

# 广州极飞科技股份有限公司

## 样品承认书

产品料号: 01-003-00498

产品版本: A0

产品名称: 带频控4G内置FPC副天线

产品规格: 4G FPC 天线 1.13mm 灰色线  
L=120mm+IPEX (副)

原料牌号:

表面处理: 丝印

供 应 商: 东莞市海恒电子科技有限公司

| 极飞签核 |       |      |
|------|-------|------|
| 结构设计 | 可靠性质量 | 中试审批 |
|      |       |      |
| 说明:  |       |      |

| 供应商签核 |    |    |
|-------|----|----|
| 制作    | 审核 | 核准 |
| 邓文兵   | 胡超 | 陈鹏 |
| 说明:   |    |    |

Product Number: AN0727-FPC27GX  
Product Name: Antenna

Index:

- 1. Specification (规格)
- 2. Antenna - S Parameter Test Data (样品测试数据)
- 3. Antenna - Radiation Pattern Test Data (辐射模式测试数据)
- 4. Mechanical and Packing Drawing (图纸包装规范)

Revision History (变更履历)

| Revision | Date     | Change Notification | Description |
|----------|----------|---------------------|-------------|
| 1.0      | 2025.5.8 | 初版                  |             |
|          |          |                     |             |
|          |          |                     |             |
|          |          |                     |             |
|          |          |                     |             |
|          |          |                     |             |

Product Number: AN0727-FPC27GX

Product Name: Antenna

## 1. Specification

| Sample Photo                                                                       |                          |
|------------------------------------------------------------------------------------|--------------------------|
|  |                          |
| A. Electrical Characteristics                                                      |                          |
| Frequency 频率                                                                       | 700-960 MHz/1710-2700MHz |
| S.W.R. 驻波比                                                                         | 参考波形                     |
| Antenna Gain 增益                                                                    | 0.46dBi /2.41dBi         |
| Polarization 极化方式                                                                  | Linear                   |
| Impedance 阻抗                                                                       | 50 Ohm                   |
| B. Material & Mechanical Characteristics                                           |                          |
| Cable Type 线材规格                                                                    | OD1.13mm ,gray           |
| Connector Type 连接器规格                                                               | I-PEX                    |
| C. Environmental                                                                   |                          |
| Storage Temperature<br>存储温度                                                        | - 40°C ~ +80 °C          |
| Operation Temperature<br>工作温度                                                      | - 40°C ~ +80 °C          |

