



Tengxiang Technology.Inc

东莞市腾祥电子有限公司

Product Number:AN2450-FPC151BX

Product Name: Antenna

Specification For Approval

Date: 2024.1.5

Version: 1.0

客户名称

Customer:

九安

客户料号

Customer P/N:

腾祥料号

T X P/N:

AN2450-FPC151BX

规格描述

Description :

2.4G/5G FPC 1.13mm 黑色线 L=110mm+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	方伟明	Q.C.DEPT. 品 管	
APPROVED BY 核 准	韦佳	APPROVEDBY 核 准	



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Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2024.1.5	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
Antenna Gain 增益	3.23dBi /5.37dBi
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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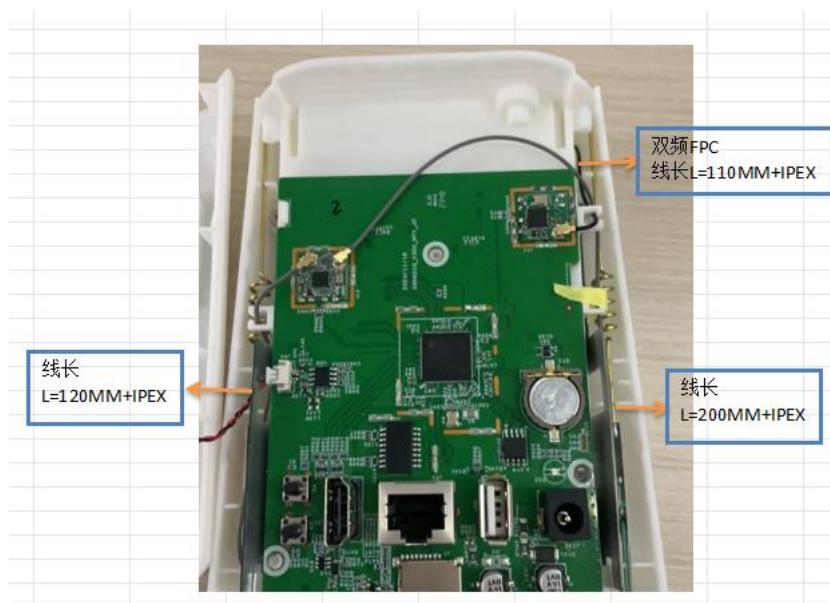
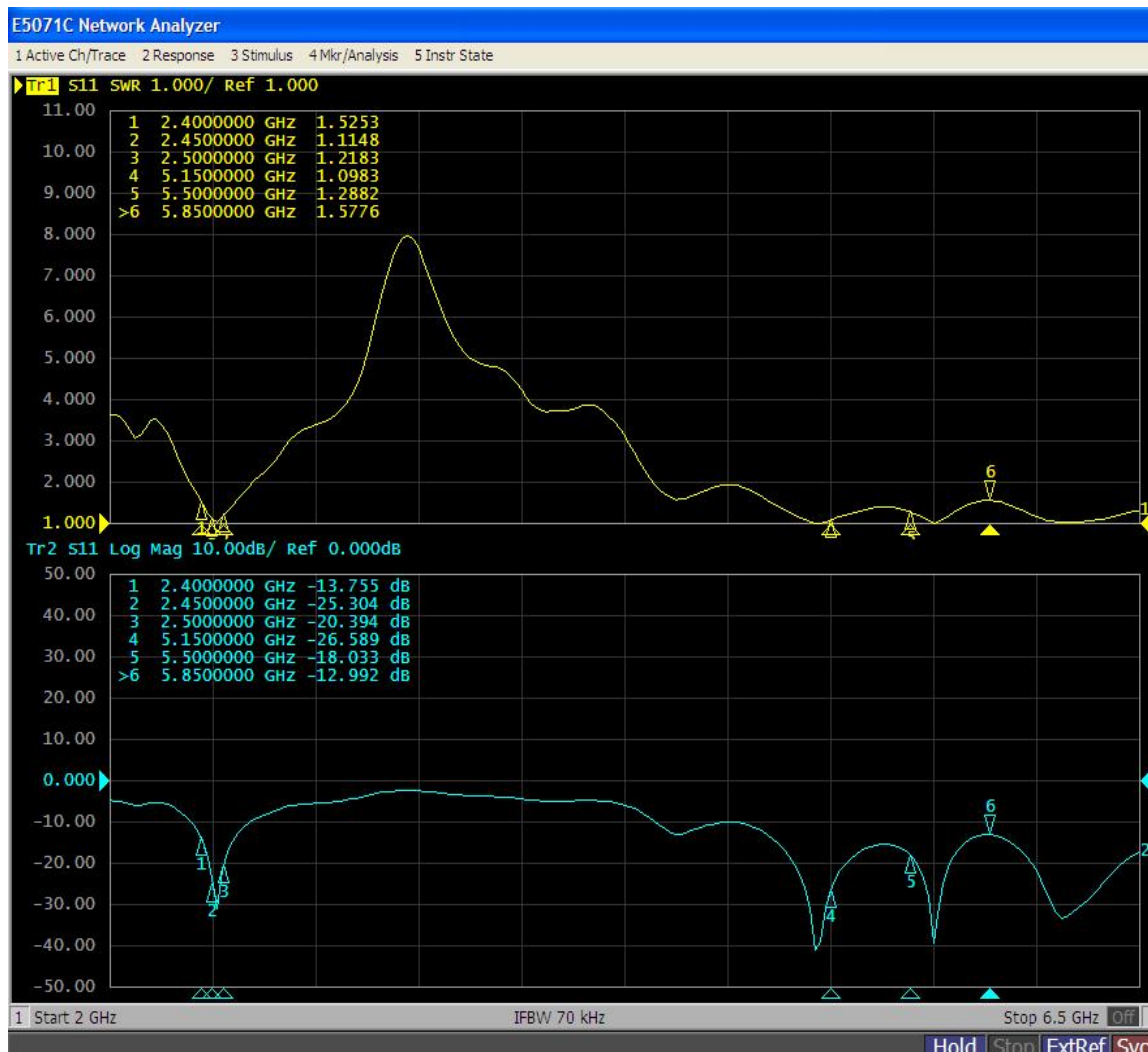
2. Characteristics and Reliability Test

