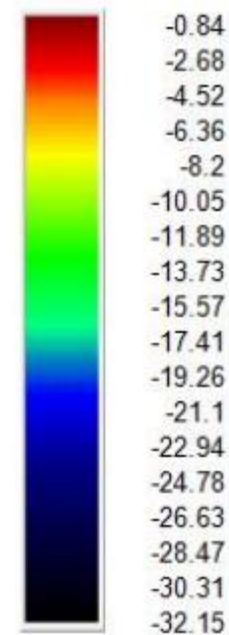
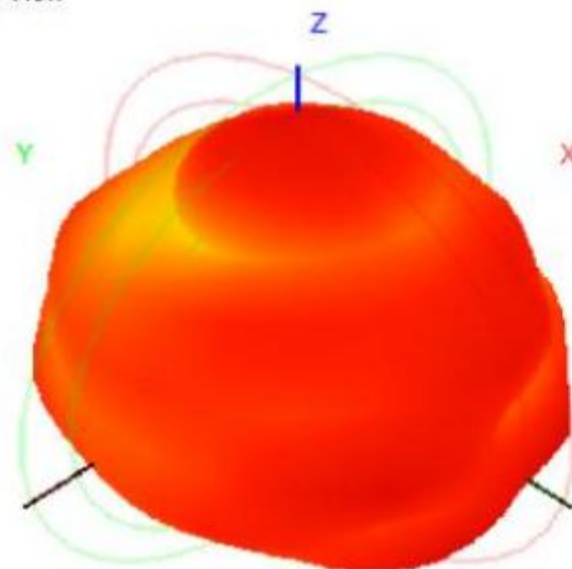
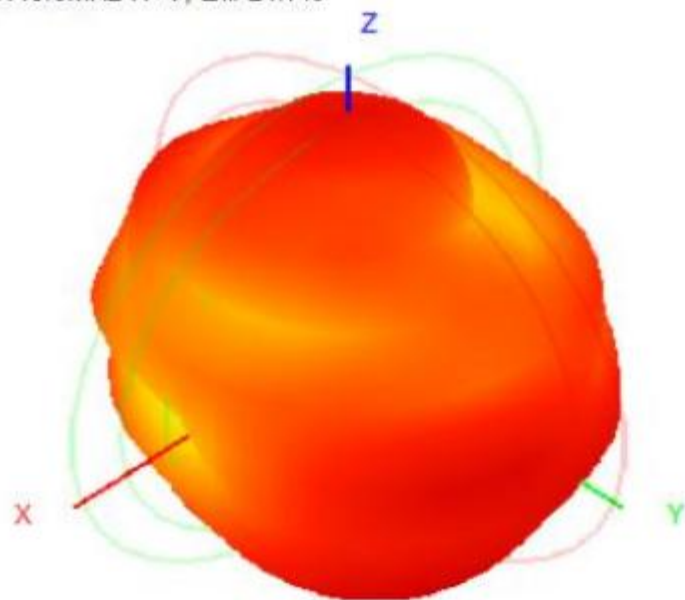


