

# Specification

Manufacture: Shenzhen Si Xun communication Technology Co., LTD  
Address: A505/506, Donglian Building, Chuangye 2nd Road, Dalang  
Community, Xin 'an Street, Bao 'an District, Shenzhen

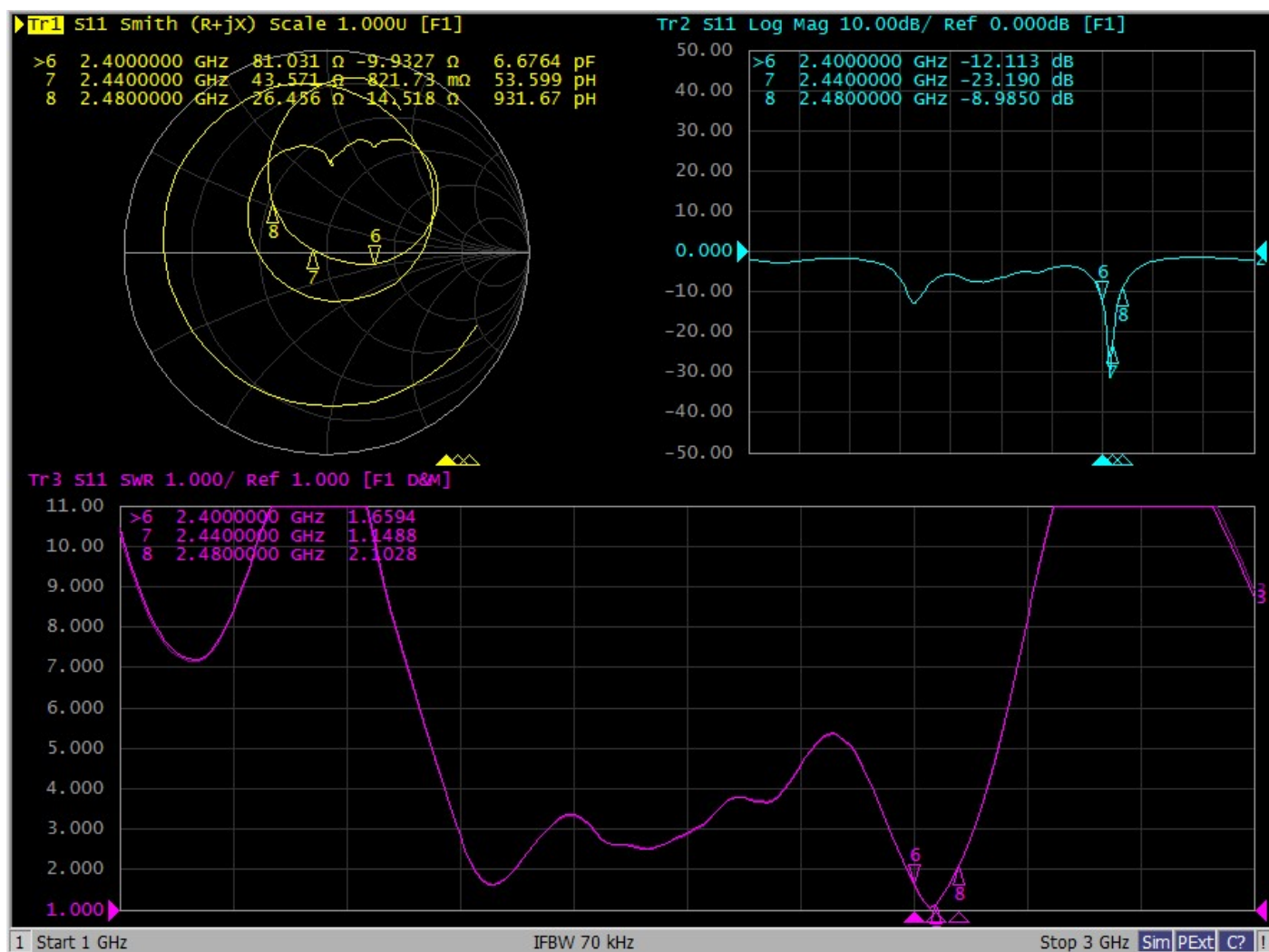
|          |                 |
|----------|-----------------|
| Client:  | Cosonic         |
| Project: | CA-7585B        |
| Name:    | BT/WIFI Antenna |
| Type:    | dipole Antenna  |
| Version: | V1.0            |
| Date:    | 2023.12.12      |

