

广州极飞科技股份有限公司

样品承认书

产品料号: _____

产品版本: **A0**

产品名称: **双频内置PCB天线**

产品规格: **2.4G/5G PCB 天线 1.13mm 灰色线 L =180mm+IPEX**

原料牌号: _____

表面处理: **丝印**

供 应 商: **东莞市海恒电子科技有限公司**

极飞签核		
结构设计	可靠性质量	中试审批
说明:		

供应商签核		
制作	审核	核准
邓文兵	胡超	陈鹏
说明:		

Product Number: AN2450-PCB44AX
Product Name: Antenna

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Revision History (变更履历)

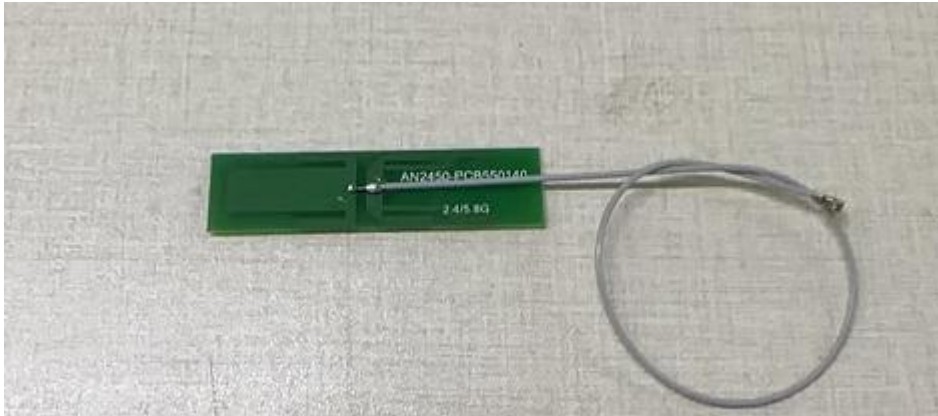
Revision	Date	Change Notification	Description
1.0	2023.9.13	初版	

Product Number: AN2450-PCB44AX

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1. Specification

Sample Photo



A. Electrical Characteristics

Frequency 频率	2400-250 MHz/5150-5850MHz
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S.W.R. 驻波比	≤ 2.0 ≤ 2.0
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Antenna Gain 增益	2.89dBi /5.81dBi
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Polarization 极化方式	Linear
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Impedance 阻抗	50 Ohm
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B. Material & Mechanical Characteristics

