



REPORT No.: SZ22070351E01

# TEST REPORT

**APPLICANT** : GSOU Technology(Shen Zhen)Co., LTD

**PRODUCT NAME** : BLUETOOTH SPEAKER

**MODEL NAME** : MF8405

**TRADE NAME** : CREATIVE

**BRAND NAME** : N/A

**STANDARD(S)** : ANSI/IEEE Std 149-2008

**RECEIPT DATE** : 2022-07-29

**TEST DATE** : 2022-08-02

**ISSUE DATE** : 2022-08-03



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| Change History |            |                   |
|----------------|------------|-------------------|
| Version        | Date       | Reason for change |
| 1.0            | 2022-08-03 | First edition     |



# 1. Technical Information

**Note:** Provide by manufacturer.

## 1.1. Applicant and Manufacturer Information

|                              |                                                                              |
|------------------------------|------------------------------------------------------------------------------|
| <b>Applicant:</b>            | GSOU Technology(Shen Zhen)Co., LTD                                           |
| <b>Applicant Address:</b>    | Room 1246, Jiaxiye Plaza, 328 Minzhi Avenue, Longhua Distric.Shenzhen ,China |
| <b>Manufacturer:</b>         | N/A                                                                          |
| <b>Manufacturer Address:</b> | N/A                                                                          |

## 1.2. Equipment Under Test (EUT) Description

|                      |                 |
|----------------------|-----------------|
| <b>Wireless Type</b> | Bluetooth       |
| <b>Frequency</b>     | 2400MHz-2500MHz |
| <b>IMEI</b>          | N/A             |
| <b>Sample No.</b>    | 1#              |



## 2. Test Results

### 2.1. Applied Reference Documents

Leading reference documents for testing:

| No. | Identity               | Document Title                             |
|-----|------------------------|--------------------------------------------|
| 1   | ANSI/IEEE Std 149-2008 | IEEE Standard Test Procedures for Antennas |

### 2.2. Test Conditions

Test Environment Conditions:

|                    |                  |
|--------------------|------------------|
| Relative Humidity: | 25 ... 75 %      |
| Temperature:       | +10 °C to +30 °C |

### 2.3. Measurement Uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO. When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% Confidence intervals.

| Item                                                 | Measurement Uncertainty(dB) |
|------------------------------------------------------|-----------------------------|
| Gain                                                 | ±0.5                        |
| VSWR                                                 | ±0.2                        |
| Measurement Uncertainty(95% Confidence Interval) K=2 |                             |

## 2.4. Test Results lists

### 2.4.1. Gain

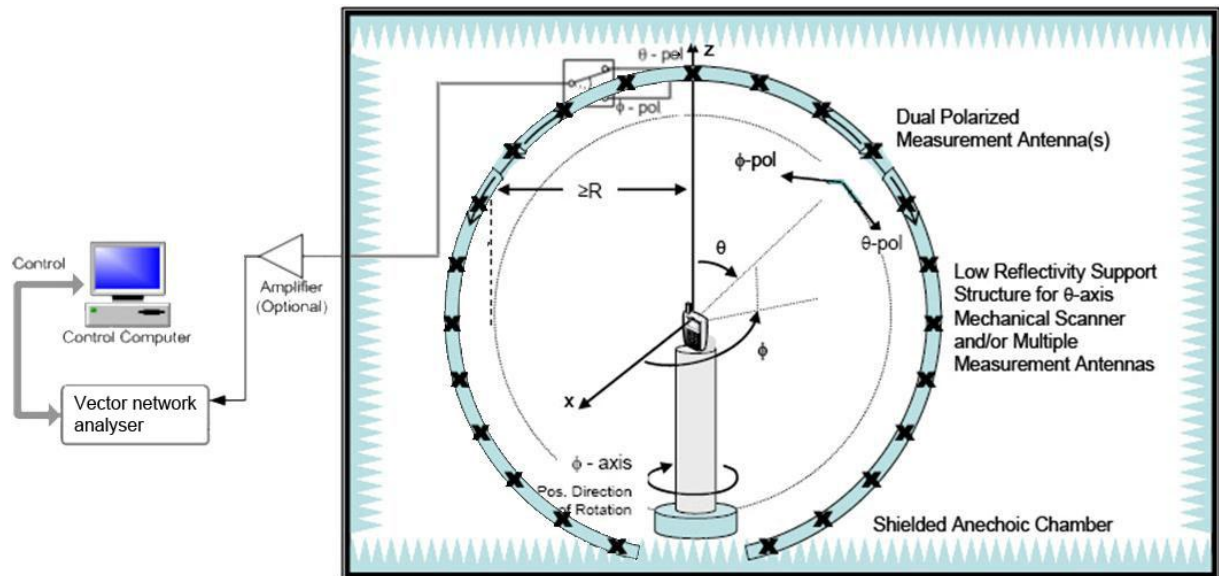
| Frequency(MHz) | Gain(dBi) |
|----------------|-----------|
| 2400           | 1.91      |
| 2410           | 2.01      |
| 2420           | 1.90      |
| 2430           | 1.86      |
| 2440           | 1.94      |
| 2450           | 2.04      |
| 2460           | 2.08      |
| 2470           | 2.10      |
| 2480           | 2.07      |
| 2490           | 2.07      |
| 2500           | 2.12      |

