



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

T X 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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东莞市腾祥电子有限公司

Product Number: AN2450-FPC121BX

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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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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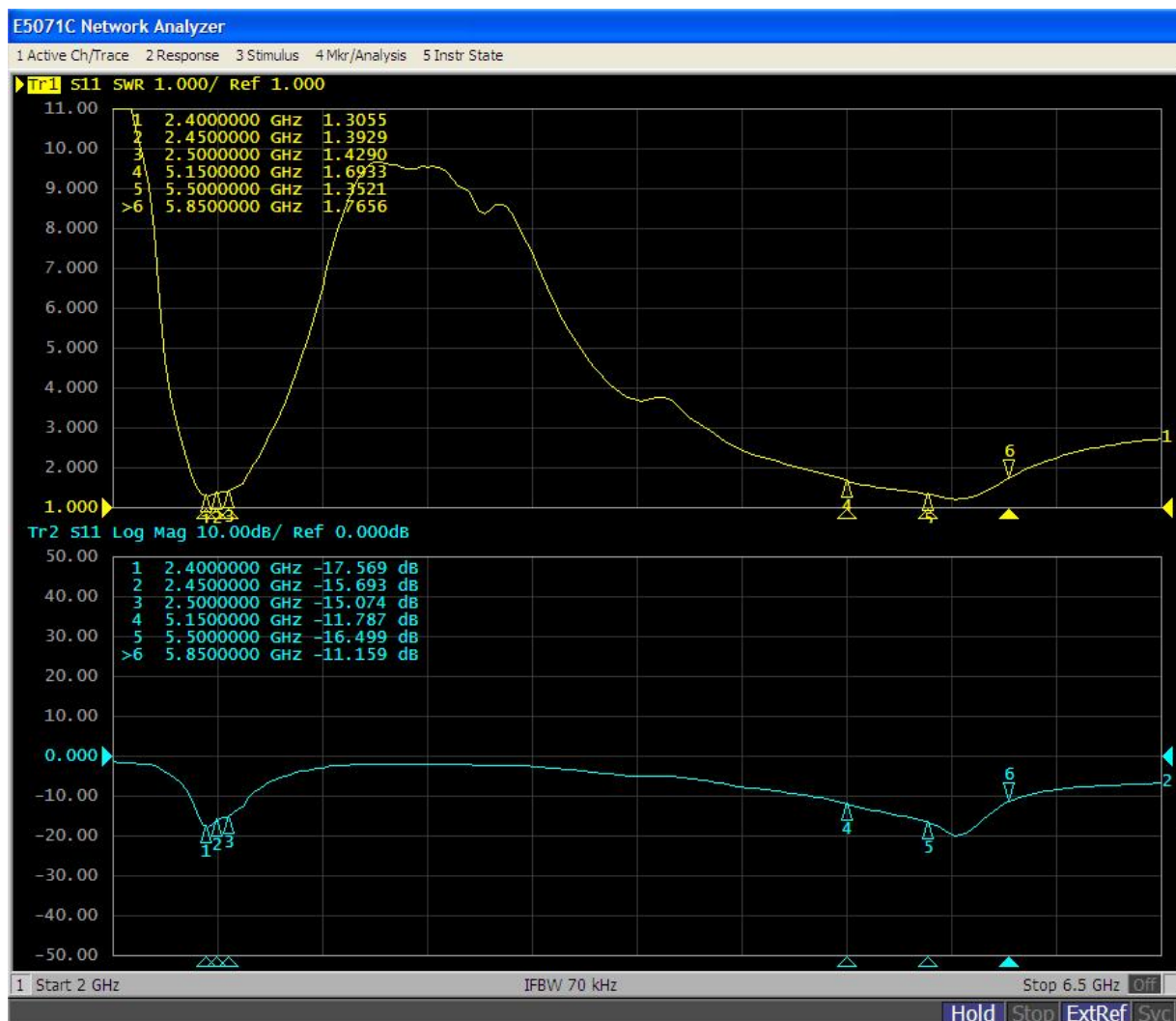
2. Characteristics and Reliability Test

