

# Antenna Test Report

|                     |        |
|---------------------|--------|
| Customer            |        |
| Project             | TS12-3 |
| Antenna Revision    | A0     |
| Product Description | PCB    |
| Product No          | BT256  |

## Purpose

This report is to measure the performance of *p'c'b* antenna for 台 德—**BT256**. All test date are showed as below.

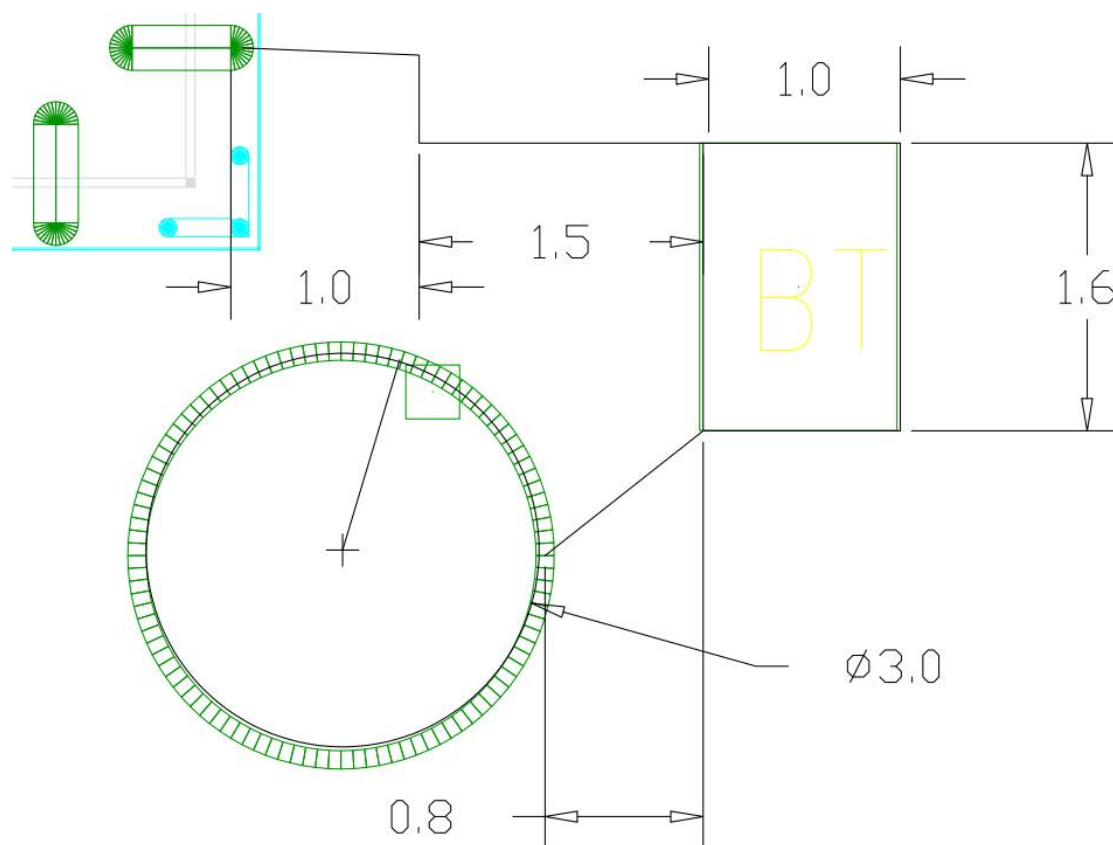
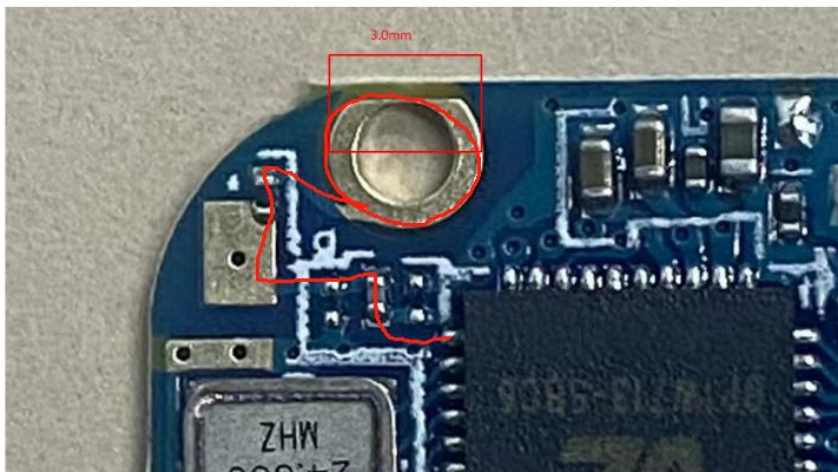
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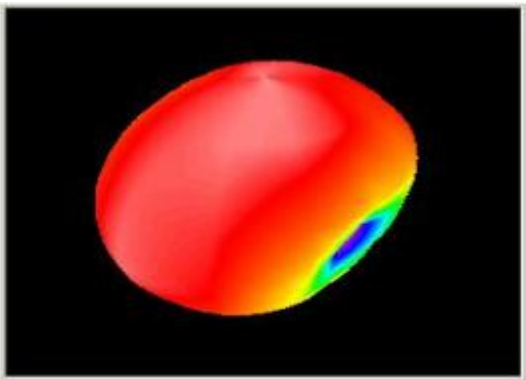
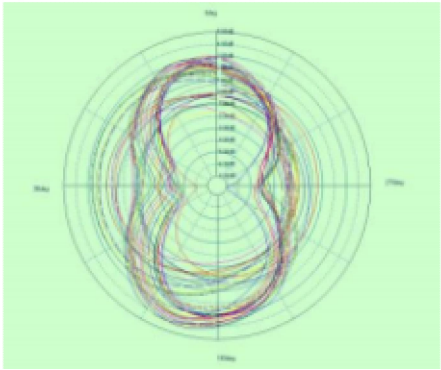
# 1. Product Overview & Dimension