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

Storage Temperature 存储温度	- 30 °C ~ +80 °C
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Operation Temperature 工作温度	- 30 °C ~ +80 °C
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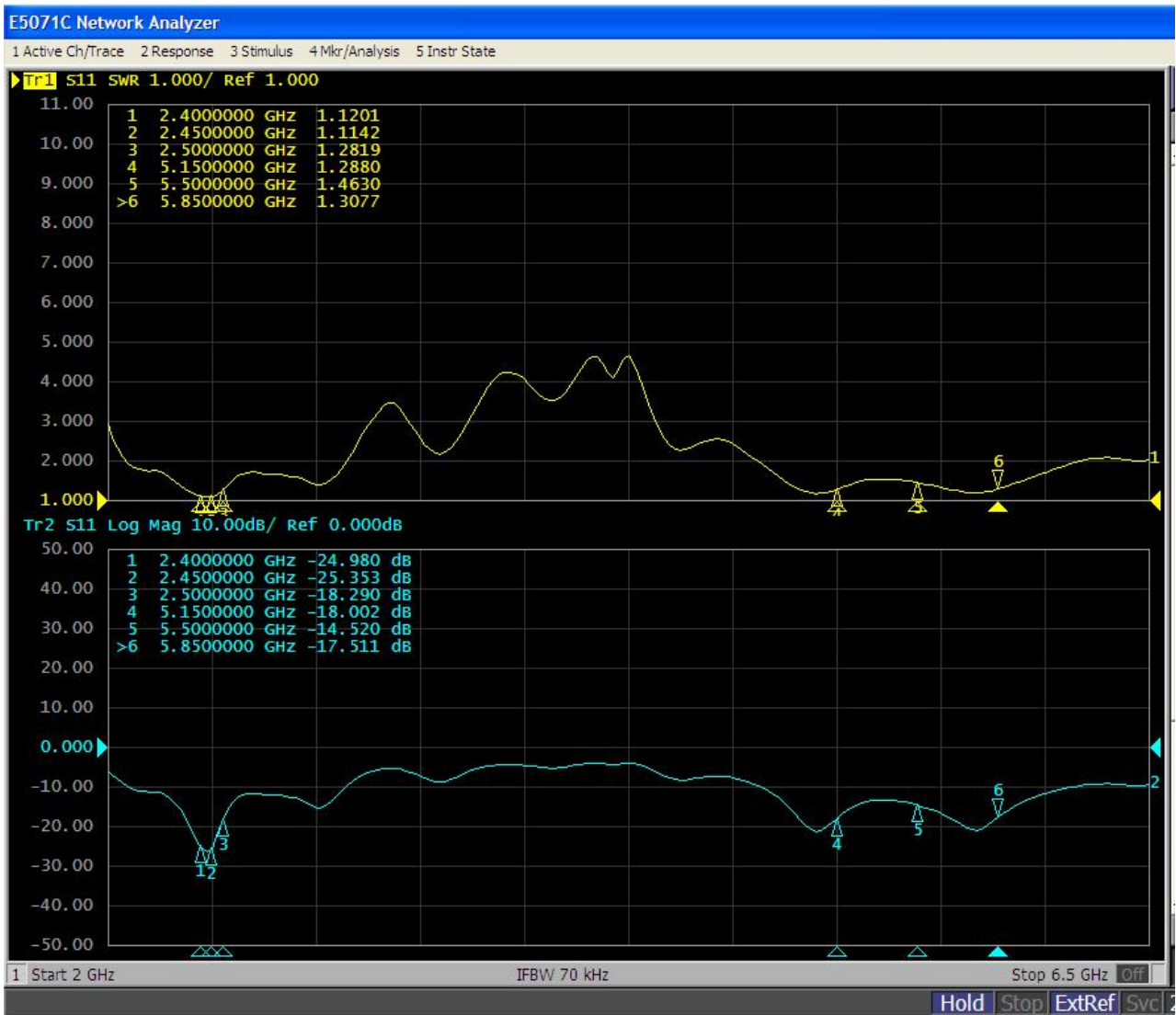
2. Characteristics and Reliability Test

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 Vibration 震动	GB / T2423.48-2008 Freq: 50to 80 to 50 Hz 10g acceleration, 12 cycles in each direction 振动: 55-80Hz, 10g 加速度, 各方向 12 次循环	1. No Visual Damage 2. Frequency Tol.≤5% 无明显外观不良;频率偏移≤5%	PASS
5 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
6 Salt Spray 盐雾	GB / T 2423.17-2008 Temp: 35°C; RH: ≥ 95%; NaCl solution: ≥ 5%;Time: 72H 温度 35°C; 湿度≥95%;盐水浓度≥5%; 测试 72H	1. No Visual Damage 2. Frequency Tol.≤5% 无明显外观不良;频率偏移≤5%	PASS
7 Temperature and Humidity Chamber 恒温恒湿	GB / T 2423.3-2006 Temp: 40°C / 12 H; -RH: ≥ 93%; Time: 48H 温度 40°C 湿度≥ 93%; 时间 48H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.≤5% 恢复 2H 后, 无明显外观不良;频率偏移≤5%	PASS
8 Thermal Shock 冷热冲击	GB / T 2423.22 - 2008 - 30° C (30 minutes) to + 80° C (30 minutes); Cycles: 25 - 30° C 测试 30 分转 80° C 测试 30 分为一个周期; 共 25 周期	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.≤5% 恢复 2H 后, 无明显外观不良;频率偏移≤5%	PASS
9 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