Product Number: AN0727-FPC27GX

Product Name: Antenna

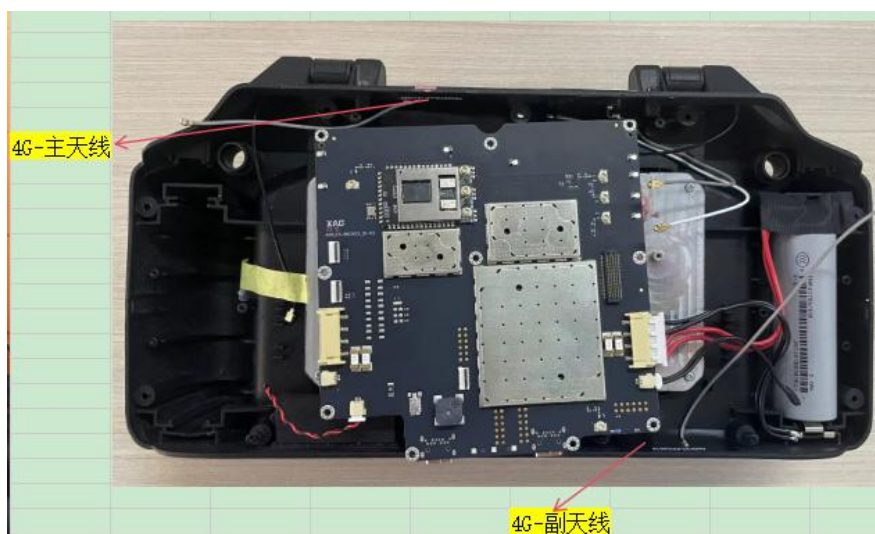
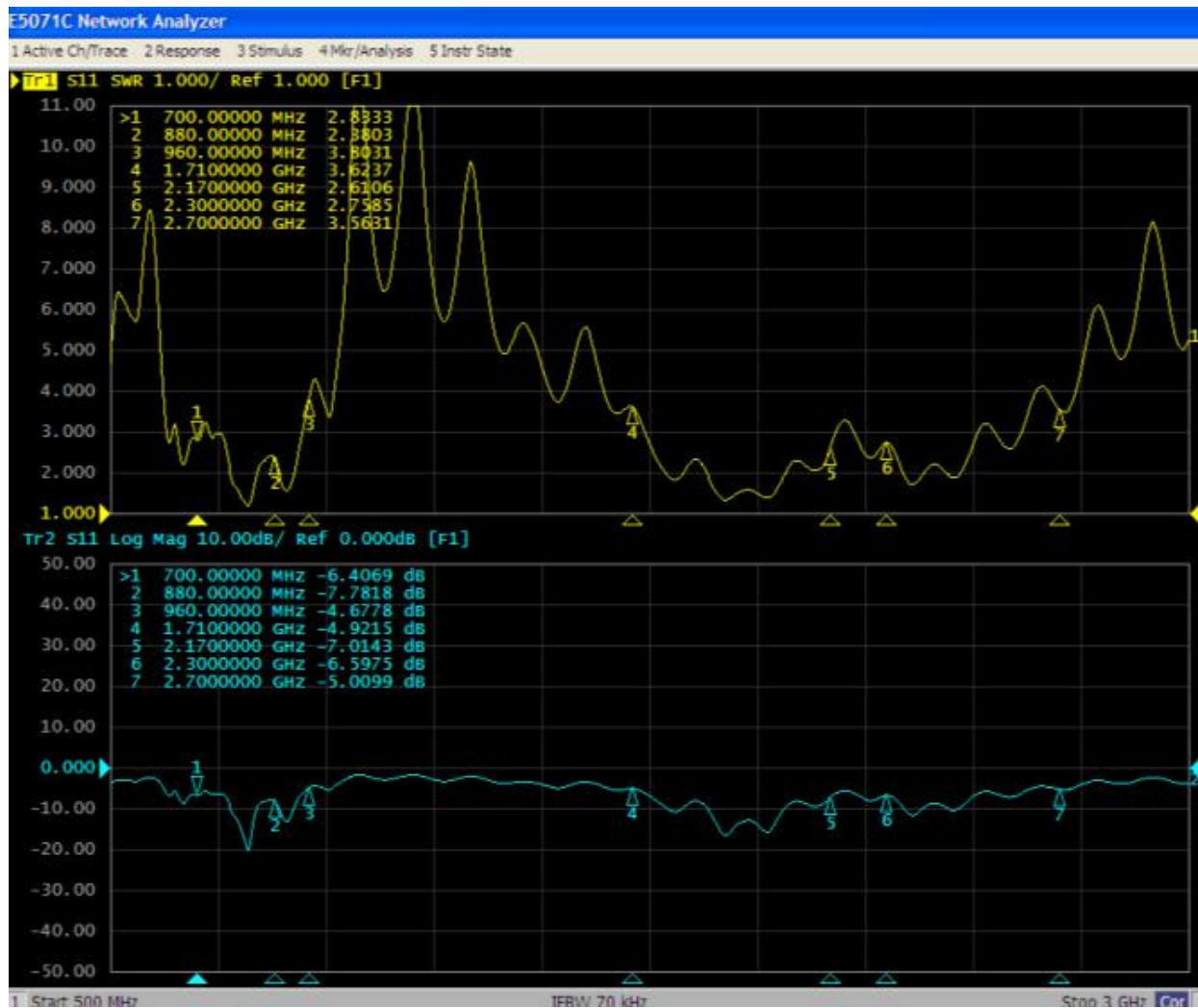
## 2. Characteristics and Reliability Test

| 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: $260 \pm 5^{\circ} \text{C}$ ; Duration: 5 seconds 温度 $260 \pm 5^{\circ} \text{C}$ ; 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. $\leq 5\%$<br>符合待测物规范; 频率偏移 $\leq 5\%$ | 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<br>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: AN0727-FPC27GX

