

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-FPC05BX
品名/規格 DESCRIPTION	2.4/5.8G FPC天线, 黑色线L=80mm+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-FPC05BX

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	2.96 dBi / 6.42 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 , BLACK
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-FPC05BX

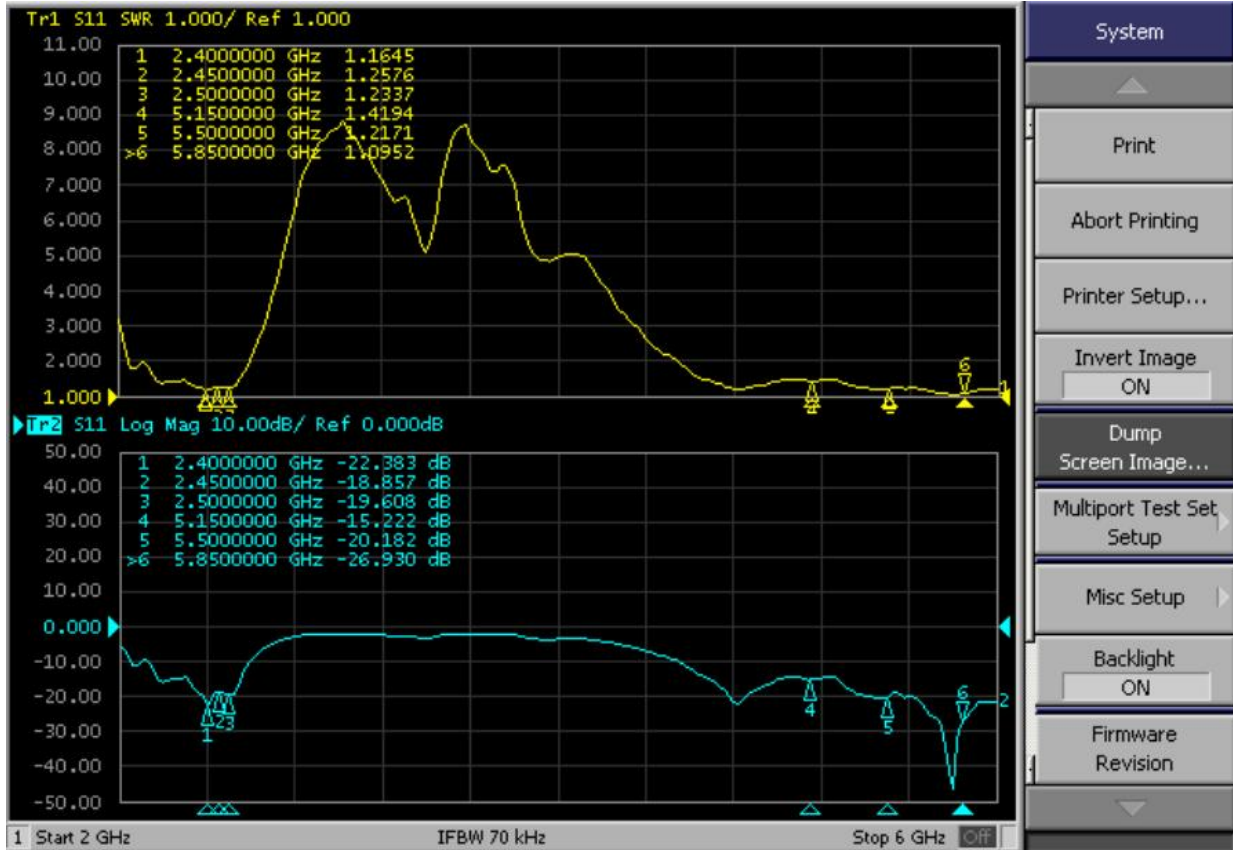
Product Name: FPC Antenna

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-FPC05BX

Product Name: FPC Antenna