## Antenna

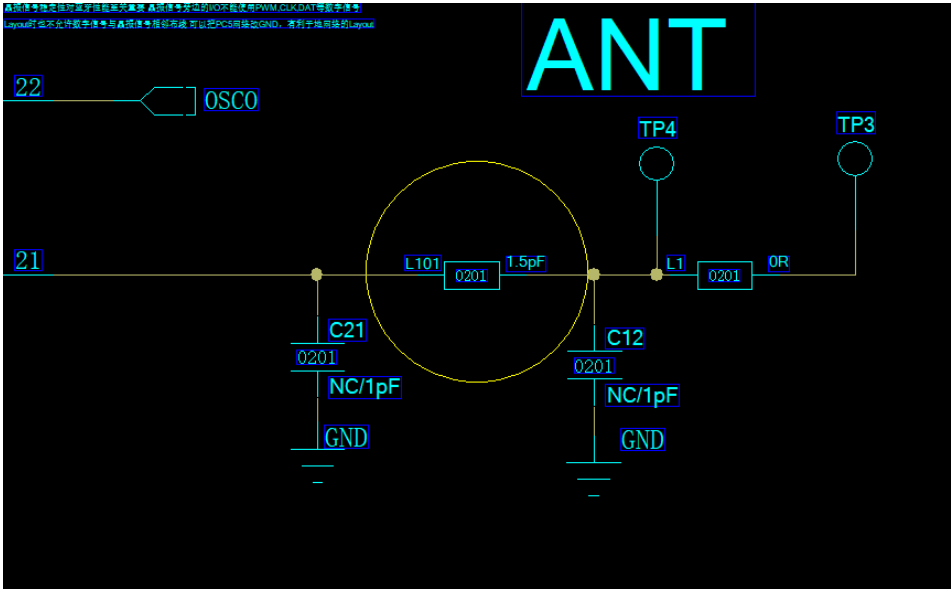


2. Test System

| Sequence Number      | Test Item         | equipment                                                       |
|----------------------|-------------------|-----------------------------------------------------------------|
| 1. S parameter       | VSWR              | Agilent 5071C & Agilent 5062A                                   |
| 2. OTA Test          | TRP&TIS           | Agilent 8960 E5515C& Agilent 4438C&CMW500 &CMW270<br>ETS&SATIMO |
| 3. Gain & Efficiency | Gain & Efficiency | ETS&SATIMO<br>Agilent 5071C                                     |