Product Name: Antenna

### 3. Antenna - S Parameter Test Data

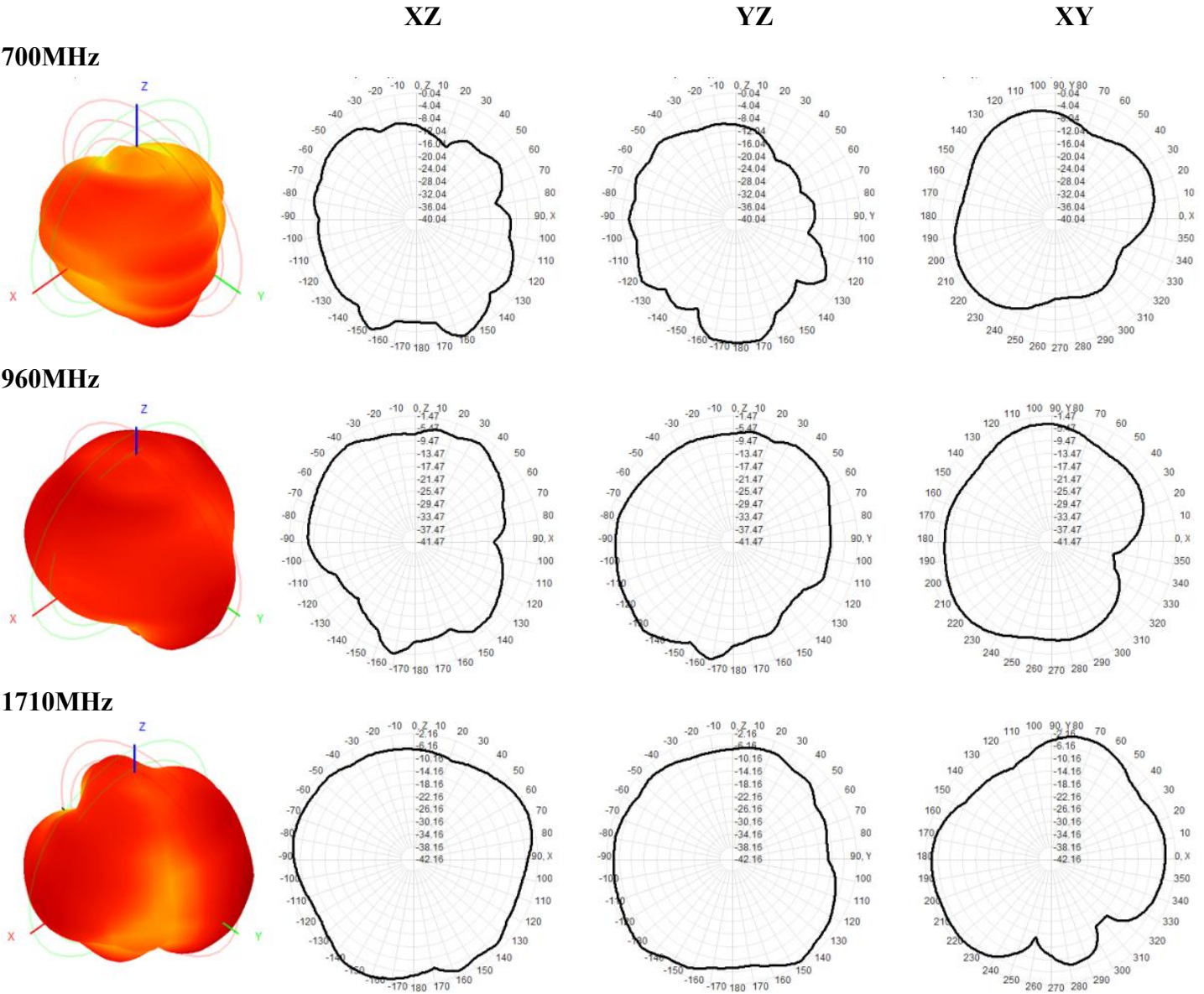


Product Number: AN0727-FPC27GX

Product Name: Antenna

4. Antenna - Radiation Pattern Test Data

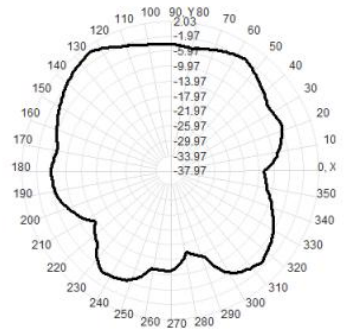
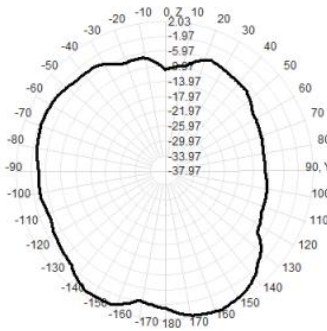
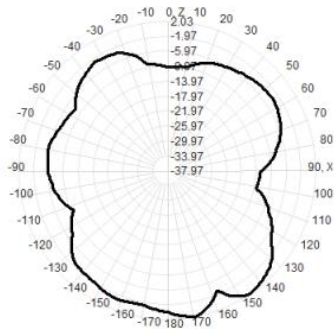
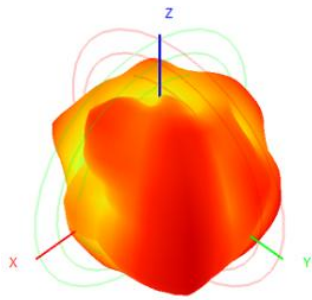
| Frequency ID    | 1     | 2     | 3     | 4     | 5     | 6     | 7      | 8      | 9      | 10     | 11     | 12     | 13     | 14     | 15     | 16     | 17     | 18     | 19     | 20     | 21     | 22     |
|-----------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency (MHz) | 700.0 | 752.0 | 804.0 | 856.0 | 908.0 | 960.0 | 1710.0 | 1756.0 | 1802.0 | 1848.0 | 1894.0 | 1940.0 | 1986.0 | 2032.0 | 2078.0 | 2124.0 | 2170.0 | 2300.0 | 2400.0 | 2500.0 | 2600.0 | 2700.0 |
