

Product part number:01-003-00493

antenna specification:2.4G/5G PCB antenna 1.13mm Wite line
L=120mm+IPEX

manufacture:

Guangzhou Xaircraft Technology CO.,LTD

Block C, No.115, Gaopu Road, Tianhe District, Guangzhou City,
Guangdong, P. R. China

Product Number:AN2450-PCB194WX
Product Name: Antenna

Index:

- 1. Specification (规格)
- 2. Characteristics and Reliability Test (产品特性和可靠性测试标准)
- 3. Antenna - S Parameter Test Data (样品测试数据)
- 4. Antenna - Radiation Pattern Test Data (辐射模式测试数据)
- 5. Mechanical and Packing Drawing (图纸包装规范)

Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2025.2.26	初版	

Product Number:AN2450-PCB194WX

Product Name: Antenna

1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency 频率	2400-2500MHz/5150-5850MHz
S.W.R. 驻波比	<= 2.0
Antenna Gain 增益	4.22dBi /6.83dBi
Polarization 极化方式	Linear
Impedance 阻抗	50 Ohm
B. Material & Mechanical Characteristics	
Cable Type 线材规格	OD1.13mm ,white
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

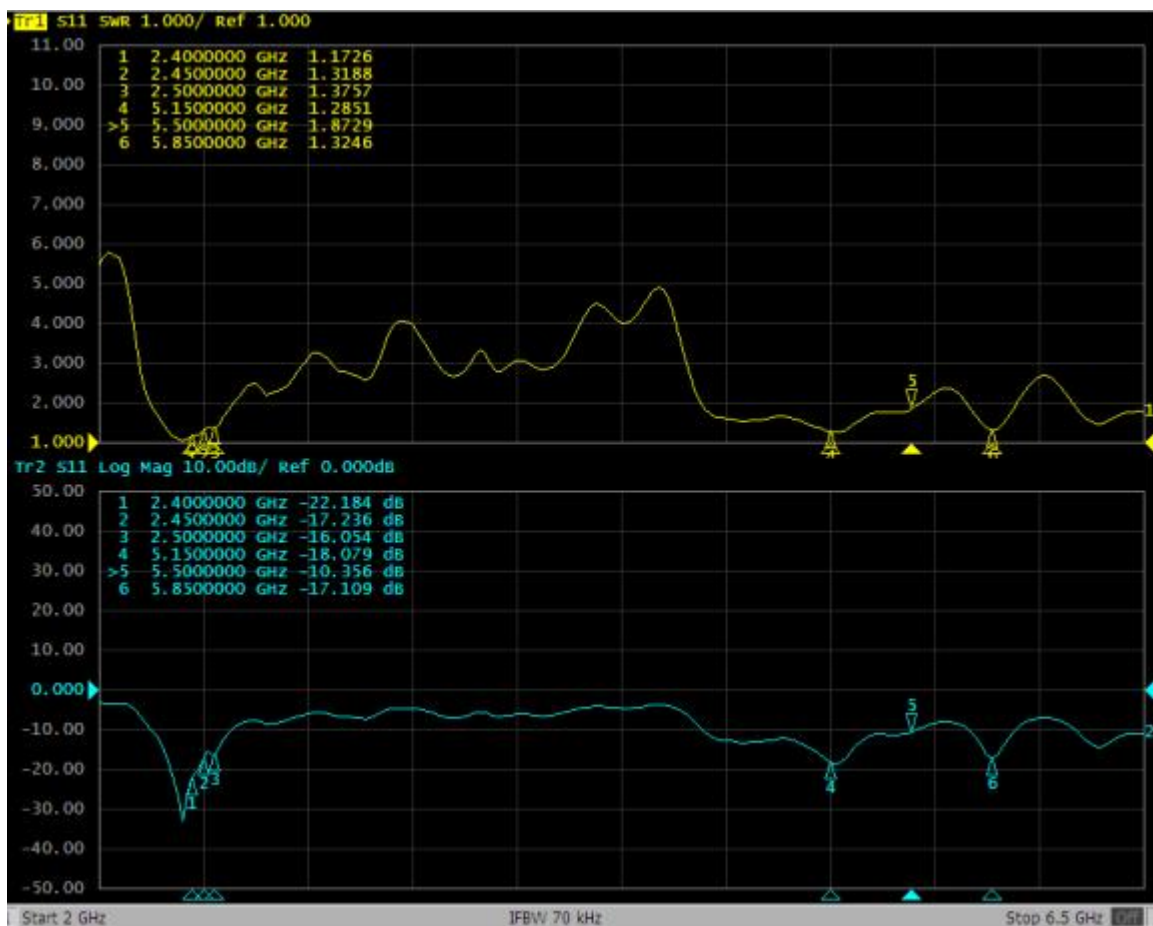
Product Number:AN2450-PCB194WX

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: $260 \pm 5^{\circ} \text{C}$; Duration: 5 seconds 温度 $260 \pm 5^{\circ} \text{C}$; 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. $\leq 5\%$ 符合待测物规范; 频率偏移 $\leq 5\%$	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	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:AN2450-PCB194WX
Product Name: Antenna
2450-2



Product Number:AN2450-PCB194WX

Product Name: Antenna

4. Antenna - Radiation Pattern Test Data

2450-2

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)	3.97	4.12	4.14	3.83	3.84	3.85	3.56	3.67	3.49	3.58	3.63
Efficiency (%)	74.59	76.49	77.94	76.29	73.99	73.42	71.36	71.41	73.69	74.34	74.17