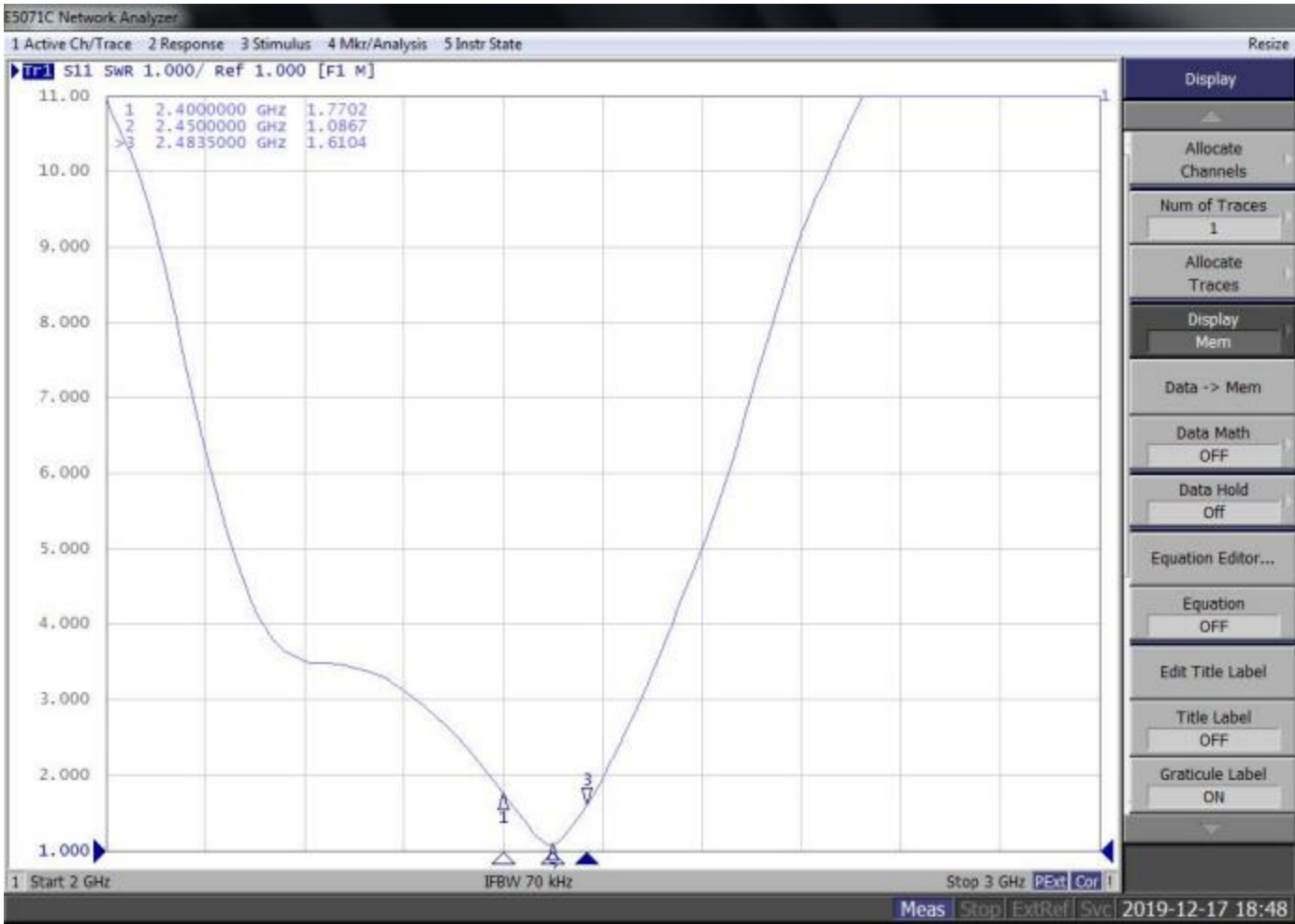
2.1 Antenna Matching Network



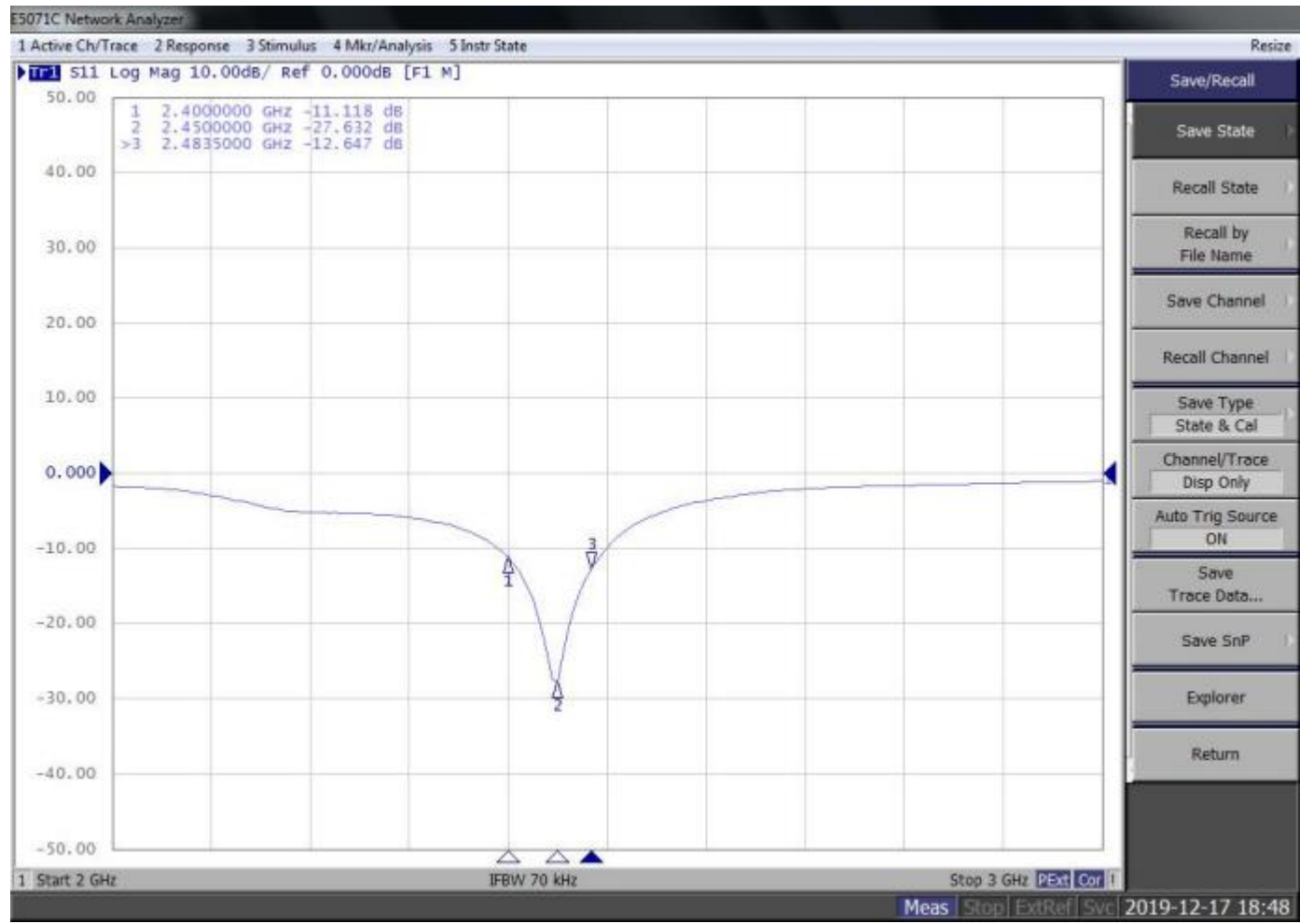
| Element   | Value |
|-----------|-------|
| L1 (0201) | 1.5pF |
| 21(0201)  | NC    |