### 3. Antenna - S Parameter Test Data





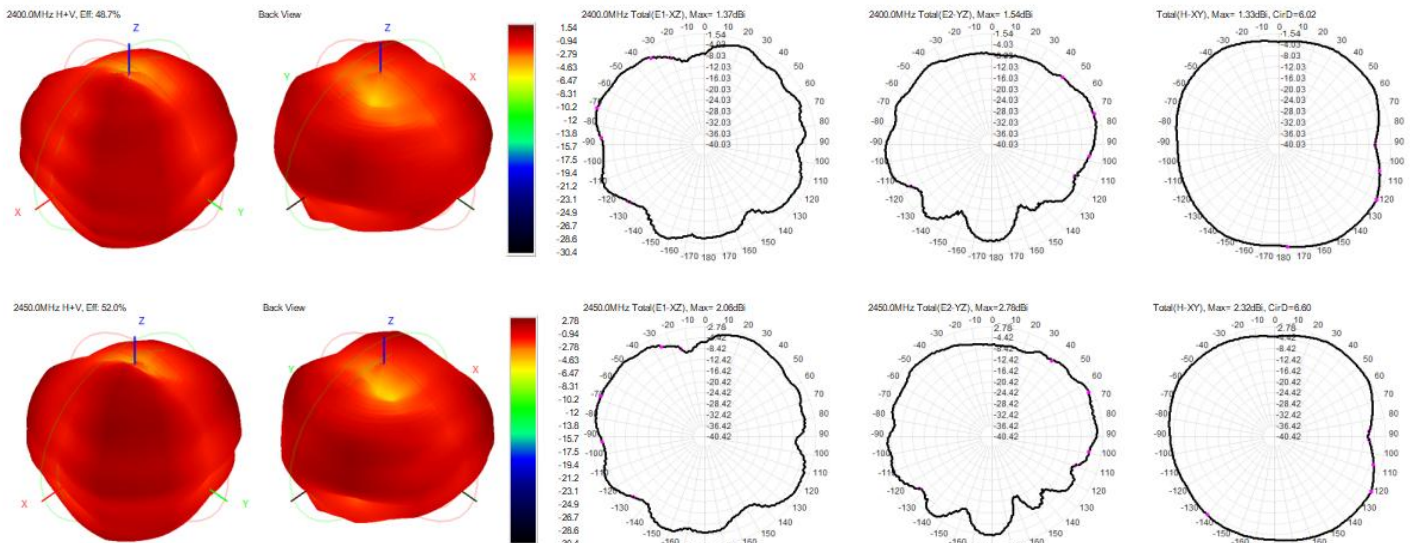
Product Number: AN2450-FPC05BX

Product Name: FPC Antenna



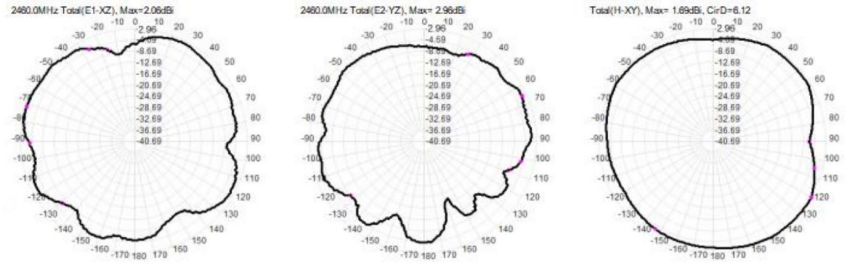
## 4. Antenna - Radiation Pattern Test Data

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)	1.94	1.94	2.13	2.43	2.86	2.78	2.96	2.76	2.65	2.25	2.03	5.10	4.84	5.09	4.27	4.62	4.68	4.35	4.11	4.68	4.76	4.99	4.81	6.27	6.20	6.42
Efficiency (%)	48.66	49.78	53.09	51.26	53.42	51.98	49.13	47.89	46.68	47.30	47.06	58.42	58.36	62.64	55.15	62.09	65.87	66.01	60.28	65.62	65.88	66.76	59.62	65.97	69.90	67.07

