

承 認 書  
SPECIFICATION FOR APPROVAL

客 戶  
CUSTOMER

Hansong(NanJing)Technology Ltd

---

日 期  
DATE

2015-08-19

---

品 名  
DESCRIPTION

Antenna

---

客 戶 料 號  
CUSTOMER P/N

45-2-000146

---

成 品 編 號  
Model No

RC1WFI0886A

---

**Suzhou point positive electronic technology co.,ltd**

ADD ;No 3 XinLang Road ,Yinghu industrial Park, Wangting Town  
Xiangcheng district Suzhou City  
E\_mail; sales@ppteco.com

TEL : 0512--66706846 FAX : 0512-65088773

# SPECIFICATION

- |                               |  |
|-------------------------------|--|
| 1. Description                | : Dipole Antenna   |
| 2. Customer                   | : Hansong(Nanjing)Technology Ltd   |
| 3. Model No.                  | : RC1WFI0886A  |
| 4. Part No.                   | : 45-2-000146  |
| 5. Standard                   | : Wifi & Bluetooth   |
| 6. Antenna Profile            | :  |
| 7. Lead Length                | : L:108MM  |
| 8. Electrical Characteristics |  |
| Operating Frequency           | : 2.4~2.5Ghz 5.15~5.85Ghz  |
| Antenna Type                  | : Dipole Ant   |
| Impedance                     | : <b>50 Ohm</b>  |
|                               | : Gain: 1.2382dBi for 2.4 ~ 2.5GHz band<br>Gain: 3.4668dBi for 5.15 ~ 5.85GHz band |
| 9. Mechanical Characteristics |  |
| Connector                     | : RP-SMA   |
| Core                          | : N/A  |
| 10. Raw Material              |  |
| Coaxial Cable                 | : RG178 Coaxial  |

# Antenna Measurement Report

- Model: Dipole Antenna
- Manufacture : Suzhou point positive electronic technology co.,ltd
- Series Number : QTKOTAPR00321
- Antenna Type:
  - WLAN 802.11 a/b/g: Antenna1 & Antenna 2
  - Bluetooth: Antenna3
- Data : 2023/05/15



# OUTLINE SUMMARY

- Test Environment and Equipment
- Test Data of Antenna:

Test Result : Efficiency & Peak Gain

Test Result : 3D Radiation Pattern Test

Taet Laboratory:

Name:**suzhou Laboratory**

Address:No.99 Hongye RD.Suzhou Industrial Park Loufeng Hi-New-Tech  
Development Area,Suzhou,China

The test results relate only to the samples tested.



## TEST ENVIRONMENT AND EQUIPMENTS

### **The Gain, Efficiency, Directivity and 3D Pattern**

Shanghai EM-Testing Co., Ltd.  
<https://www.em-testing.com/>

#### **Frequency Range :**

WLAN 802.11 a/b/g: 2.40~2.50 & 5.125~5.85 GHz

#### **Radiation Pattern Test System :**

The Radiation Pattern Test System(EMT24)

The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 1 &2). when viewed from the door of the chamber.



