

# 天线测试报告

客户名称：长虹网络

项目型号：GH104

评估日期：2023-09-15

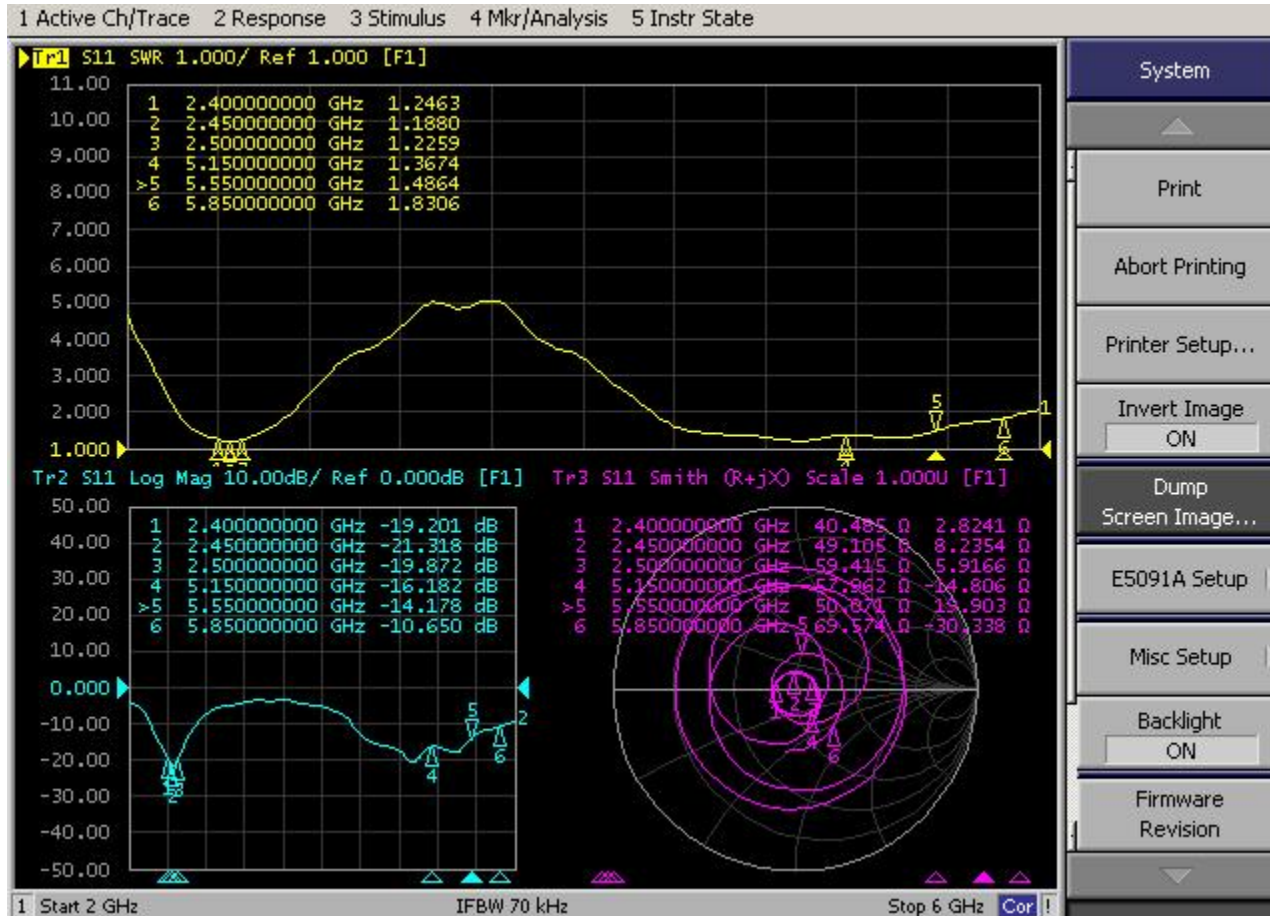
| 版本  | 内容   | 更新原因 | 日期         |
|-----|------|------|------------|
| 1.0 | 天线测试 | 首次发行 | 2023-09-15 |
|     |      |      |            |
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|       |                         |
|-------|-------------------------|
| 客户名称: | 长虹网络                    |
| 项目名称  | GH104                   |
| 天线数量  | 2                       |
| 天线频段  | 2400-2500/5150-5850 MHz |
| 结构形式  | 板载天线                    |



