

## Approval Sheet

**Supplier :** Jesoncom Communication Engineering

**Part Name:** 2.4G Antenna

**Pcode :** 26B051A-41

**version :** T:D

**materal Code:** 112010275

**Date:** 2025.07.10

| Supplier confirmation |                 |              |
|-----------------------|-----------------|--------------|
| Proposed/Date         | to examine/Date | approve/Date |
| ZXJ/20250208          |                 |              |

| Customer confirmation |                               |                      |
|-----------------------|-------------------------------|----------------------|
| quality/Date          | research and development/Date | Product Manager/Date |
|                       |                               |                      |

P lea se ret urn to us one copy of "SPECIFICATION FOR APPROVAL"with your approved signature.

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## Catalogue

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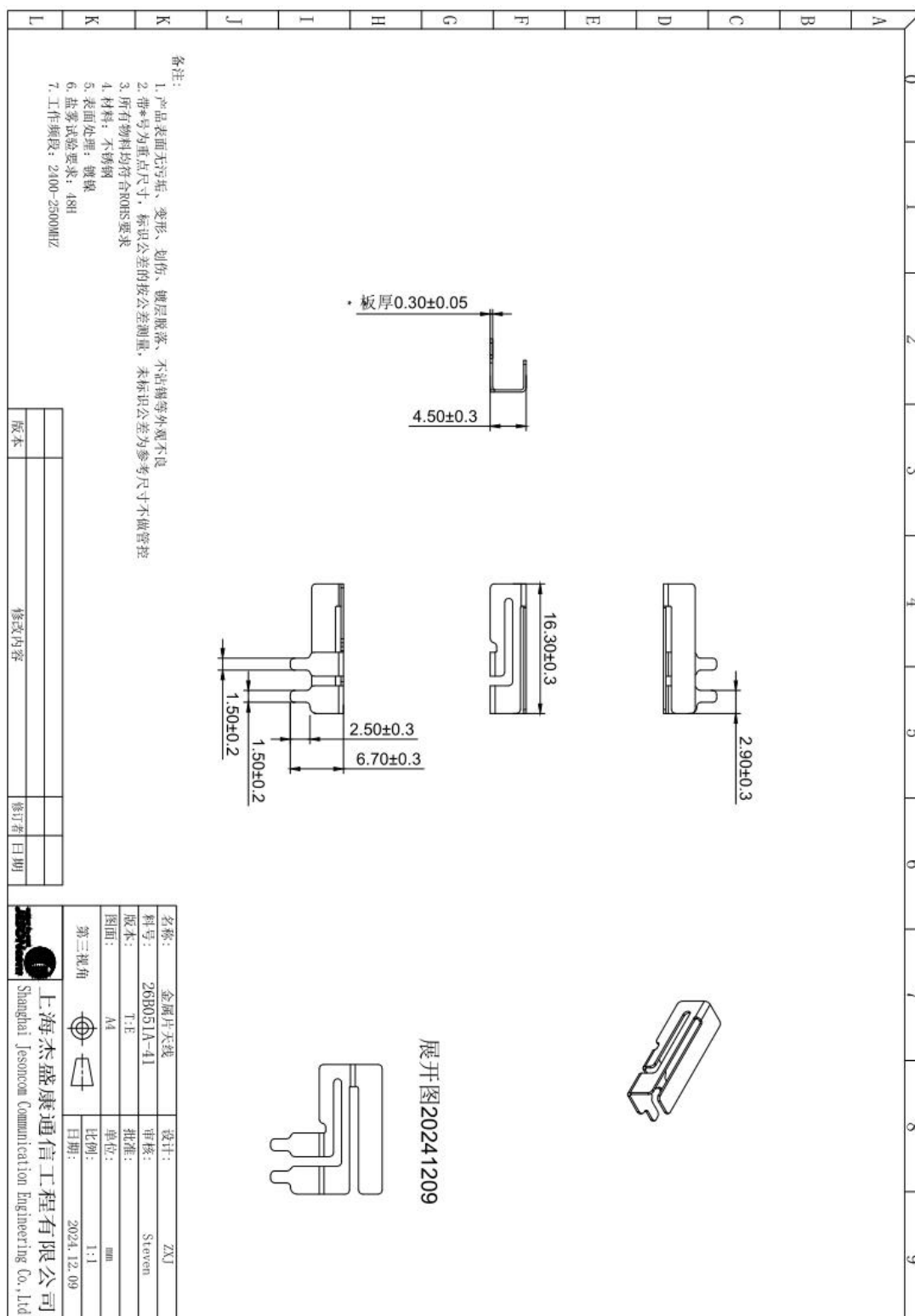
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## 1.Change History