Total(H-XY), Max= -4.02dBi, CirD=11.88

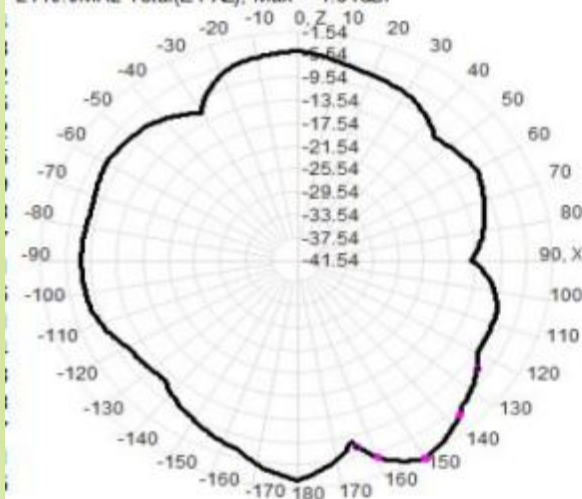


2440.0MHz H+V, Eff. 21.7%

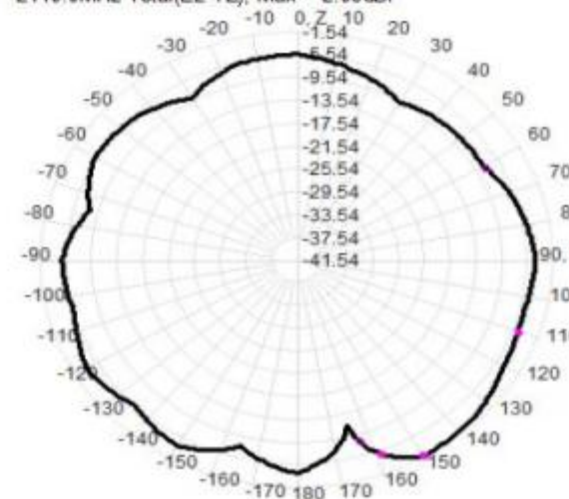
Back View



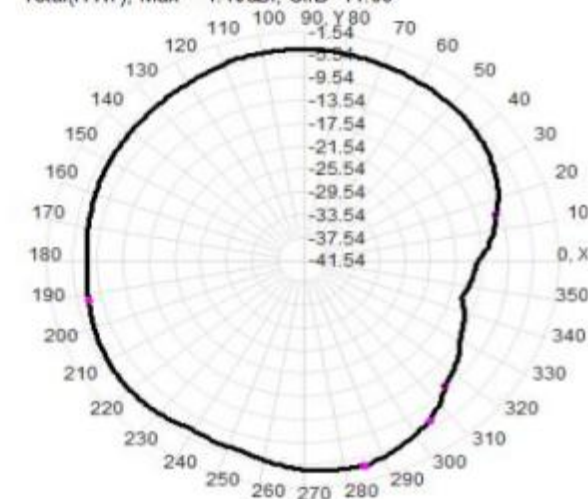
2440.0MHz Total(E1-XZ), Max= -1.54dBi