# WIFI-1 天线 S11 测试性能图

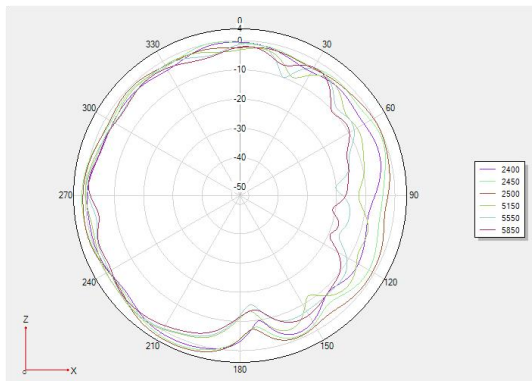


# WIFI-1 天线无源测试数据

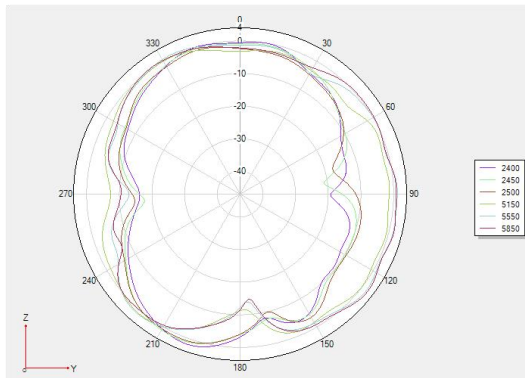
| Frequency/Mhz | Efficiency / % | MaxGain/dBi |
|---------------|----------------|-------------|
| 2400          | 63.48          | 2.46        |
| 2410          | 56.71          | 2.67        |
| 2420          | 61.89          | 2.95        |
| 2430          | 57.63          | 1.92        |
| 2440          | 61.23          | 2.40        |
| 2450          | 60.08          | 2.42        |
| 2460          | 62.28          | 2.35        |
| 2470          | 62.54          | 2.02        |
| 2480          | 60.21          | 2.23        |
| 2490          | 61.49          | 2.02        |
| 2500          | 62.28          | 2.81        |
| 5150          | 57.12          | 2.70        |
| 5250          | 52.42          | 2.85        |
| 5350          | 53.19          | 2.02        |
| 5450          | 54.77          | 2.82        |
| 5550          | 53.19          | 2.40        |
| 5650          | 51.88          | 2.88        |
| 5750          | 50.83          | 2.3         |
| 5850          | 50.35          | 2.33        |