The axis arrangement is shown in Fig. 3

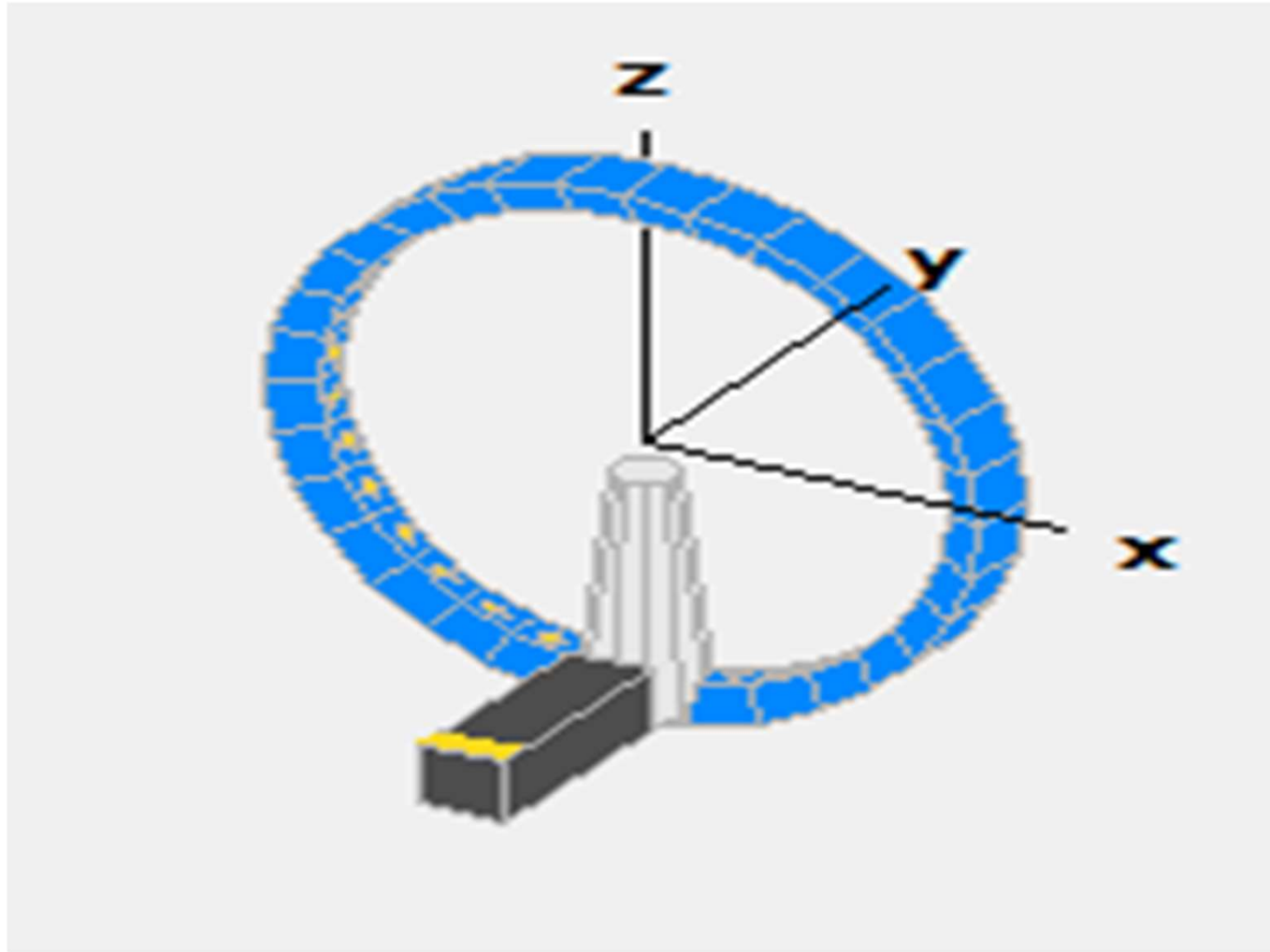


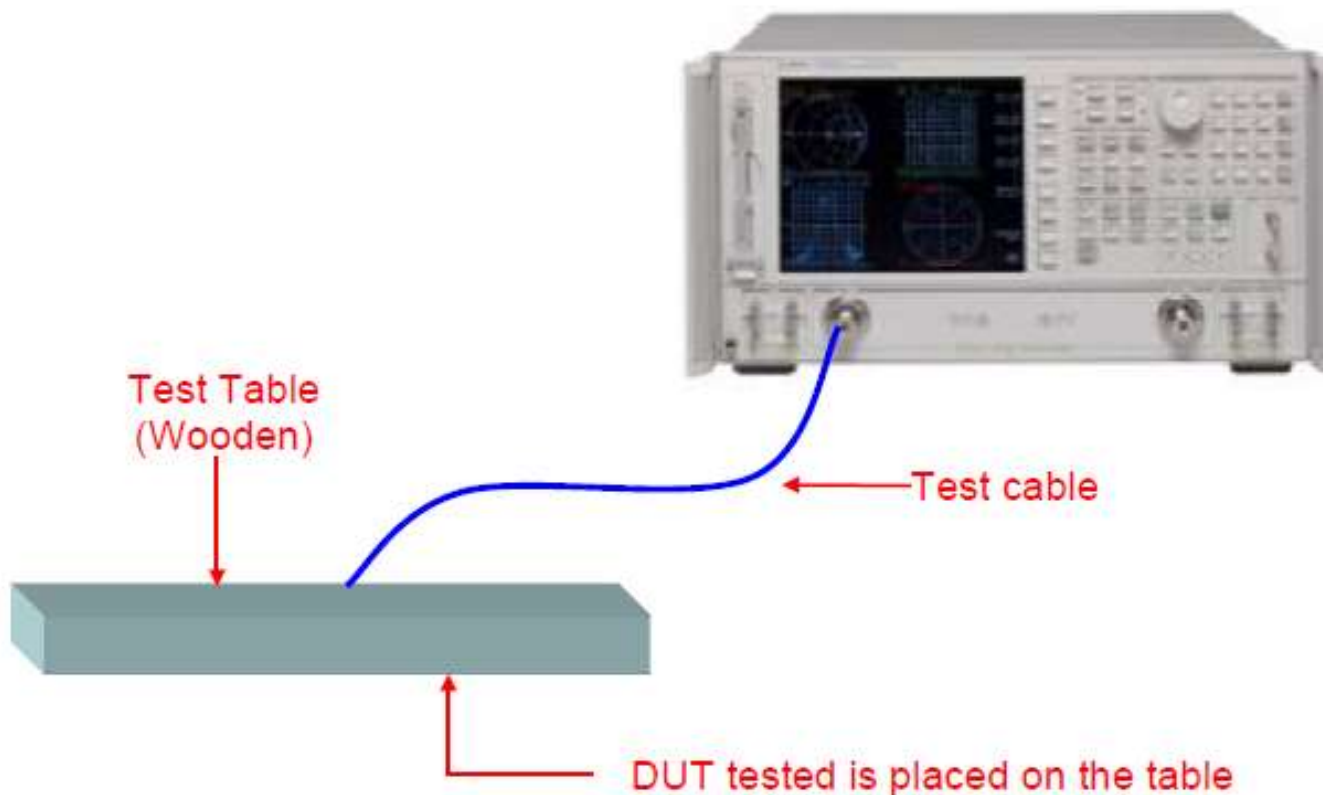
Fig. 3



