

供应商:

东莞市腾祥电子有限公司

Tengxiang Technology, Inc

地址: 东莞市 长安镇 沙头沙涌路53号

承認書

SPECIFICATION FOR APPROVAL

| | |
|-----------------------|------------------------------------|
| 腾祥料號 SOREDE P/N | AN2450-FPC04GX |
| 品名/規格 DESCRIPTION | 2.4/5.8G FPC天线, 1.13灰色线L=60mm+IPEX |
| 腾祥送樣編號 SOREDE DWG# | 210225002 |
| 送样日期 SAMPLE DATE | 2022/12/1 |

MANUFACTURER/制造商

| APPROVED BY 核准 | Q.C.DEPT. 品管 | CHECKED BY 核准 | TESTED BY 檢測 |
|-------------------|-----------------|------------------|-----------------|
| 韦佳 | 袁旭阳 | 胡超 | 李艳坪 |

客户:

深圳市视壮科技有限公司

| | |
|----------------------|--|
| 视壮料號 CUSTOMER P/N | |
| 视壮名稱 CUSTOMER | |
| 品名/規格 DESCRIPTION | |

CUSTOMER APPROVAL/客户审核

| APPROVED BY 核准 | Q.C.DEPT. 品管 | CHECKED BY 审核 | TESTED BY 檢測 |
|-------------------|-----------------|------------------|-----------------|
| | | | |

Product Number: AN2450-FPC04GX

Product Name: FPC Antenna

1. Specification

Sample Photo



A. Electrical Characteristics

| | |
|-------------------|------------------------------|
| Frequency 频率 | 2400-2500MHz / 5150-5850 MHz |
| S.W.R. 驻波比 | <= 2.0 |
| Antenna Gain 增益 | 2.85 dBi / 5.31 dBi |
| Polarization 极化方式 | Linear |
| Impedance 阻抗 | 50 Ohm |

B. Material & Mechanical Characteristics

| | |
|--------------------------|-----------------|
| Material of Radiator | Cu |
| Material of Plastic 塑胶材质 | / |
| Cable Type 线材规格 | OD1.13mm , GRAY |
| Connector Type 连接器规格 | I-PEX |
| Connector Pull Test | / |
| Connector Torque Test | / |

C. Environmental

| | |
|----------------------------|-------------------|
| Operation Temperature 存储温度 | - 40 °C ~ + 80 °C |
| Storage Temperature 存储温度 | - 40 °C ~ + 80 °C |