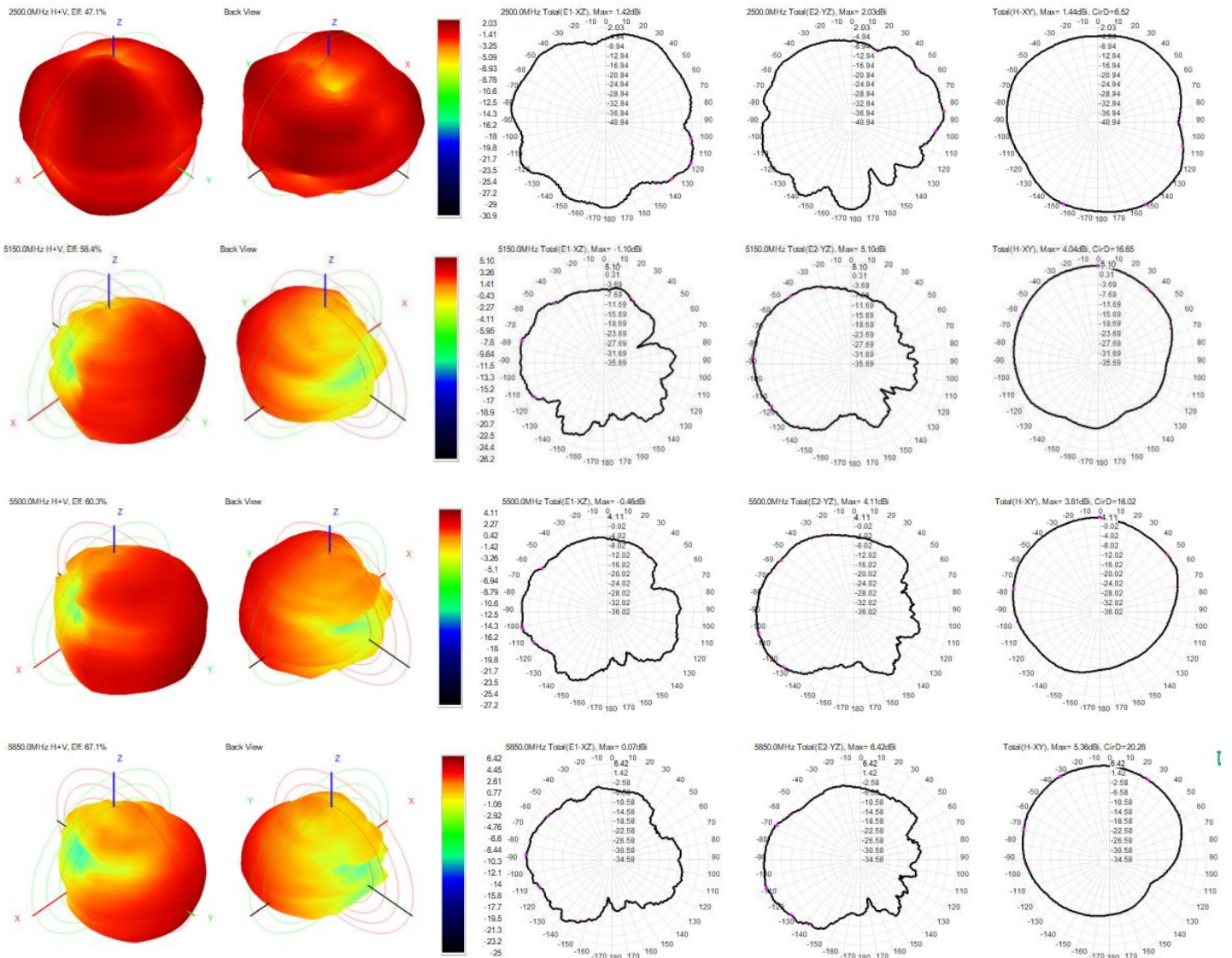


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Product Name: FPC Antenna



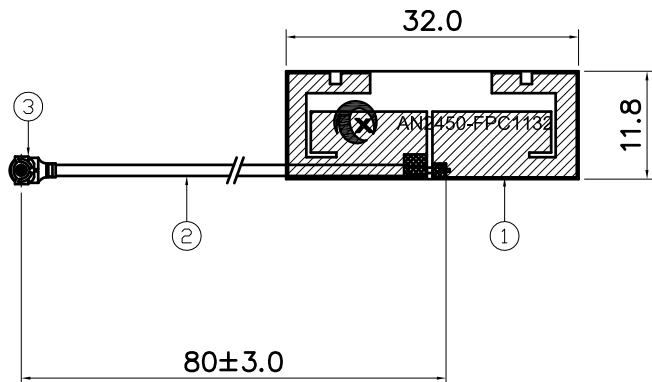
Note: Maximum antenna gain at 2460MHz.