# TEST ENVIRONMENT AND EQUIPMENTS

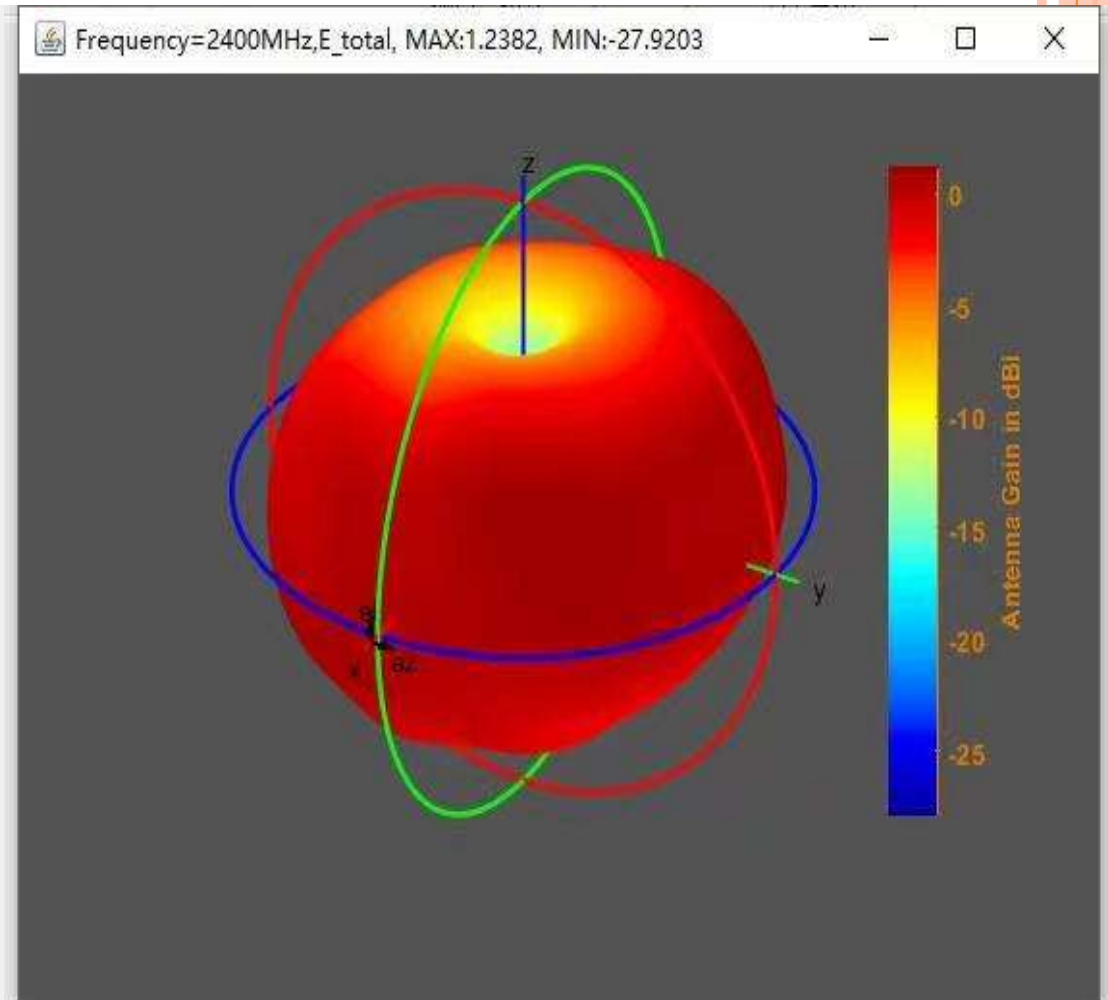
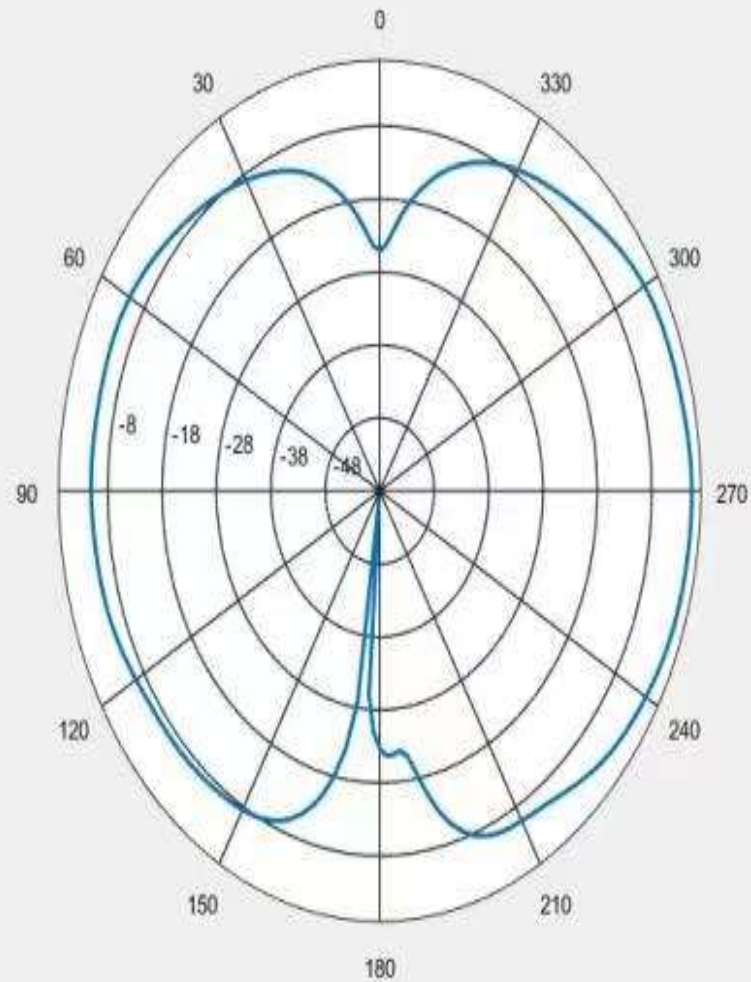
## S-Parameter test