2. Characteristics and Reliability Test



Tengxiang Technology.Inc

Product Number: AN2450-FPC04GX

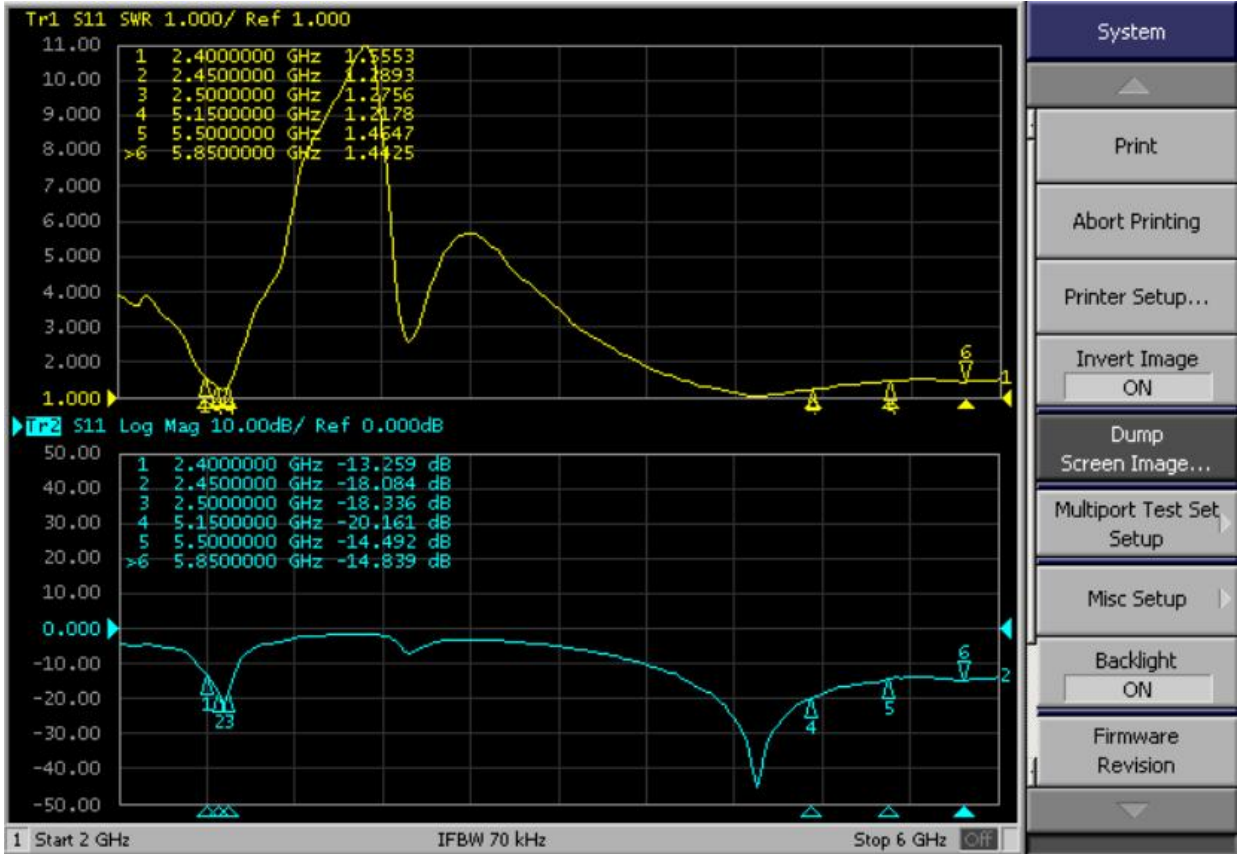
Product Name: FPC Antenna

| Test Items | | Test Condition and Procedure | Requirements |
|------------|----------------------|--|---|
| C1 | S.W.R. | Set DUT on Network Analyzer; make individual calibration to test | Directive DUT specification |
| C2 | Antenna Gain | Set DUT on Antenna Chamber; make individual calibration to test | Directive DUT specification |
| M1 | Vibration | MIL-STD-202G, 201A Amplitude: 0.03 inch (0.76mm); Freq: 10 to 55 Hz 3 directions; 2 hours for each direction | 1. No Visual Damage 2. Frequency Tol.<= 5% |
| M2 | Random Drop | Height: 1.5 Meter; 3 directions; 1 time for each direction | 1. No parts separated 2. Frequency Tol.<= 5% |
| M3 | Solderability | MIL-STD-202G, 210F, cond. A Solder iron: 350±10°C; Duration: 5 seconds | 1. Mounted on PCB 2. No Visual Damage |
| M4 | Terminal-Pull Test | MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal | 1. Directive DUT specification 2. Frequency Tol.<= 5% |
| M5 | Terminal-Torque Test | MIL-STD-202G, 211A, cond. E Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal | 1. Directive DUT specification 2. Frequency Tol.<= 5% |
| M6 | Dimension | Inspection of dimension, color, material, package, surface process | Directive DUT specification |
| E1 | Salt Spray | MIL-STD-202G, 101E, cond. B Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 48 hours | After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5% |
| E2 | Humidity | MIL-STD-202G, 103B, cond. B Temp: 40°C; RH: >= 95%; Time: 48 hours | After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5% |
| E3 | Thermal Shock | 1 Cycle: - 45°C (30 minutes) to + 85°C (30 minutes) Cycles: 24 | After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5% |
| E4 | Life (High Temp.) | MIL-STD-202G, 108A, cond. A Temp: 85°C; Time: 96 hours | After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5% |
| R1 | RoHS | With Reference to IEC 62321:2008 with flow chart | Directive RoHS 2020/863/EU |