### 2.4.2. VSWR

| Frequency(MHz) | VSWR |
|----------------|------|
| 2400           | 1.25 |
| 2440           | 1.21 |
| 2480           | 1.53 |

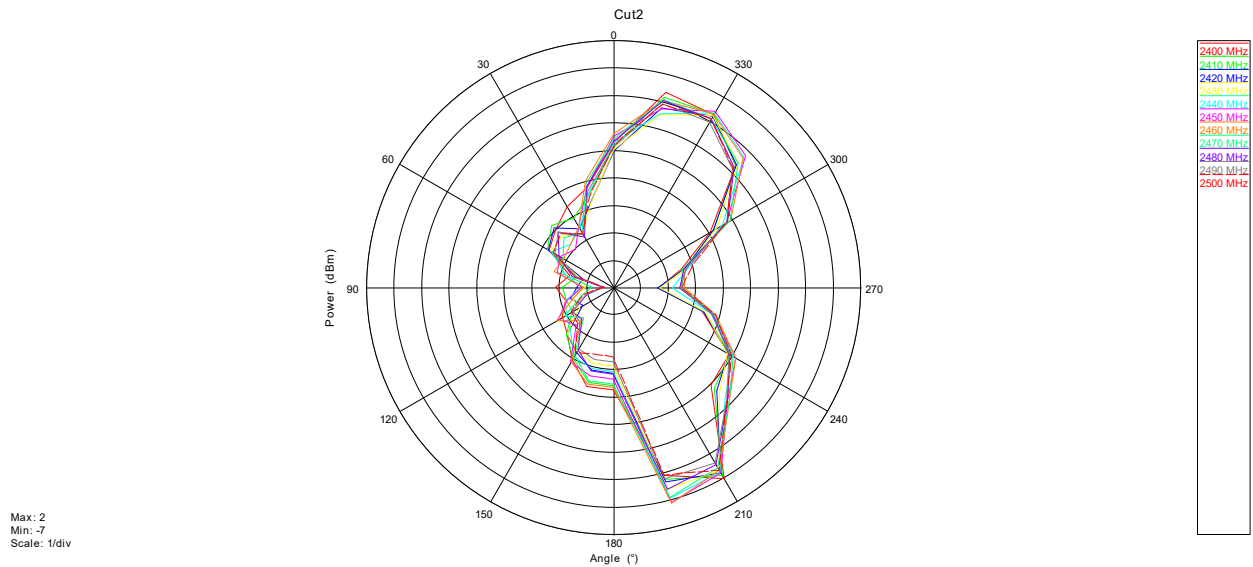
## Annex A Photographs

### 1. Test Setup

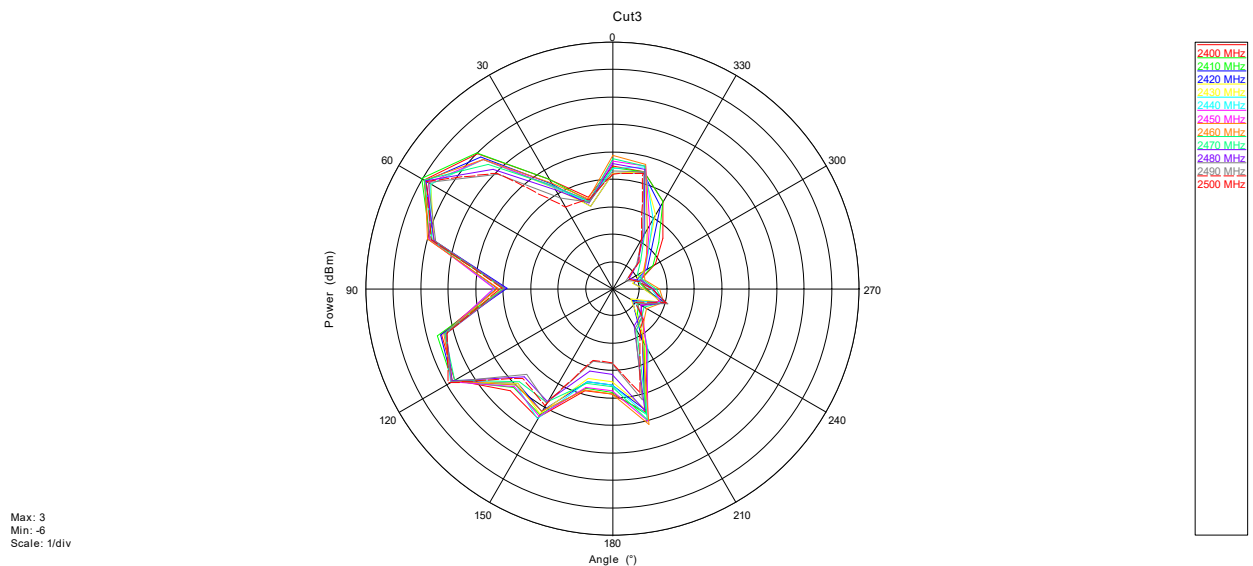