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

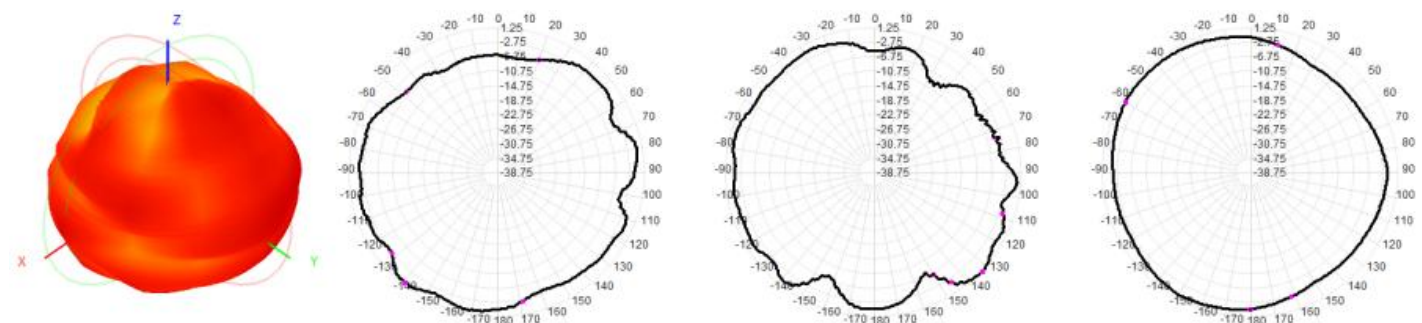
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
2.05	2.11	2.70	2.71	3.06	3.45	3.25	2.76	2.72	2.68	2.48	2.34	2.43	2.62	2.41
50.32	52.54	55.87	54.62	56.26	58.41	56.38	56.27	54.67	52.83	51.79	50.07	51.14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

有源

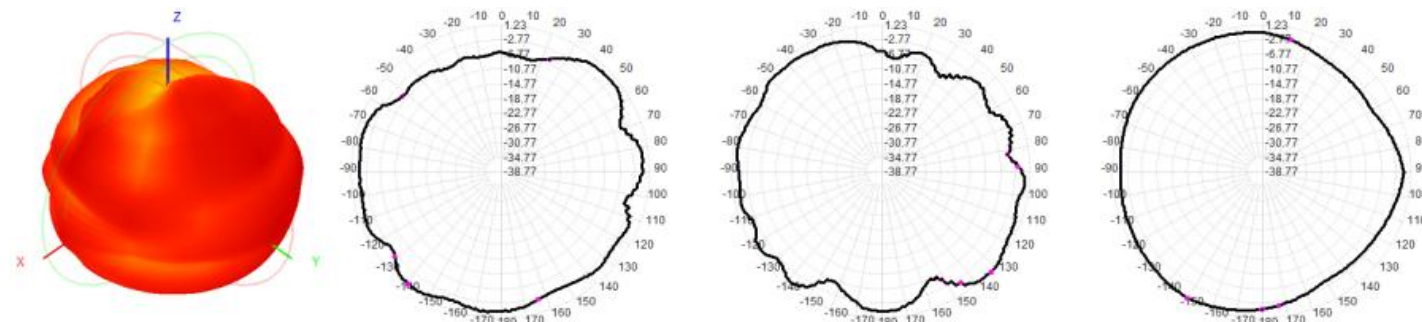
1#														
802.11b 11Mbps								802.11g 54Mbps						
Test Chnanel	ch1	ch6	ch11					Test Chnanel	ch1	ch6	ch11			
TRP (dBm)	20.62	20.72	19.23					TRP (dBm)	20.83	20.9	19.56			
TIS (dBm)	-80.26	-80.98	-81.13					TIS (dBm)	-67.96	-68.83	-68.91			

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



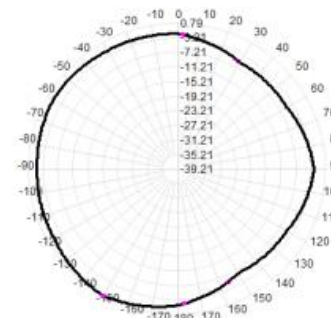
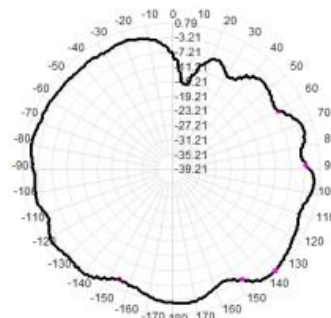
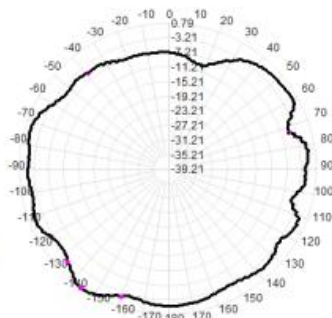
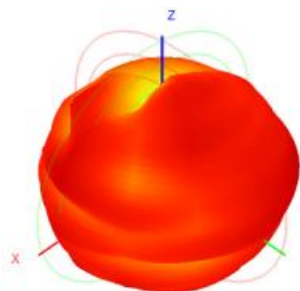
2450MHz