- Network Analyzer
- Testing range from 30KHz to 8.5GHz



# TEST RESULT : 2D & 3D RADIATION PATTERN

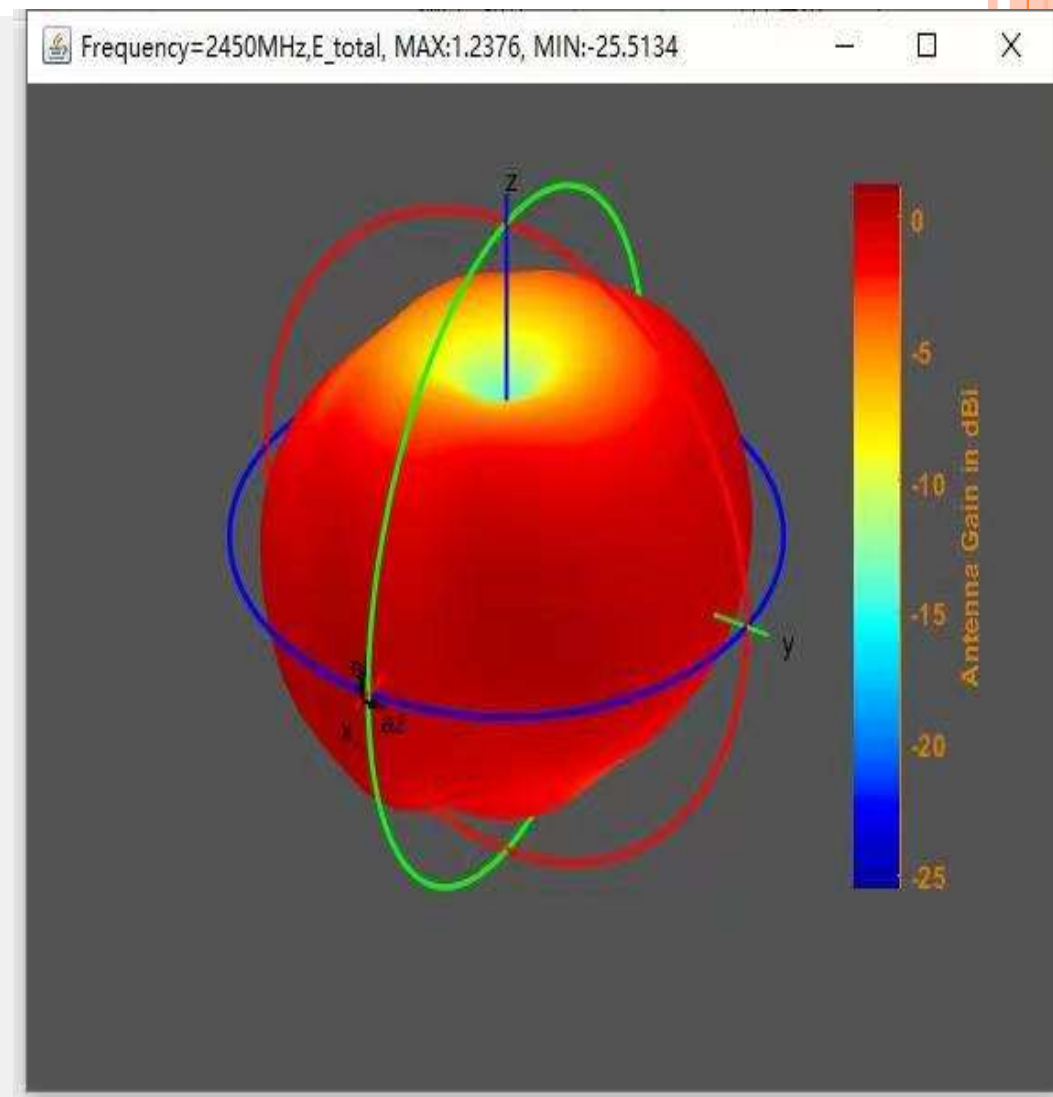
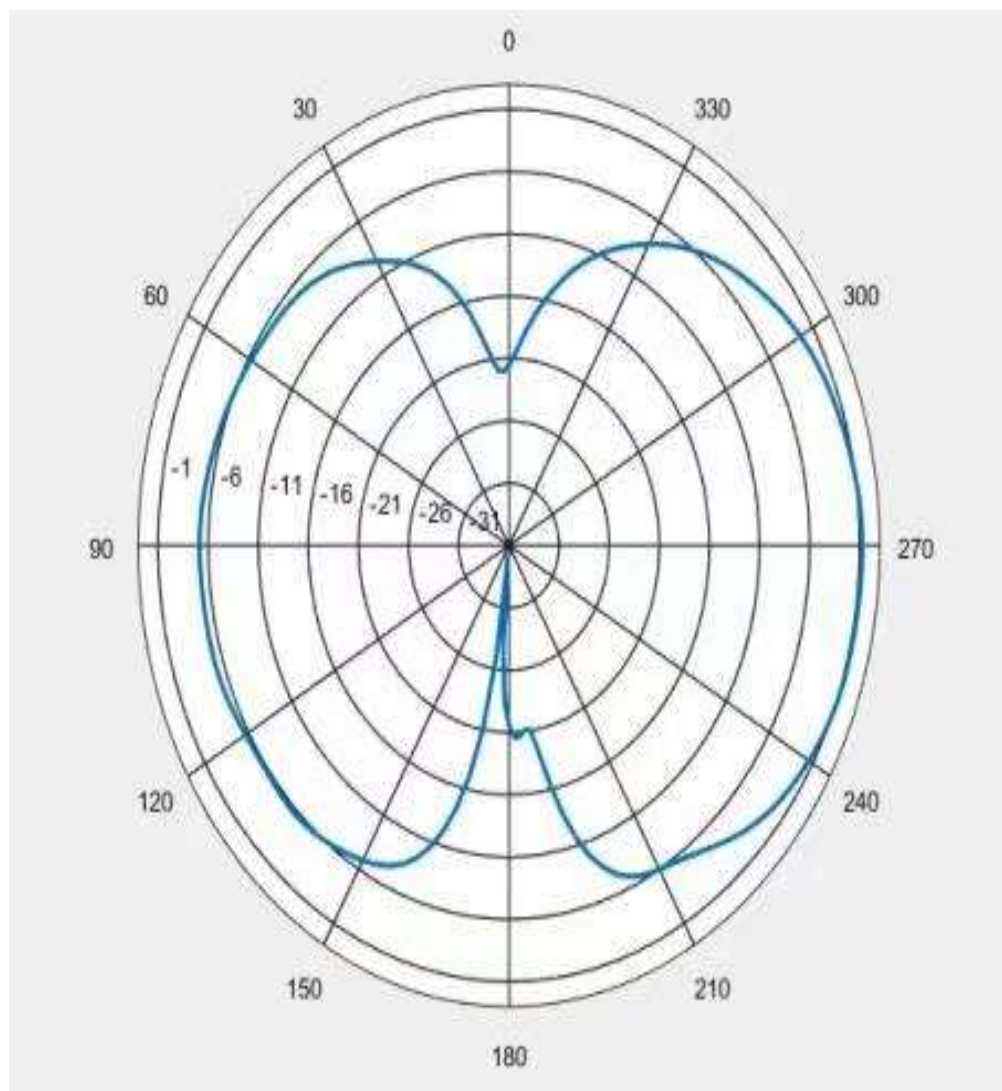
ANTENNA 1 2.4GHZ