# WIFI-1 天线无源 2D\3D 图

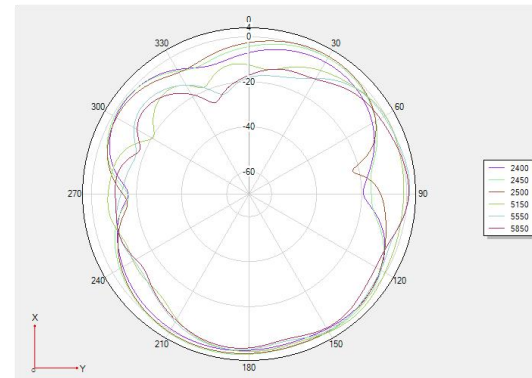
### Phi 0 2D图



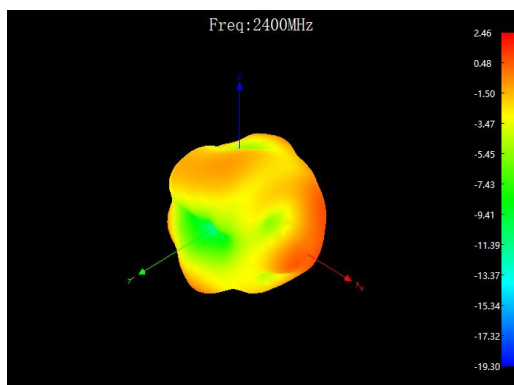
### Phi 90 2D图



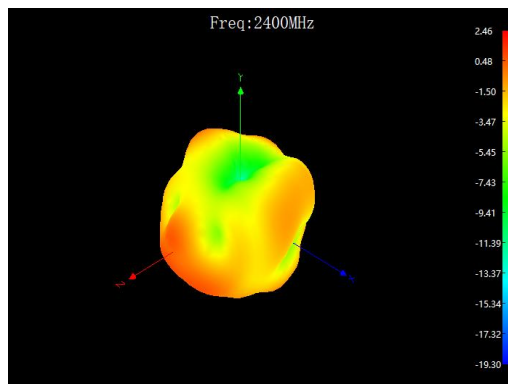
### Theta 90 2D图



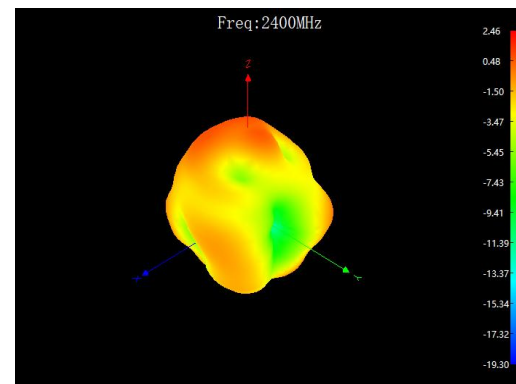
### 2400MHz



### 2400MHz



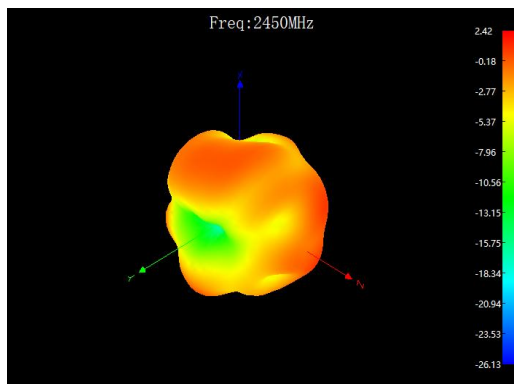
### 2400MHz



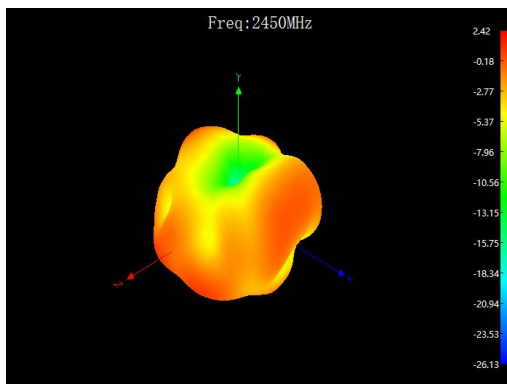


# WIFI-1 天线无源 2D\3D 图

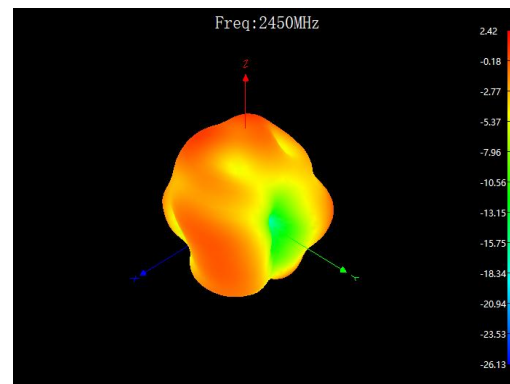
## 2450MHz



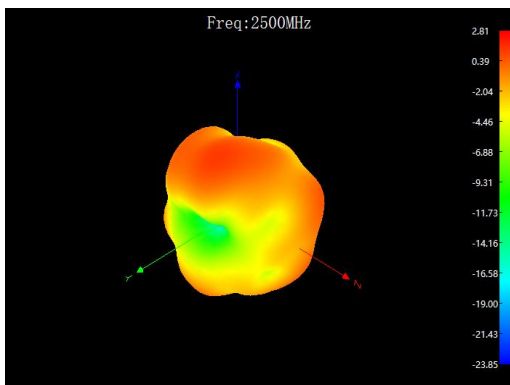
## 2450MHz



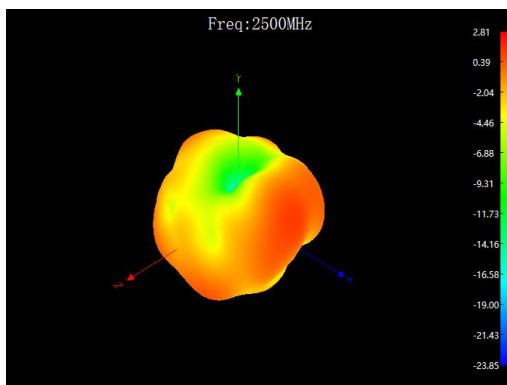
## 2450MHz



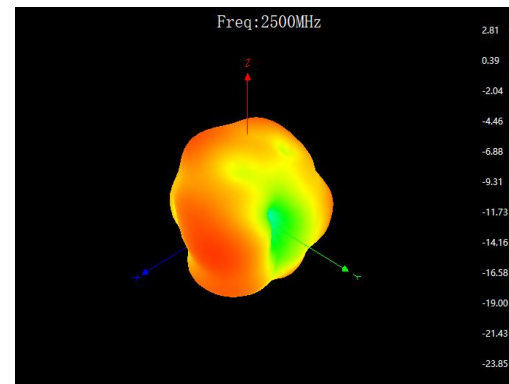
## 2500MHz



## 2500MHz

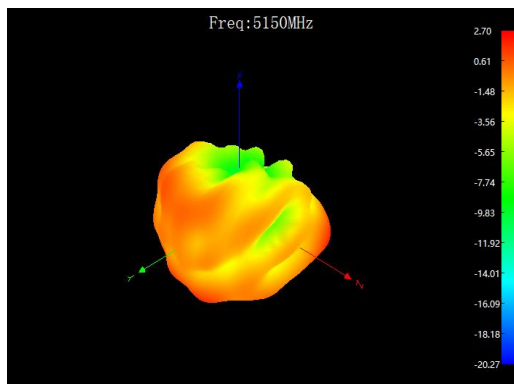


## 2500MHz

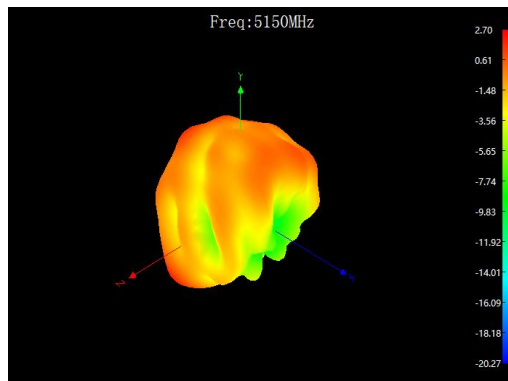


