



# Tengxiang Technology.Inc

东莞市腾祥电子有限公司

Product Number: AN5000-SNA853240

Product Name: Antenna

## Specification For Approval

Date: 2025.2.22

Version: 1.0

客户名称

Customer:

Xianzhi

客户料号

Customer P/N:

ANT000098

腾祥料号

T X P/N:

AN5000-SNA853240

规格描述

Description :

2.4G/5G Sheet metal antenna

|                               |     |                               |  |
|-------------------------------|-----|-------------------------------|--|
| Tengxiang Checked By:<br>腾祥审核 |     | Customer Approved By:<br>客户审核 |  |
| DRAWN<br>制作                   | 路婷  | TESTED BY<br>检测               |  |
| CHECKED BY<br>审核              | 胡超  | CHECKED BY<br>审核              |  |
| Q.C.DEPT.<br>品管               | 江美如 | Q.C.DEPT.<br>品管               |  |
| APPROVED BY<br>核准             | 韦佳  | APPROVEDBY<br>核准              |  |



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Product Number: AN5000-SNA853240

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## Revision History (变更履历)

| Revision | Date      | Change Notification | Description |
|----------|-----------|---------------------|-------------|
| 1.0      | 2025.2.22 |                     |             |
|          |           |                     |             |
|          |           |                     |             |
|          |           |                     |             |
|          |           |                     |             |
|          |           |                     |             |

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## 1. Specification

|                                                                                    |                           |
|------------------------------------------------------------------------------------|---------------------------|
| Sample Photo                                                                       |                           |
|  |                           |
| <b>A. Electrical Characteristics</b>                                               |                           |
| Frequency 频率                                                                       | 2400-2500MHz/5150-5850MHz |
| S.W.R. 驻波比                                                                         | /≤ 2.0                    |
| Antenna Gain 增益                                                                    | 0 dBi / 3.17dBi           |
| Polarization 极化方式                                                                  | Linear                    |
| Impedance 阻抗                                                                       | 50 Ohm                    |
| <b>B. Material &amp; Mechanical Characteristics</b>                                |                           |
| Material 材质                                                                        | Calcite                   |
| <b>C. Environmental</b>                                                            |                           |
| Storage Temperature<br>存储温度                                                        | - 40°C ~ +80 °C           |
| Operation Temperature<br>工作温度                                                      | - 40°C ~ +80 °C           |

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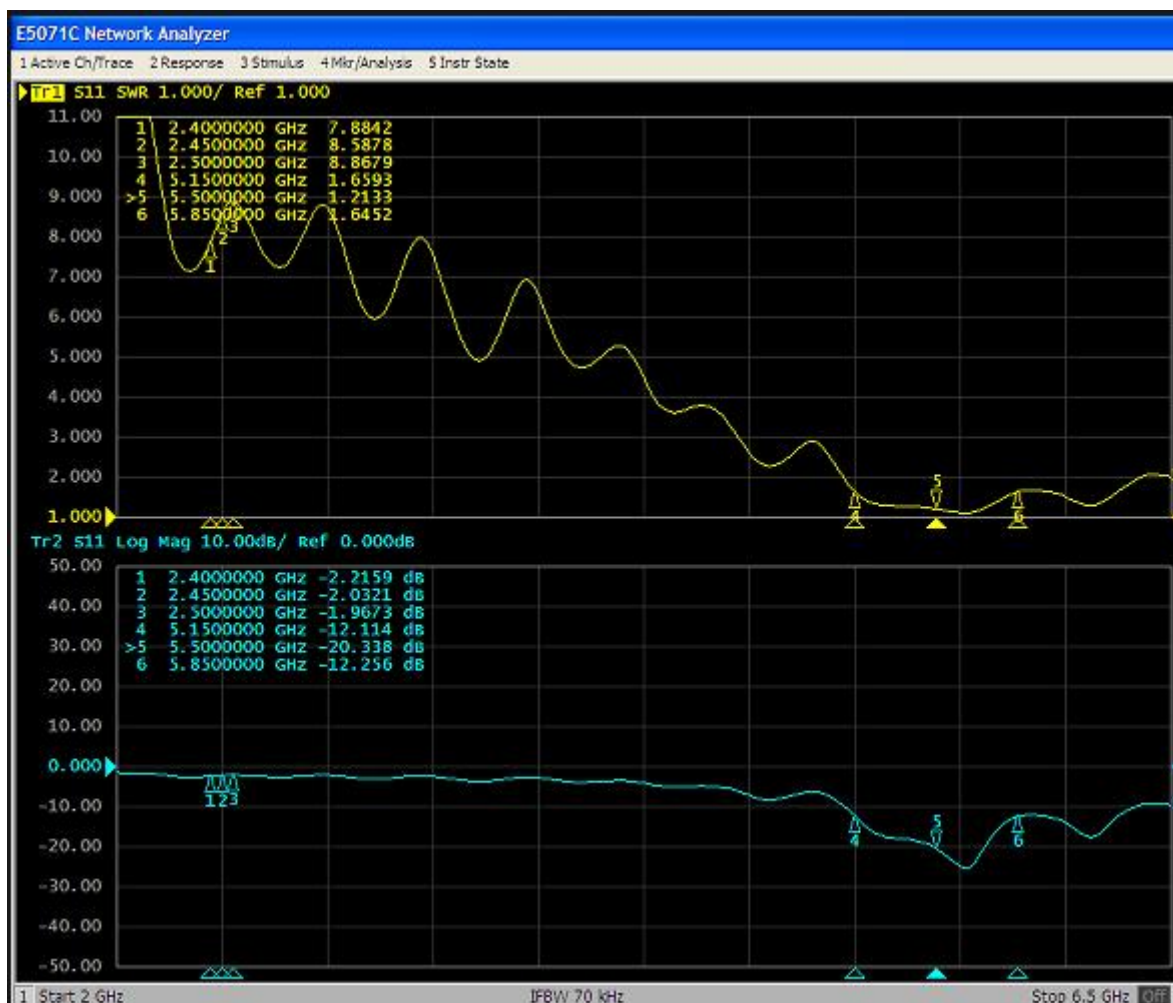
## 2. Characteristics and Reliability Test