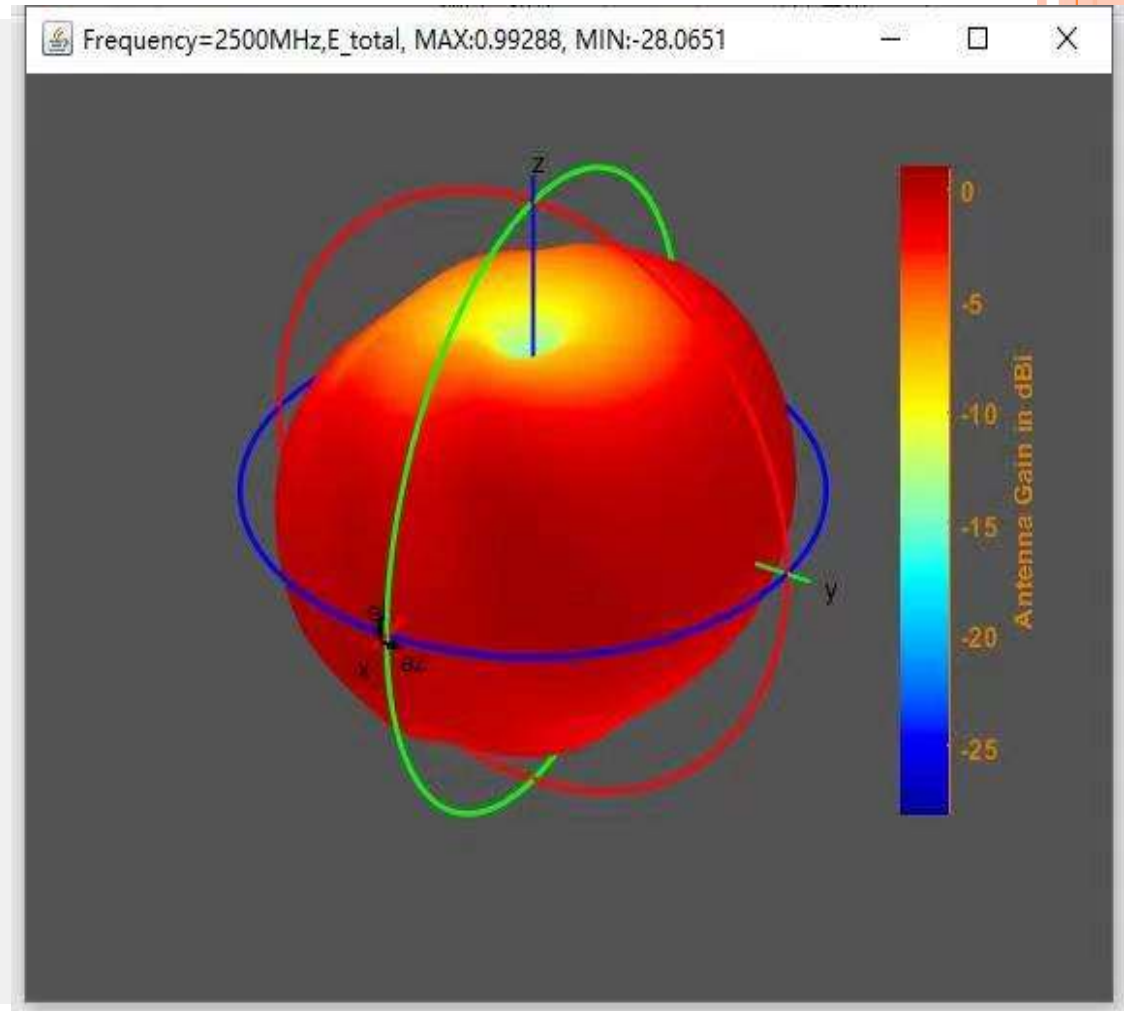
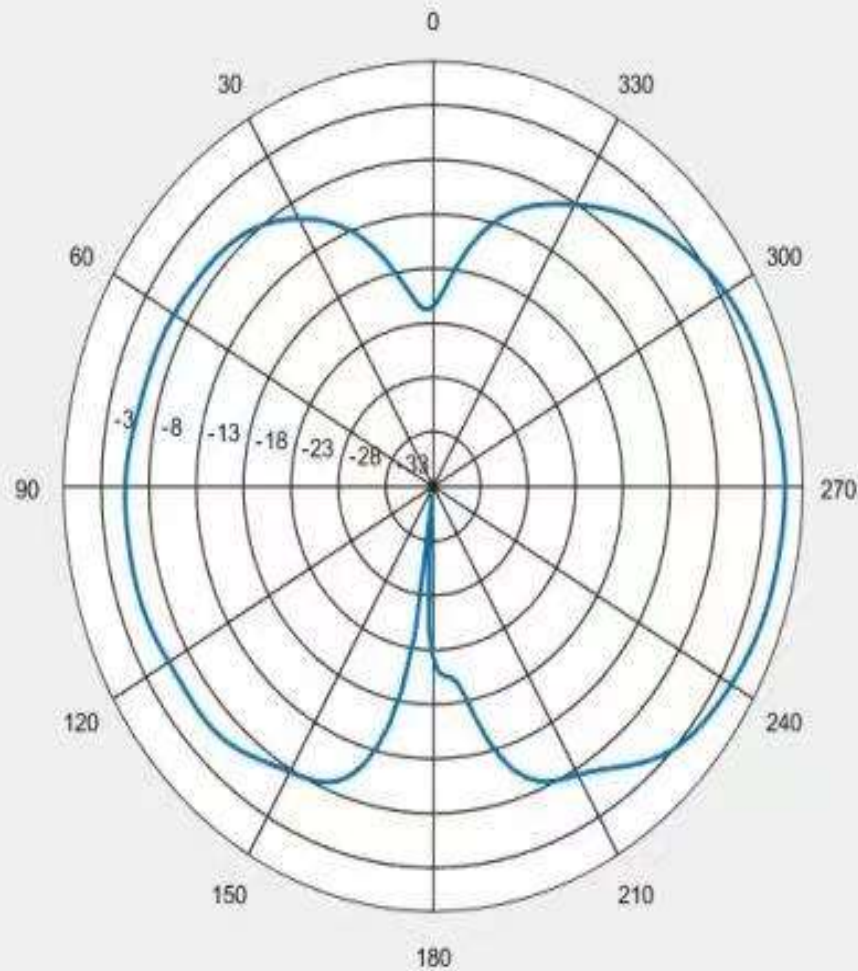
# TEST RESULT : 2D & 3D RADIATION PATTERN