# WIFI-1 天线无源 2D\3D 图

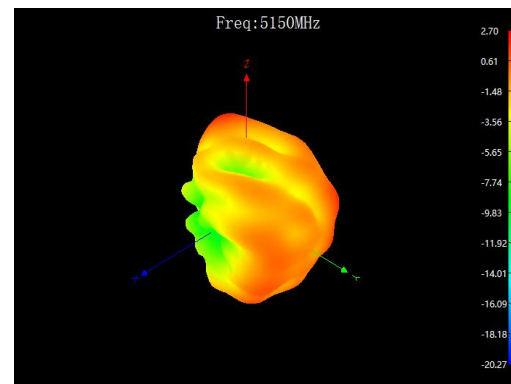
## 5150MHz



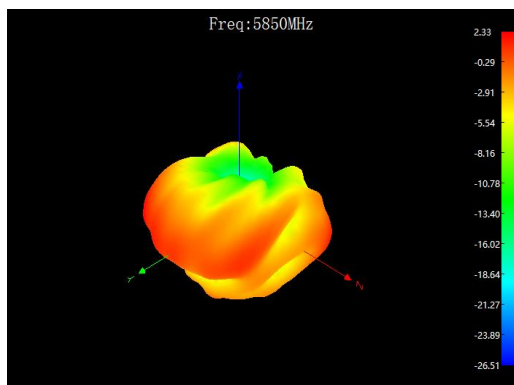
## 5150MHz



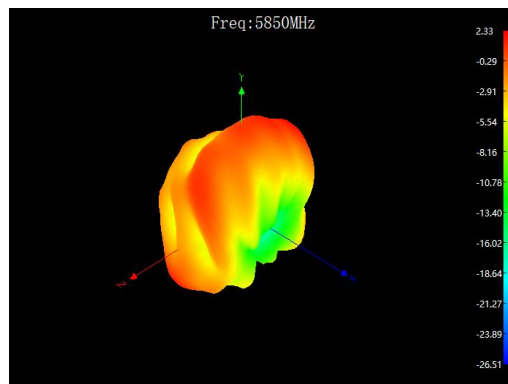
## 5150MHz



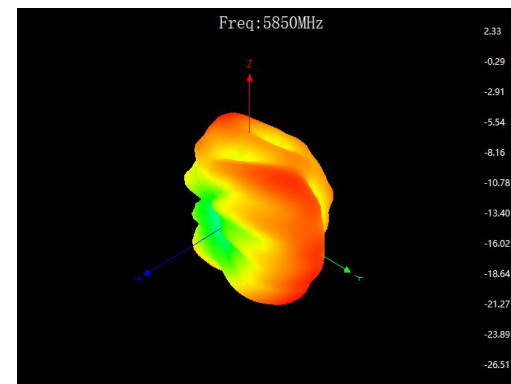
## 5850MHz



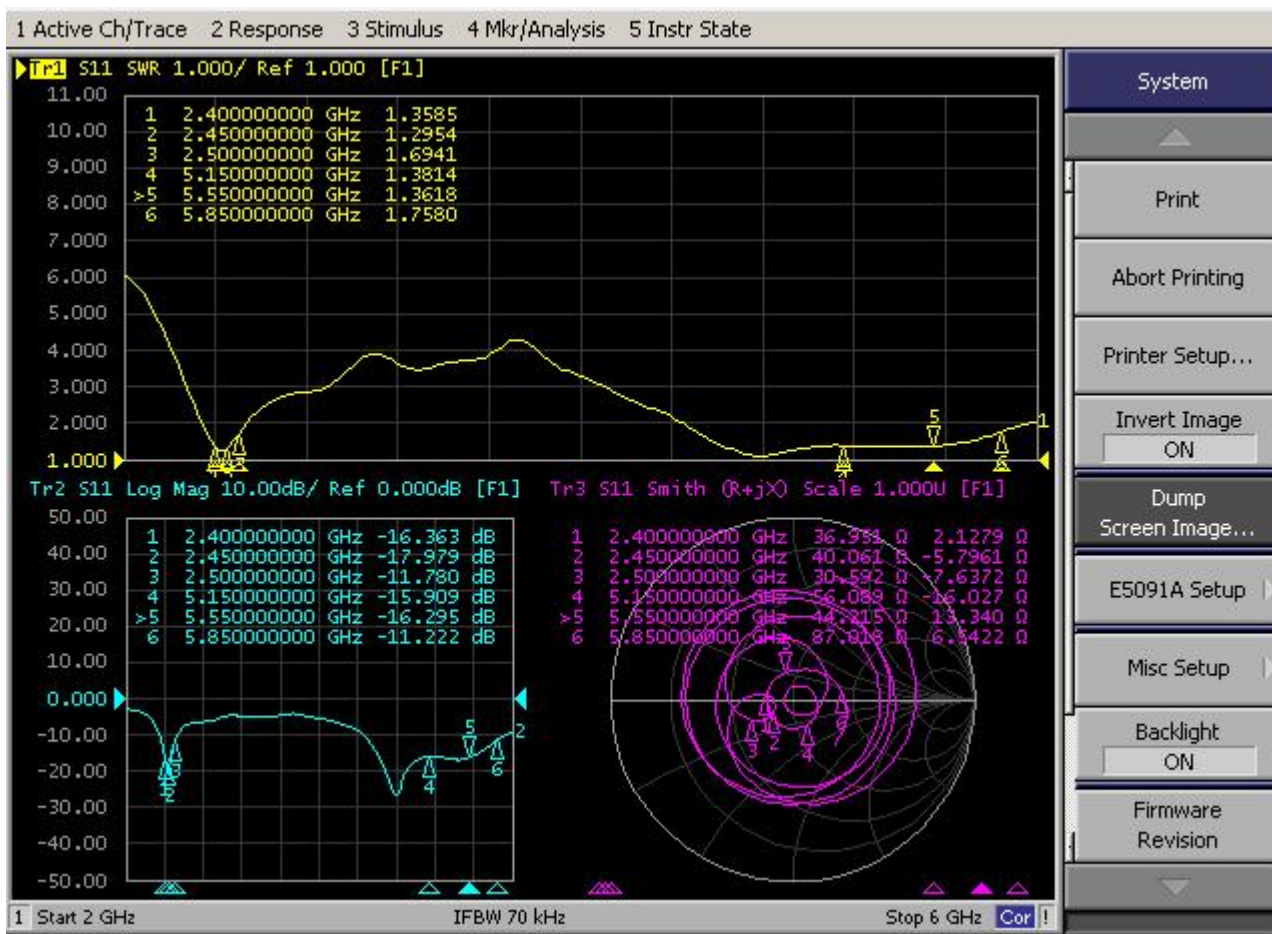
## 5850MHz



## 5850MHz



# WIFI-2 天线 S11 测试性能图

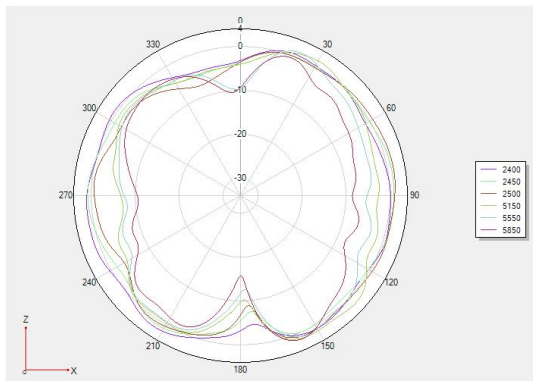


# WIFI-2 天线无源测试数据

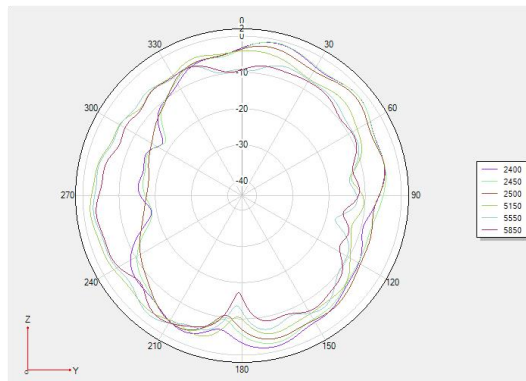
| Frequency/Mhz | Efficiency / % | MaxGain/dBi |
|---------------|----------------|-------------|
| 2400          | 61.78          | 2.3         |
| 2410          | 57.76          | 1.54        |
| 2420          | 61.02          | 2.23        |
| 2430          | 58.11          | 2.43        |
| 2440          | 60.18          | 2.14        |
| 2450          | 56.81          | 2.60        |
| 2460          | 56.22          | 2.11        |
| 2470          | 55.24          | 2.16        |
| 2480          | 54.99          | 2.32        |
| 2490          | 54.21          | 2.46        |
| 2500          | 55.81          | 2.31        |
| 5150          | 52.43          | 2.10        |
| 5250          | 51.98          | 2.25        |
| 5350          | 50.64          | 2.02        |
| 5450          | 50.21          | 2.63        |
| 5550          | 53.86          | 2.11        |
| 5650          | 52.99          | 2.27        |
| 5750          | 51.77          | 2.50        |
| 5850          | 50.92          | 2.43        |