## 一: Passive test report

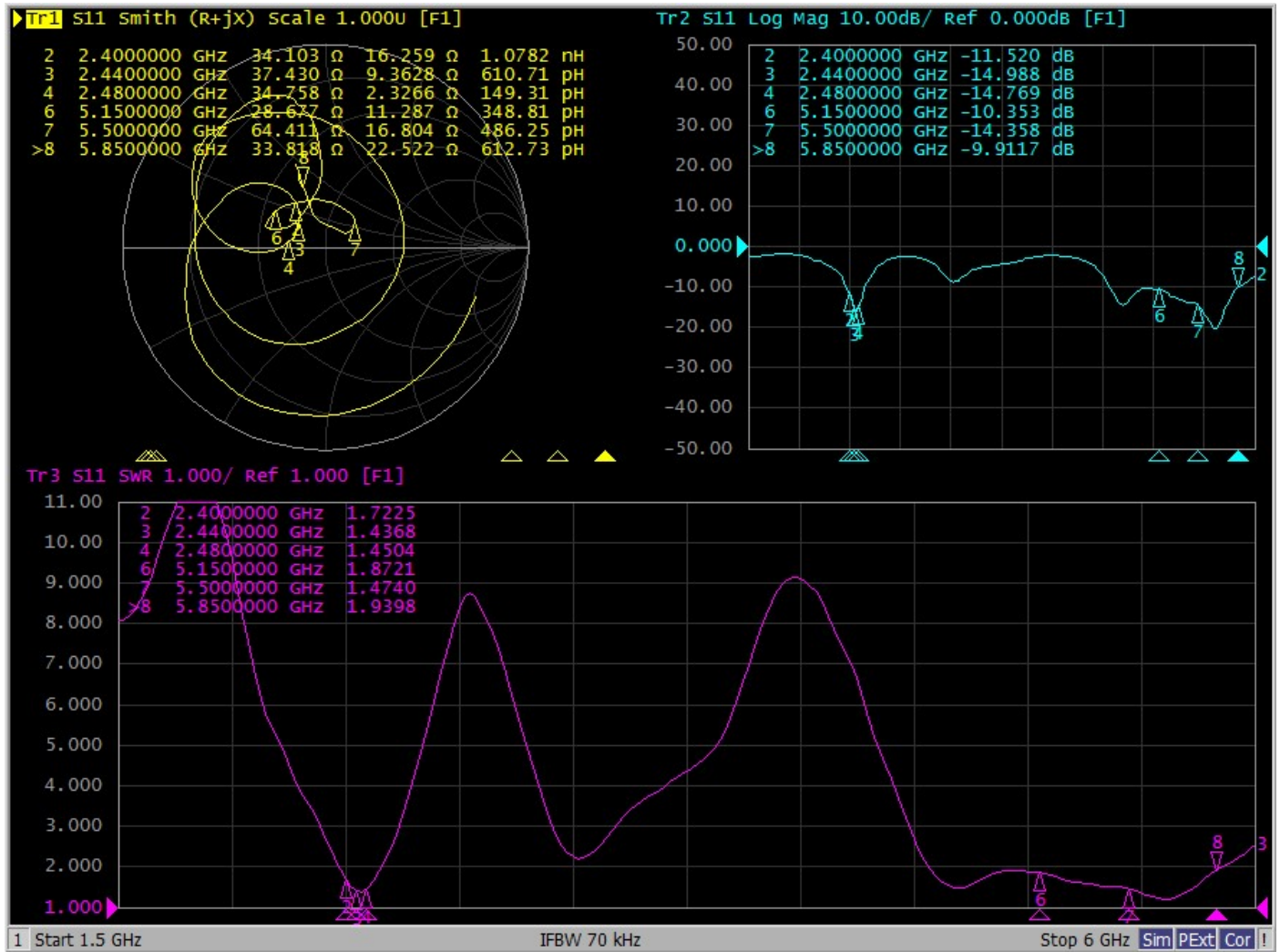


Angilent E5071C

## BT Antenna S11 parameter



## WIFI Antenna S11 parameter



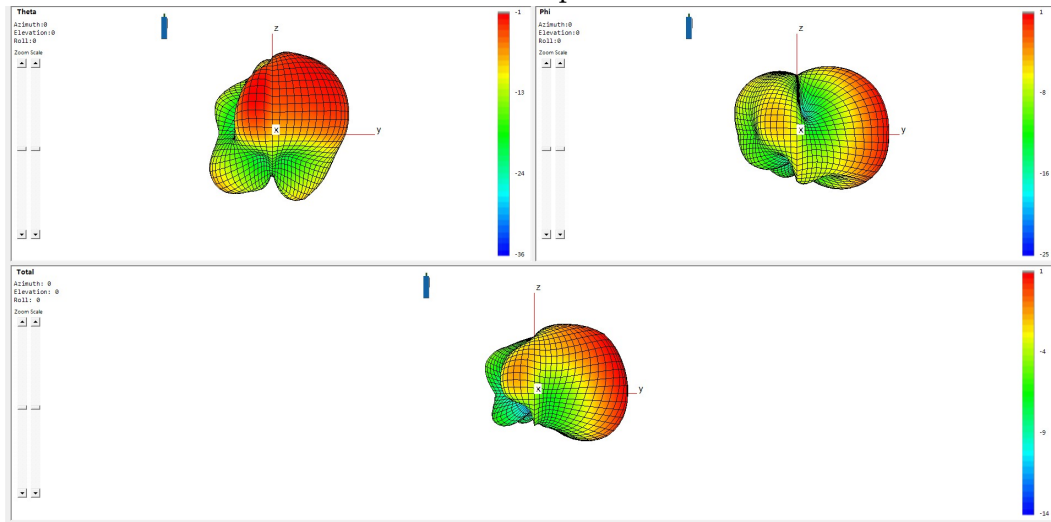
# BT Antenna efficiency and gain:

| BT            |           |                 |                |
|---------------|-----------|-----------------|----------------|
| Frequency MHz | GAIN(dBi) | efficiency(dB ) | efficiency (%) |
| 2400          | 0.91      | -5.00           | 31.63          |
| 2410          | 1.11      | -4.85           | 32.75          |
