



# Tengxiang Technology.Inc

东莞市腾祥电子有限公司

Product Number: AN2400-FPC336BX

Product Name: Antenna

## Specification For Approval

Date: 2025.02.07

Version: 1.0

客户名称

Customer:

JIU AN

客户料号

Customer P/N:

腾祥料号

T X P/N:

AN2400-FPC336BX

规格描述

Description :

2.4G FPC Antenna,1.13mm L=65mm +IPEX

|                               |               |                               |            |
|-------------------------------|---------------|-------------------------------|------------|
| Tengxiang Checked By:<br>腾祥审核 |               | Customer Approved By:<br>客户审核 |            |
| DRAWN<br>制作                   | LU TING       | TESTED BY<br>检测               | GuiXing H  |
| CHECKED BY<br>审核              | HU CHAO       | CHECKED BY<br>审核              | XieCheng X |
| Q.C.DEPT.<br>品管               | ZHOU ZHI HONG | Q.C.DEPT.<br>品管               | DongLi G   |
| APPROVED BY<br>核准             | WEI JIA       | APPROVEDBY<br>核准              | Jun X      |



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Product Number: AN2400-FPC336BX

Product Name: Antenna

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- 1. Specification (规格)
- 2. Characteristics and Reliability Test (产品特性和可靠性测试标准)
- 3. Antenna - S Parameter Test Data (样品测试数据)
- 4. Antenna - Radiation Pattern Test Data (辐射模式测试数据)
- 5. Mechanical and Packing Drawing (图纸包装规范)

Revision History (变更履历)

| Revision | Date       | Change Notification | Description |
|----------|------------|---------------------|-------------|
| 1.0      | 2025.02.07 | 初版                  |             |
|          |            |                     |             |
|          |            |                     |             |
|          |            |                     |             |
|          |            |                     |             |
|          |            |                     |             |

Product Number: AN2400-FPC336BX

Product Name: Antenna

## 1. Specification

|                                                                                    |                  |
|------------------------------------------------------------------------------------|------------------|
| Sample Photo                                                                       |                  |
|  |                  |
| <b>A. Electrical Characteristics</b>                                               |                  |
| Frequency 频率                                                                       | 2400-2500 MHz    |
| S.W.R. 驻波比                                                                         | $\leq 2.0$       |
| Antenna Gain 增益                                                                    | 3.51dBi          |
| Polarization 极化方式                                                                  | Linear           |
| Impedance 阻抗                                                                       | 50 Ohm           |
| <b>B. Material &amp; Mechanical Characteristics</b>                                |                  |
| Cable Type 线材规格                                                                    | OD1.13mm , Black |
| Connector Type 连接器规格                                                               | I-PEX            |
| <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  |

