



Tengxiang Technology.Inc

东莞市腾祥电子有限公司

Product Number: AN2450-FPC121BX

Product Name: Antenna

Specification For Approval

Date: 2023.9.8

Version: 1.0

客户名称

Customer:

客户料号

Customer P/N:

腾祥料号

TX P/N:

AN2450-FPC121BX

规格描述

Description :

2.4G/5G FPC 天线 1.13mm 黑色线 L=60mm +IPEX

Tengxiang Checked By: 腾祥审核		Customer Approved By: 客户审核	
DRAWN 制作	路婷	TESTED BY 检测	
CHECKED BY 审核	胡超	CHECKED BY 审核	
Q.C.DEPT. 品管	梁凤珍	Q.C.DEPT. 品管	
APPROVED BY 核准	韦佳	APPROVEDBY 核准	



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Product Name: Antenna

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Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2023.9.8	初版	

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Product Name: Antenna

1. Specification

Sample Photo



A. Electrical Characteristics

Frequency 频率	2400-2500 MHz/5150-5850MHz
S.W.R. 驻波比	≤ 2.0 / ≤ 2.0
Antenna Gain 增益	3.26dBi / 3.45dBi
Polarization 极化方式	Linear
Impedance 阻抗	50 Ohm

B. Material & Mechanical Characteristics

Cable Type 线材规格	OD1.13mm ,Black
Connector Type 连接器规格	I-PEX

C. Environmental

Storage Temperature 存储温度	- 40°C ~ +80 °C
Operation Temperature 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. 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 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 符合待测物规范	PASS
3 Antenna Gain 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 符合待测物规范	PASS
4 Solderability 可焊性	GB / T2423.28-2005 Temp: 260±5° C;Duration: 5 seconds 温度 260±5° C;持续 5 秒	Tin evenly on full 上锡均匀饱满	PASS
5 Pull Test 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 2. Frequency Tol.≤5% 符合待测物规范;频率偏移≤5%	PASS
6 Dimension 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 符合待测物规范	PASS
7 Salt Spray 盐雾	GB / T 2423.17-2008 Temp: 35°C; RH: ≥ 95%; NaCl solution: ≥ 5%;Time: 24H 温度 35°C; 湿度≥95%;盐水浓度≥5%; 测试 24H	1. No Visual Damage 2. Frequency Tol.≤5% 无明显外观不良;频率偏移≤5%	PASS
8 RoHS	With Reference to IEC 62321:2008 with flow chart 参考 IEC 62321 测试流程	Directive RoHS 2015/863/EU 符合 RoHS 2015/863/EU 标准	PASS

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3. Antenna - S Parameter Test Data



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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)	2.68	2.94	3.14	3.19	3.22	3.26	3.15	3.02	2.90	2.83	2.74
Efficiency (%)	58.68	60.04	61.32	62.39	63.10	63.22	62.46	58.74	55.42	56.87	56.82

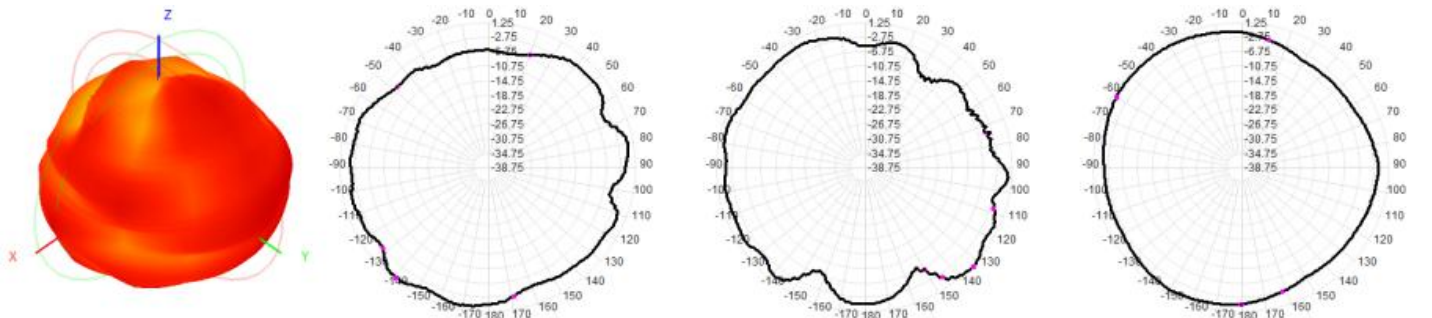
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
2.05	2.11	2.70	2.71	3.06	3.45	3.25	2.76	2.72	2.68	2.48	2.34	2.43	2.62	2.41
50.32	52.54	55.87	54.62	56.26	58.41	56.38	56.27	54.67	52.83	51.79	50.07	51.14	52.30	48.14

