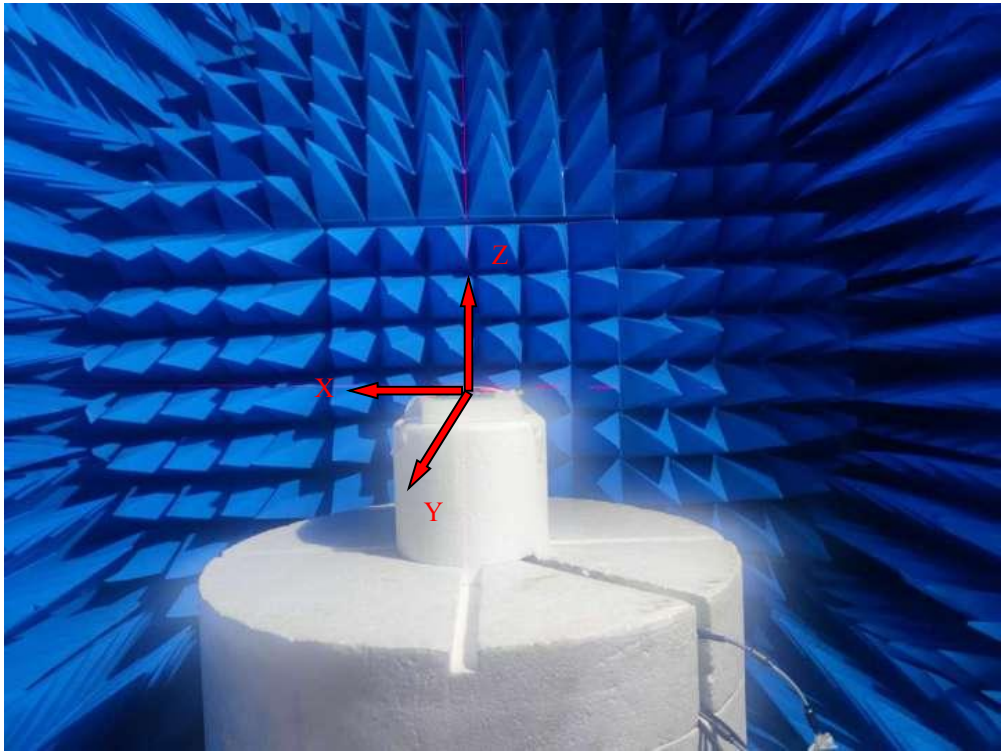


## 2.4G-2.48G PCB antenna test report

| SPECIFICATIONS         |                                                                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency (MHz)        | 2400-2480                                                                                                                                    |
| Peak Gain (dBi)        | 2.499                                                                                                                                        |
| VSWR                   | < 3.2                                                                                                                                        |
| Impedance ( $\Omega$ ) | 50 $\Omega$                                                                                                                                  |
| Antenna Type           | PCB                                                                                                                                          |
| Polarization           | Linear                                                                                                                                       |
| Model                  | 2.4G BT ANT                                                                                                                                  |
| Manufacturer           | JIANGXI XINGSHENGJIE CIRCUIT CO.,LTD<br>Building 2, Fuxiang Industrial Park, West Xinfeng<br>Industrial Park, Ganzhou City, Jiangxi Province |

Test environment:

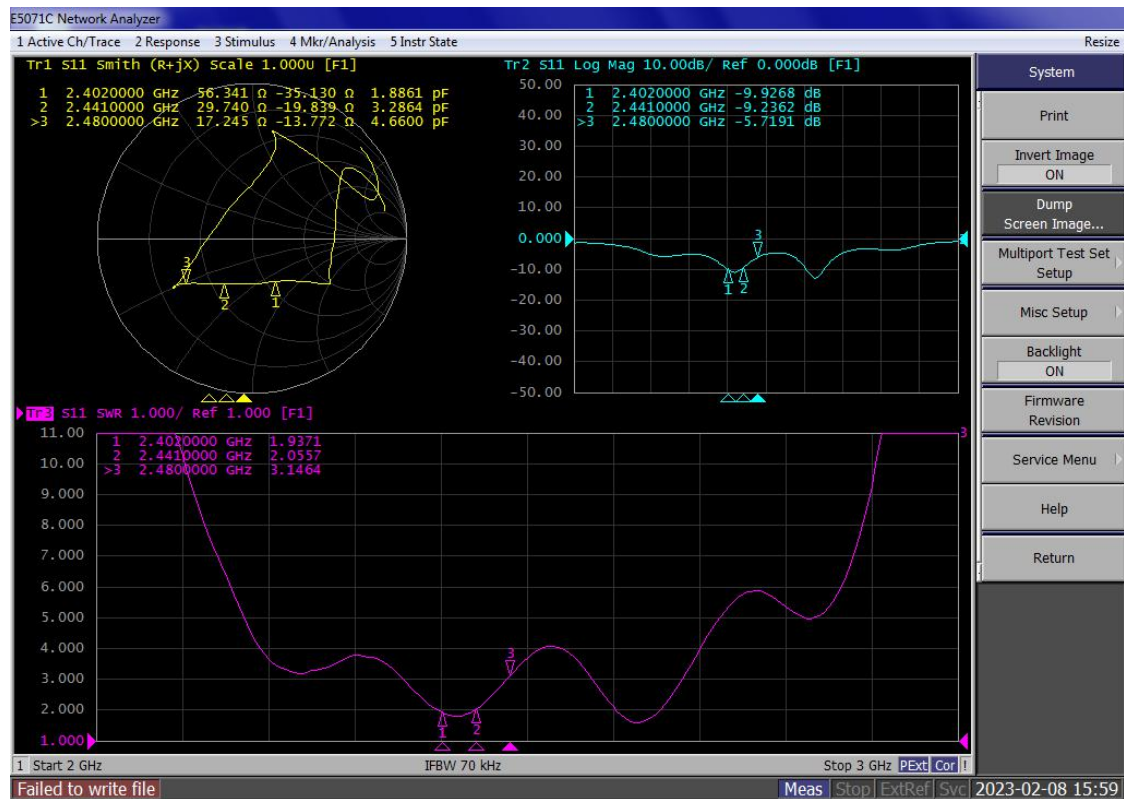


Antenna Photo



## Antenna passive S parameters:

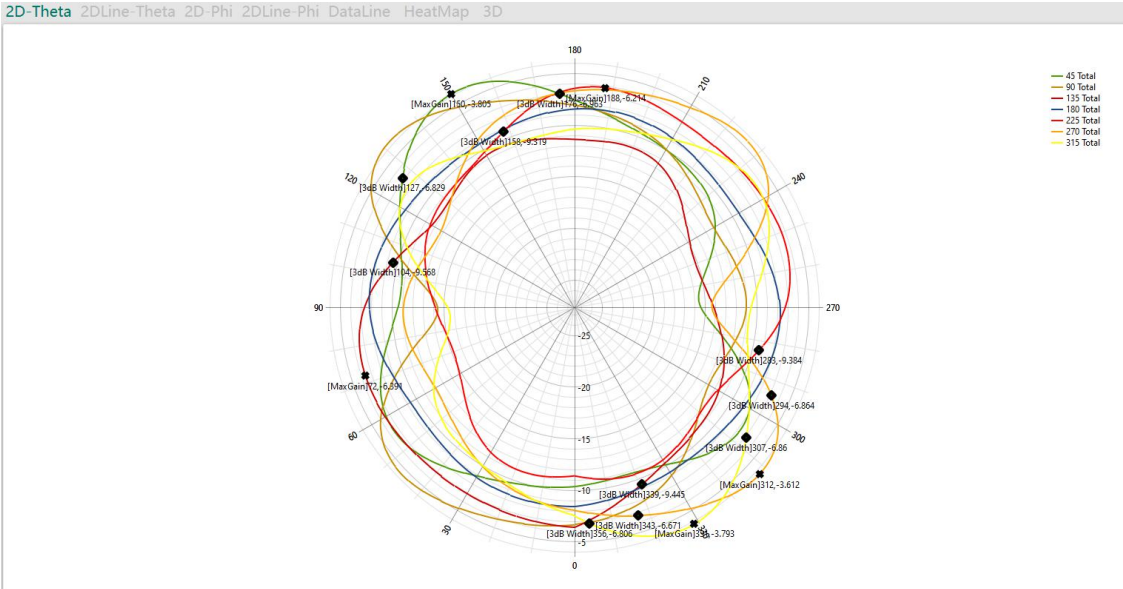
VSWR, Return Loss and Smith chart



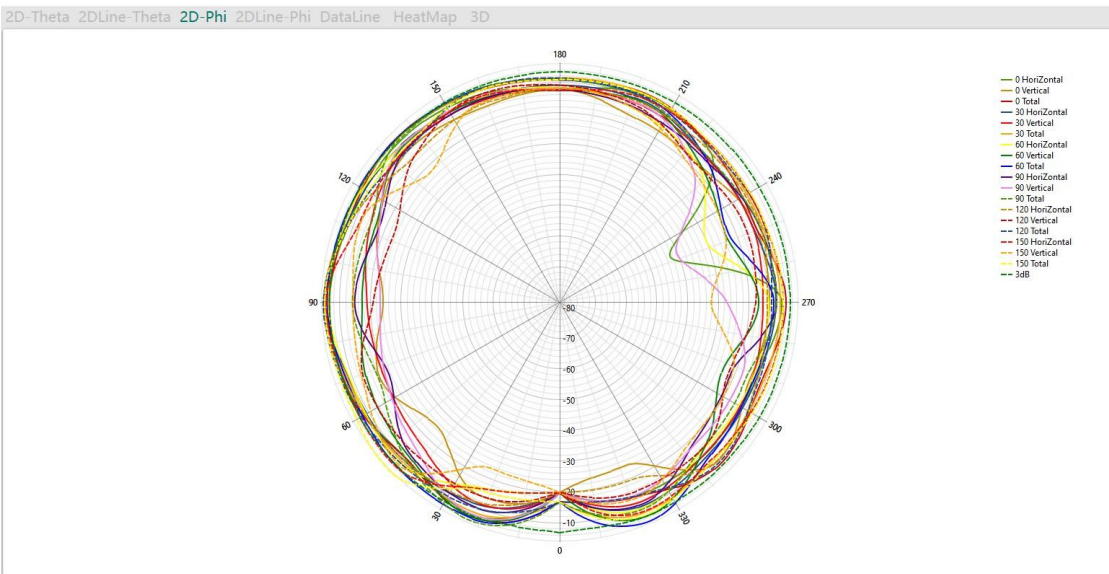
## Antenna efficiency and gain

| Frequency (MHz) | Gain (dBi) | Efficiency (%) | AverageGain (dBi) | Efficiency (dB) |
|-----------------|------------|----------------|-------------------|-----------------|
| 2400            | 1.433      | 59.329%        | -2.717            | -2.267          |
| 2410            | 0.927      | 51.861%        | -3.416            | -2.852          |
| 2420            | 0.829      | 52.112%        | -3.166            | -2.831          |
| 2430            | 0.881      | 49.299%        | -3.258            | -3.072          |
| 2440            | 1.192      | 50.672%        | -3.144            | -2.952          |
| 2450            | 1.688      | 53.067%        | -2.735            | -2.752          |
| 2460            | 2.194      | 59.423%        | -2.276            | -2.260          |
| 2470            | 2.118      | 56.680%        | -2.438            | -2.466          |
| 2480            | 2.499      | 61.727%        | -2.112            | -2.095          |
| Average         | 1.529      | 54.908%        | -2.806            | -2.616          |
| Peak            | 2.499      | 61.727%        | -2.112            | -2.095          |