Product Number: AN2400-FPC336BX

Product Name: Antenna

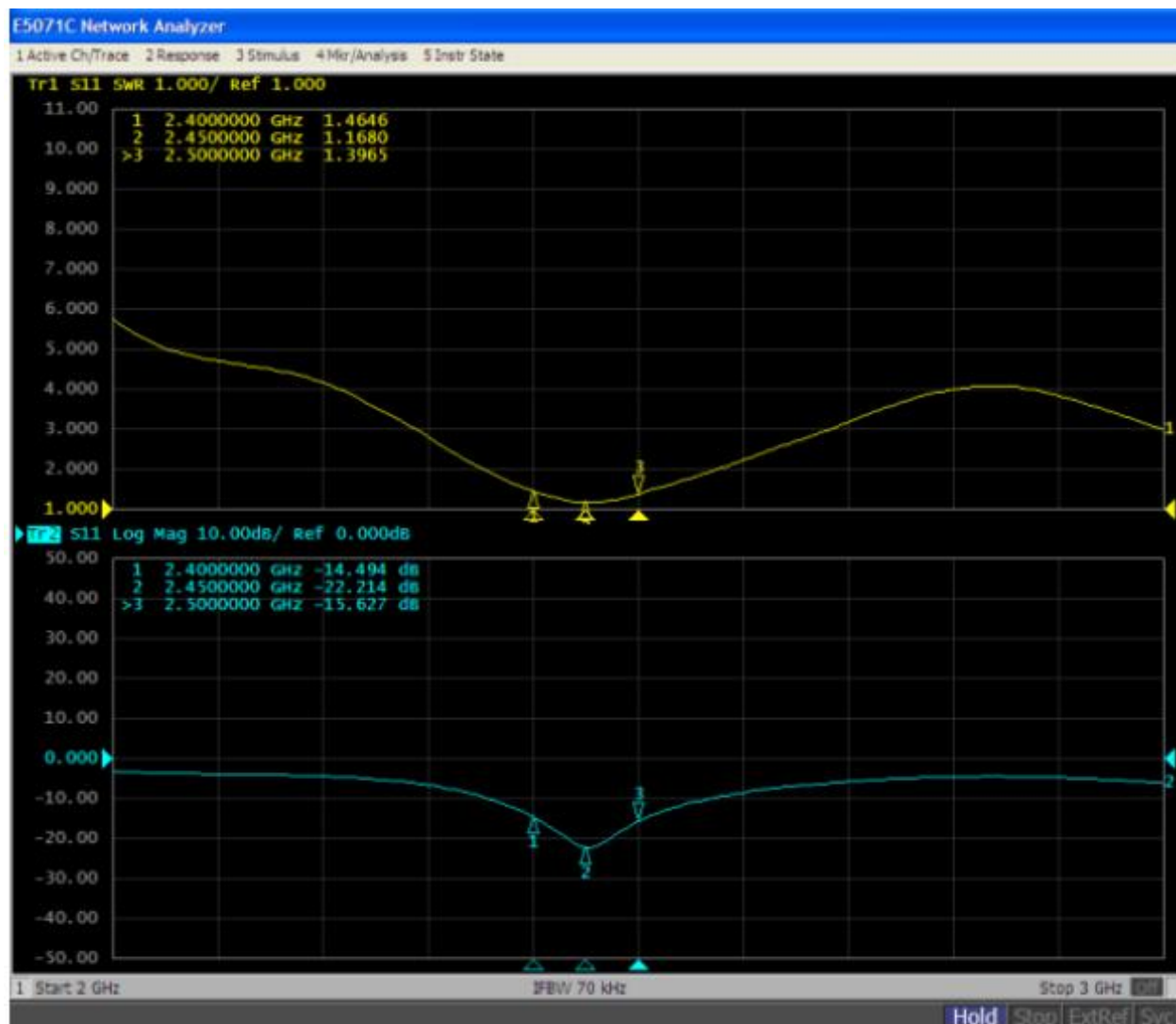
## 2. Characteristics and Reliability Test

| 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               | Insertion Loss 插入损失  | 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      |
| 3               | Antenna 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      |
| 4               | Solderability<br>可焊性 | GB / T2423.28-2005<br>Temp: 260±5° C;Duration: 5 seconds 温度 260±5° C;持续 5 秒           | Tin evenly on full<br>上锡均匀饱满                                              | PASS      |
| 5               | Pull Test<br>拉力      | Holding with individual specification; force applied to axis of terminal .单独定义产品端子拉力  | 1. Directive DUT specification<br>2. Frequency Tol.≤5%<br>符合待测物规范;频率偏移≤5% | PASS      |
| 6               | 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      |
| 7               | RoHS                 | With Reference to IEC 62321:2008 with flow chart 参考 IEC 62321 测试流程                    | Directive RoHS 2015/863/EU<br>符合 RoHS 2015/863/EU 标准                      | PASS      |