4. Antenna - Radiation Pattern Test Data

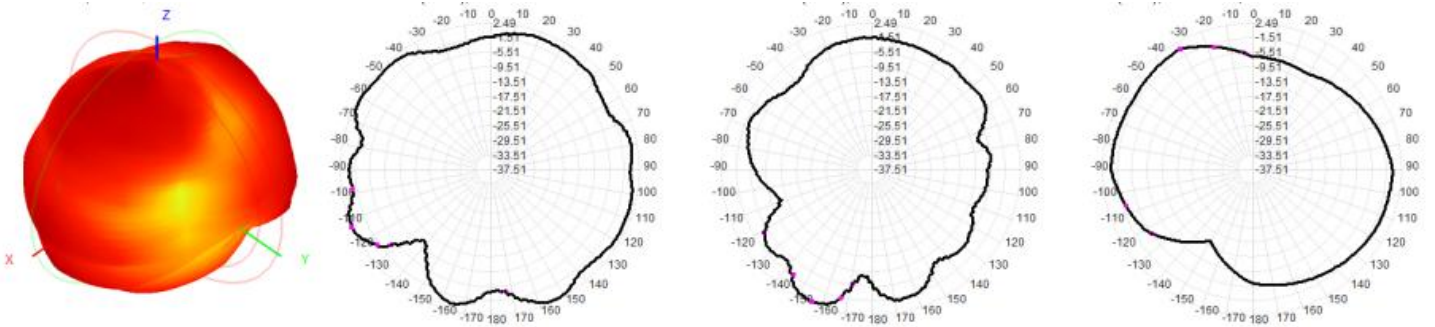
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	2.74	2.89	2.83	2.70	2.86	2.83	2.68	2.55	2.45	2.74	2.88
Efficiency (%)	62.32	64.80	65.17	64.17	67.60	66.81	62.92	59.53	57.04	58.70	59.80

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
4.96	4.96	5.04	4.46	5.22	5.30	5.38	5.44	5.81	5.53	5.22	4.24	4.36	4.11	3.26
55.31	53.48	56.09	53.55	61.92	64.37	63.98	59.89	66.16	65.20	65.60	56.77	64.10	64.61	59.17