有源

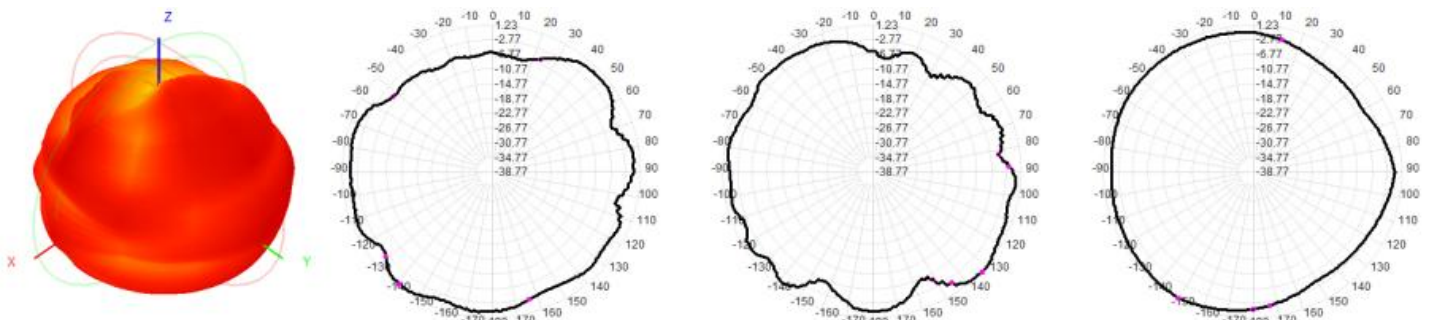
802.11b 11Mbps				802.11g 54Mbps			
Test Chnanel	ch1	ch6	ch11	Test Chnanel	ch1	ch6	ch11
TRP (dBm)	20.62	20.72	19.23	TRP (dBm)	20.83	20.9	19.56
TIS (dBm)	-80.26	-80.98	-81.13	TIS (dBm)	-67.96	-68.83	-68.91

802.11n MCS7				802.11a 54Mbps				
Test Chnanel	ch1	ch6	ch11	Test Chnanel	ch36	ch120	ch132	ch149
TRP (dBm)	20.77	20.79	19.54	TRP (dBm)	18.31	19.34	18.74	18.85
TIS (dBm)	-64.63	-65.86	-65.07	TIS (dBm)	-73.93	-75.57	-75.85	-72.8

2400MHz



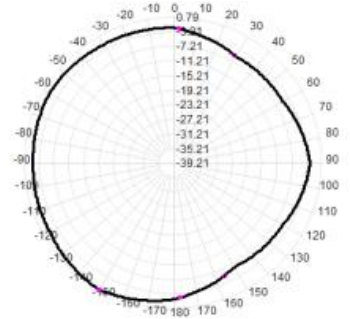
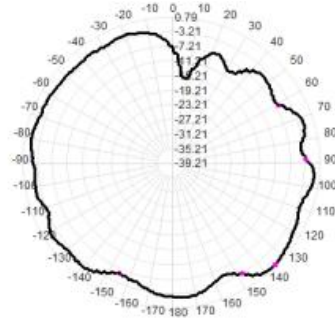
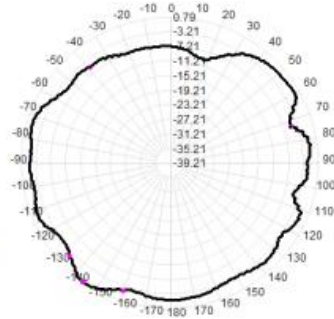
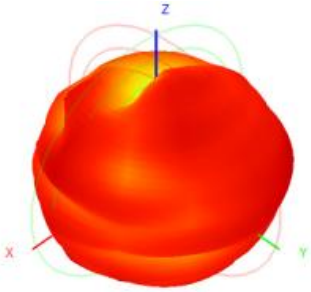
2450MHz