## Annex B Figures

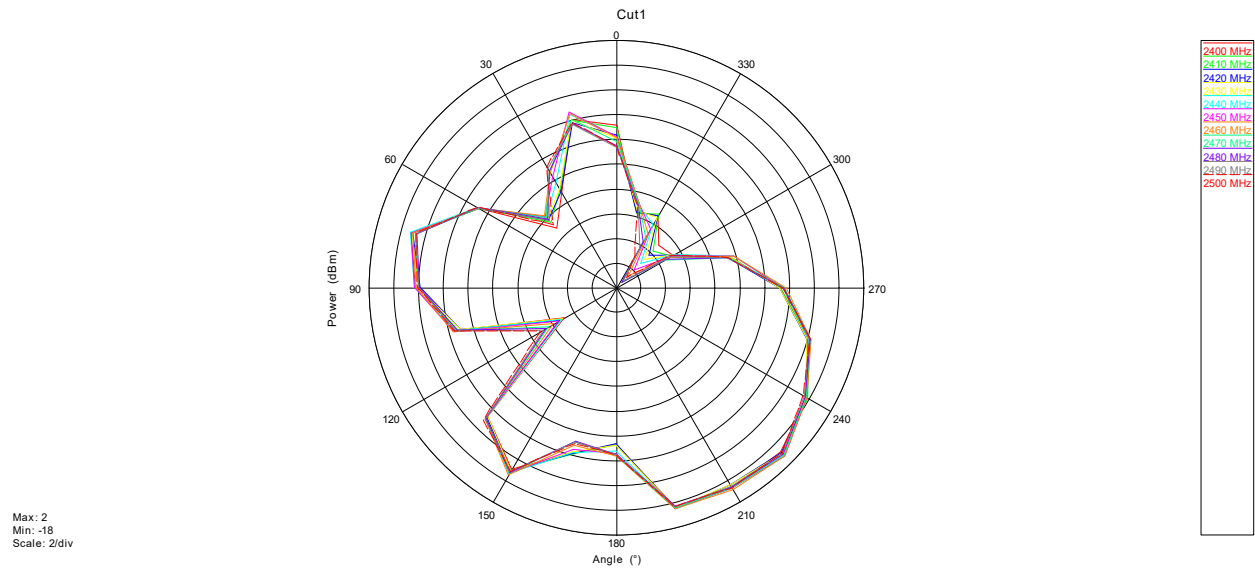
### 1. 2D Radiation Pattern



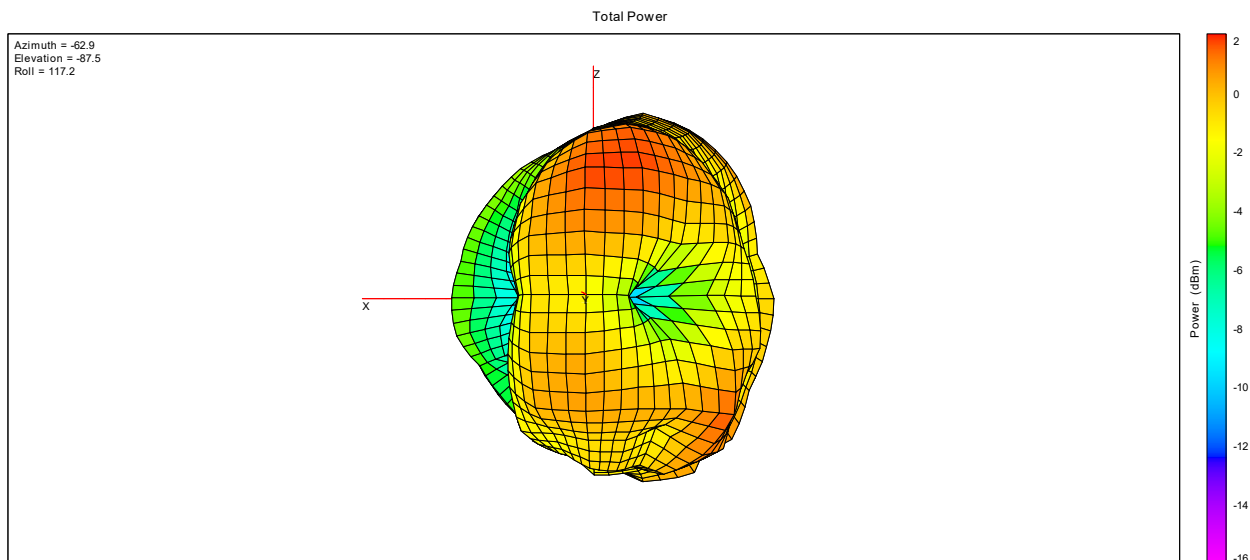
Phi=0°