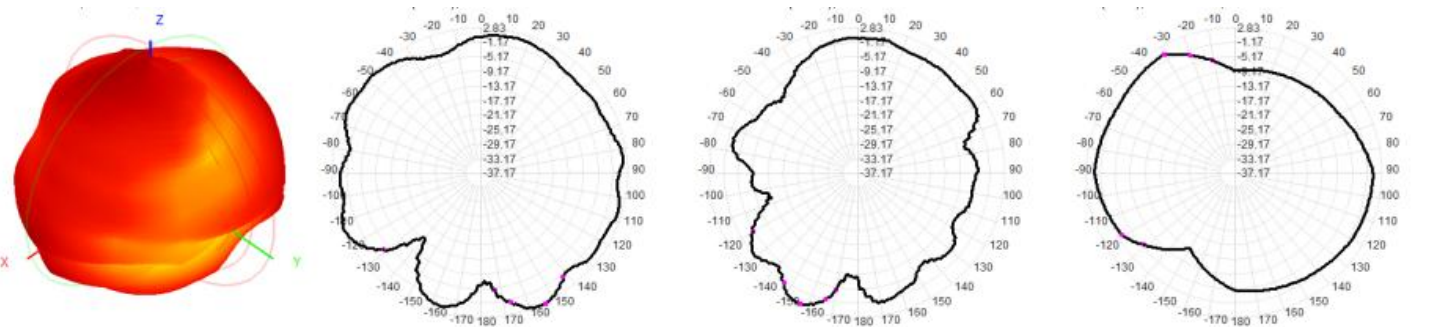
Product Number: AN2450-PCB44AX

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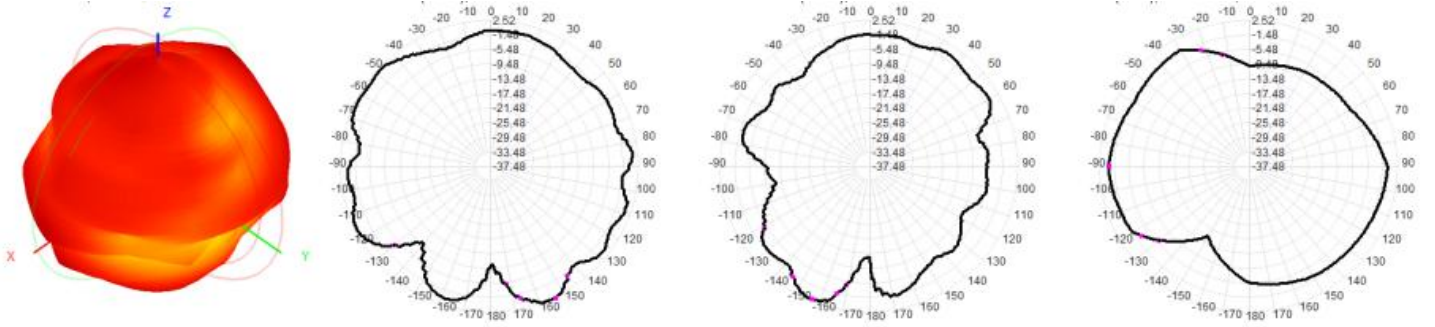
2400MHz