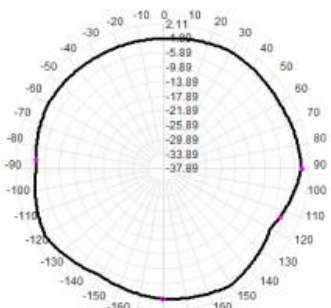
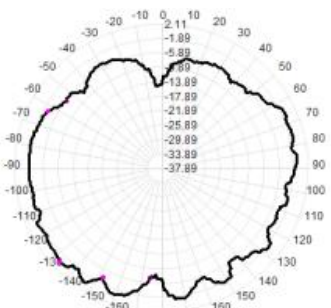
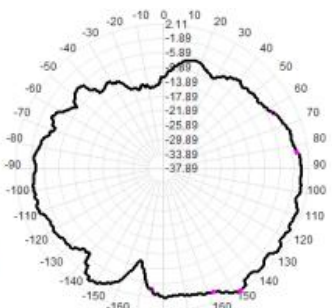
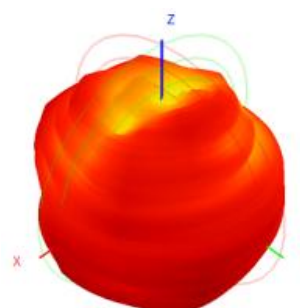
Product Number: AN2450-FPC121BX

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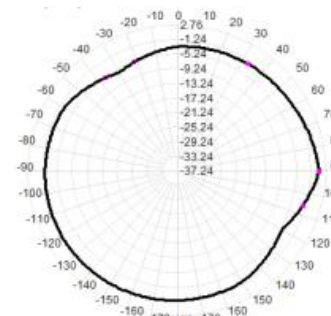
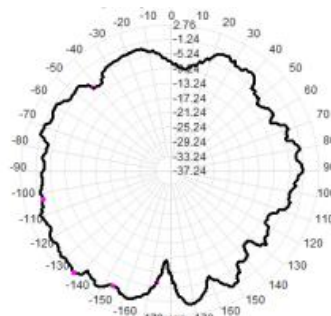
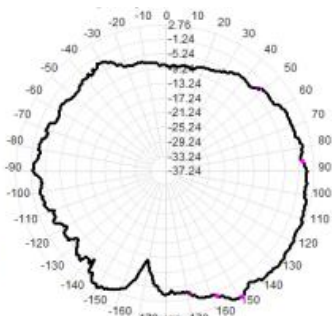
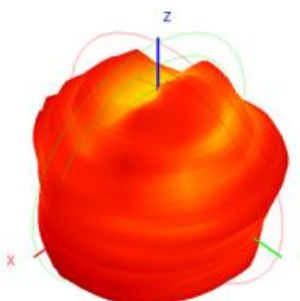
2500MHz



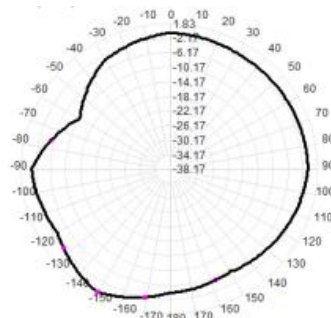
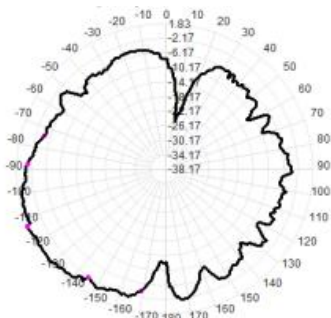
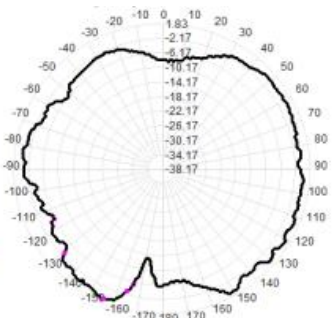
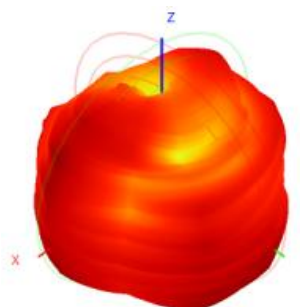
5150MHz