| version | Revised content and reasons | Revision date | Revised by | reviewer | Approver |
|---------|-----------------------------|---------------|------------|----------|----------|
| T:A     | newly added                 | 2024.09.26    | ZXJ        |          |          |
| T:B     | Update size                 | 2024.10.17    | ZXJ        |          |          |
| T:C     | Update key dimensions       | 2024.11.07    | ZXJ        |          |          |
| T:D     | Update drawings             | 2025.02.08    | ZXJ        |          |          |
| T:E     | Update drawings             | 2025.07.15    | ZXJ        |          |          |
|         |                             |               |            |          |          |
|         |                             |               |            |          |          |
|         |                             |               |            |          |          |
|         |                             |               |            |          |          |
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|         |                             |               |            |          |          |
|         |                             |               |            |          |          |
|         |                             |               |            |          |          |
|         |                             |               |            |          |          |
|         |                             |               |            |          |          |

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## 2. Antenna outline drawing



### 3. DEFINITION

|       |                                         |
|-------|-----------------------------------------|
| dBi   | Decibel relative isotropic antenna      |
| Tx    | Transmit frequency                      |
| Rx    | Receive frequency                       |
| TRP   | Total Radiated Power                    |
| TIS   | Total Isotropic Sensitivity             |
| VSWR  | Voltage Standing Wave Ratio             |
| GSM   | Global Service for Mobile communication |
| DCS   | Digital Communication System            |
| CDMA  | Code Division Multiple Access           |
| WCDMA | Wideband Code Division Multiple Access  |

### 4. Test equipment

It can be adjusted according to the actual situation

vector network analyzer

Comprehensive test instrument

SATIMO64 Dark room

### 5. Applicable frequency band

*Mark the applicable frequency bands with other colors.*

| standard     | Frequency band  |
|--------------|-----------------|
| WIFI (2. 4G) | 2400MHz~2500MHz |