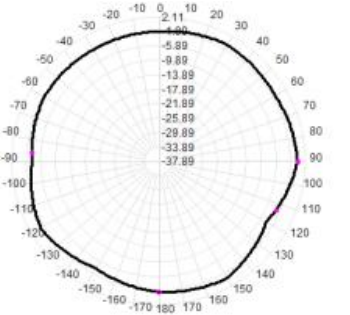
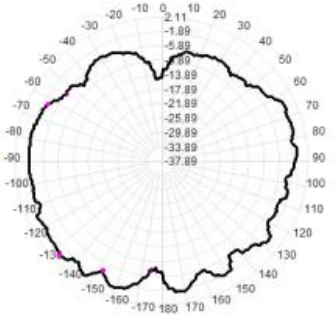
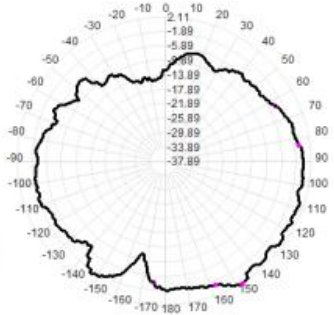
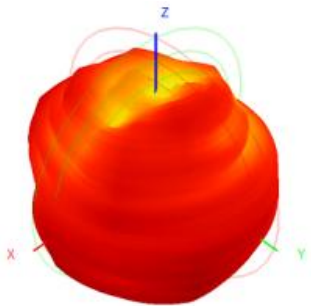
Product Number: AN2450-FPC121BX

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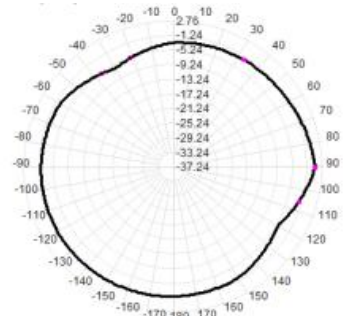
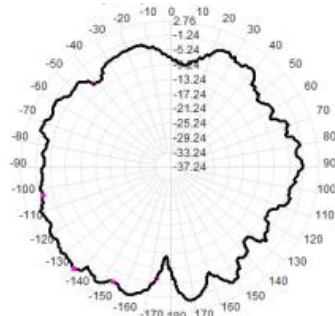
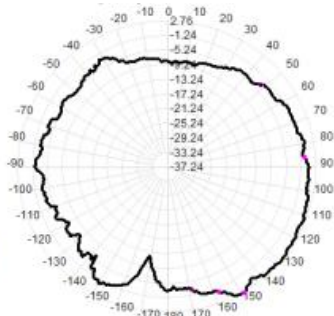
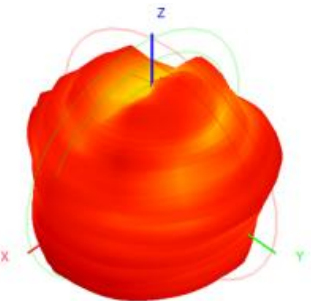
2500MHz



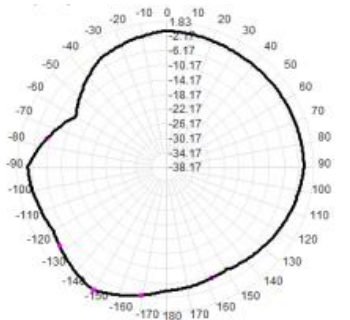
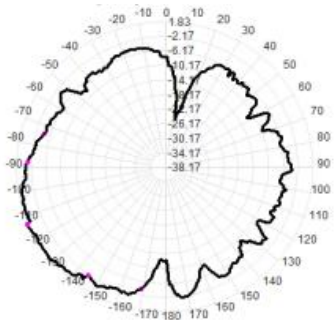
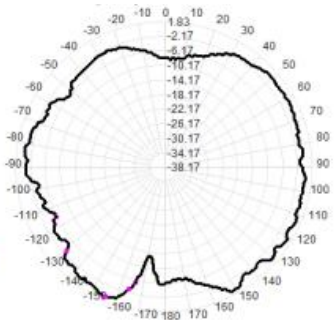
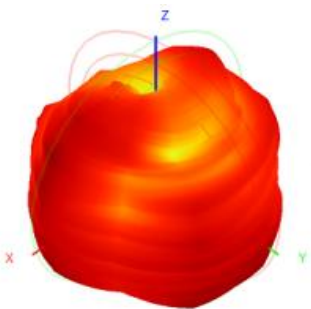
5150MHz