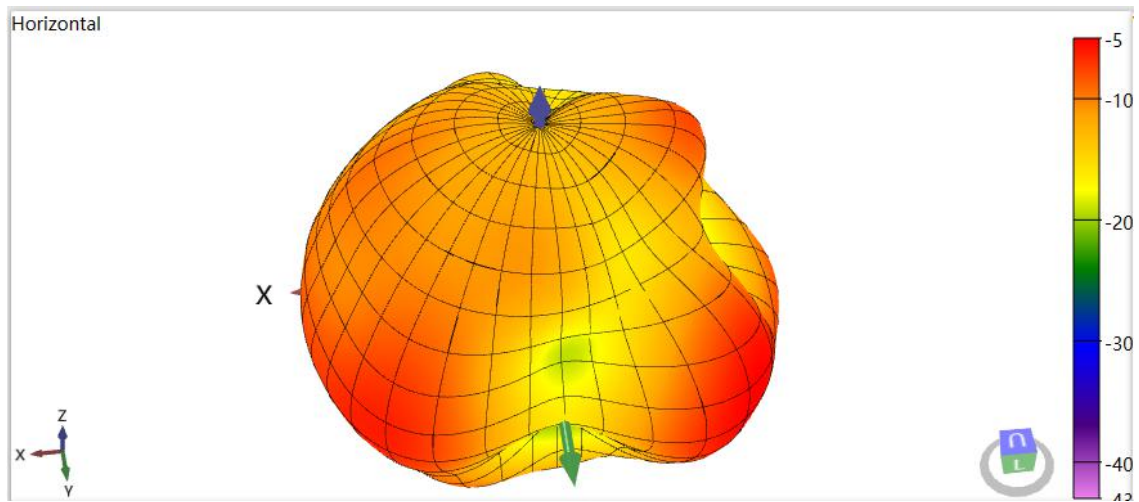
# Antenna 2440MHz 2D-Theta Pattern



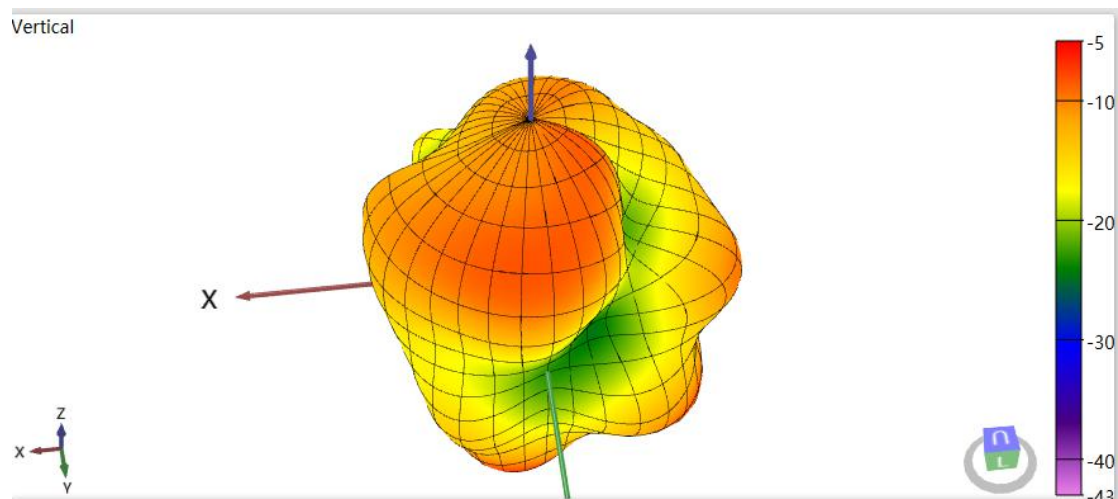
# Antenna 2440MHz 2D-Phi Pattern



Antenna 2440MHz 3D-Horizontal Pattern



Antenna 2440MHz 3D-Vertical Pattern



2440MHz 3D-Total Pattern