Product Number: AN2450-FPC04GX

Product Name: FPC Antenna

3. Antenna - S Parameter Test Data



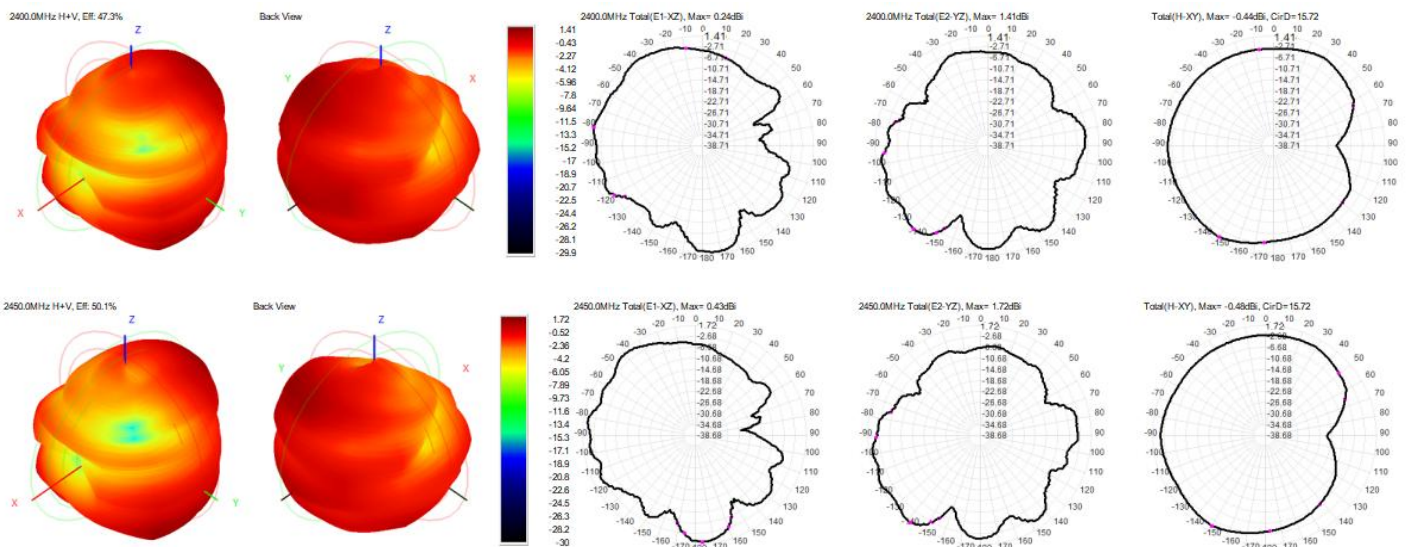
Product Number: AN2450-FPC04GX

Product Name: FPC Antenna



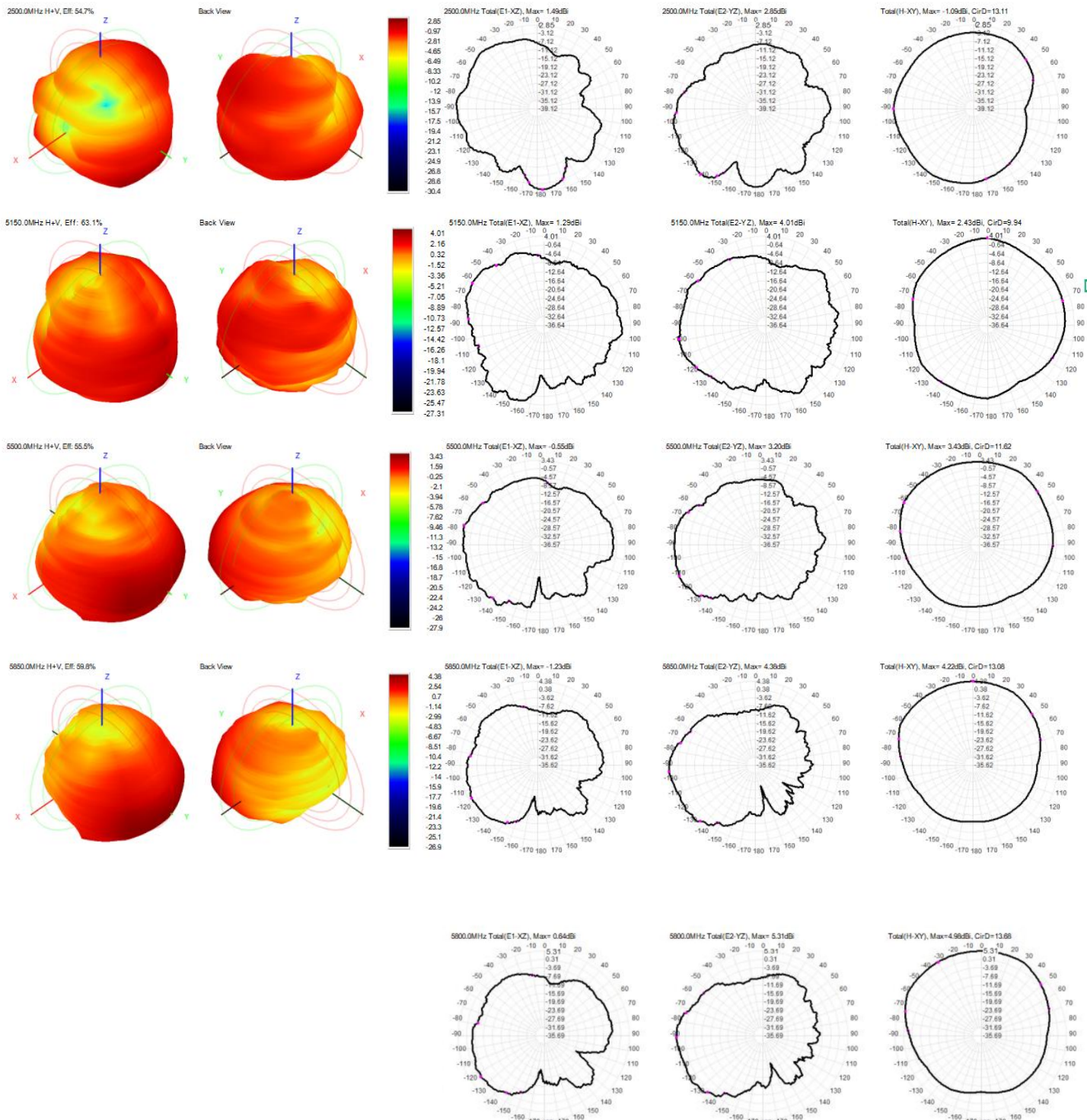
4. Antenna - Radiation Pattern Test Data

| Frequency ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency (MHz) | 2400.0 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 | 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 |
| Gain (dBi) | 1.41 | 1.39 | 1.57 | 1.30 | 1.57 | 1.72 | 2.17 | 2.55 | 2.80 | 2.75 | 2.85 | 4.01 | 3.73 | 3.74 | 3.26 | 3.42 | 3.64 | 3.76 | 3.43 | 4.06 | 4.56 | 4.62 | 4.71 | 4.60 | 5.31 | 4.38 |
| Efficiency (%) | 47.28 | 47.12 | 49.14 | 46.49 | 47.85 | 50.11 | 51.87 | 54.33 | 55.47 | 54.46 | 54.73 | 63.07 | 62.14 | 66.49 | 58.68 | 61.60 | 62.56 | 63.21 | 55.53 | 58.21 | 60.69 | 61.43 | 52.24 | 60.21 | 63.70 | 59.75 |