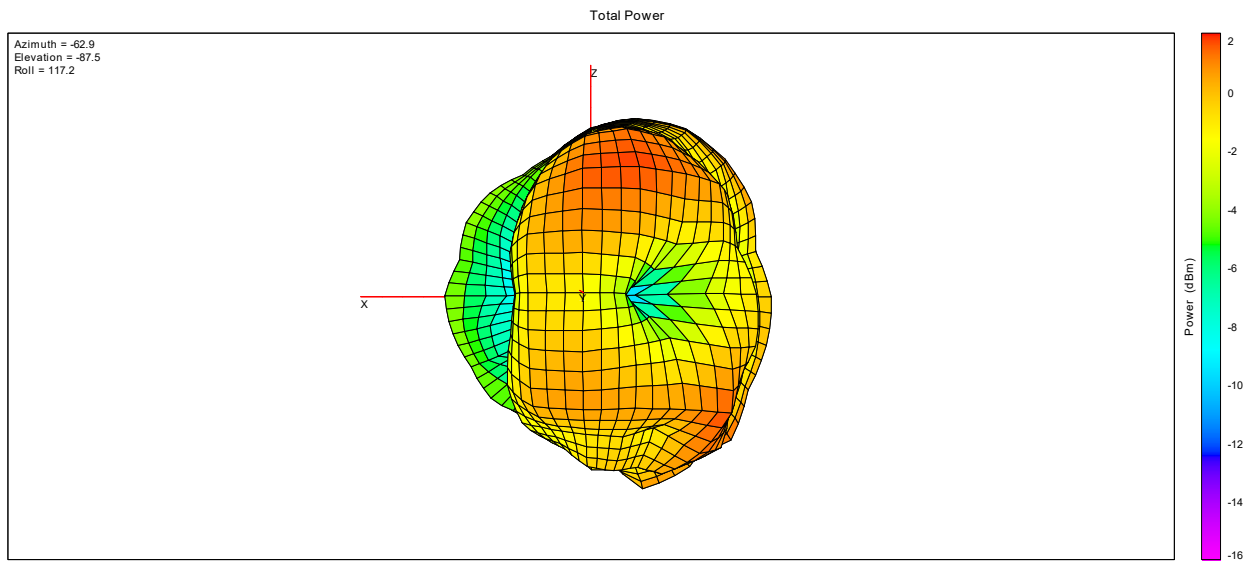
Phi=90°



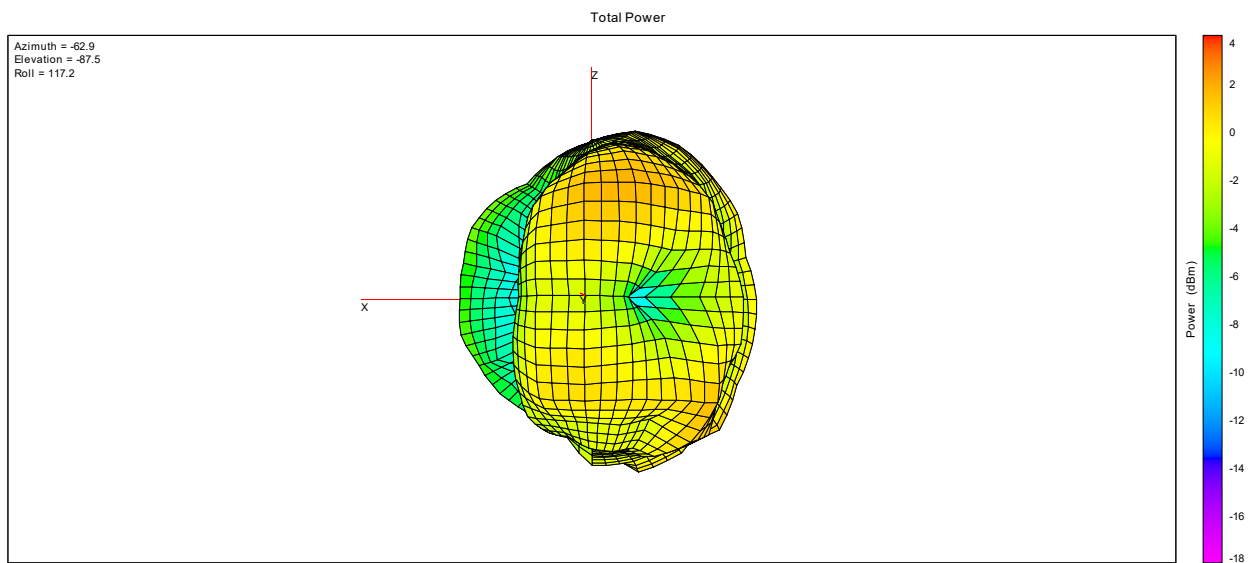
## 2. 3D Radiation Pattern



2400MHz



2440MHz