Product Number: AN2400-FPC336BX

Product Name: Antenna

## 3. Antenna - S Parameter Test Data



Product Number: AN2400-FPC336BX

Product Name: Antenna

## 4. Antenna - Radiation Pattern Test Data

无源

| 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)      | 2.91   | 3.02   | 3.19   | 3.25   | 3.42   | 3.51   | 3.22   | 3.18   | 2.92   | 2.91   | 2.86   |
| Efficiency (%)  | 54.39  | 55.22  | 56.89  | 56.58  | 57.05  | 56.85  | 54.02  | 53.92  | 53.07  | 52.63  | 53.82  |

有源

| 802.11b-11Mbps |        |        |        | 802.11g-54Mbps |        |        |        |
|----------------|--------|--------|--------|----------------|--------|--------|--------|
| Channel        | ch1    | ch6    | ch11   | Channel        | ch1    | ch6    | ch11   |
| TRP (dBm)      | 18.58  | 19.18  | 18.22  | TRP (dBm)      | 17.15  | 18.16  | 17.9   |
| TIS (dBm)      | -81.85 | -81.55 | -81.52 | TIS (dBm)      | -68.08 | -68.88 | -69.62 |

| 802.11n-MCS7 |        |        |        |
|--------------|--------|--------|--------|
| Channel      | ch1    | ch6    | ch11   |
| TRP (dBm)    | 17     | 18.19  | 17.94  |
| TIS (dBm)    | -65.11 | -65.22 | -66.82 |

Product Number: AN2400-FPC336BX

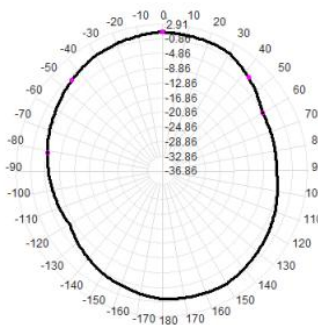
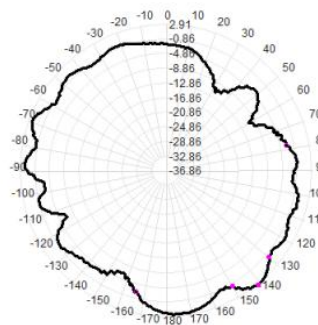
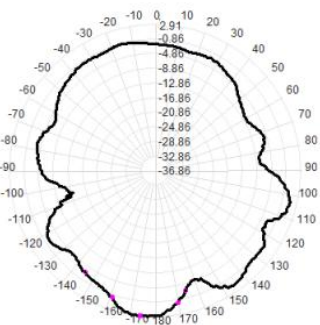
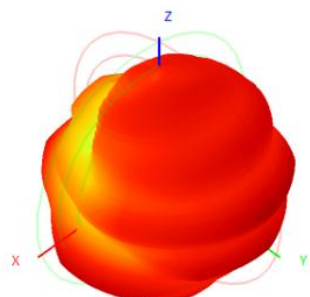
Product Name: Antenna

XZ

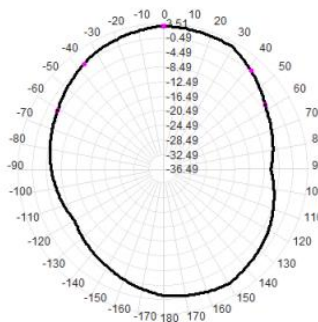
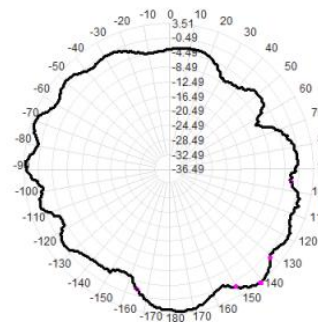
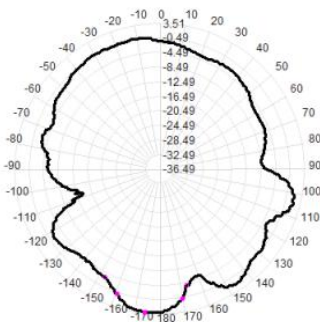
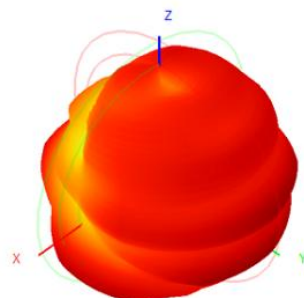
YZ