5500MHz



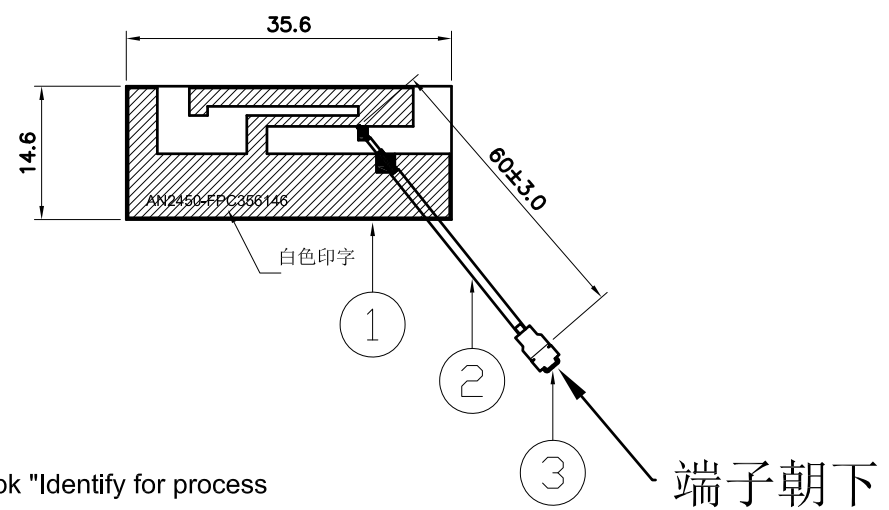
5850MHz



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 \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	OD1.13	Black	1
1	AN2450-FPC356146	FPC		Black	1
No.	Part Number	Name	Material	Finish	Q'ty

Tengxiang Electronics Co., Ltd.					
TITLE: Antenna					
PART NO.: AN2450-FPC121BX			CUSTOMER P/N: /		
APP BY	CHK BY	RF BY	DES BY		Tolerance
YCX 2023.9.8	WJ 2023.9.8	HC 2023.9.8	SY 2023.9.8		UNITS: mm SCALE: 1/1 REVISION: A

产品包装规范

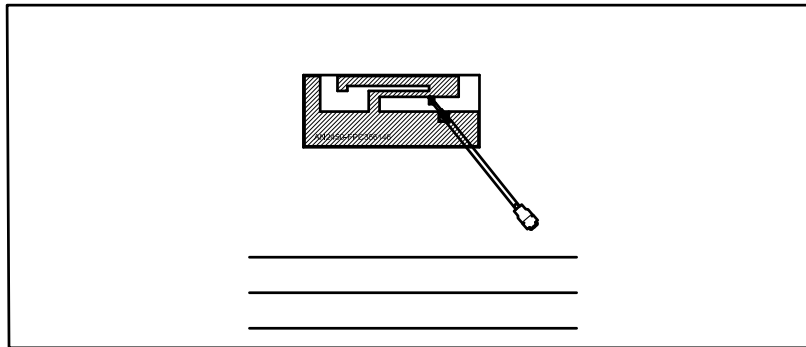
PACKING CRITERION

Date: 2023.9.8

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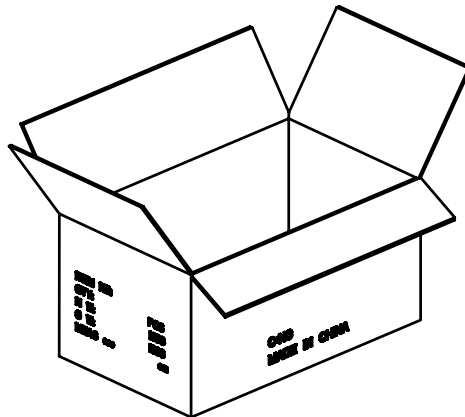
Part Number : AN2450-FPC121BX	Revision : A
Name: Antenna	Customer : ALL

1. Enter PE bag.



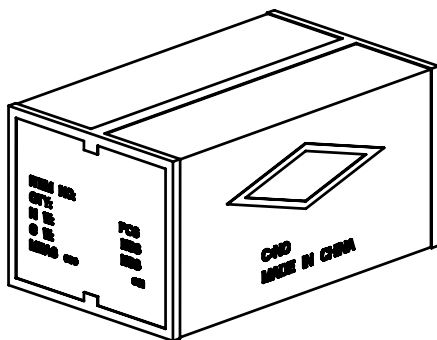
100pcs/ PE bag

2.PACKING.

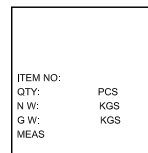


8000pcs/Carton

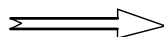
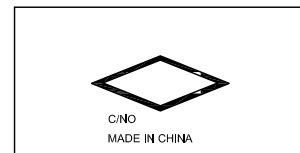
3. SEALING.



SIDE



FRONT



APPROVED BY: YCX

CHECKED BY: HC

DESIGNED BY: SY Y