



Tengxiang Technology.Inc

东莞市腾祥电子有限公司

Product Number:AN2400-PCB54GX

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

TX P/N:

AN2400-PCB54GX

规格描述

Description :

2.4G PCB 天线 1.13mm 灰色线 L=120mm+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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Product Number: AN2400-PCB54GX

Product Name: Antenna

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Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2024.1.5	初版	

Product Number: AN2400-PCB54GX

Product Name: Antenna

1. Specification

Sample Photo



A. Electrical Characteristics

Frequency 频率	2400-2500 MHz
S.W.R. 驻波比	≤ 2.0
Antenna Gain 增益	4.61dBi
Polarization 极化方式	Linear
Impedance 阻抗	50 Ohm

B. Material & Mechanical Characteristics

Cable Type 线材规格	OD1.13mm ,gray
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

Product Number: AN2400-PCB54GX

Product Name: Antenna

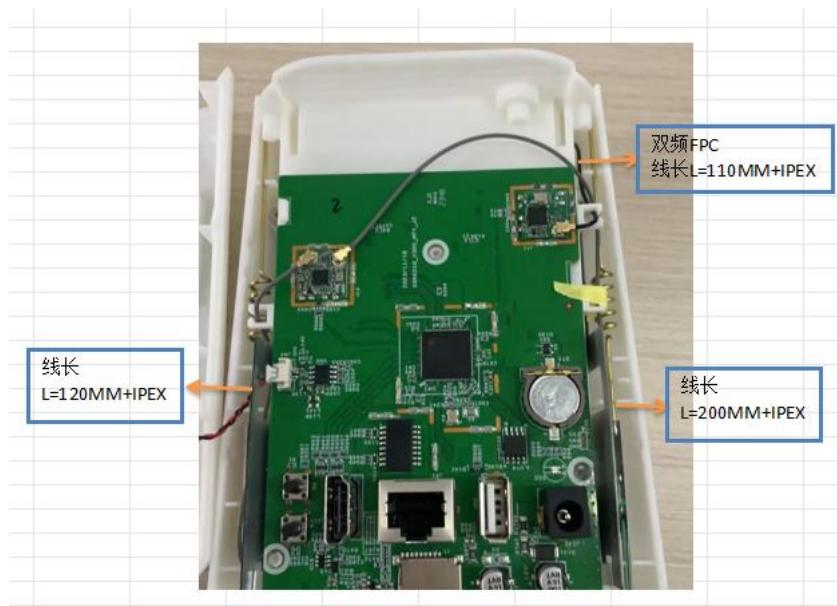
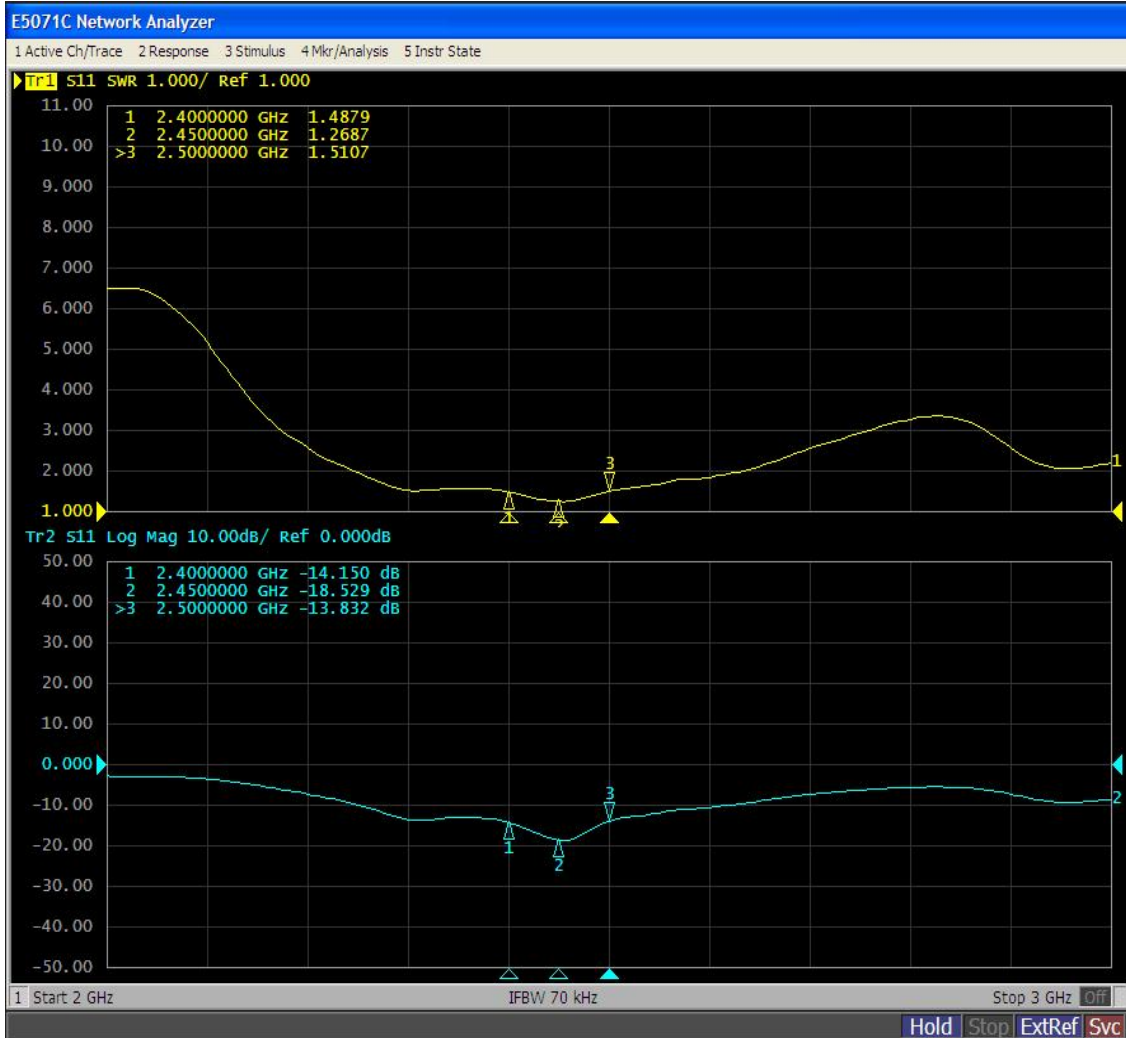
2. Characteristics and Reliability Test