| 2420          | 1.37      | -4.75           | 33.51          |
| 2430          | 1.52      | -4.84           | 32.83          |
| 2440          | 1.40      | -5.01           | 31.54          |
| 2450          | 1.48      | -5.00           | 31.63          |
| 2460          | 1.48      | -5.23           | 29.98          |
| 2470          | 1.81      | -5.13           | 30.66          |
| 2480          | 1.85      | -5.21           | 30.10          |
| Average       | 1.44      | -5.00           | 31.63          |

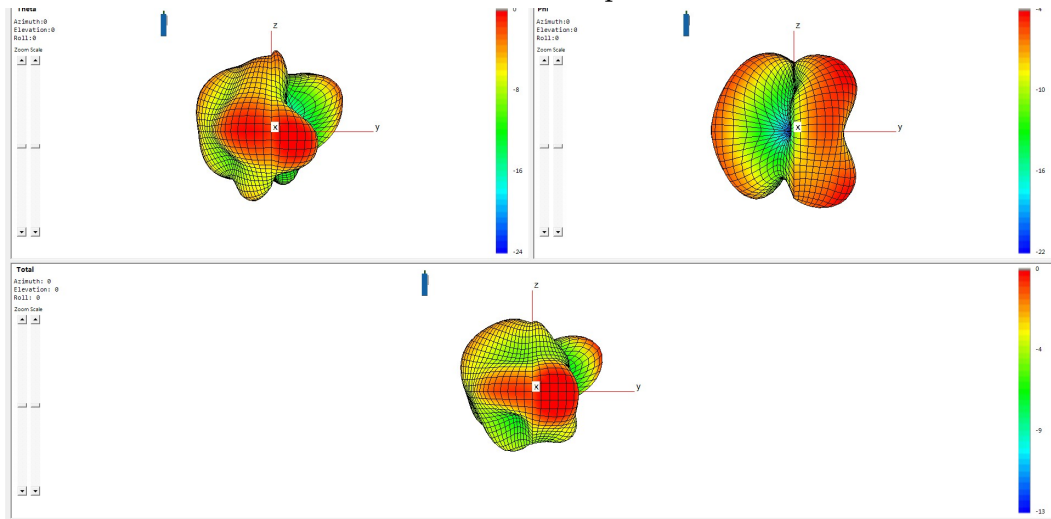
# WIFI Antenna efficiency and gain:

| WIFI          |           |                 |                |               |           |                 |                |
|---------------|-----------|-----------------|----------------|---------------|-----------|-----------------|----------------|
| Frequency MHz | GAIN(dBi) | efficiency(dB ) | efficiency (%) | Frequency MHz | GAIN(dBi) | efficiency(dB ) | efficiency (%) |
| 2400          | -0.67     | -4.62           | 34.50          | 5150          | 0.95      | -4.21           | 37.95          |
| 2410          | -0.55     | -4.40           | 36.31          | 5200          | 0.61      | -4.45           | 35.93          |
| 2420          | -0.34     | -4.17           | 38.25          | 5250          | 0.23      | -4.30           | 37.18          |
| 2430          | -0.43     | -4.15           | 38.46          | 5300          | 0.86      | -3.73           | 42.34          |
| 2440          | -0.19     | -4.11           | 38.85          | 5350          | 1.55      | -3.70           | 42.65          |
| 2450          | 0.25      | -3.88           | 40.96          | 5400          | 2.37      | -3.42           | 45.50          |
| 2460          | 0.18      | -3.91           | 40.62          | 5450          | 1.67      | -3.56           | 44.05          |
| 2470          | 0.59      | -3.53           | 44.37          | 5500          | 1.54      | -3.07           | 49.27          |
| 2480          | 1.08      | -3.21           | 47.70          | 5550          | 2.18      | -2.78           | 52.69          |
| Average       | -0.01     | -4.00           | 40.00          | 5600          | 2.29      | -2.84           | 52.03          |
|               |           |                 |                | 5650          | 1.97      | -3.27           | 47.05          |
|               |           |                 |                | 5700          | 2.13      | -3.11           | 48.87          |
|               |           |                 |                | 5750          | 2.99      | -2.57           | 55.35          |
|               |           |                 |                | 5800          | 3.02      | -2.99           | 50.28          |
|               |           |                 |                | 5850          | 4.13      | -2.71           | 53.63          |
|               |           |                 |                | Average       | 1.90      | -3.38           | 46.32          |

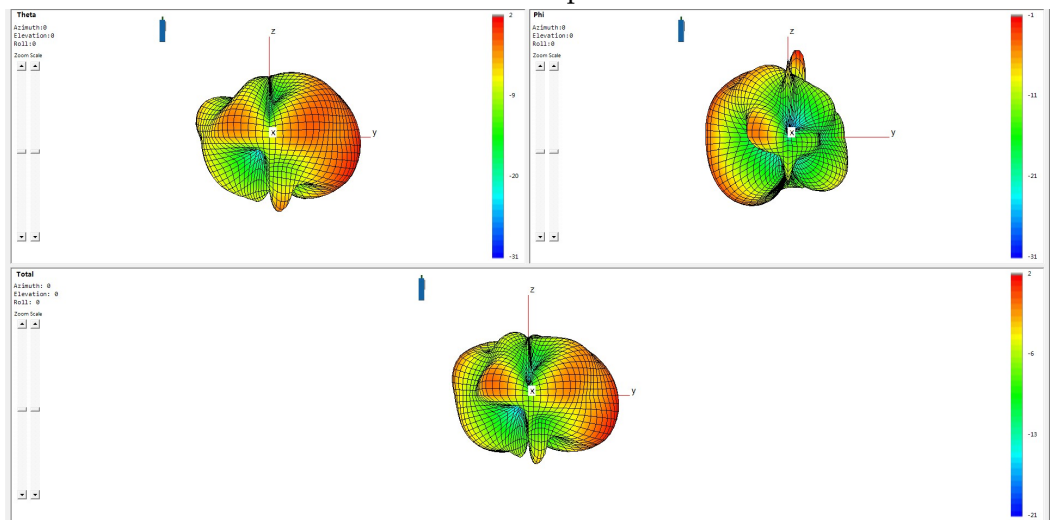
## BT Antenna 3D radiation pattern:



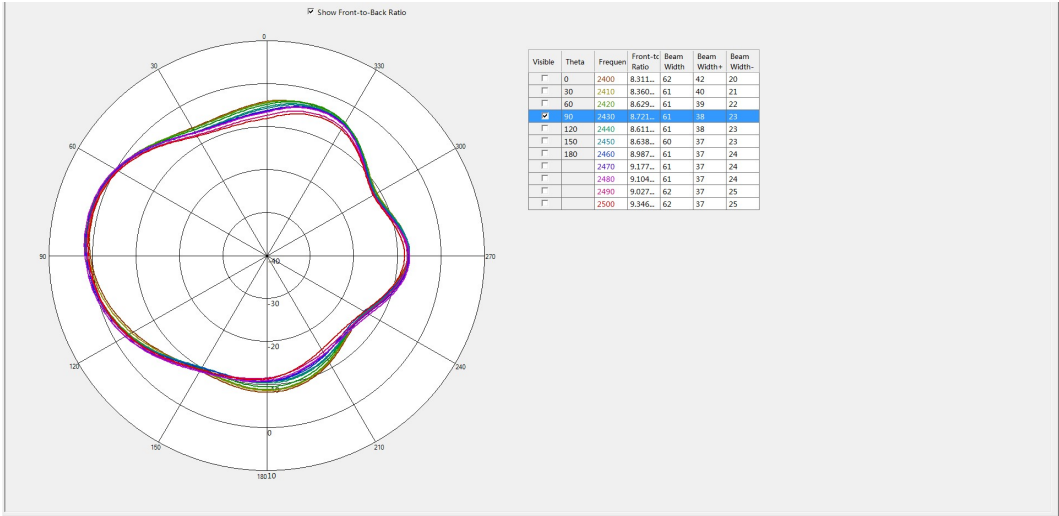
## WIFI 2.4G Antenna 3D radiation pattern:



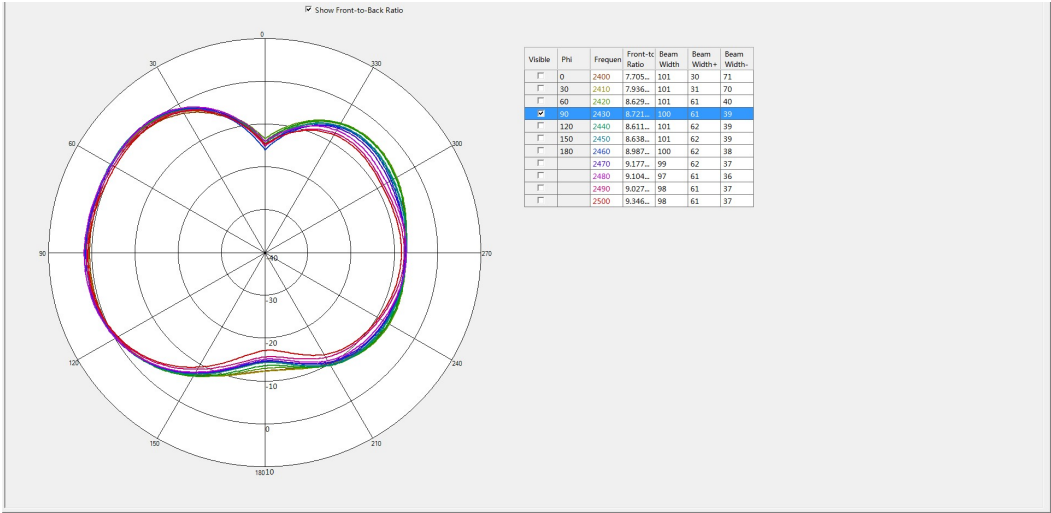
## WIFI 5G Antenna 3D radiation pattern:



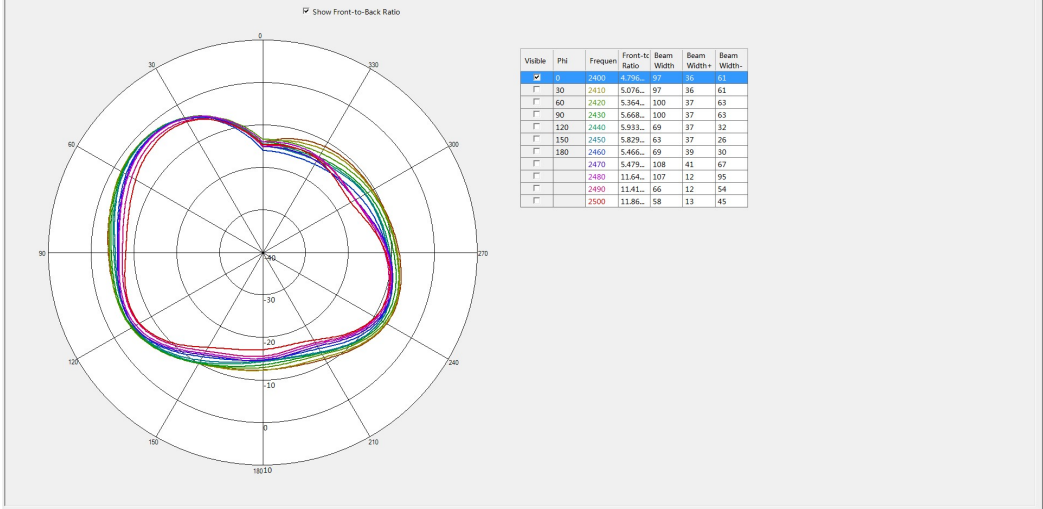
BT Antenna 2D radiation pattern:  
Theta=90.00deg