5500MHz



5850MHz



5. Mechanical Drawing See attached files

1		2		3		4		5		6		7		8			
HF		☐								SIGN		DATE		DESCRIPTION		APPROVER	
RoHS2.0		☒								☒							
REACH		☐								☒							
CONFIDENTIAL										☒							

E

D

C

B

A

35.6

14.6

AN2450-FPC356146

白色印字

60±3.0

0.7±0.9

1

2

3

端子朝下

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-FPC356146	FPC		Black	1
No.	Part Number	Name	Material	Finish	Q'ty

6

7

8

Tengxiang Electronics Co., Ltd.

TITLE: Antenna

PART NO.: AN2450-FPC121BX

CUSTOMER P/N: /

APP BY

CHK BY

RF BY

DES BY

YCX

2023.9.8

WJ

2023.9.8

HC

2023.9.8

SY

2023.9.8

UNITS: mm

SCALE: 1/1

REVISION: A

Tolerance

X.X ±0.5

X.XX ±0.2

X° ±1

A

产品包装规范

PACKING CRITERION

Date: 2023.9.8

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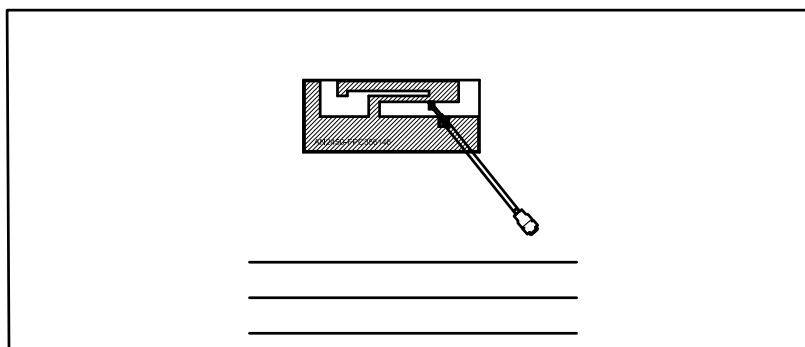
Part Number : AN2450-FPC121BX

Revision : A

Name: Antenna

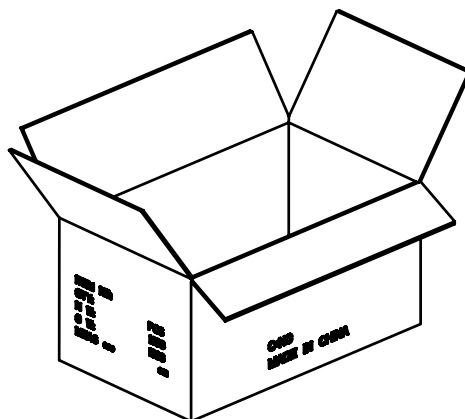
Customer : ALL

1 . Enter PE bag。



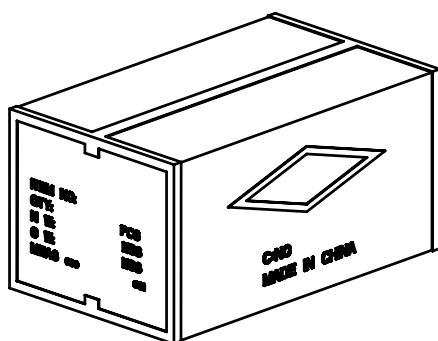
100pcs/ PE bag

2.PACKING。



8000pcs/Carton

3. SEALING。

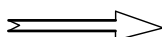


SIDE

ITEM NO:
QTY: PCS
N W: KGS
G W: KGS
MEAS

FRONT

C/NO
MADE IN CHINA



APPROVED BY: YCX

CHECKED BY: HC

DESIGNED BY: SY Y