| Test Items 测试项目 |                         | Test Condition and Procedure 测试方法                                                          | Requirements 要求                                      | Result 结果 |
|-----------------|-------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------|-----------|
| 1               | V.S.W.R.<br>电压驻波比       | Set DUT on Network Analyzer; make individual calibration to test 设置网络分析仪参数进行测试             | Directive DUT specification<br>符合待测物规范               | PASS      |
| 2               | Antenna<br>Gain<br>天线增益 | Set DUT on Antenna Chamber; make individual calibration to test 设置天线暗室参数进行测试               | Directive DUT specification<br>符合待测物规范               | PASS      |
| 3               | Dimension<br>尺寸         | Inspection of dimension, color, material, package, surface process. 检查尺寸, 颜色, 材料, 包装, 表面处理 | Directive DUT specification<br>符合待测物规范               | PASS      |
| 4               | RoHS                    | With Reference to IEC 62321:2008 with flow chart<br>参考 IEC 62321 测试流程                      | Directive RoHS 2015/863/EU<br>符合 RoHS 2015/863/EU 标准 | PASS      |

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### 3. Antenna - S Parameter Test Data



### 4. Antenna - Radiation Pattern Test Data

| Frequency ID    | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency (MHz) | 2400.0 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 |
| Gain (dBi)      | -1.02  | -1.21  | -1.56  | -1.17  | -1.65  | -1.61  | -1.01  | -1.72  | -1.44  | 0      | -1.12  |
| Efficiency (%)  | 3.35   | 3.28   | 3.12   | 3.45   | 3.13   | 4.07   | 3.69   | 4.00   | 4.06   | 4.46   | 5.11   |

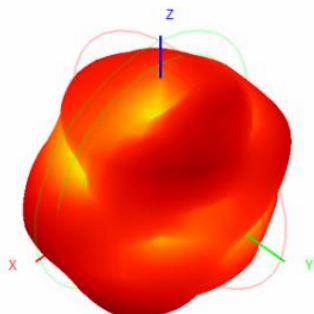
  

| 12     | 13     | 14     | 15     | 16     | 17     | 18     | 19     | 20     | 21     | 22     | 23     | 24     | 25     | 26     |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5150.0 | 5200.0 | 5250.0 | 5300.0 | 5350.0 | 5400.0 | 5450.0 | 5500.0 | 5550.0 | 5600.0 | 5650.0 | 5700.0 | 5750.0 | 5800.0 | 5850.0 |
| 2.37   | 2.17   | 2.59   | 2.44   | 2.48   | 2.21   | 2.51   | 2.07   | 2.80   | 3.17   | 3.06   | 2.82   | 3.09   | 2.81   | 2.55   |
| 55.72  | 56.92  | 60.90  | 52.78  | 59.45  | 59.57  | 59.84  | 56.13  | 60.09  | 62.04  | 61.68  | 54.74  | 58.53  | 57.65  | 55.11  |

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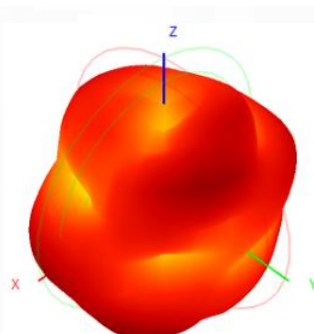
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2400MHz



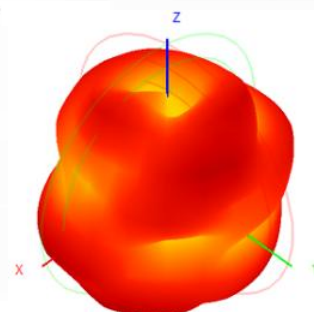
Gain -1.02dBi

2450MHz



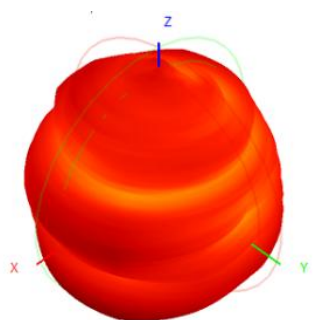
Gain -1.61dBi

2500MHz



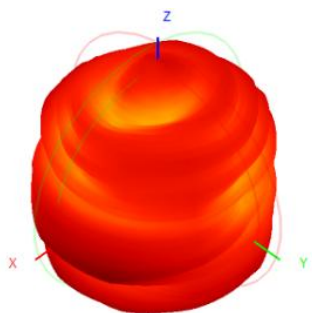
Gain -1.12dBi

5150MHz



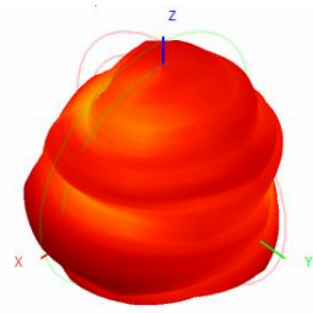
Gain 2.37dBi

5550MHz



Gain 2.8dBi

5850MHz



Gain 2.55dBi

**5. Mechanical Drawing** See attached files