## 6. Basic testing items

6.1 Standing wave ratio diagram

6.2 Smith impedance diagram

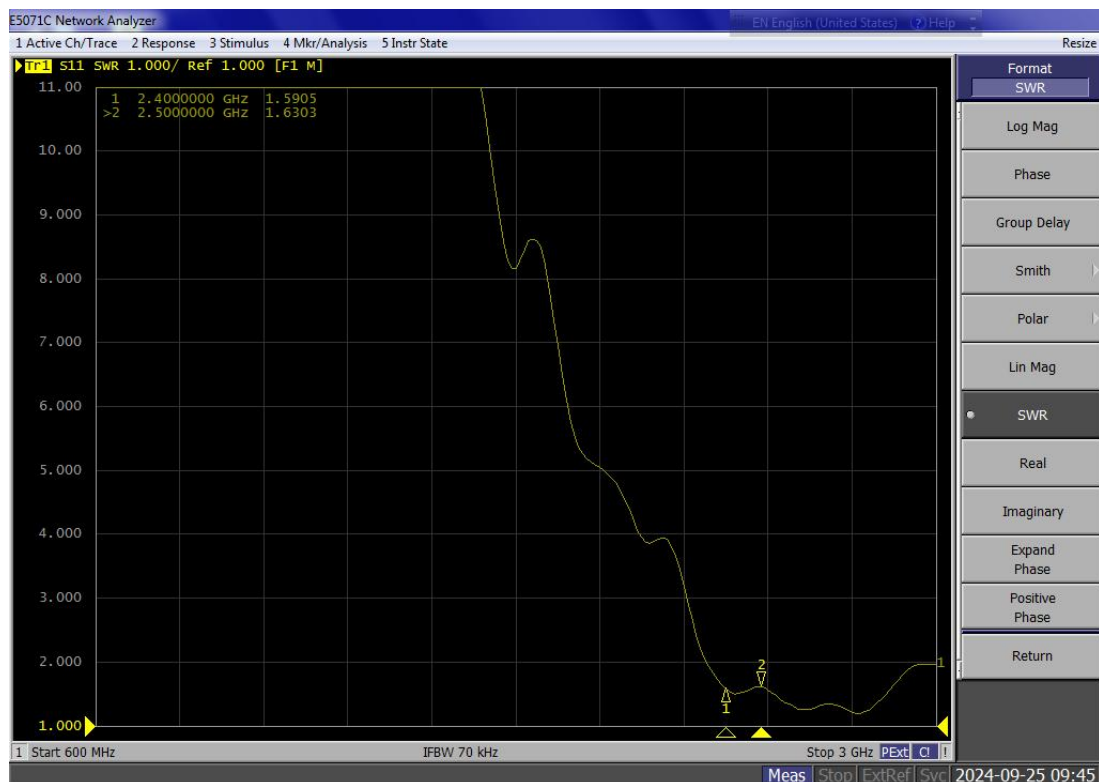
6.3 radiation pattern

6.4 Gain and efficiency

## 7. Test indicators and data charts

7.1 standing-wave ratio

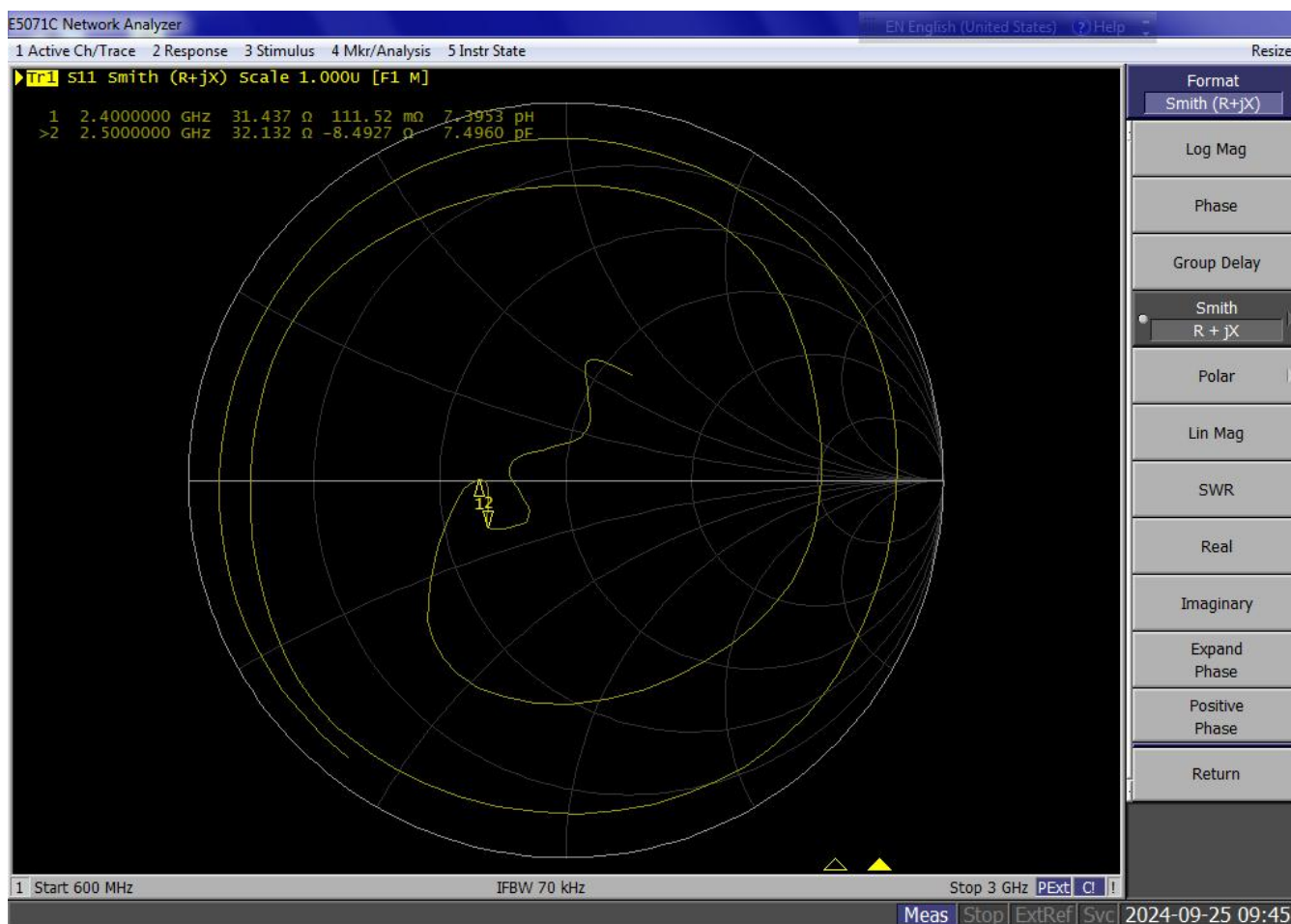
7.1.1 Standing wave ratio diagram



### 7.1.2 Standing wave ratio data

|          |      |      |
|----------|------|------|
| Freq/MHz | 2400 | 2500 |
| VSWR     | 1.59 | 1.63 |