XY

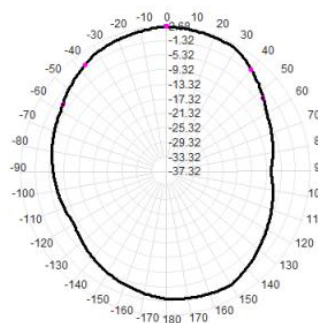
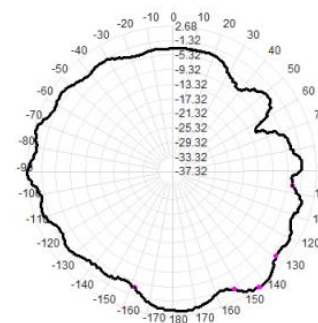
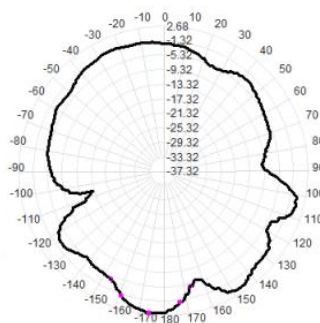
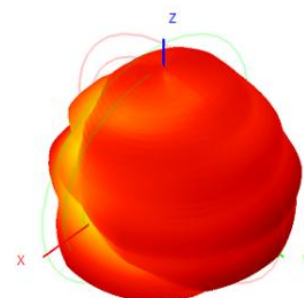
2400MHz



2450MHz

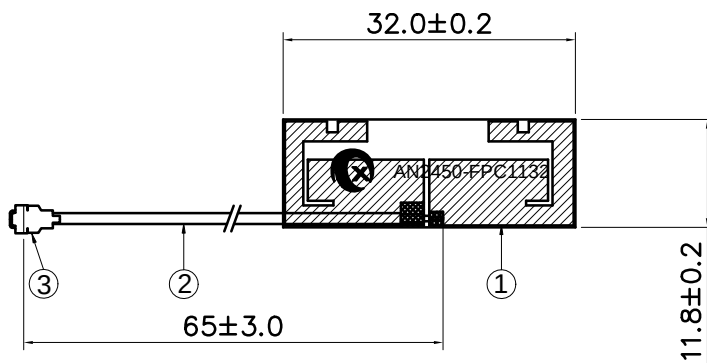


2500MHz



5. Mechanical Drawing See attached files

| SIGN                                                                              | DATE | DESCRIPTION | APPROVER |
|-----------------------------------------------------------------------------------|------|-------------|----------|
|  |      |             |          |
|  |      |             |          |
|  |      |             |          |



1. Mark \* is important dimension; "Cpk "Identify for process control ( $CpK \geq 1.33$ ).
2. Tolerance: Unmarked tolerance refer to the standard tolerance please.
3. Pay attention to the direction of the connector.