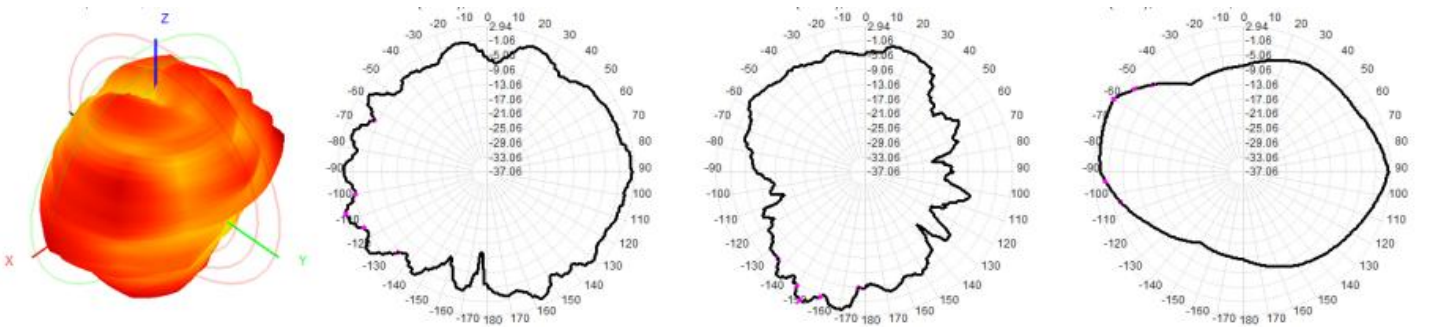
2450MHz



2500MHz



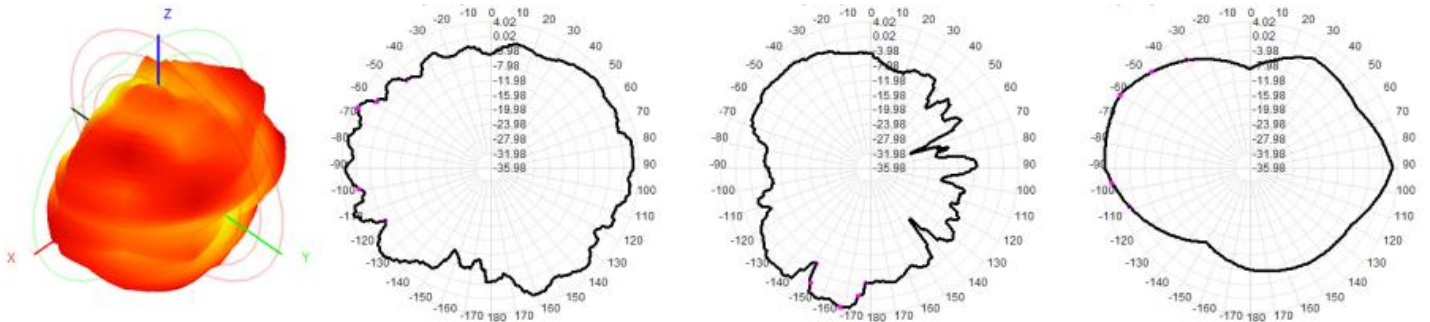
5150MHz



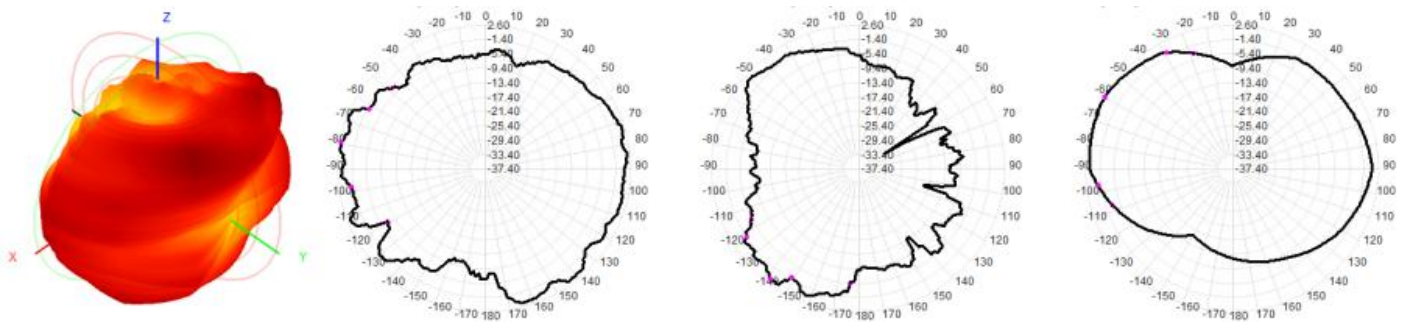
Product Number: AN2450-PCB44AX

Product Name: Antenna

5550MHz



5850MHz



5. Mechanical and Packing Drawing

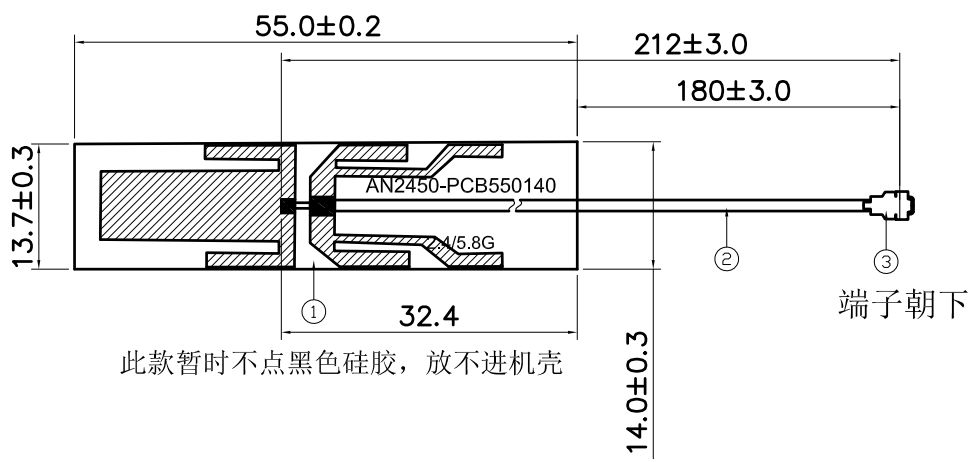
HF

RoHS2.0

REACH

CONFIDENTIAL

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



此款暂时不点黑色硅胶，放不进机壳

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.