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)	2.58	2.67	2.64	2.67	2.95	3.06	2.83	2.80	2.88	2.87	3.23
Efficiency (%)	53.13	56.29	56.79	56.54	58.56	58.32	55.05	56.79	54.84	55.10	55.30

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
4.49	4.57	4.37	4.28	5.04	5.18	5.16	5.25	5.23	5.20	5.33	5.37	5.27	5.30	5.24
55.93	55.07	57.90	52.92	59.57	61.69	61.64	56.69	61.44	61.25	62.10	54.53	60.56	61.30	59.26

有源

D40L-内置双频FPC							
802.11b-11Mbps				802.11g-54Mbps			
Channel	ch1	ch6	ch11	Channel	ch1	ch6	ch11
TRP (dBm)	20.76	20.56	20.07	TRP (dBm)	20.34	20.33	20.2
TIS (dBm)	-83.44	-83.28	-84.01	TIS (dBm)	-70.73	-70.26	-71.07

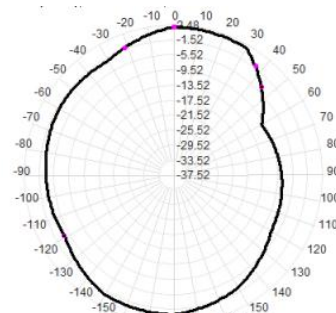
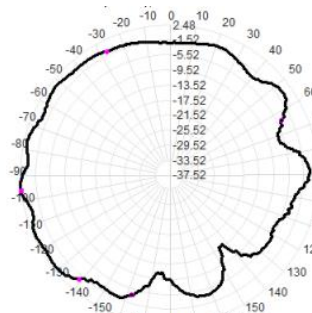
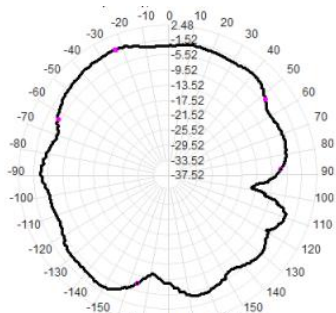
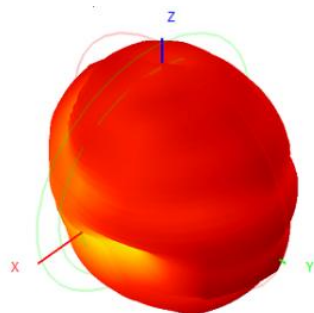
802.11n-MCS7				802.11a-54Mbps				
Channel	ch1	ch6	ch11	Channel	ch44	ch120	ch132	ch149
TRP (dBm)	19.89	19.89	20.2	TRP (dBm)	17	18.16	18.05	18.51
TIS (dBm)	-66.67	-66.63	-67.83	TIS (dBm)	-74.9	-74.82	-75.09	-71.98