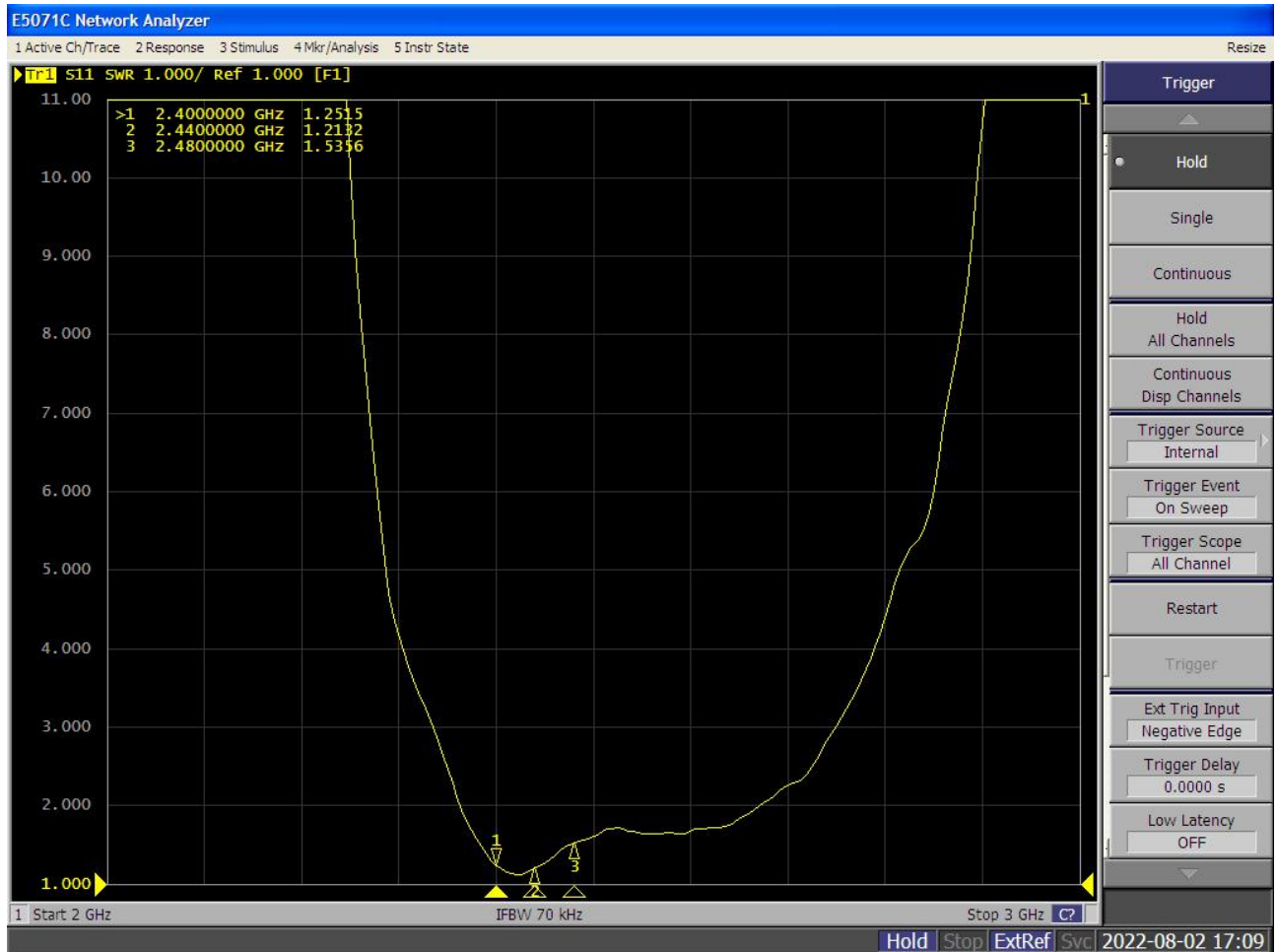


2480MHz



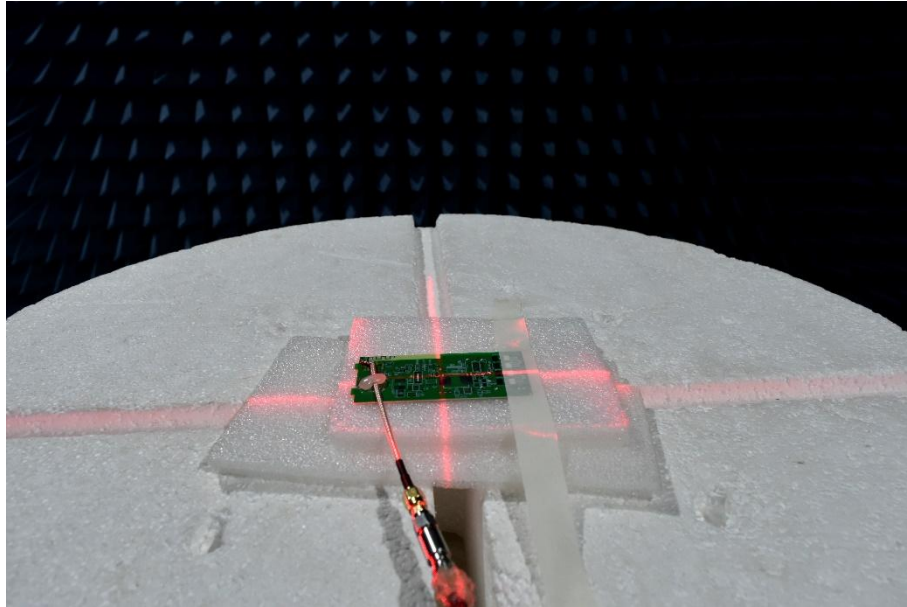
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### 3. VSWR