东莞市海恒电子科技有限公司

3	CR-113-ZP-A	I-PEX	Cu	Au Plating	1
2	CB-113AS	Coaxial Cable	OD1.13	Grey	1
1	AN2450-PCB550140	PCB	FR4	55.0*14.0*0.8mm, BLACK	1
No.	Part Number	Name	Material	Finish	Q'ty

TITLE: PCB					
PART NO.: AN2450-PCB44AX				CUSTOMER P/N: /	
APP BY	CHK BY	RF BY	DES BY		Tolerance
YCX 2023.09.12	WJ 2023.09.12	HC 2023.09.12	SY 2023.09.12		UNITS: mm SCALE: 1/1 REVISION: A

产品包装规范

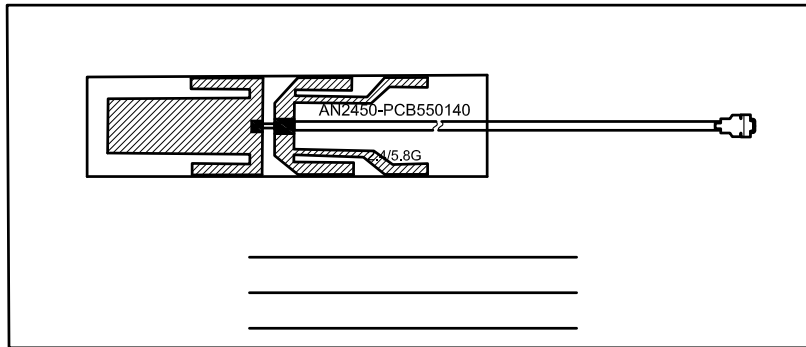
PACKING CRITERION

Date: 2023.09.12

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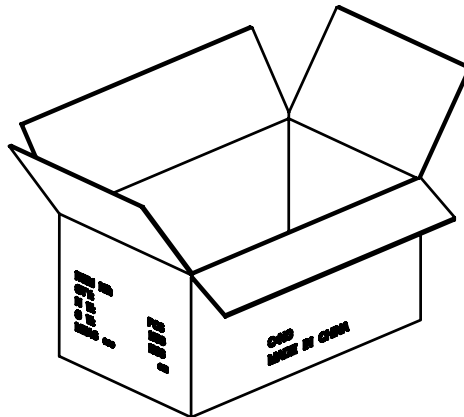
Part Number : AN2450-PCB44AX	Revision : A
Name: Antenna	Customer : ALL

1. Enter PE bag.



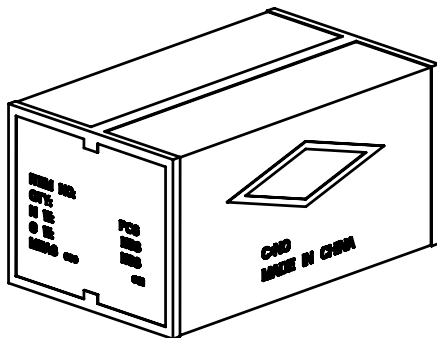
100pcs/ PE bag

2.PACKING.

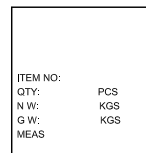


2000pcs/Carton

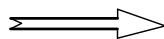
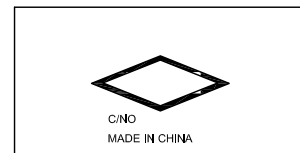
3. SEALING.



SIDE



FRONT



APPROVED BY: YCX

CHECKED BY: HC

DESIGNED BY: SY