XZ

YZ

XY

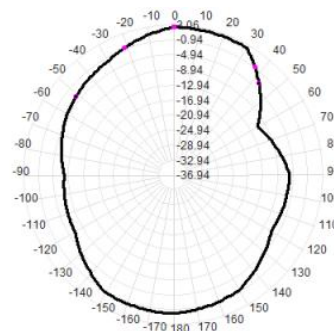
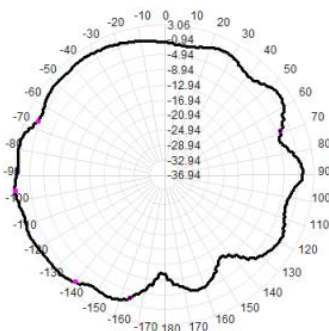
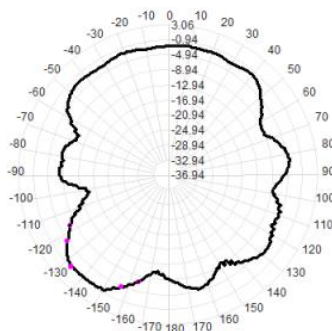
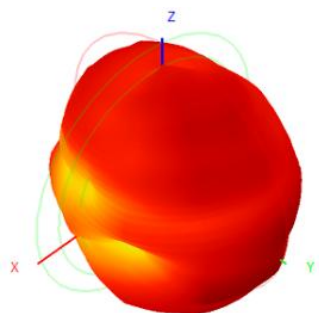
2400MHz



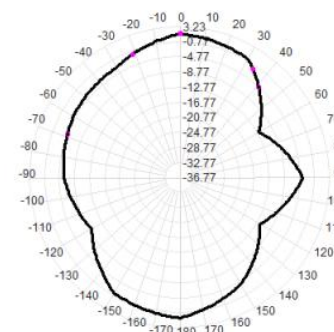
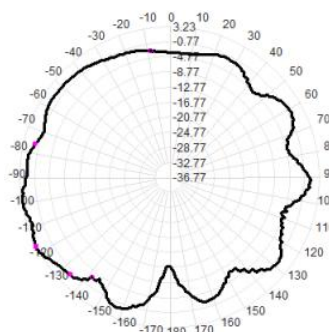
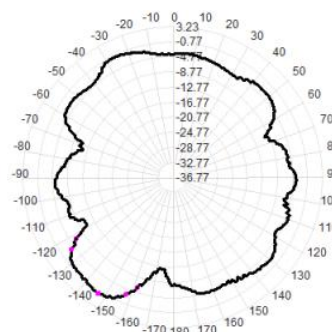
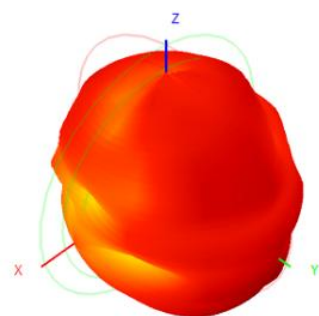
Product Number:AN2450-FPC151BX