| Gain (dBi)      | 0.28  | 0.35  | 0.46  | 0.41  | 0.32  | 0.24  | 0.78   | 0.92   | 0.85   | 0.92   | 1.78   | 1.85   | 1.94   | 2.18   | 2.23   | 2.41   | 2.18   | 1.98   | 1.86   | 2.14   | 2.22   | 2.10   |
| Efficiency (%)  | 24.63 | 25.38 | 26.41 | 25.12 | 23.53 | 22.58 | 31.53  | 32.46  | 33.58  | 31.19  | 37.80  | 40.25  | 41.26  | 42.30  | 41.25  | 40.20  | 38.56  | 39.16  | 37.46  | 38.41  | 40.46  | 40.98  |



**Product Number: AN0727-FPC27GX**

**Product Name: Antenna**

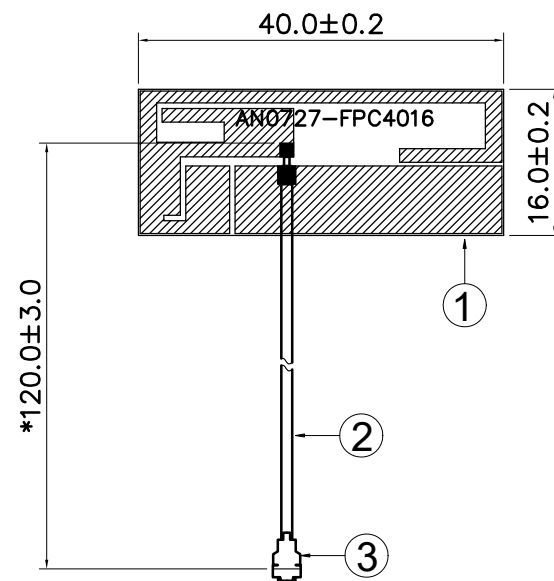
**2700MHz**



**5. Mechanical Drawing    See attached files**

|                     |                                     |
|---------------------|-------------------------------------|
| HF                  | <input type="checkbox"/>            |
| RoHS2.0             | <input checked="" type="checkbox"/> |
| REACH               | <input type="checkbox"/>            |
| <b>CONFIDENTIAL</b> |                                     |