ANTENNA 1 2.45GHz



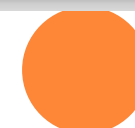
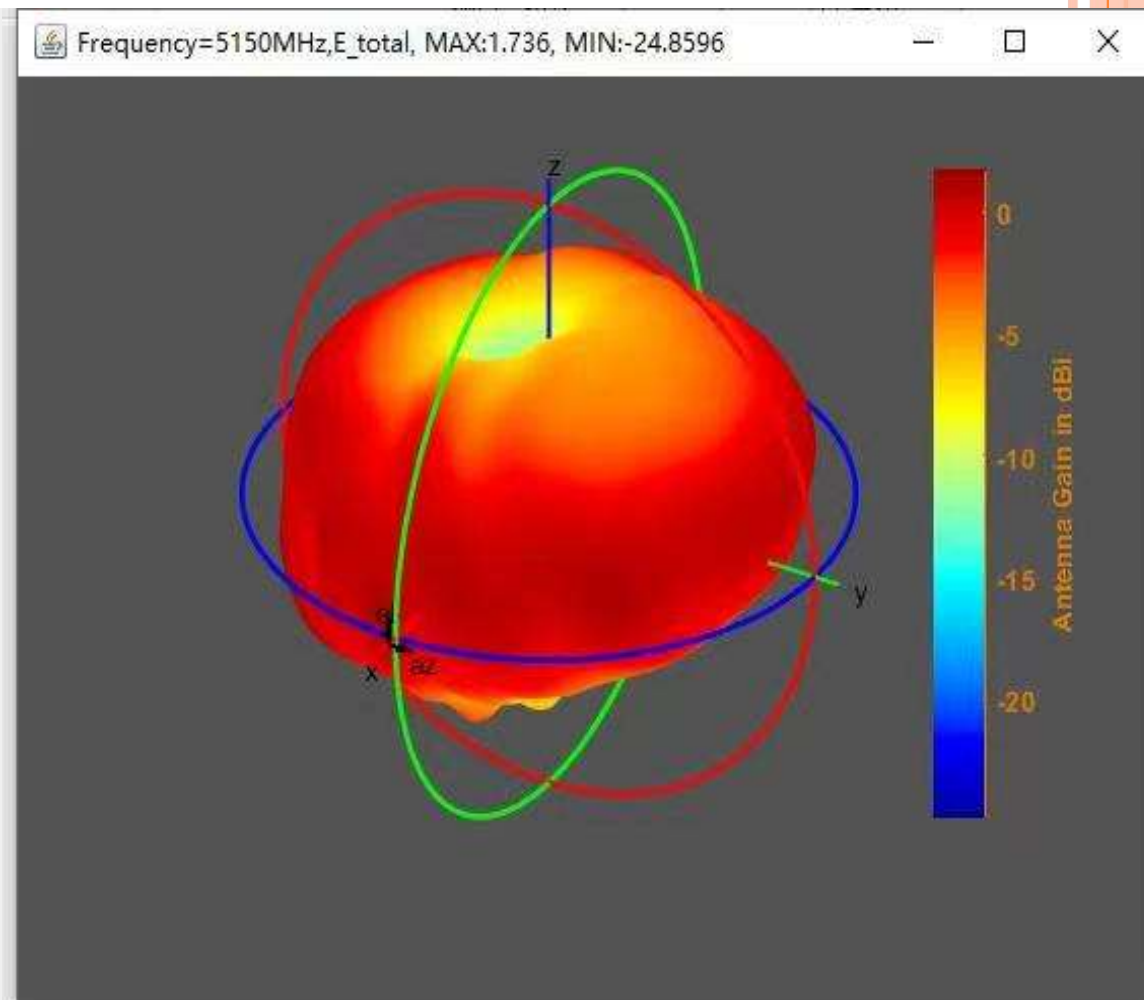
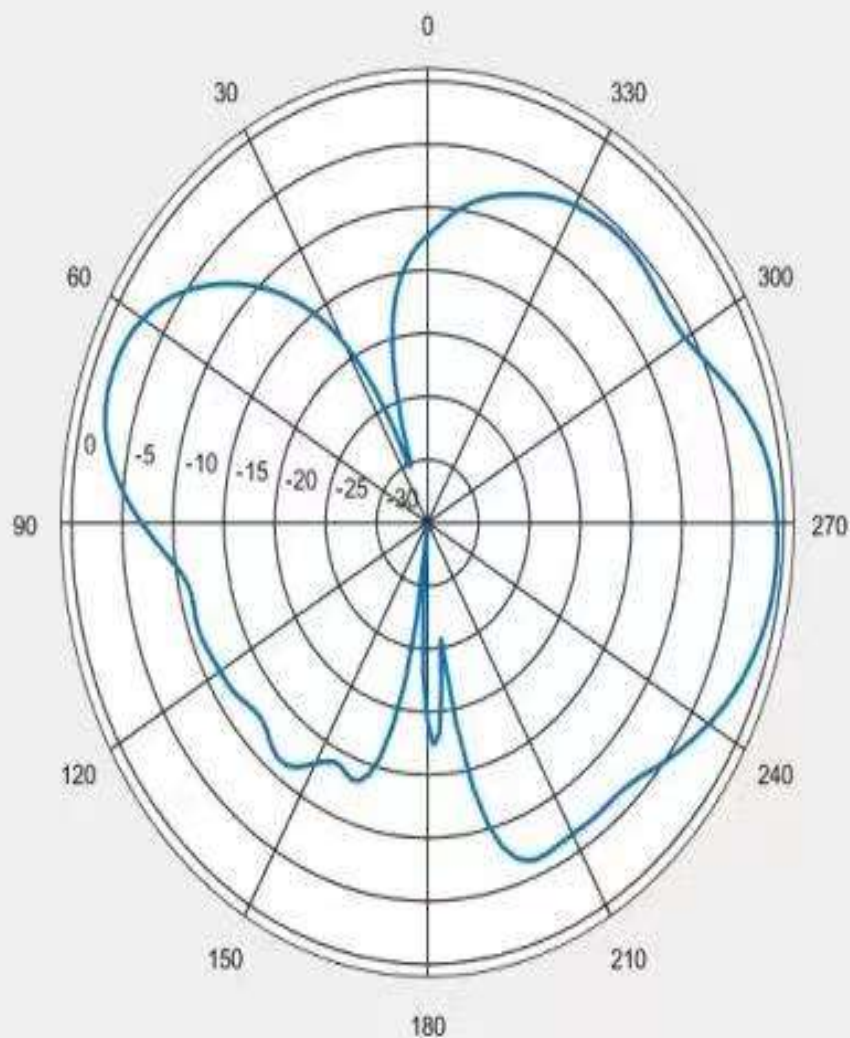
# TEST RESULT : 2D & 3D RADIATION PATTERN