2440.0MHz Total(E2-YZ), Max= -2.03dBi

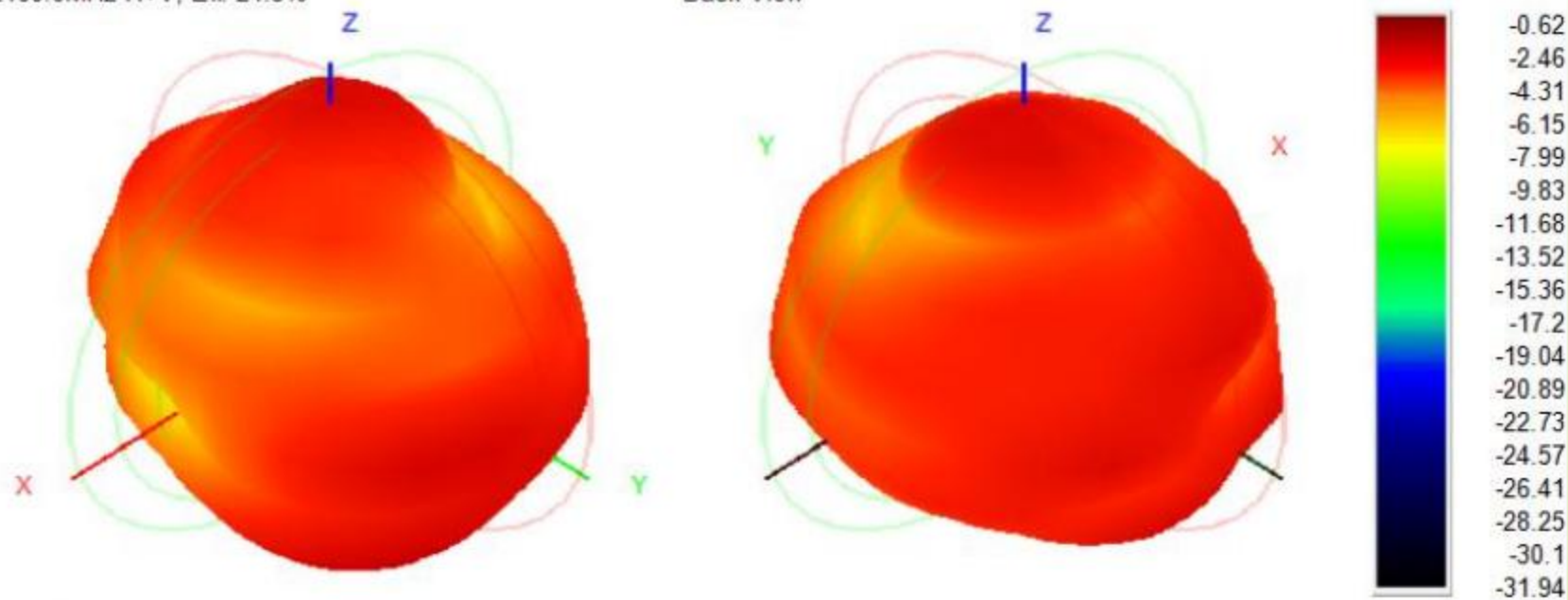


Total(H-XY), Max= -4.40dBi, CirD=11.68

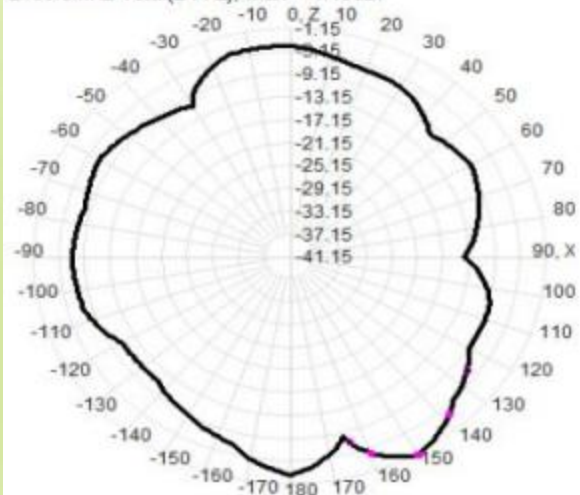


2460.0MHz H+V, Eff. 24.5%

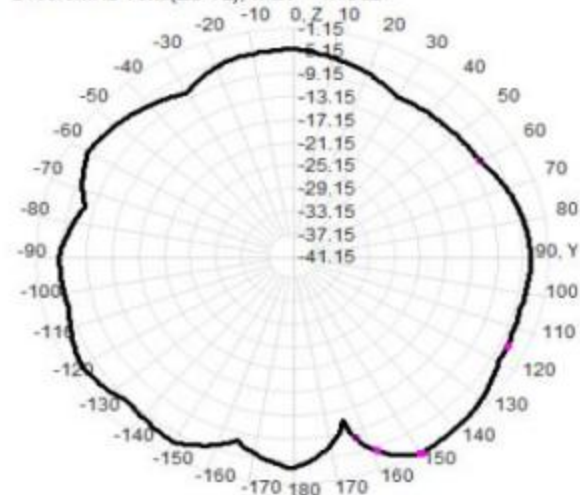