## 5. Mechanical Drawing (See attached files)


HF   
 RoHS2.0   
 REACH   
**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-113BS	Coaxial Cable	OD1.13	Black	1
1	AN2450-FPC1132	FPC		Black	1
No.	Part Number	Name	Material	Finish	Q'ty

 **Tengxiang Electronics Co., Ltd.**

TITLE: Antenna

PART NO.: AN2450-FPC05BX      CUSTOMER P/N: /

APP BY	CHK BY	RF BY	DES BY		Tolerance
YCX	HC	WJ	DWF	UNITS: mm SCALE: 1/1 REVISION: A	X.X ±0.5
2022.12.01	2022.12.01	2022.12.01	2022.12.01		X.XX ±0.2
					X° ±1



# 產品包裝規範

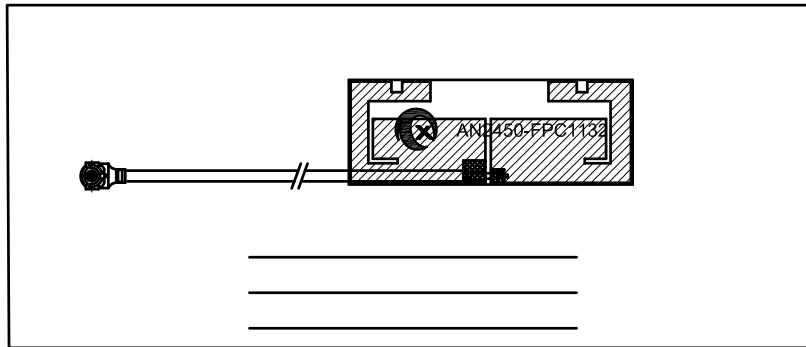
## PACKING CRITERION

Date: 2022.12.01

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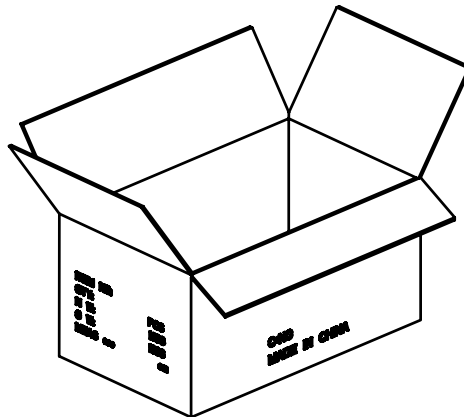
Part Number : AN2450-FPC05BX	Revision : A
Name: Antenna	Customer : ALL

1. Enter PE bag.



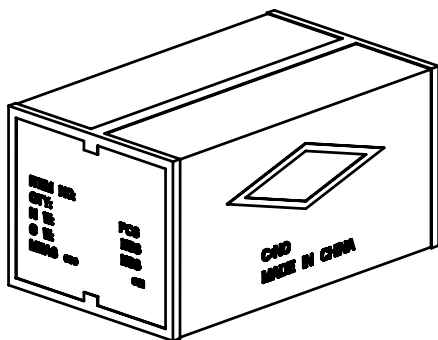
100pcs/ PE bag

2.PACKING.

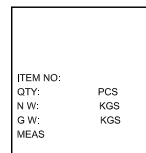


8000pcs/Carton

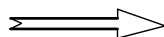
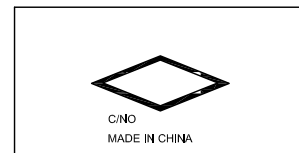
3. SEALING.



SIDE



FRONT



APPROVED BY : YCX

CHECKED BY : HC

DESIGNED BY : DWF