ANTENNA 1 2.5GHZ



# TEST RESULT : 2D & 3D RADIATION PATTERN

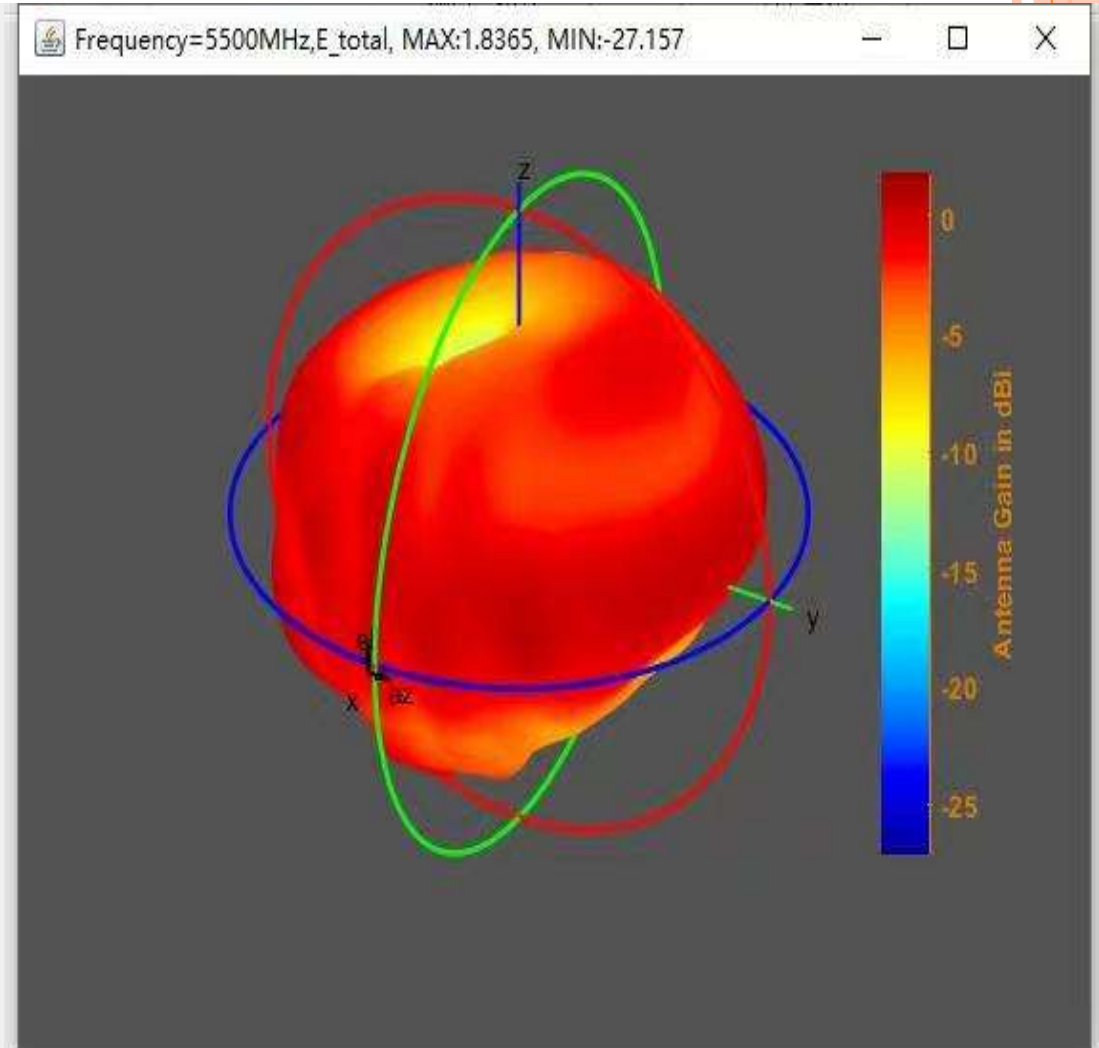
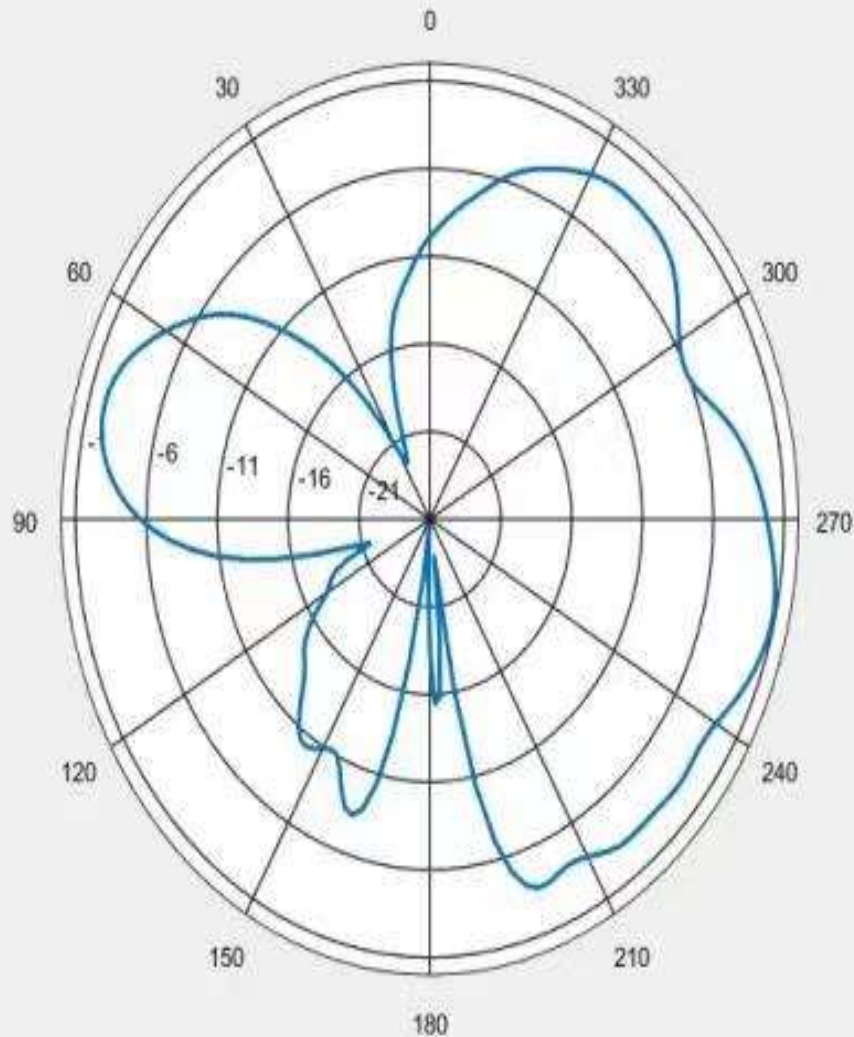
ANTENNA 1 5.15GHZ