# WIFI-2 天线无源 2D\3D 图

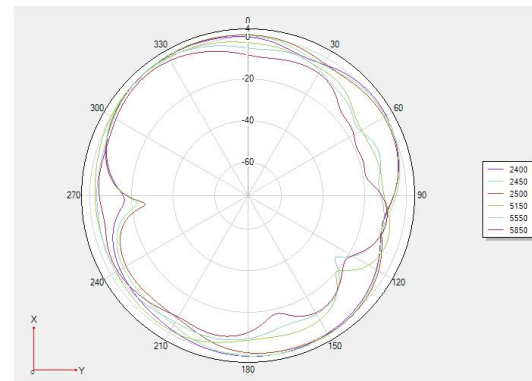
### Phi 0 2D图



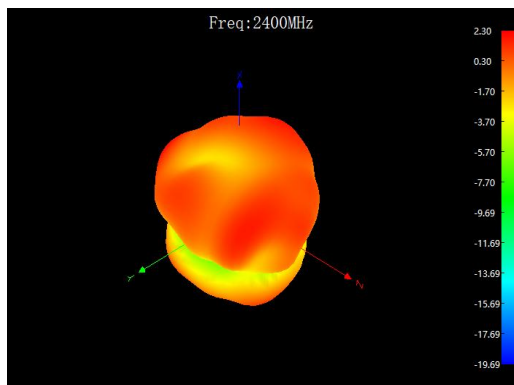
### Phi 90 2D图



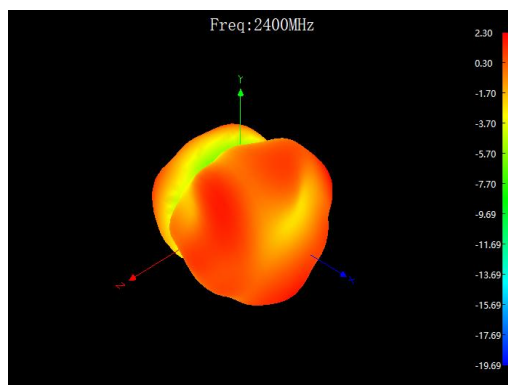
### Theta 90 2D图



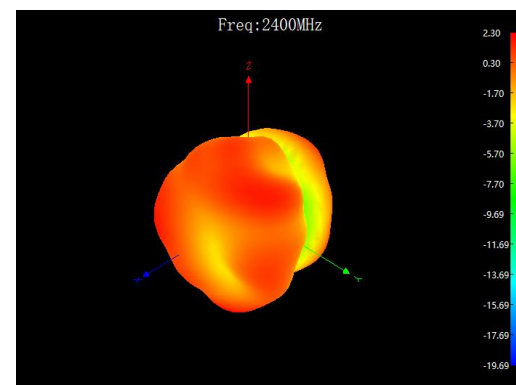
### 2400MHz



### 2400MHz

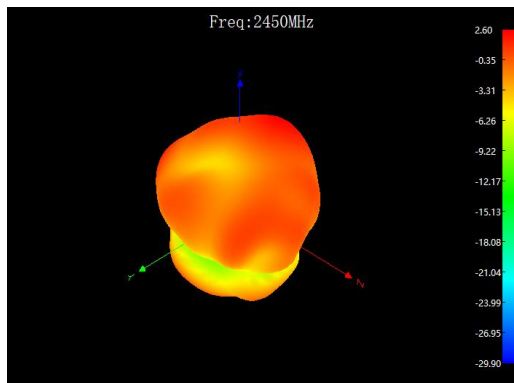


### 2400MHz

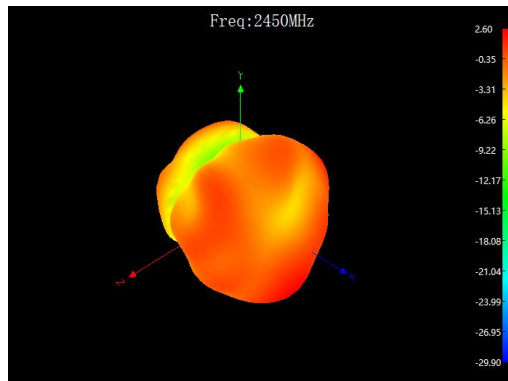


# WIFI-2 天线无源 2D\3D 图

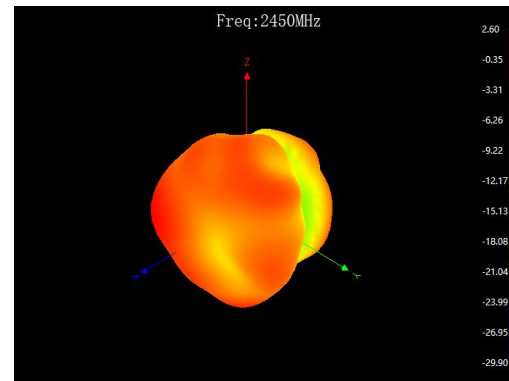
## 2450MHz



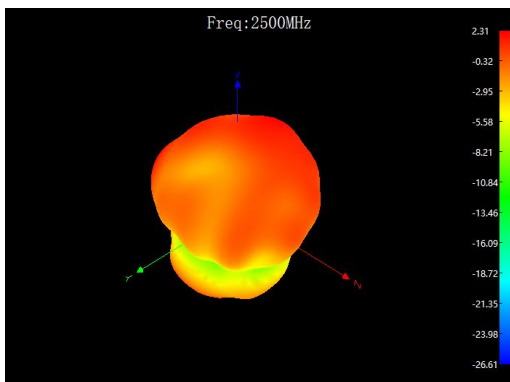
## 2450MHz



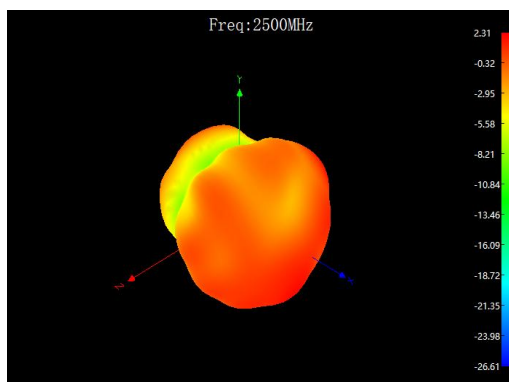
## 2450MHz



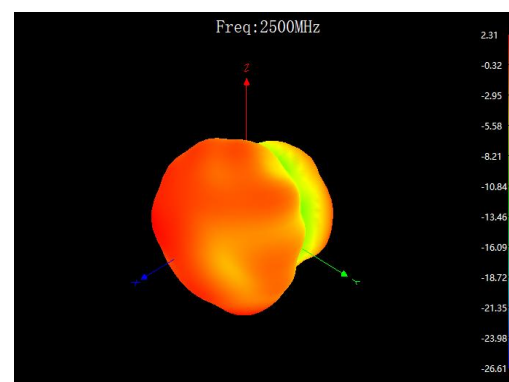
## 2500MHz



## 2500MHz

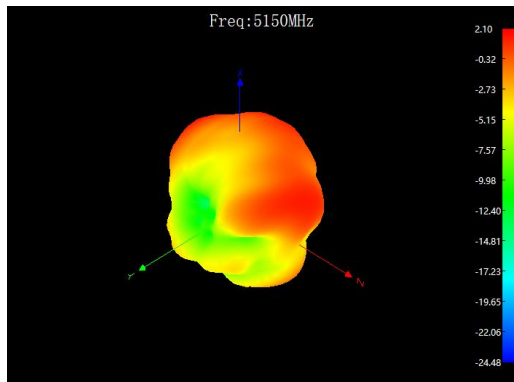


## 2500MHz

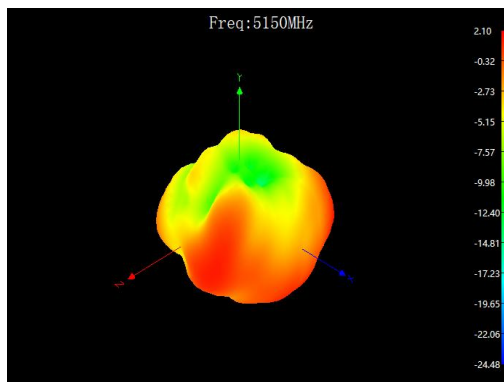


# WIFI-2 天线无源 2D\3D 图

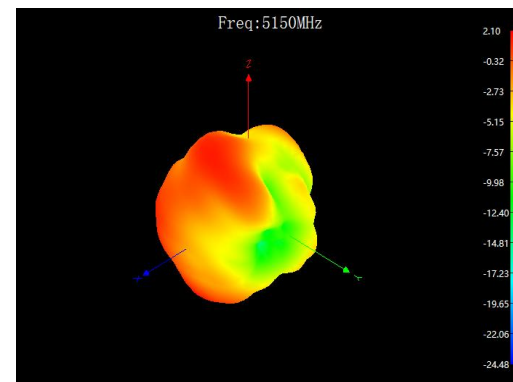
## 5150MHz



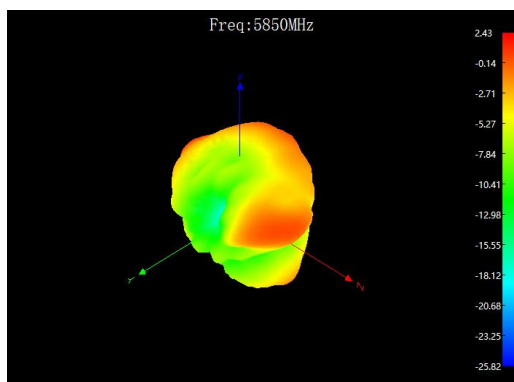
## 5150MHz



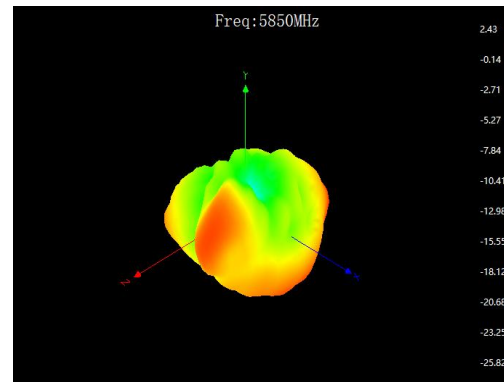
## 5150MHz



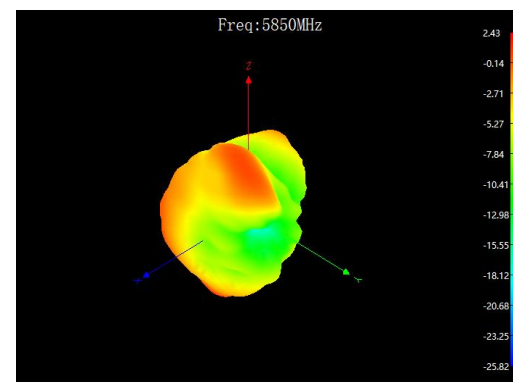
## 5850MHz



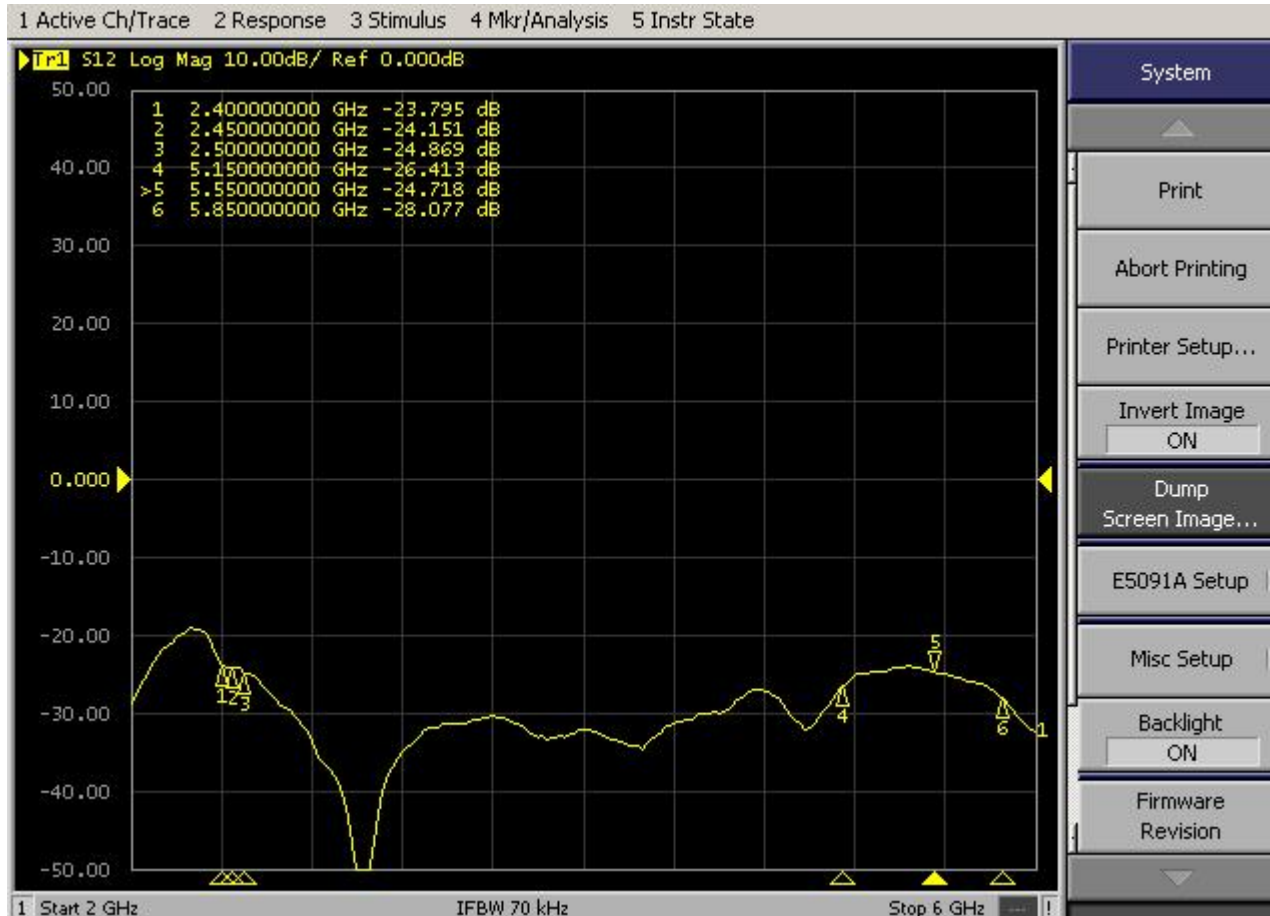
## 5850MHz



## 5850MHz



# WiFi-1/2 天线隔离度性能测试图





# OTA测试数据

| Item | Measurement | Azimuths | Elevations | Standard  | Band             | Channel | Frequency | Max    | Min    | Total  |
|------|-------------|----------|------------|-----------|------------------|---------|-----------|--------|--------|--------|
| 1    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)     | 1       | 2412      | 19.27  | -5.17  | 13.62  |