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

Product Number: AN2400-PCB54GX

Product Name: Antenna

3. Antenna - S Parameter Test Data



Product Number:AN2400-PCB54GX

Product Name: Antenna

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)	4.18	4.25	4.29	4.31	4.52	4.61	4.58	4.42	4.35	4.28	4.20
Efficiency (%)	60.22	61.28	62.58	63.03	64.39	63.41	63.19	62.47	62.52	61.49	61.95

有源

PC模块-2号机

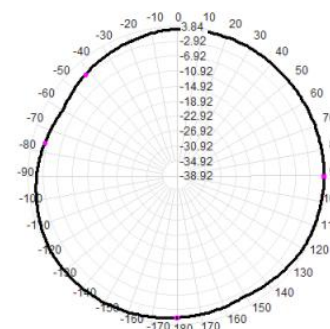
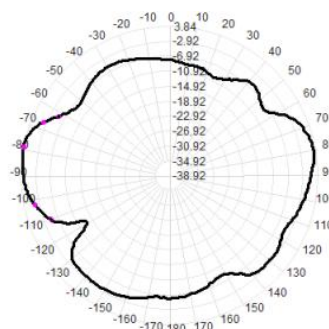
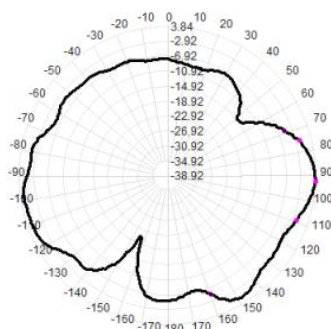
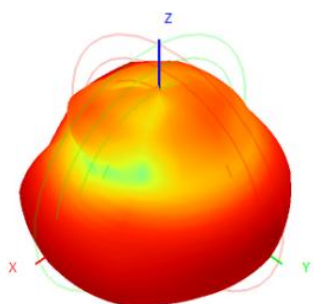
802.11b-11Mbps				802.11g-54Mbps				802.11n-MCS7			
Channel	ch1	ch6	ch11	Channel	ch1	ch6	ch11	Channel	ch1	ch6	ch11
TRP (dEm)	20.63	21.74	21.47	TRP (dEm)	21.16	21.1	19.53	TRP (dEm)	19.44	20.27	19.47
TIS (dEm)	-81.69	-81.64	-82.38	TIS (dEm)	-69.51	-69.03	-69.74	TIS (dEm)	-66.6	-66.57	-66.04