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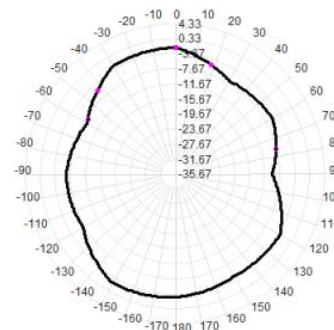
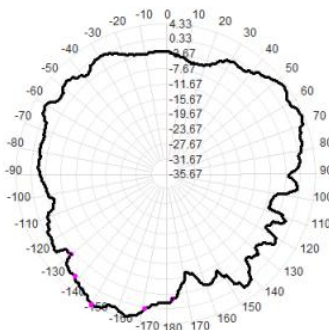
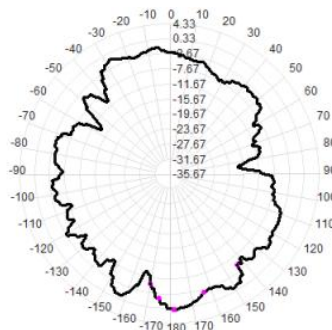
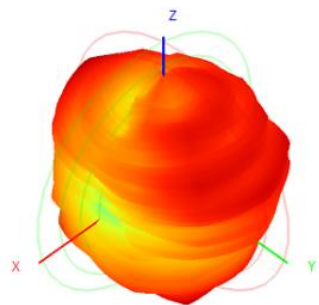
2450MHz



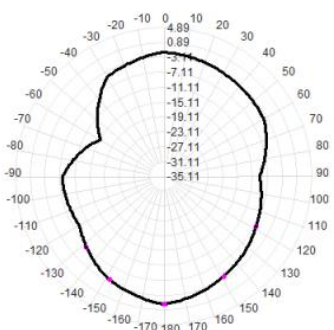
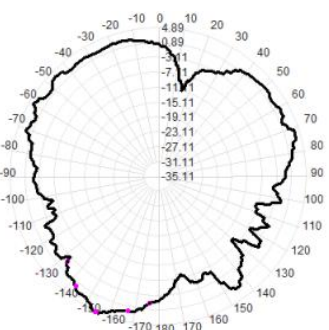
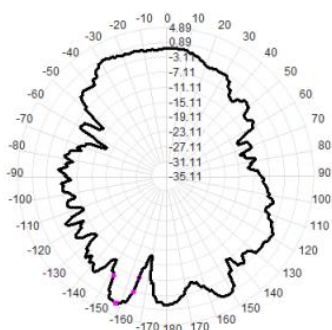
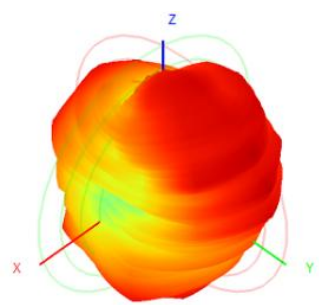
2500MHz



5150MHz



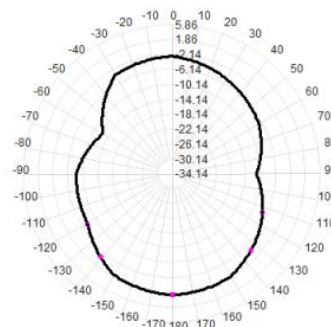
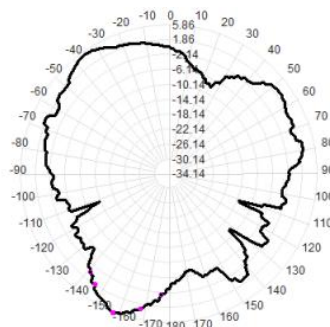
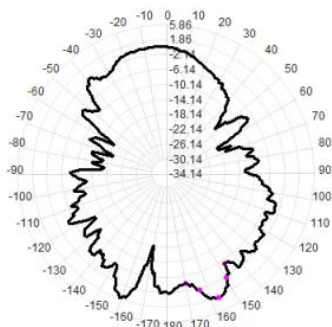
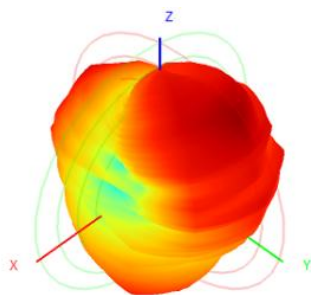
5500MHz