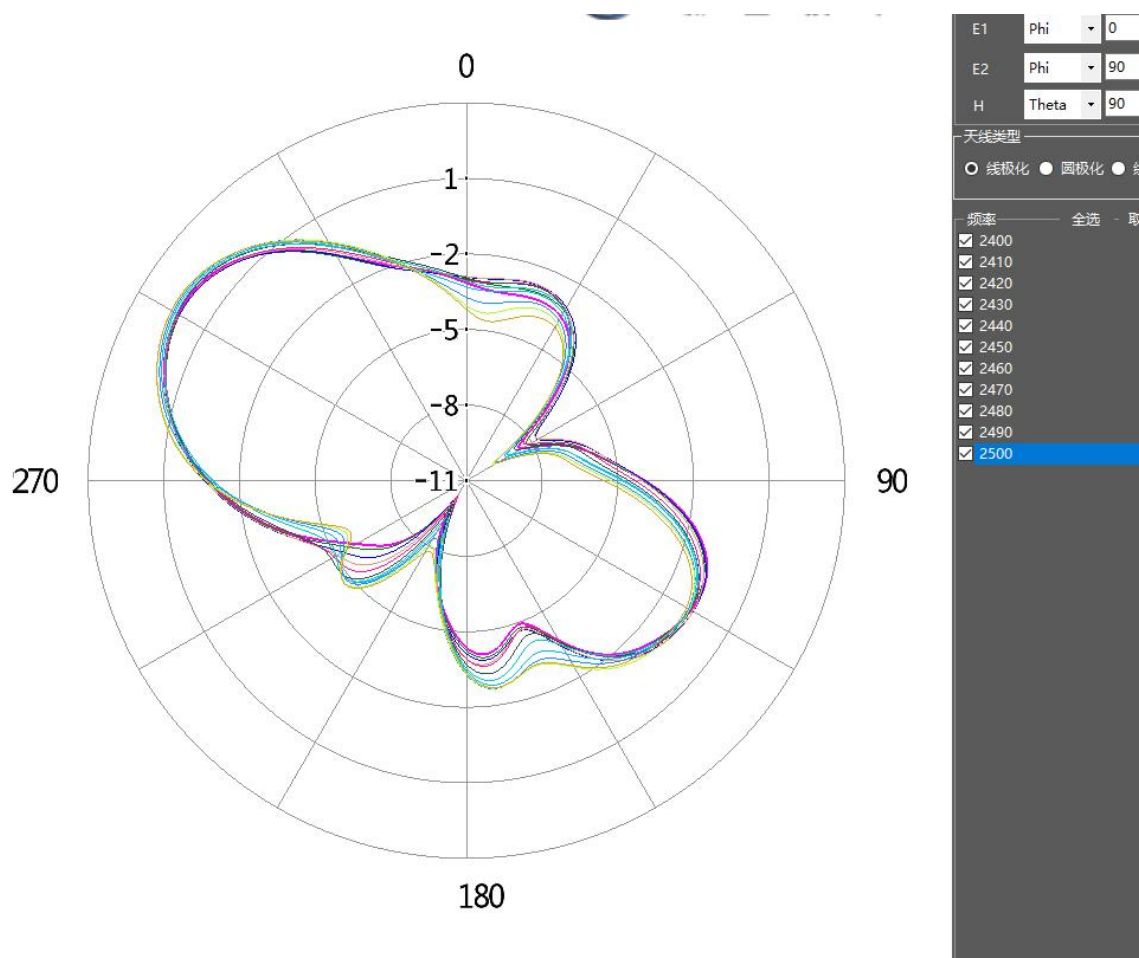
### 7.2 Smith impedance circle diagram



## 7.3 radiation