|            |    |
|------------|----|
| C12 (0201) | NC |
| L1 (0201)  | 0R |
|            |    |
|            |    |

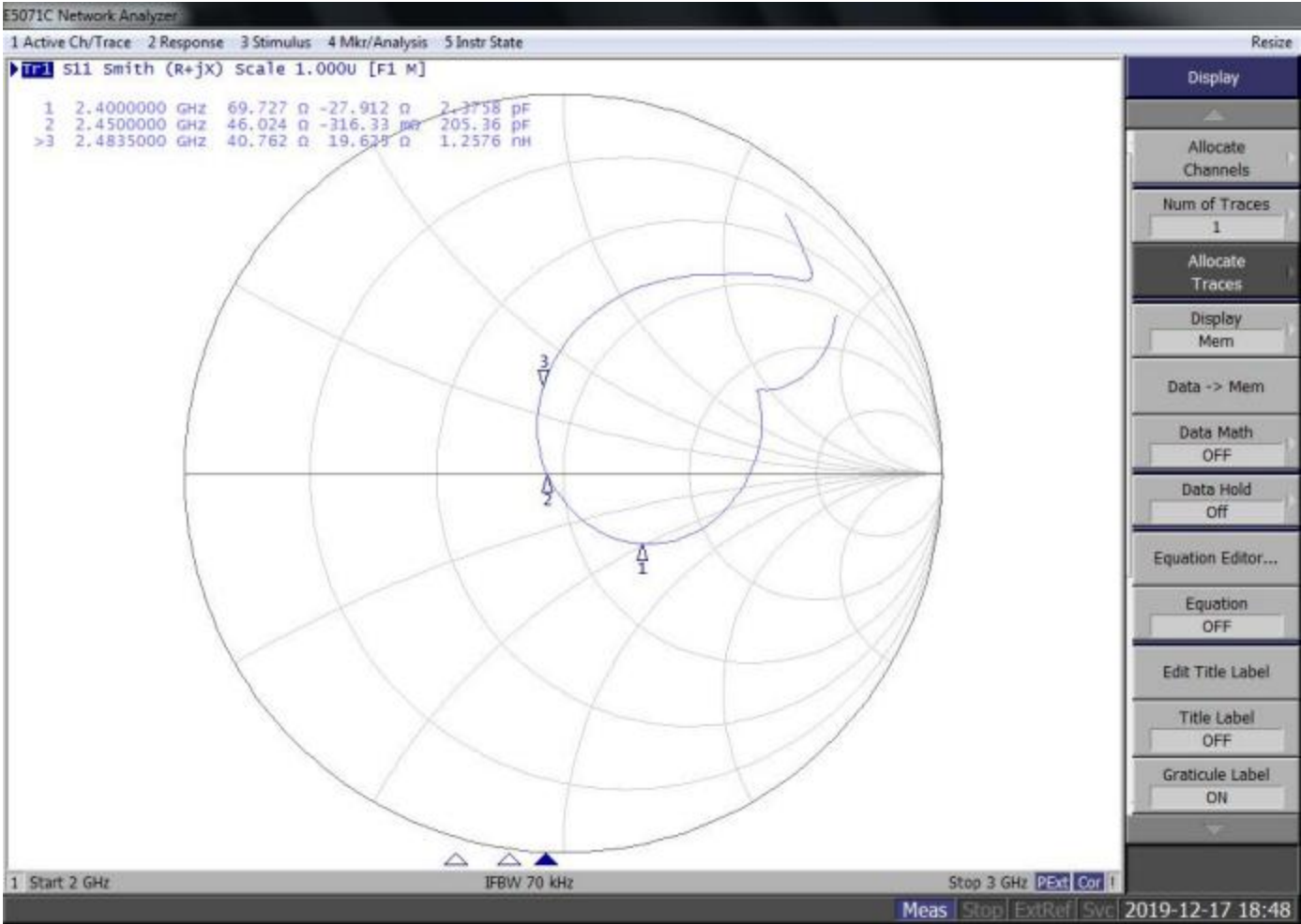
2.2 VSWR



### 2.3 RETURN LOSS



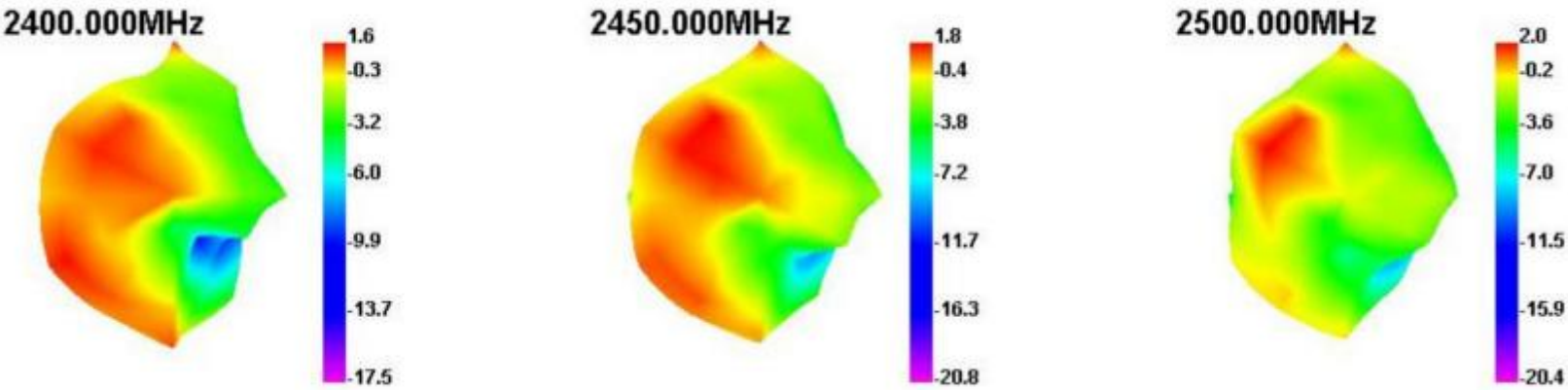
2.4 SMITH



## 2.5 *GAIN & Efficiency*

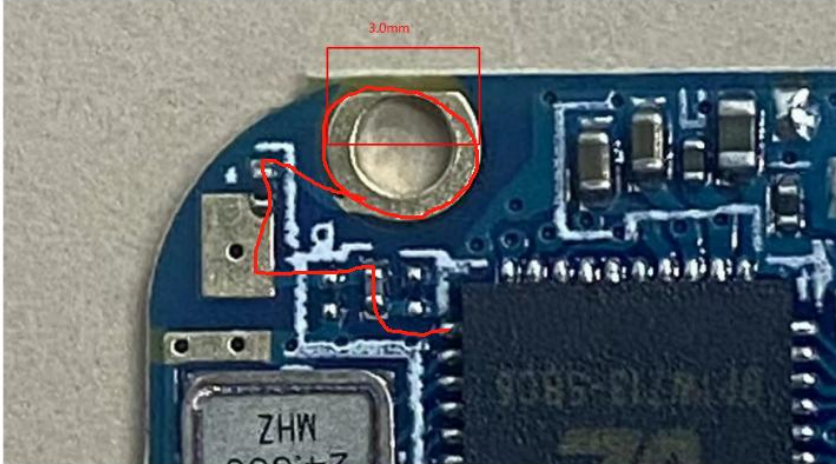
| Passive Test For 2.4G |             |              |               |               |
|-----------------------|-------------|--------------|---------------|---------------|
| Freq<br>(MHz)         | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) | Gain<br>(dBd) |
| 2400                  | 51.96       | -2.84        | 1.62          | -0.53         |
| 2410                  | 55.03       | -2.59        | 1.99          | -0.16         |
| 2420                  | 54.81       | -2.61        | 2.02          | -0.13         |
| 2430                  | 54.93       | -2.6         | 2.03          | -0.12         |
| 2440                  | 52.84       | -2.77        | 1.88          | -0.27         |
| 2450                  | 51.93       | -2.85        | 1.83          | -0.32         |
| 2460                  | 51.63       | -2.87        | 1.83          | -0.32         |
| 2470                  | 50.01       | -3.01        | 1.87          | -0.28         |
| 2480                  | 53.08       | -2.75        | 2.08          | 0.13          |
| 2490                  | 50.18       | -2.99        | 2.09          | 0.04          |
| 2500                  | 45.45       | -3.42        | 2.01          | -0.14         |

2.6 2D/3D DATA



### **3. Conclusion**

天线尺寸直径**3.0mm**



## **4. Conclusion**

PCB板端匹配电路,L1串 $0\Omega$ 连接天线，天线尺寸剪短，现长度3.0mm，无源驻波调试到2.0以下，初步判定合格。