XZ

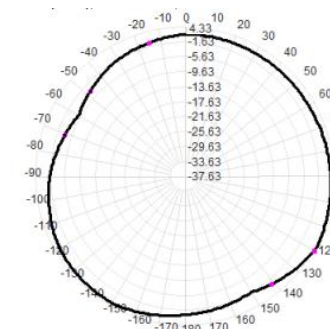
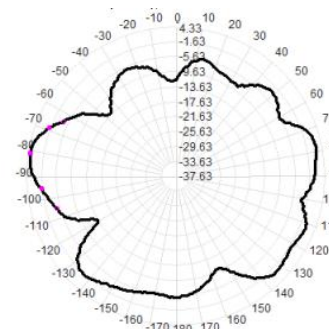
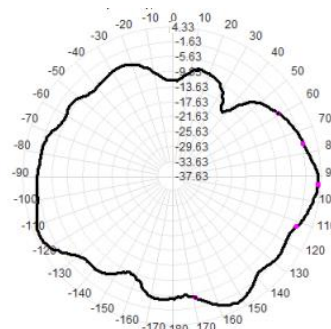
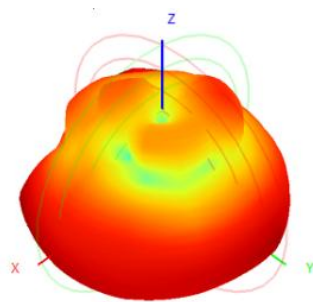
YZ

XY

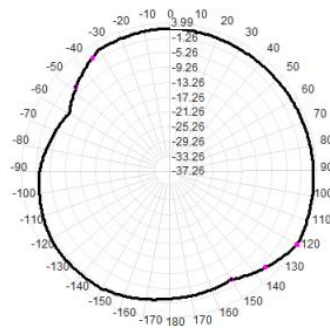
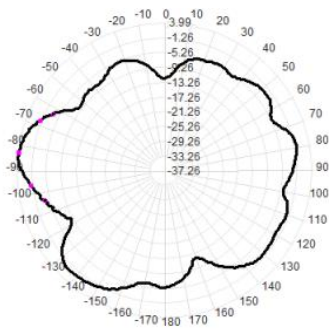
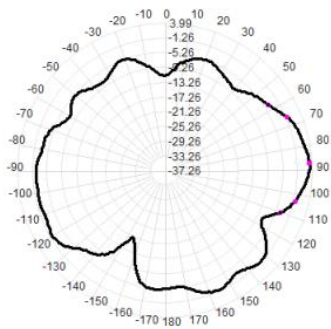
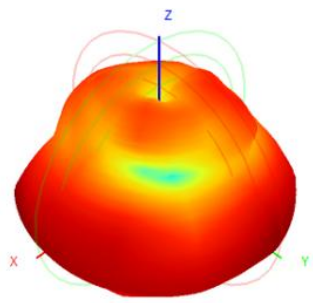
2400MHz