pattern

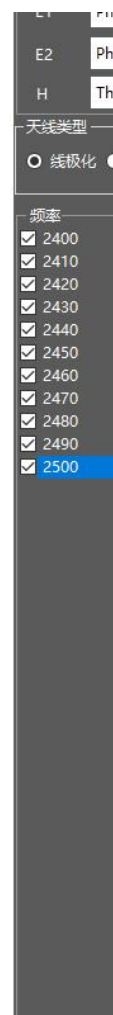
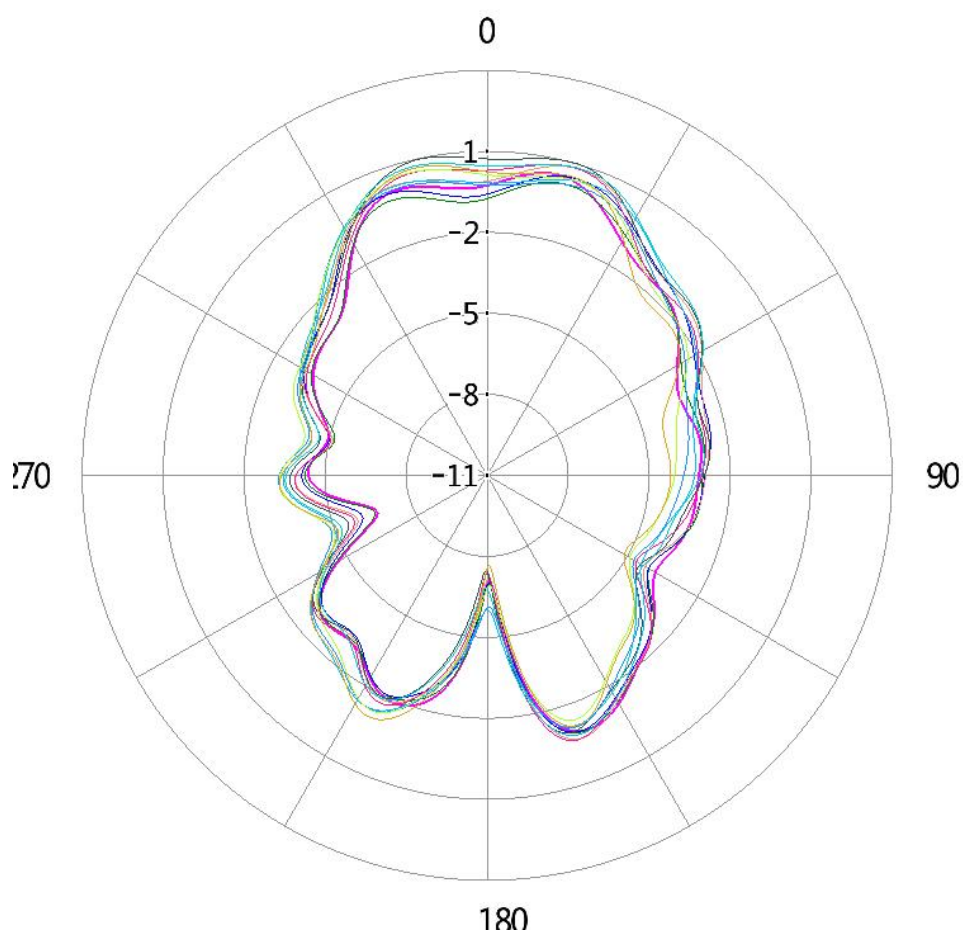
### 7.3.1H-plane