Back View



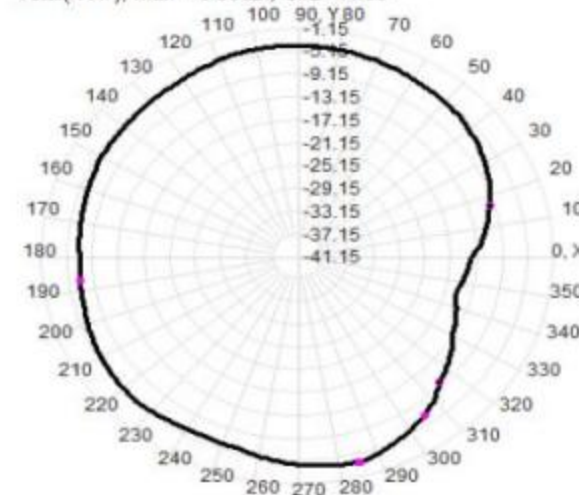
2460.0MHz Total(E1-XZ), Max= -1.15dBi



2460.0MHz Total(E2-YZ), Max= -1.43dBi

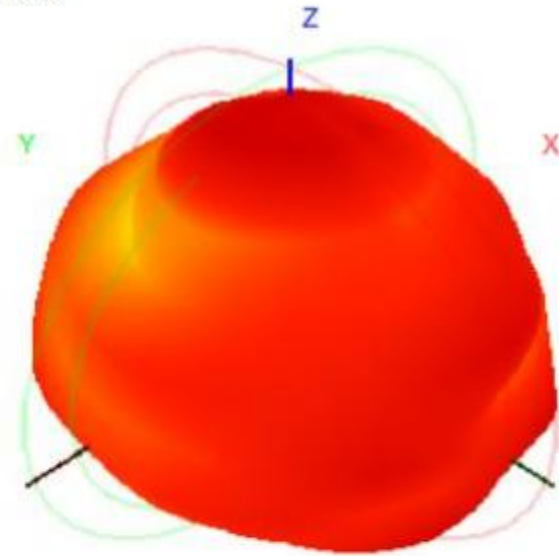
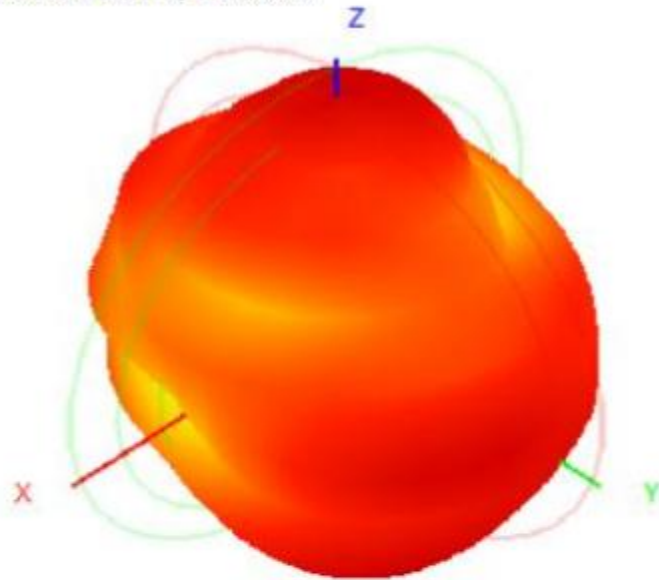