| 2    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)     | 6       | 2437      | 17.55  | -5.47  | 13.78  |
| 3    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)     | 11      | 2462      | 17.95  | 0.92   | 14.25  |
| 4    | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)     | 1       | 2412      | -63.07 | -82.09 | -78.23 |
| 5    | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)     | 6       | 2437      | -62.03 | -81.14 | -77.88 |
| 6    | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)     | 11      | 2462      | -61.68 | -80.92 | -76.22 |
| 7    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)     | 1       | 2412      | 16.89  | -2.57  | 12.88  |
| 8    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)     | 6       | 2437      | 17.03  | -3.88  | 13.01  |
| 9    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)     | 11      | 2462      | 17     | -0.31  | 13.14  |
| 10   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)     | 1       | 2412      | -59.2  | -77.76 | -73.79 |
| 11   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)     | 6       | 2437      | -57.12 | -76.59 | -72.03 |
| 12   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)     | 11      | 2462      | -57.6  | -76.1  | -72.16 |
| 13   | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (65M) | 1       | 2412      | 14.25  | -6.33  | 10.75  |
| 14   | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (65M) | 6       | 2437      | 15.59  | 2.01   | 11.61  |
| 15   | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (65M) | 11      | 2462      | 15.92  | 4.52   | 11.71  |
| 16   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (65M) | 1       | 2412      | -59.22 | -73.16 | -68.6  |
| 17   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (65M) | 6       | 2437      | -58.63 | -72.51 | -67.57 |
| 18   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (65M) | 11      | 2462      | -58.55 | -72.39 | -67.94 |
| 19   | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_A (54M)     | 36      | 5180      | 19.86  | 3.36   | 15.64  |
| 20   | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_A (54M)     | 149     | 5745      | 19.76  | 4.16   | 16.03  |
| 21   | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_A (54M)     | 165     | 5825      | 22.07  | 3.06   | 16.78  |
| 22   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_A (54M)     | 36      | 5180      | -62.56 | -79.27 | -74.86 |
| 23   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_A (54M)     | 149     | 5745      | -61.8  | -80.83 | -75.8  |
| 24   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_A (54M)     | 165     | 5825      | -59.49 | -80.18 | -75.62 |



# 谢谢!

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