Product Number:AN2450-FPC151BX

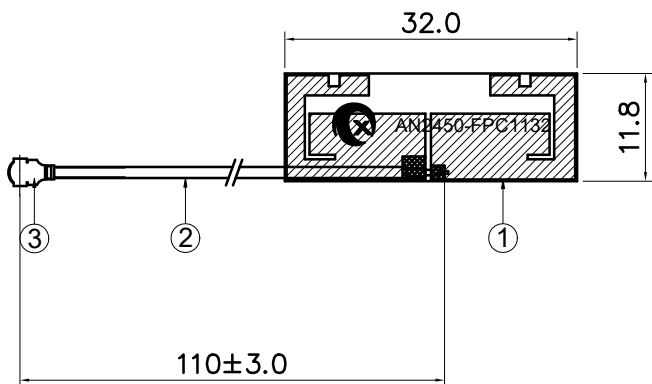
Product Name: Antenna

5850MHz



5. Mechanical Drawing See attached files

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.

 Tengxiang Electronics Co., Ltd.						
TITLE: Antenna						
PART NO.: AN2450-FPC151BX				CUSTOMER P/N: /		
APP BY	CHK BY	RF BY	DES BY			Tolerance
YCX	HC	WJ	SY	UNITS: mm		X.X ±0.5
2024.01.05	2024.01.05	2024.01.05	2024.01.05	SCALE: 1/1		X.XX ±0.2
				REVISION: A		X° ±1

產品包裝規範

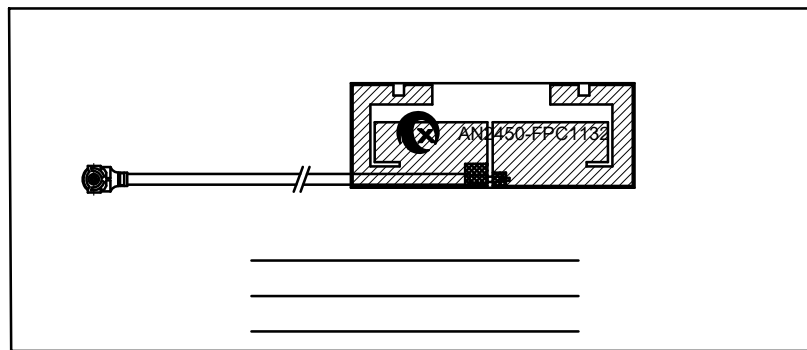
PACKING CRITERION

Date: 2024.01.05

Page: 1 of 1

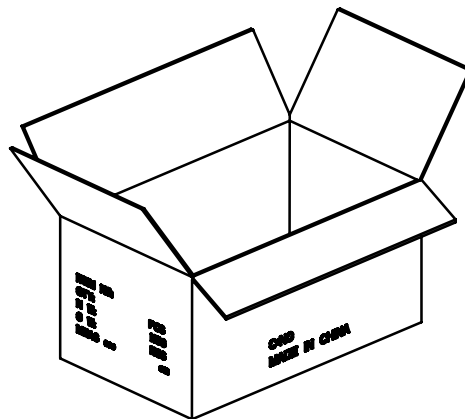
Part Number : AN2450-FPC151BX	Revision : A
Name: Antenna	Customer : ALL

1 . Enter PE bag。



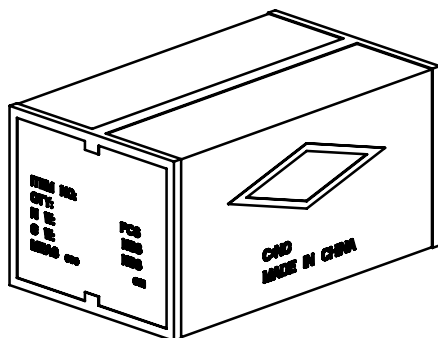
100pcs/ PE bag

2.PACKING。

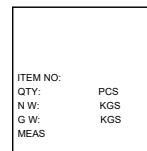


8000pcs/Carton

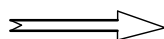
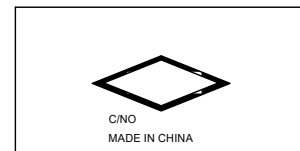
3. SEALING。



SIDE



FRONT



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