Total(H-XY), Max= -3.98dBi, CirD=11.93

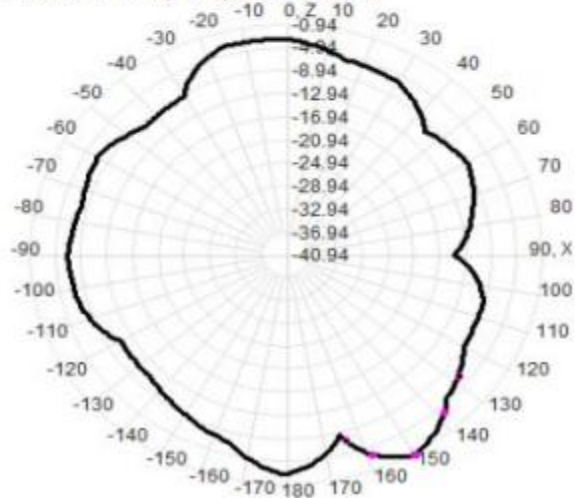


2480.0MHz H+V, Eff 25.3%

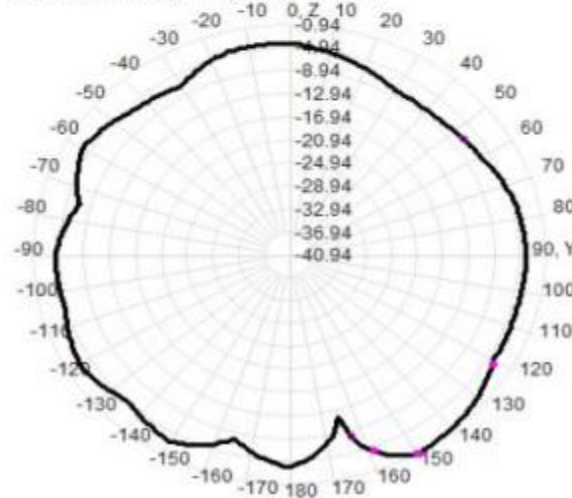
Back View



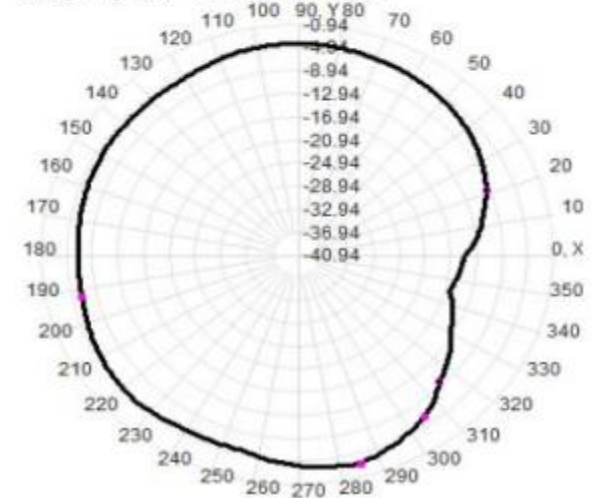
2480.0MHz Total(E1-XZ), Max= -0.94dBi



2480.0MHz Total(E2-YZ), Max= -1.16dBi

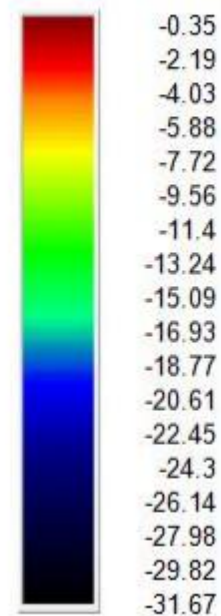
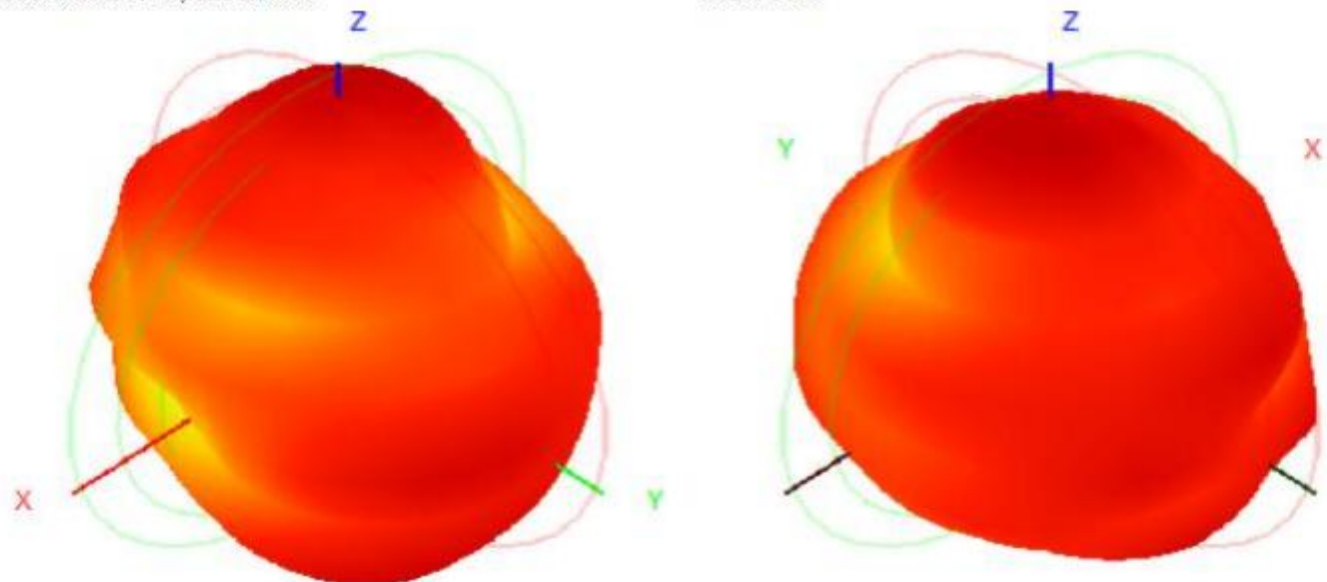