**H**



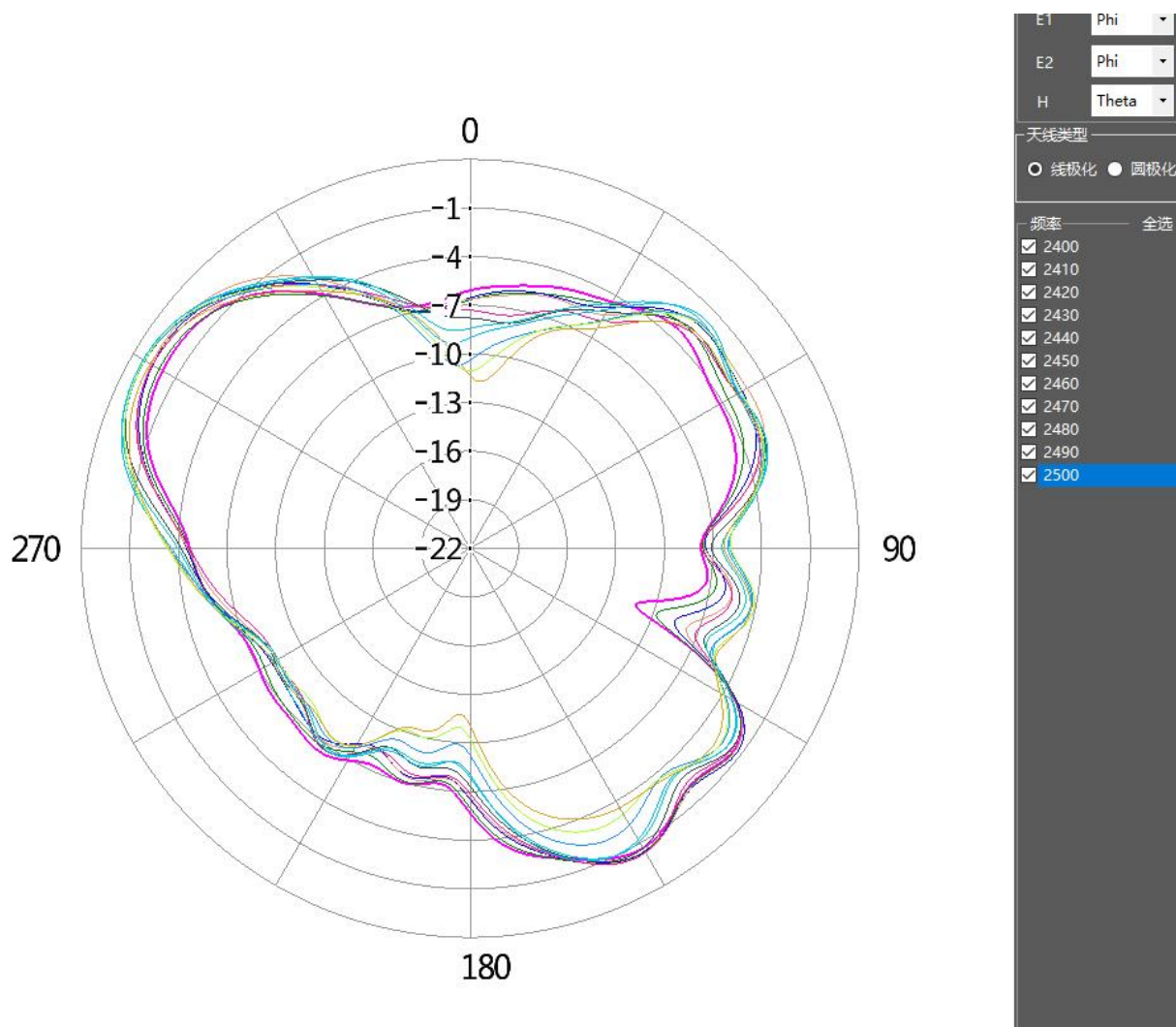
7.3.2E-plane

**E1**



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## E2



## 7.4 Gain and efficiency

| Frequency (MHz) | Gain (dBi) | Efficiency (%) |
|-----------------|------------|----------------|
| 2400            | 2.11       | 54.11          |
| 2410            | 2.04       | 56.47          |
| 2420            | 2.07       | 56.13          |
| 2430            | 2.22       | 56.74          |
| 2440            | 2.24       | 56.15          |
| 2450            | 2.41       | 56.05          |
| 2460            | 2.46       | 55.77          |
| 2470            | 2.33       | 56.75          |
| 2480            | 2.40       | 56.13          |
| 2490            | 2.34       | 55.10          |
| 2500            | 2.27       | 52.29          |

| <u><b>WIFI</b></u> | <u><b>TRP</b></u> |       | <u><b>TIS</b></u> |        |
|--------------------|-------------------|-------|-------------------|--------|
|                    | UL_Channel        |       | DL_Channel        |        |
| <u><b>11b</b></u>  | 1                 | 18.37 | 1                 | -81.94 |
|                    | 6                 | 18.52 | 6                 | -83.27 |
|                    | 11                | 18.19 | 11                | -81.56 |

## 8 Suggestions for environmental treatment

The environment does not require any treatment

## 9 Impedance matching requirements

*The matching circuit has not been repaired*

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## 10 Antenna installation guide