2450MHz



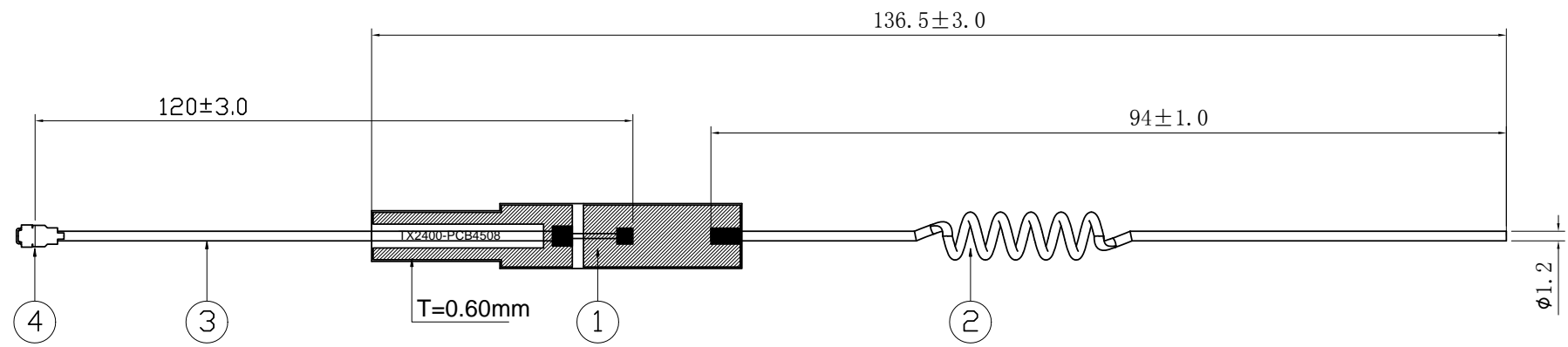
2500MHz



5. Mechanical Drawing See attached files


HF
 RoHS 2.0
 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.

4	CR-113-ZP-A	I-PEX	Cu	Au Plated	1
3	CB-113GD	Coaxial Cable		Ø1.13mm, Grey	1
2	ANS-12-5994	SPRING	CU		1
1	AN2400-PCB4508	PCB	FR4	T=0.60mm	1
No.	Part Number	Name	Material	Finish	Q'ty


Tengxiang Electronics Co., Ltd.

TITLE: Antenna

PART NO.: AN2400-PCB54GX CUSTOMER P/N: /

APP BY	CHK BY	RF BY	DES BY	UNITS: mm	Tolerance
YCX	HC	WJ	dwf	X.XX	±0.5
2024.01.05	2024.01.05	2024.01.05	2024.01.05	X.XX	±0.2
				SCALE: 1/1	X°
				REVISION: A	±1

产品包装规范

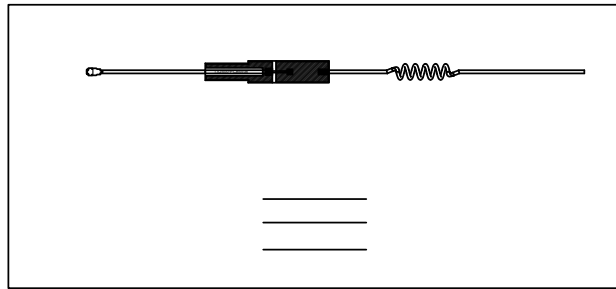
PACKING CRITERION

Date: 2024.01.05

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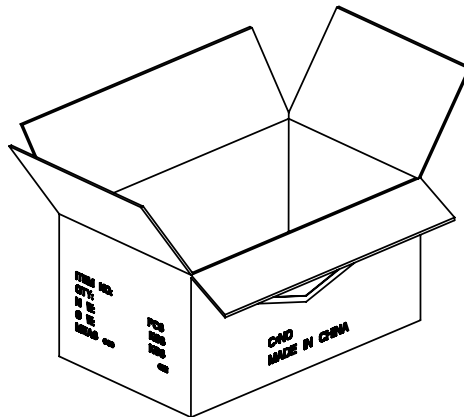
Part Number : AN2400-PCB54GX	Revision : A
Name: Antenna	Customer : ALL

1. Enter PE bag.



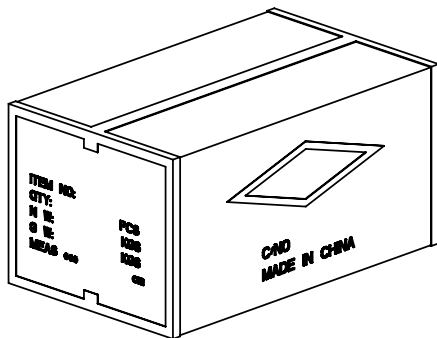
50pcs/ PE bag

2.PACKING。

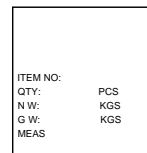


2000pcs/Carton

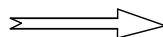
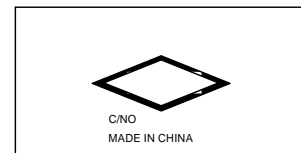
3. SEALING。



SIDE



FRONT



APPROVED BY : YCX

CHECKED BY : HC

DESIGNED BY : DWF