Total(H-XY), Max= -3.60dBi, CirD=13.01

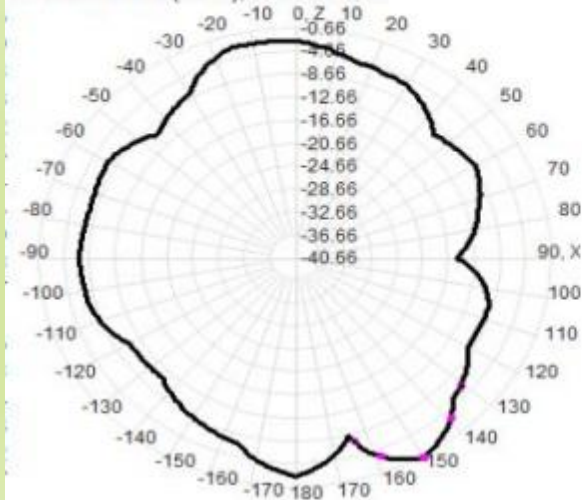


2500.0MHz H+V, Eff. 25.7%

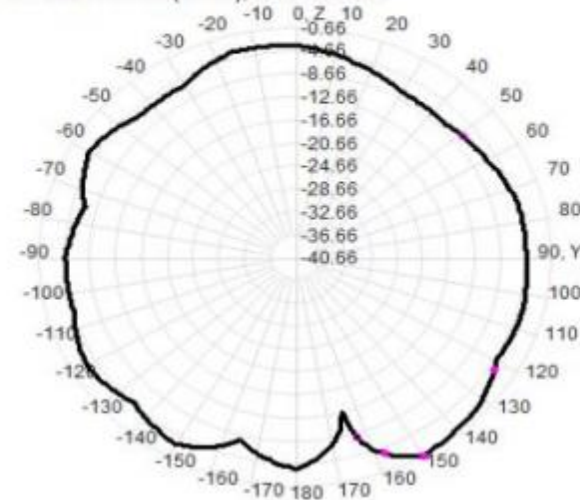
Back View



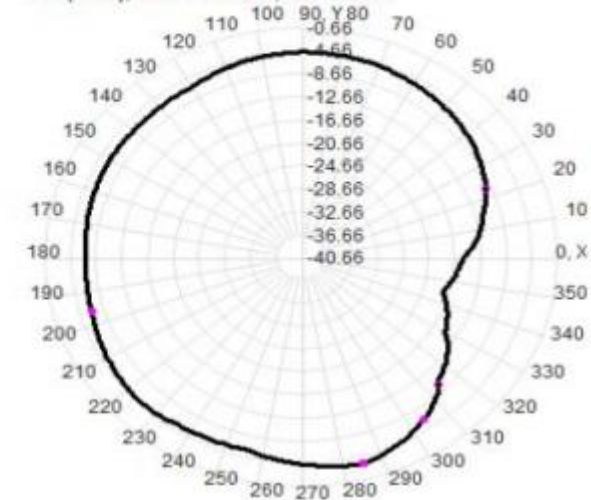
2500.0MHz Total(E1-XZ), Max= -0.66dBi

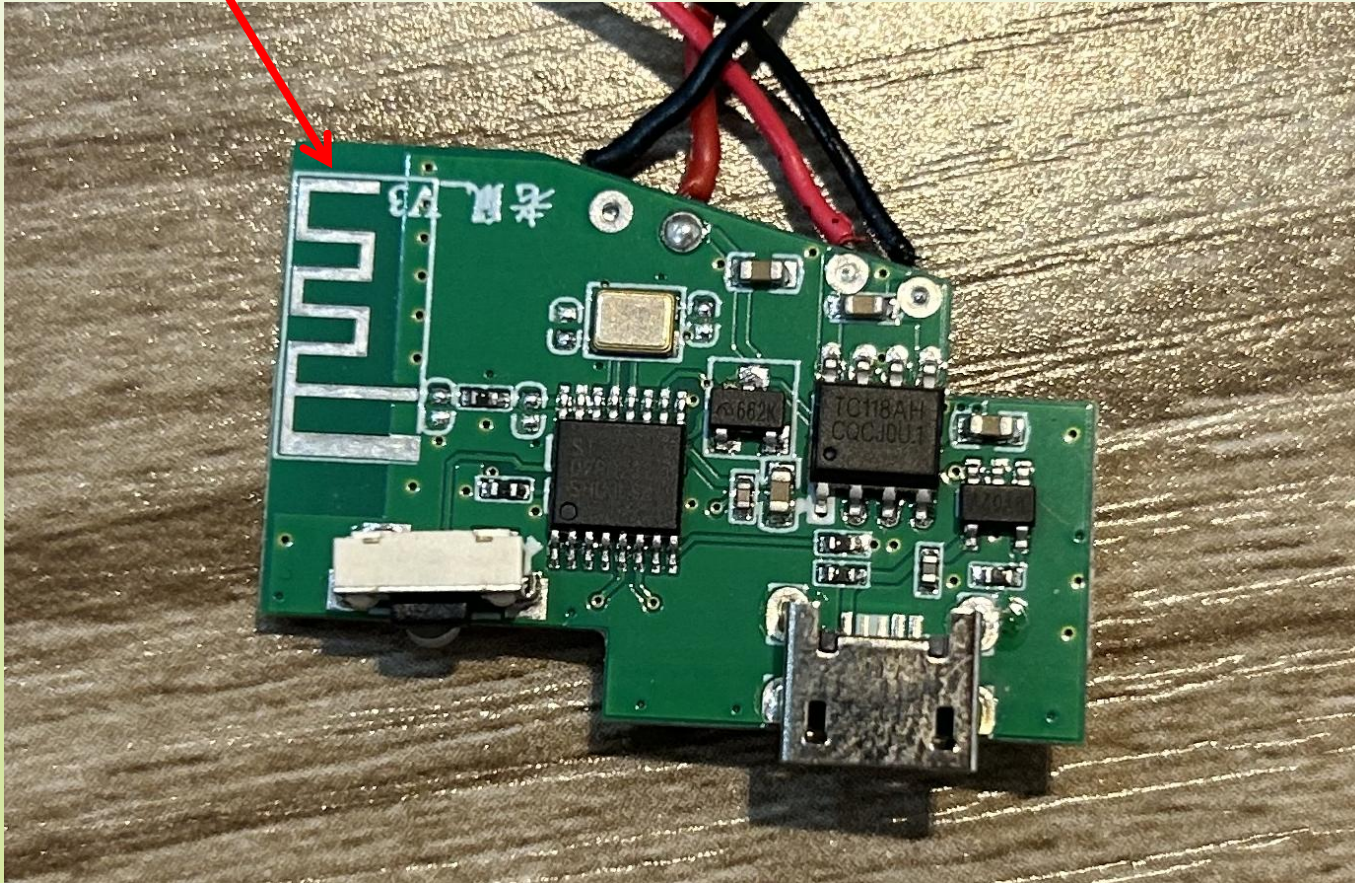


2500.0MHz Total(E2-YZ), Max= -1.05dBi

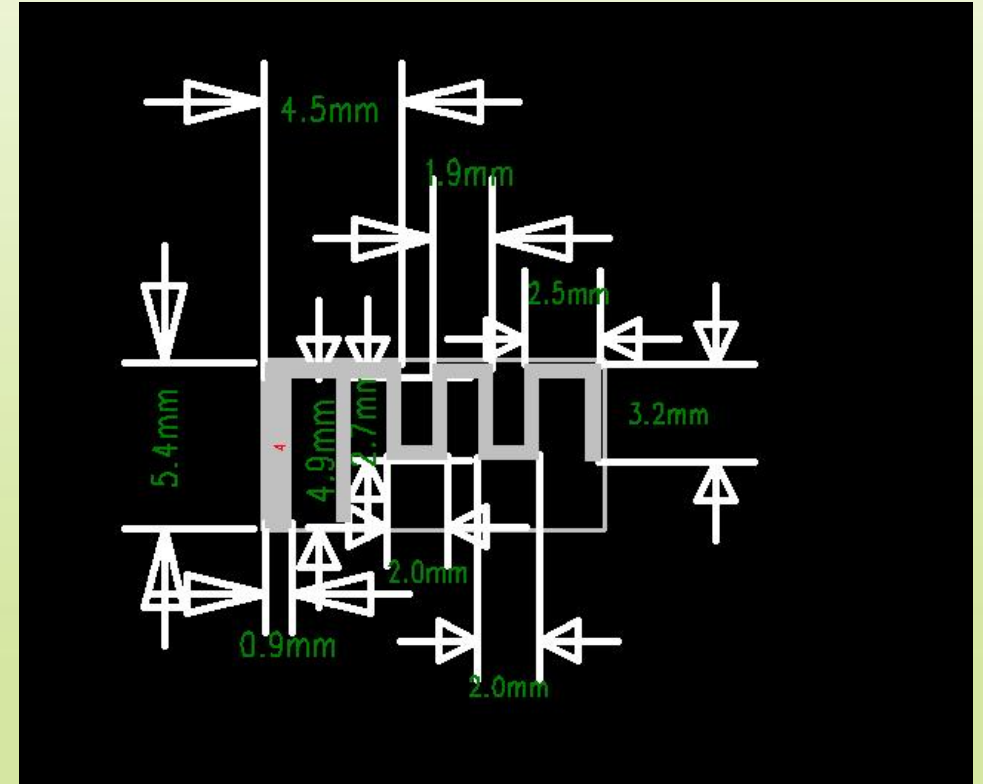


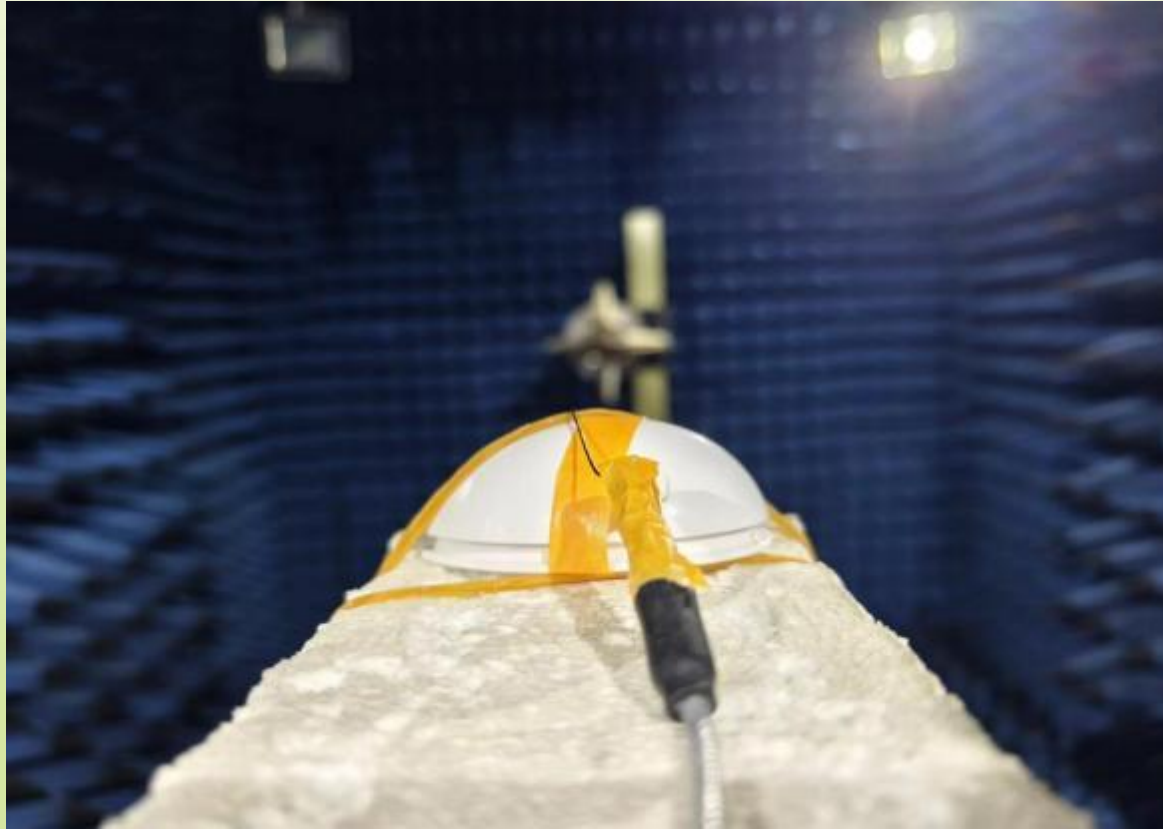
Total(H-XY), Max= -3.64dBi, CirD=14.36





Antenna Layout/module on the system board



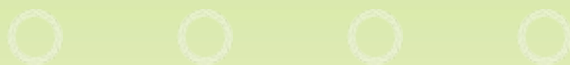


## 5.0 Test release history

| version | date       | Content overview  |
|---------|------------|-------------------|
| V1.0    | 2024-04-30 | Passive test data |
| V2.0    |            |                   |
| V3.0    |            |                   |
| V4.0    |            |                   |
| V5.0    |            |                   |
| V6.0    |            |                   |
| V7.0    |            |                   |
| V8.0    |            |                   |
| V9.0    |            |                   |
| V10.0   |            |                   |
| V11.0   |            |                   |
| V12.0   |            |                   |
| V13.0   |            |                   |
| V14.0   |            |                   |

## 6.0

|            |             |                              |
|------------|-------------|------------------------------|
| hu jin hua | 13798315250 | mailbox: tiger@szyestone.com |
|            |             |                              |
|            |             |                              |



Antenna manufacturer:

shenzhenyeshengcommunicationTechnologyco.,Ltd.

address:

3010-3011, Building 34, Chentian Industrial Zone, Xixiang Street, Bao'an District, Shenzhen