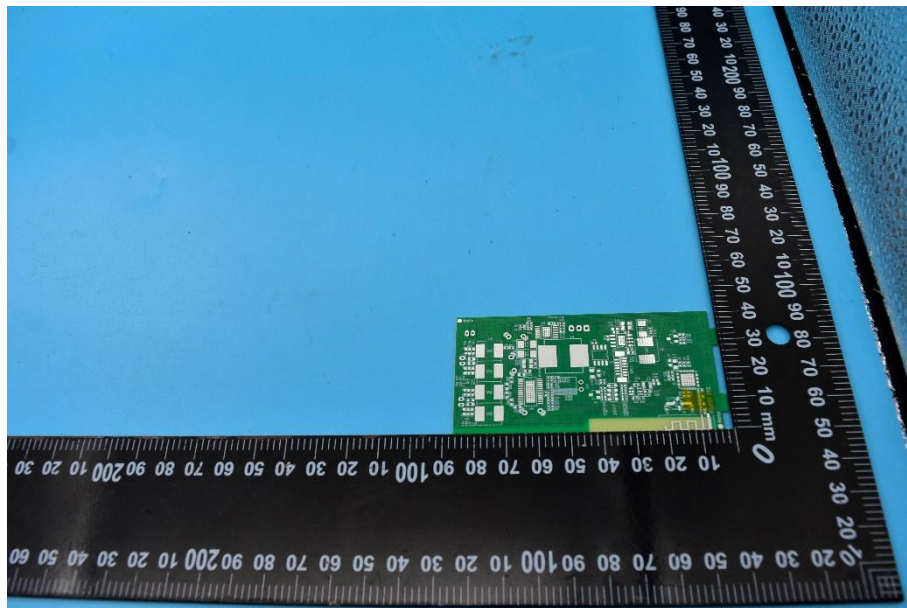


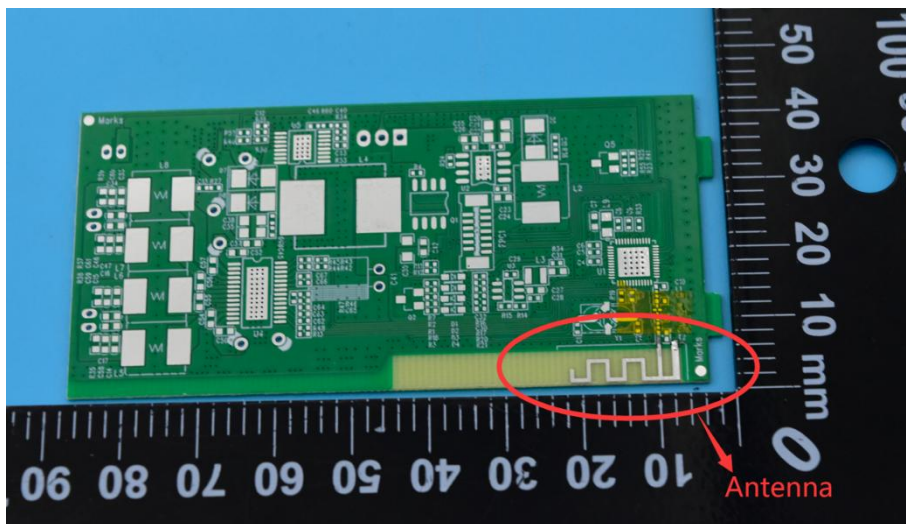
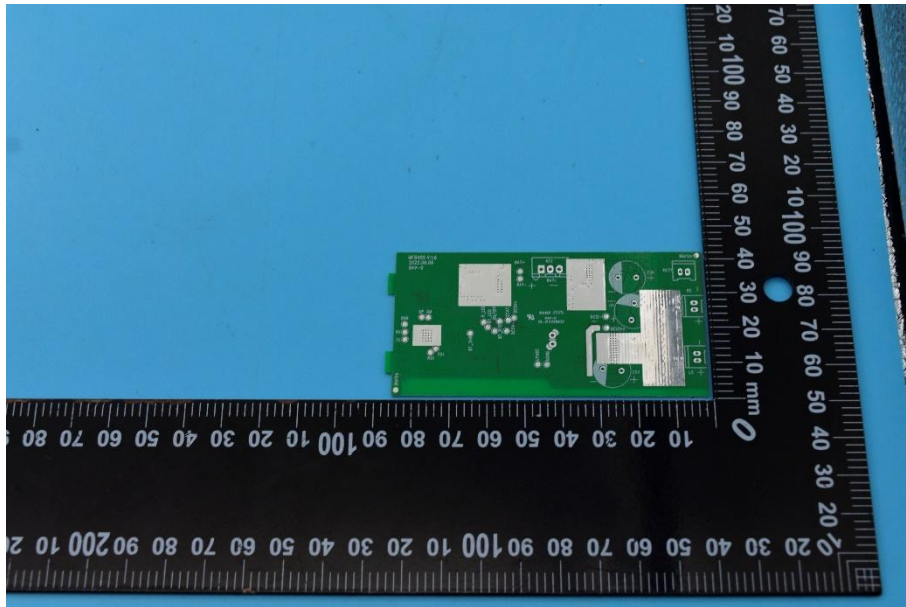
## Annex C Photographs

### 1. Test environment



### 2. EUT







## Annex D General Information

### 1.1 Identification of the Responsible Testing Laboratory

|                     |                                                                                                                                         |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Laboratory Name:    | Shenzhen Morlab Communications Technology Co., Ltd.                                                                                     |
| Laboratory Address: | FL1-3, Building A, FeiYang Science Park, No.8<br>LongChang Road, Block67, BaoAn District, ShenZhen ,<br>GuangDong Province, P. R. China |
| Telephone:          | +86 755 36698555                                                                                                                        |
| Facsimile:          | +86 755 36698525                                                                                                                        |

### 1.2 Identification of the Responsible Testing Location

|          |                                                                                                                                         |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Name:    | Shenzhen Morlab Communications Technology Co., Ltd.                                                                                     |
| Address: | FL1-3, Building A, FeiYang Science Park, No.8<br>LongChang Road, Block67, BaoAn District, ShenZhen ,<br>GuangDong Province, P. R. China |

### 1.3 Test Equipments Utilized

| No. | Equipement Name                  | Serial No.       | Type                                        | Manufa<br>cturer | Cal.Date   | Cal.Due<br>Date |
|-----|----------------------------------|------------------|---------------------------------------------|------------------|------------|-----------------|
| 1   | Network Analyzer                 | MY46110140       | E5071C                                      | Agilent          | 2022.07.04 | 2023.07.03      |
| 2   | OTA Chamber                      | TJ2235-Q17<br>93 | AMS-8923-1<br>50                            | ETS              | 2020.01.06 | 2023.01.05      |
| 3   | Antenna<br>Measurement<br>System | 1685             | EMQuest<br>EMQ-100<br>V 1.13 Build<br>21267 | ETS              | N/A        | N/A             |

————— END OF REPORT —————