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



Note:

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-113GS       | Coaxial Cable | OD1.13   | Gray      | 1    |
| 1   | AN0727-FPC4016 | FPC           |          | Black     | 1    |
| No. | Part Number    | Name          | Material | Finish    | Q'ty |

|                          |            |            |            |                                                                                       |  |           |
|--------------------------|------------|------------|------------|---------------------------------------------------------------------------------------|--|-----------|
| 东莞市海恒电子科技有限公司            |            |            |            |                                                                                       |  |           |
| TITLE: Antenna           |            |            |            |                                                                                       |  |           |
| PART NO.: AN0727-FPC27GX |            |            |            | CUSTOMER P/N: /                                                                       |  |           |
| APP BY                   | CHK BY     | RF BY      | DES BY     |  |  | Tolerance |
| YCX                      | HC         | WJ         | SY         | UNITS: mm                                                                             |  | X.X ±0.5  |
| 2025.05.08               | 2025.05.08 | 2025.05.08 | 2025.05.08 | SCALE: 1/1                                                                            |  | X.XX ±0.2 |
|                          |            |            |            | REVISION: A                                                                           |  | X° ±1     |

# 产品包装规范

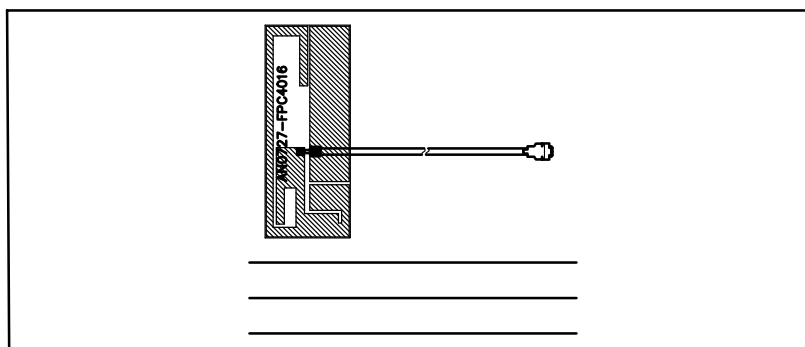
## PACKING CRITERION

Date: 2025.05.08

Page: 1 of 1

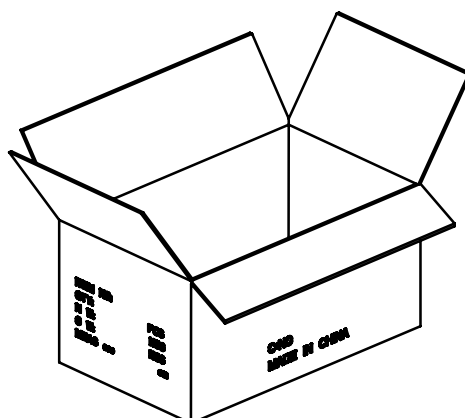
|                              |                |
|------------------------------|----------------|
| Part Number : AN0727-FPC27GX | Revision : A   |
| Name: Antenna                | Customer : ALL |

1 . Enter PE bag。



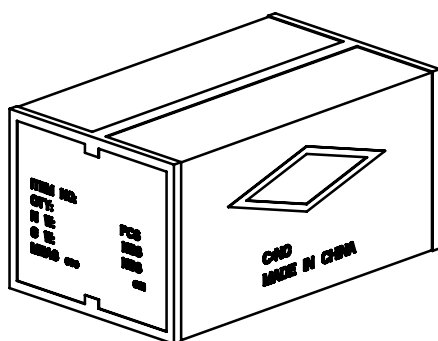
100pcs/ PE bag

2.PACKING。

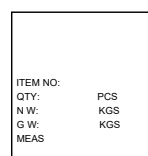


8000pcs/Carton

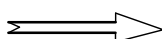
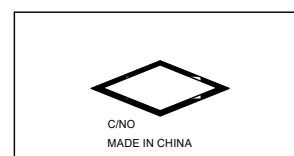
3. SEALING。



SIDE



FRONT



APPROVED BY : YCX      CHECKED BY : HC      DESIGNED BY : SY Y