| 3   | CR-113-ZP-A    | I-PEX         | Cu       | Au Plated | 1    |
|-----|----------------|---------------|----------|-----------|------|
| 2   | CB-113BS       | Coaxial Cable | OD1.13mm | Black     | 1    |
| 1   | AN2450-FPC1132 | FPC           |          | Black     | 1    |
| No. | Part Number    | Name          | Material | Finish    | Q'ty |

|                                                                                                                                  |                  |                  |                   |                                                                                       |  |           |
|----------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|-------------------|---------------------------------------------------------------------------------------|--|-----------|
|  <div>Tengxiang Electronics Co., Ltd.</div> |                  |                  |                   |                                                                                       |  |           |
| TITLE: Antenna                                                                                                                   |                  |                  |                   |                                                                                       |  |           |
| PART NO.: AN2400-FPC336BX                                                                                                        |                  |                  |                   | CUSTOMER P/N: /                                                                       |  |           |
| APP BY                                                                                                                           | CHK BY           | RF BY            | DES BY            |  |  | Tolerance |
| YCX<br>2025.02.07                                                                                                                | HC<br>2025.02.07 | WJ<br>2025.02.07 | SYY<br>2025.02.07 | UNITS: mm                                                                             |  | X.X ±0.3  |
|                                                                                                                                  |                  |                  |                   | SCALE: 1/1                                                                            |  | X.XX ±0.1 |
|                                                                                                                                  |                  |                  |                   | REVISION: A                                                                           |  | X° ±1     |

# 產品包裝規範

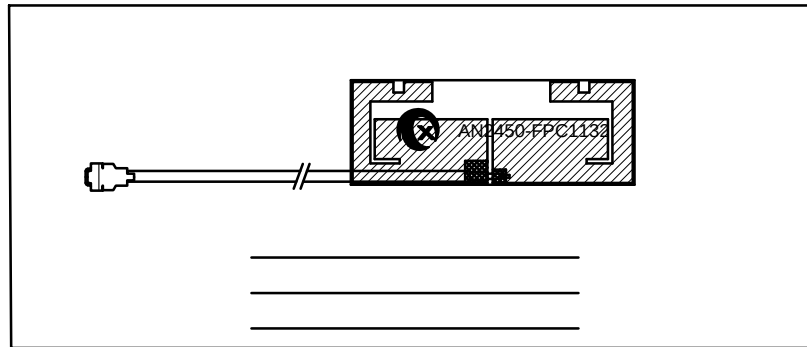
## PACKING CRITERION

Date: 2025.02.07

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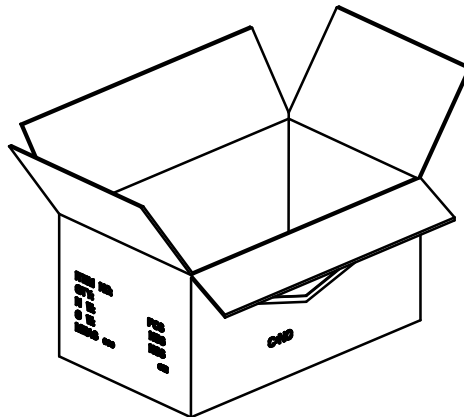
|                               |                |
|-------------------------------|----------------|
| Part Number : AN2400-FPC336BX | Revision : A   |
| Name: Antenna                 | Customer : ALL |

1 . Enter PE bag。



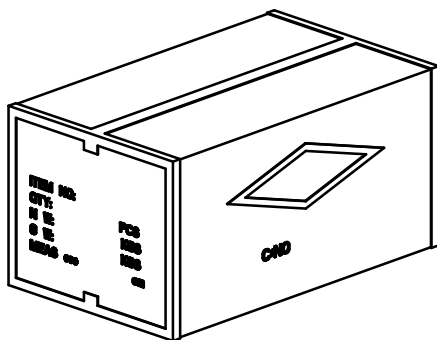
100pcs/ PE bag

2.PACKING 。

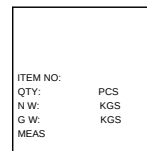


8000pcs/Carton

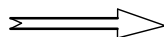
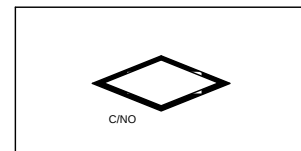
3. SEALING 。



SIDE



FRONT



APPROVED BY : YCX

CHECKED BY : HC

DESIGNED BY : SY Y