Phi=90.00deg

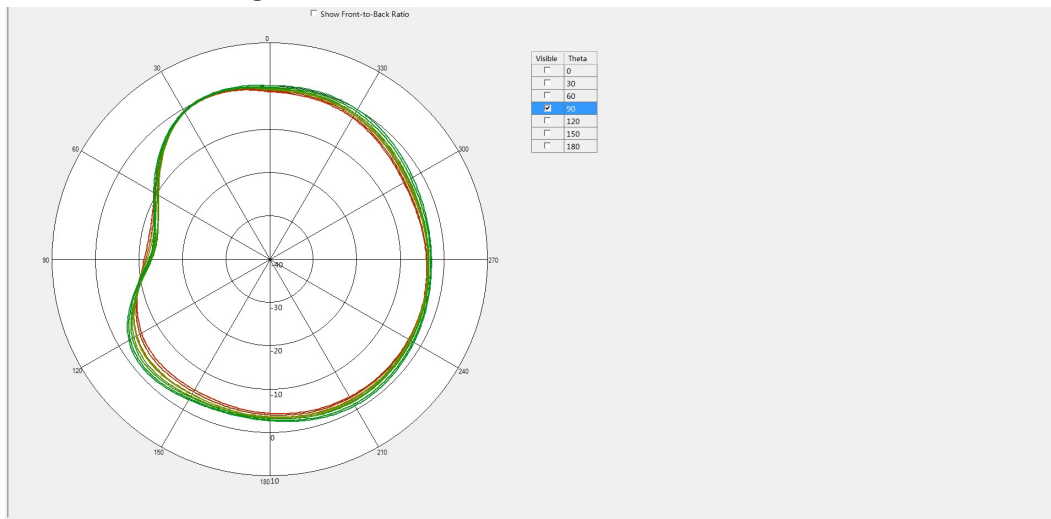


Phi=0.00deg

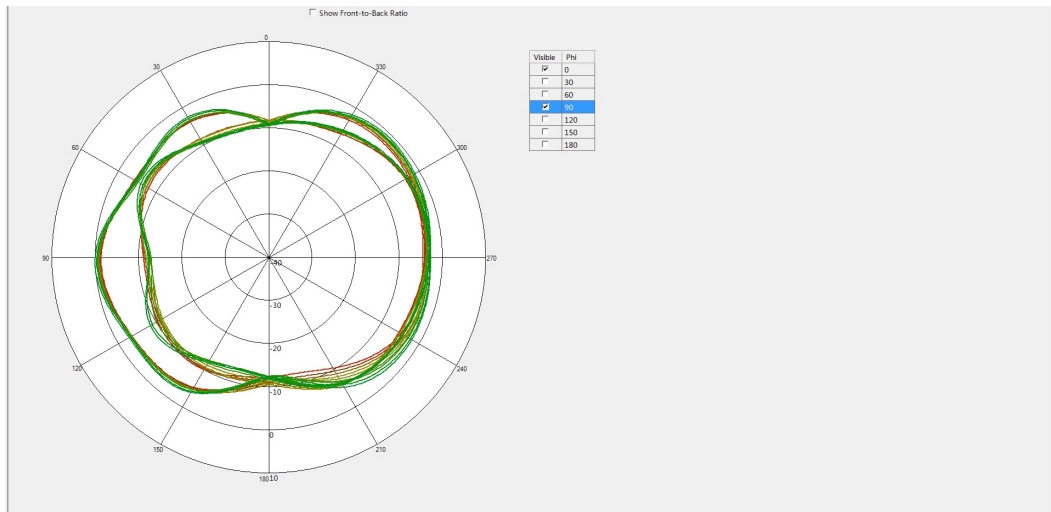


WIFI 2.4G Antenna 2D radiation pattern:

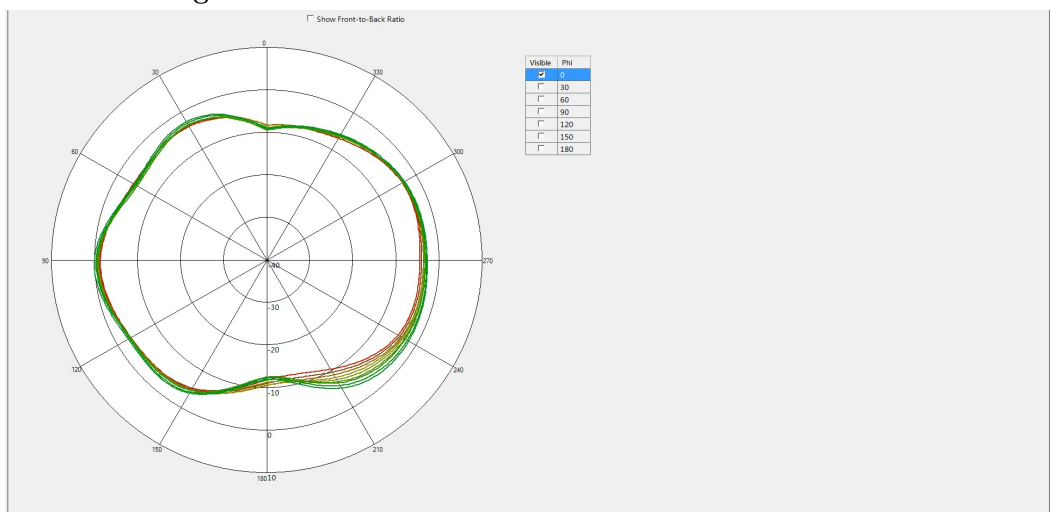
Theta=90.00deg



Phi=90.00deg

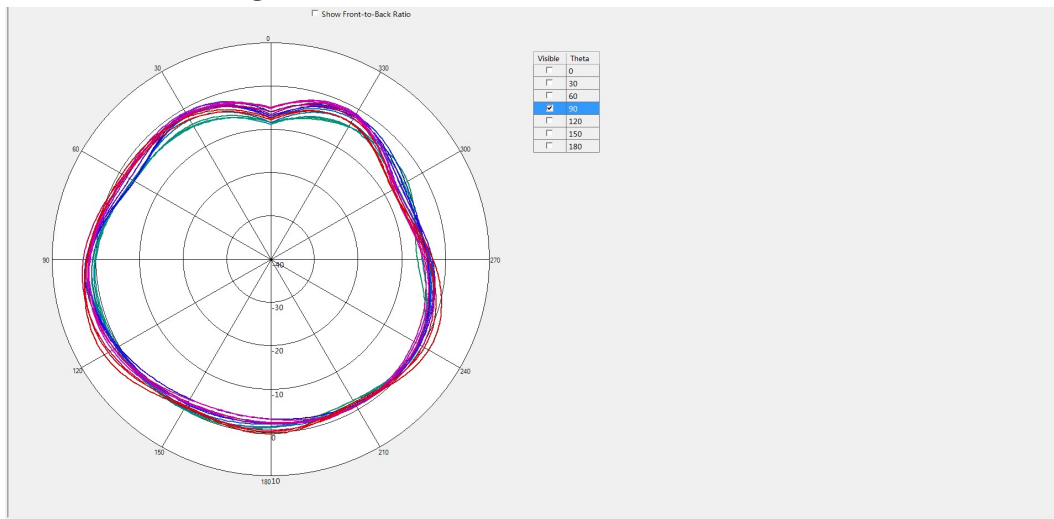


Phi=0.00deg

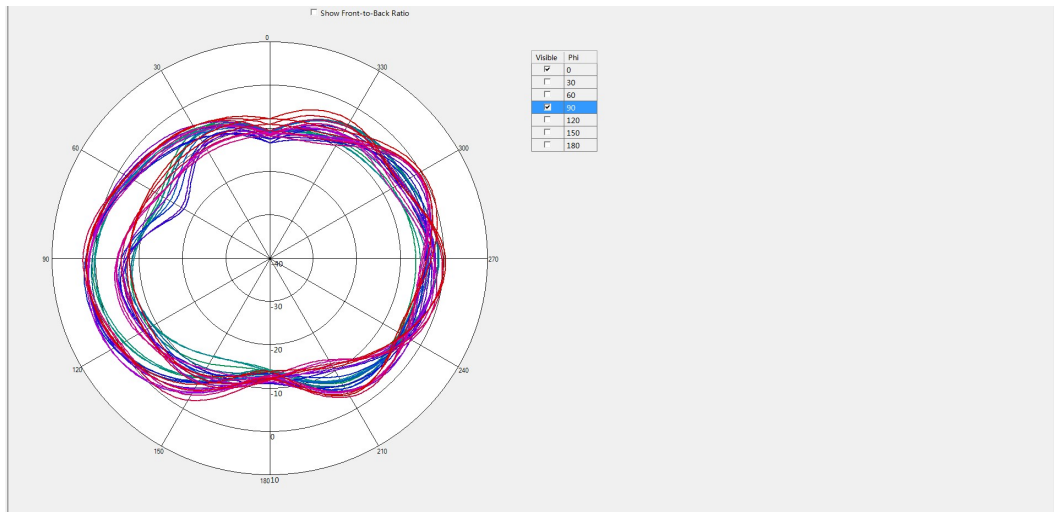


## WIFI 5G Antenna 2D radiation pattern:

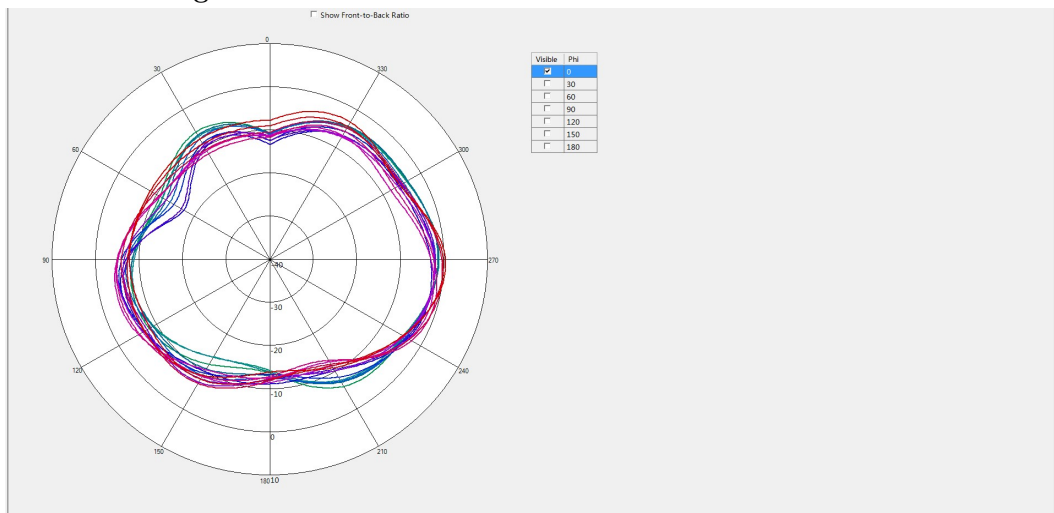
Theta=90.00deg



Phi=90.00deg



Phi=0.00deg



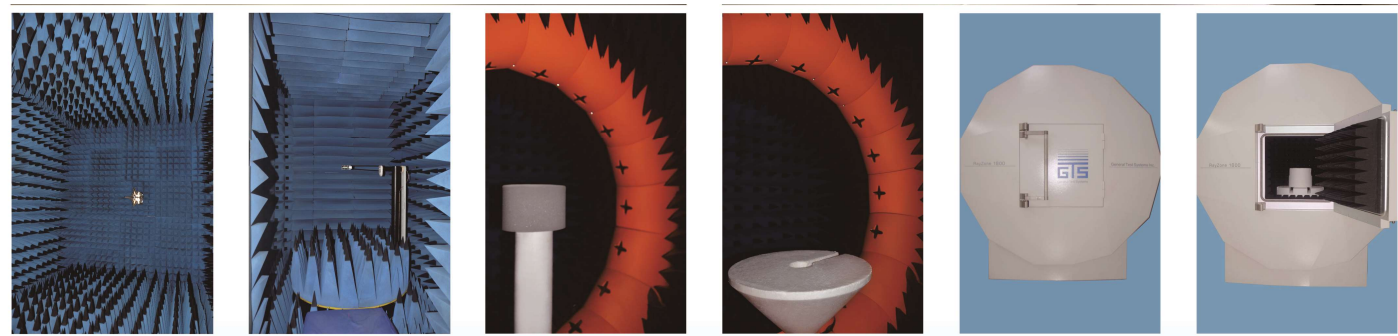
二：BT   Antenna   3D   OTA Test Data

| 11M    | Channel | TRP (dBm) | TIS (dBm) |
|--------|---------|-----------|-----------|
| WIFI B | CH 1    | 10.2      | -83.9     |
|        | CH 6    | 10.3      | -84.9     |
|        | CH 11   | 11.0      | -84.9     |

| 54M    | Channel | TRP (dBm) | TIS (dBm) |
|--------|---------|-----------|-----------|
| WIFI G | CH 1    | 10.5      | -71.1     |
|        | CH 6    | 11.6      | -71.8     |
|        | CH 11   | 10.5      | -71.8     |

| 54M    | Channel | TRP (dBm) | TIS (dBm) |
|--------|---------|-----------|-----------|
| WIFI A | CH 36   | 10.9      | N/A       |
|        | CH 100  | 7.7       | N/A       |
|        | CH 165  | 9.4       | N/A       |

| FS | Channel | TRP (dBm) | TIS (dBm) |
|----|---------|-----------|-----------|
| BT | CH 0    | 3.2       | -90.3     |
|    | CH 39   | 3.5       | -90.9     |
|    | CH 78   | 3.7       | -90.7     |



OTA Standard Chamber