### 10.1 Antenna installation location instructions

无

## 11.Full size inspection report

| 零件名称                                                                                                                                                                                                                                                                                                                                                        | 2.4G天线    | 零件图号   |            |      |       |       | 模号                      |       |       |       |        |          |          |        |      |        |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------|------------|------|-------|-------|-------------------------|-------|-------|-------|--------|----------|----------|--------|------|--------|----|
| 模具编号                                                                                                                                                                                                                                                                                                                                                        |           | 零件料号   | 26B051A-41 |      |       |       | 模穴数                     |       |       |       |        |          |          |        |      |        |    |
| Inspection tool legend: <div style="display: flex; align-items: center;">  <table border="1" style="margin-left: 20px;"> <tr> <th>尺寸个数</th> <th>NG尺寸个数</th> <th>重点尺寸个数</th> <th>NG重点尺寸个数</th> </tr> <tr> <td>8</td> <td>0</td> <td>1</td> <td>0</td> </tr> </table> </div> |           |        |            |      |       |       |                         |       |       | 尺寸个数  | NG尺寸个数 | 重点尺寸个数   | NG重点尺寸个数 | 8      | 0    | 1      | 0  |
| 尺寸个数                                                                                                                                                                                                                                                                                                                                                        | NG尺寸个数    | 重点尺寸个数 | NG重点尺寸个数   |      |       |       |                         |       |       |       |        |          |          |        |      |        |    |
| 8                                                                                                                                                                                                                                                                                                                                                           | 0         | 1      | 0          |      |       |       |                         |       |       |       |        |          |          |        |      |        |    |
|                                                                                                                                                                                                                                                                                                                                                             |           |        |            |      |       | 制表    | ZXJ                     | 审核    | 核准    |       |        |          |          |        |      |        |    |
| 序号                                                                                                                                                                                                                                                                                                                                                          | 重点尺寸(Y/N) | 规格     | 上公差        | 下公差  | 尺寸上限  | 尺寸下限  | 对应模穴号产品实测值 (红色字体代表尺寸超差) |       |       |       | 判定     | NG尺寸评估状态 |          |        | 客户回复 |        |    |
|                                                                                                                                                                                                                                                                                                                                                             |           |        |            |      |       |       | 模穴#1                    | 模穴#2  | 模穴#3  | 模穴#4  |        | 原因分析     | 改善对策     | 计划完成时间 | 检具   | 客户工程师: |    |
| 1                                                                                                                                                                                                                                                                                                                                                           | N         | 16.30  | 0.30       | 0.30 | 16.60 | 16.00 | 16.28                   | 16.25 | 16.28 | 16.32 | OK     |          |          |        |      |        | 接受 |
| 2                                                                                                                                                                                                                                                                                                                                                           | N         | 2.50   | 0.30       | 0.30 | 2.80  | 2.20  | 2.55                    | 2.58  | 2.54  | 2.48  | OK     |          |          |        |      |        |    |
| 3                                                                                                                                                                                                                                                                                                                                                           | N         | 6.70   | 0.30       | 0.30 | 7.00  | 6.40  | 6.65                    | 6.68  | 6.72  | 6.75  | OK     |          |          |        |      |        |    |
| 4                                                                                                                                                                                                                                                                                                                                                           | N         | 1.50   | 0.20       | 0.20 | 1.70  | 1.30  | 1.52                    | 1.48  | 1.48  | 1.55  | OK     |          |          |        |      |        |    |
| 5                                                                                                                                                                                                                                                                                                                                                           | N         | 1.50   | 0.20       | 0.20 | 1.70  | 1.30  | 1.55                    | 1.42  | 1.48  | 1.52  | OK     |          |          |        |      |        |    |
| 6                                                                                                                                                                                                                                                                                                                                                           | N         | 4.50   | 0.30       | 0.30 | 4.80  | 4.20  | 4.52                    | 4.58  | 4.55  | 4.52  | OK     |          |          |        |      |        |    |
| 7                                                                                                                                                                                                                                                                                                                                                           | Y         | 0.30   | 0.05       | 0.05 | 0.35  | 0.25  | 0.32                    | 0.31  | 0.30  | 0.32  | OK     |          |          |        |      |        |    |
| 8                                                                                                                                                                                                                                                                                                                                                           | N         | 2.90   | 0.30       | 0.30 | 3.20  | 2.60  | 2.92                    | 2.95  | 2.95  | 2.89  | OK     |          |          |        |      |        |    |