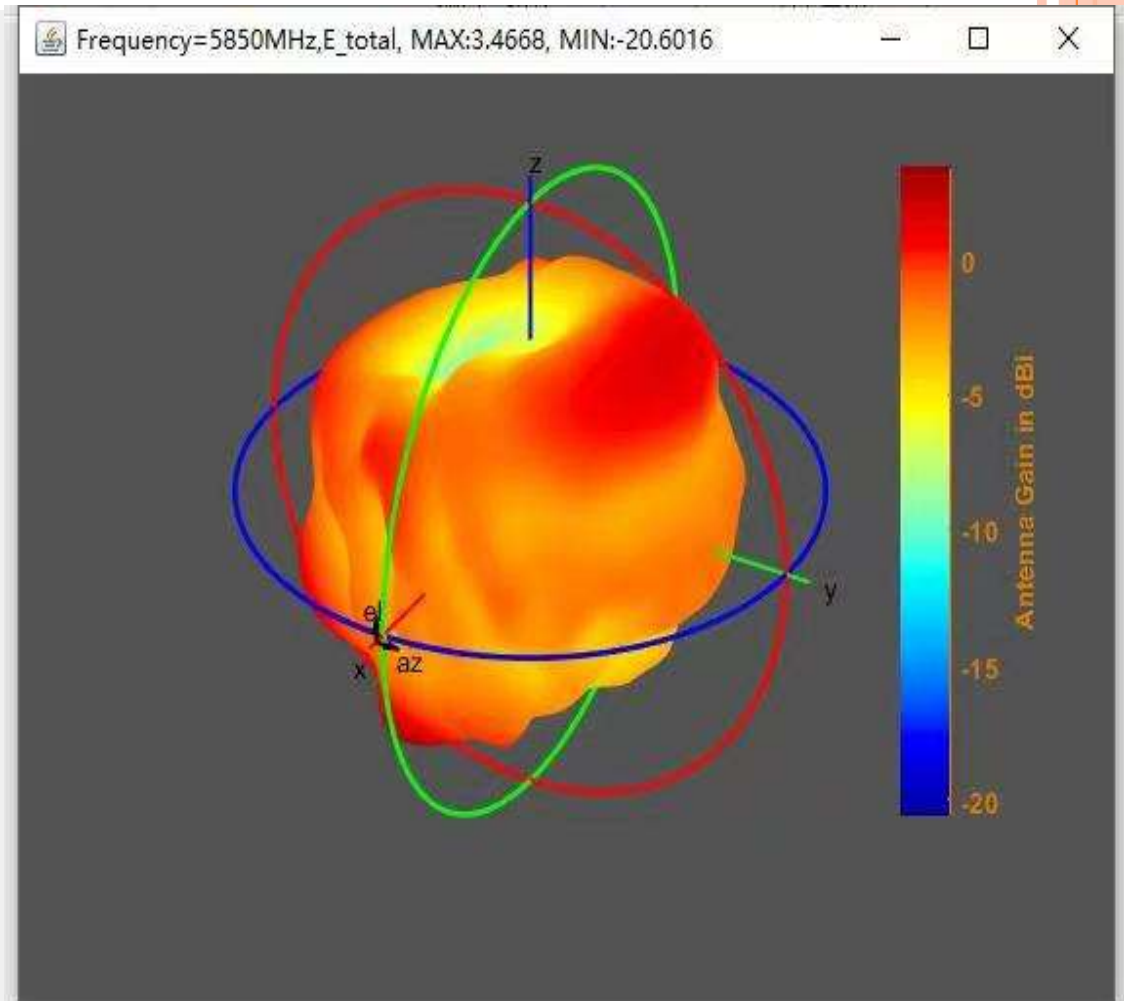
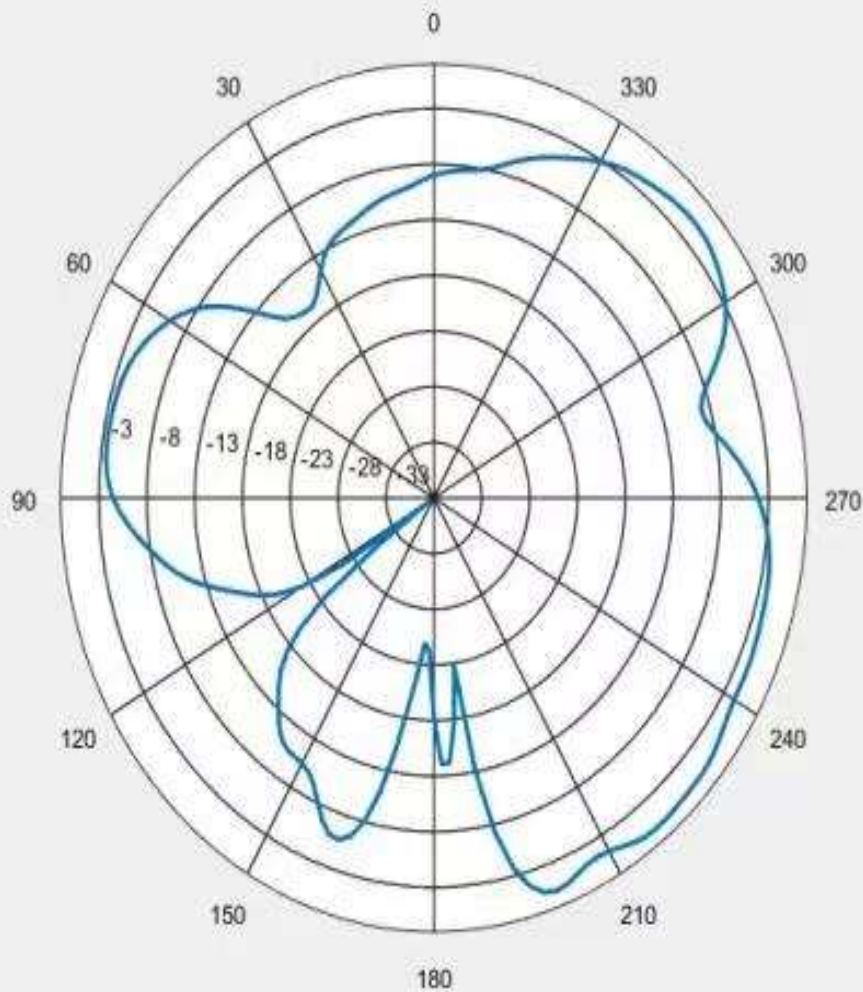
# TEST RESULT : 2D & 3D RADIATION PATTERN

ANTENNA 1 5.5GHZ



# TEST RESULT : 2D & 3D RADIATION PATTERN

ANTENNA 1 5.85GHZ



# TEST RESULT : EFFICIENCY & PEAK GAIN

Frequency (MHz)	Directivity(dB)	Peak Gain(dBi)	Average Gain(dBi)	Efficiency(dB)	Efficiency(%)
2400	2.2596	1.2382	-2.2683	-1.0214	79.0418
2450	2.4342	1.2376	-2.4718	-1.1965	75.9181
2475	2.5203	1.1678	-2.6398	-1.3525	73.2402
2500	2.471	0.9929	-2.7526	-1.4781	71.1517
5150	3.4513	1.736	-2.8959	-1.7152	67.3714
5175	3.2087	1.2482	-3.1069	-1.9605	63.6722
5350	3.2736	1.499	-2.8116	-1.7746	66.4563
5375	3.2676	1.4915	-2.806	-1.7761	66.4339
5400	3.9964	2.3024	-2.6858	-1.694	67.702
5425	3.4521	1.583	-2.8203	-1.8691	65.027
5450	3.3415	1.7092	-2.5721	-1.6323	68.6709
5475	3.7417	2.2569	-2.3905	-1.4849	71.0419
5500	3.5249	1.8365	-2.5758	-1.6884	67.7898
5800	4.3962	2.9879	-2.023	-1.4084	72.3041
5850	5.0296	3.4668	-2.1298	-1.5628	69.7783