Product Number: AN2450-FPC04GX

Product Name: FPC Antenna

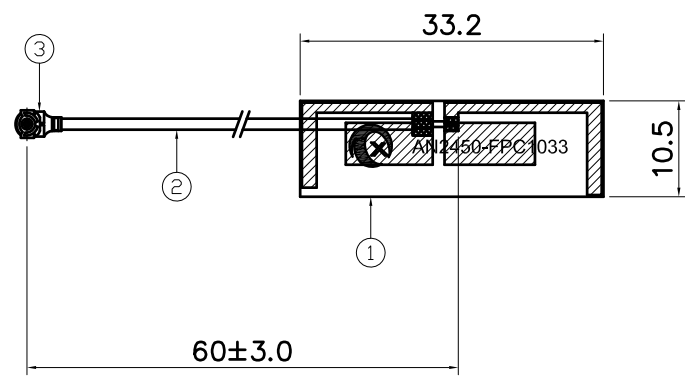


Note: Maximum antenna gain at 5800.0MHz

5. Mechanical Drawing (See attached files)

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


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




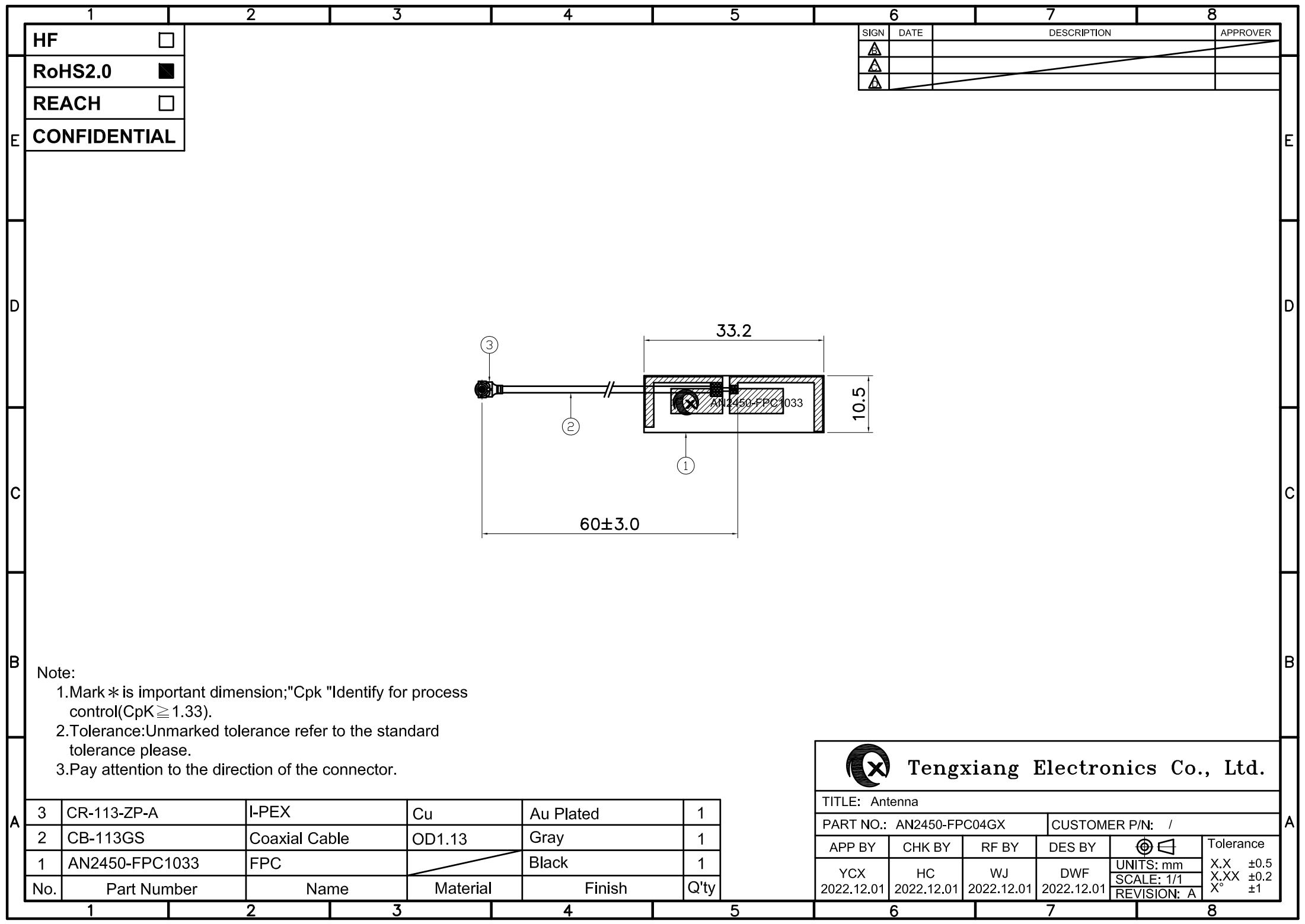
Note:

- 1.Mark * is important dimension;"Cpk "Identify for process control(CpK ≥ 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 | AN2450-FPC1033 | FPC | | Black | 1 |
| No. | Part Number | Name | Material | Finish | Q'ty |


Tengxiang Electronics Co., Ltd.

| | | | | | |
|--------------------------|------------------|------------------|-------------------|---|--------------------------------|
| TITLE: Antenna | | | | | |
| PART NO.: AN2450-FPC04GX | | | CUSTOMER P/N: / | | |
| APP BY | CHK BY | RF BY | DES BY |  | Tolerance |
| YCX 2022.12.01 | HC 2022.12.01 | WJ 2022.12.01 | DWF 2022.12.01 | | X.X ±0.5 X.XX ±0.2 X° ±1 |
| | | | | UNITS: mm | |
| | | | | SCALE: 1/1 | |
| | | | | REVISION: A | |



產品包裝規範

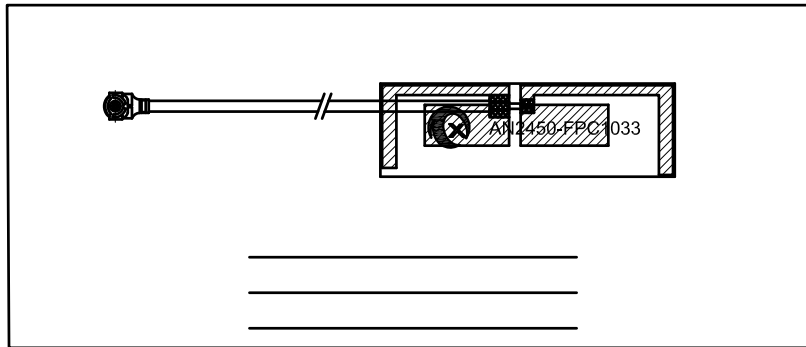
PACKING CRITERION

Date: 2022.12.01

Page: 1 of 1

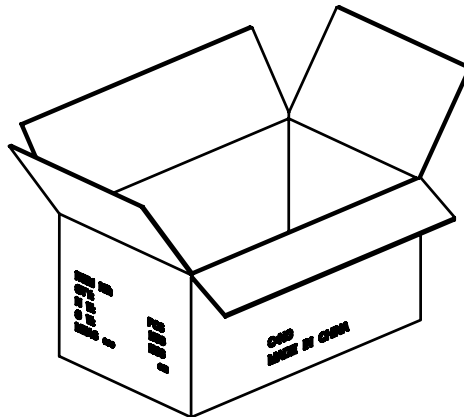
| | |
|------------------------------|----------------|
| Part Number : AN2450-FPC04GX | Revision : A |
| Name: Antenna | Customer : ALL |

1. Enter PE bag.



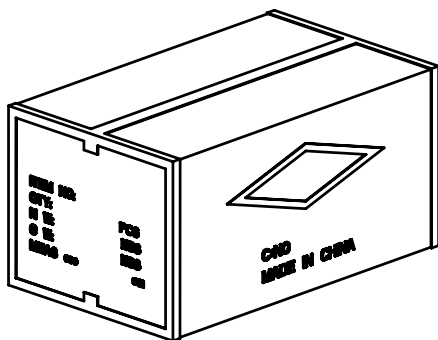
100pcs/ PE bag

2.PACKING.

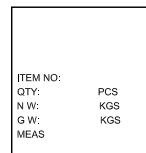


8000pcs/Carton

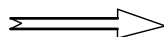
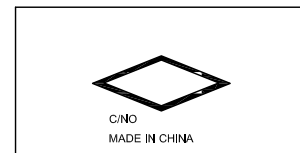
3. SEALING.



SIDE



FRONT



APPROVED BY : YCX

CHECKED BY : HC

DESIGNED BY : DWF