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
3.44	3.87	3.36	4.15	3.98	4.40	4.11	3.95	3.69	3.76	3.64	3.26	3.28	3.35	3.73
64.67	64.28	65.09	67.52	66.81	68.68	68.17	67.69	64.37	61.87	62.86	62.97	63.27	62.63	61.72

XZ

YZ

XY

Product Number:AN2450-PCB194WX

Product Name: Antenna

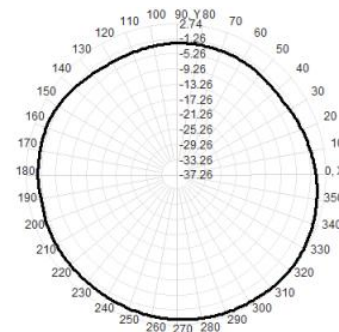
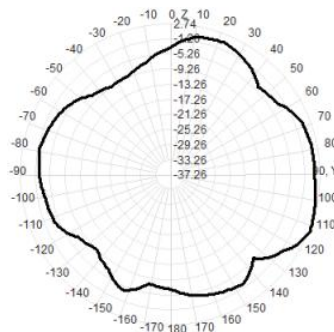
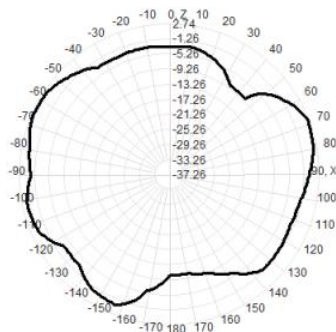
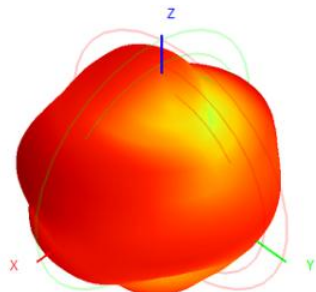
2450-2

2400MHz

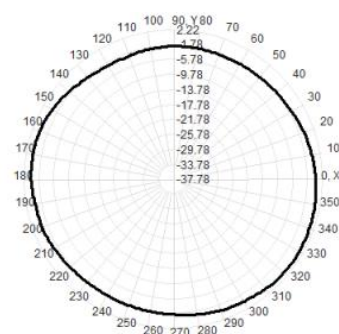
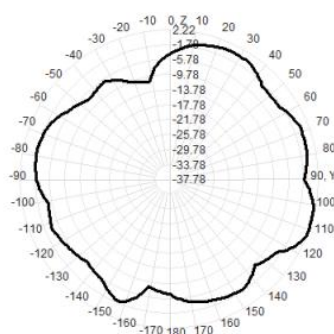
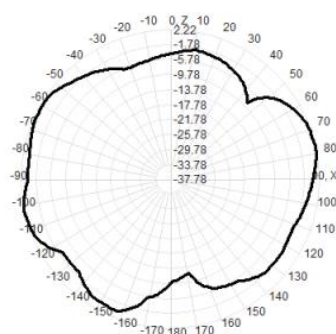
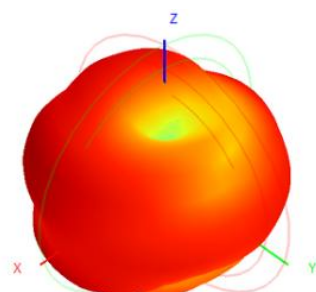
XZ

YZ

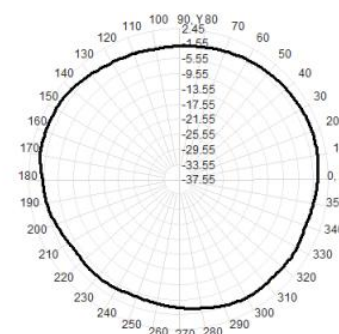
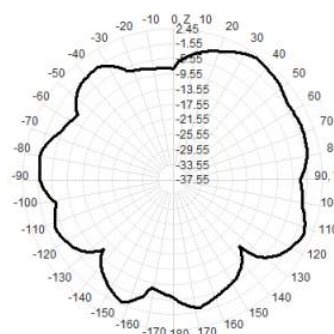
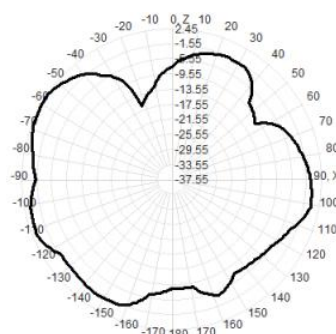
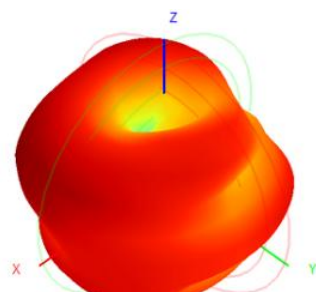
XY



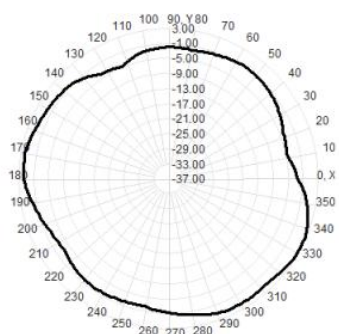
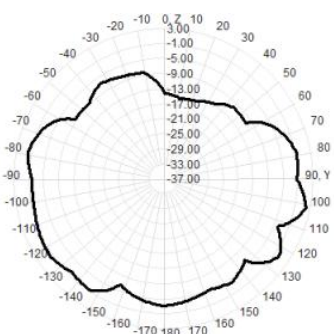
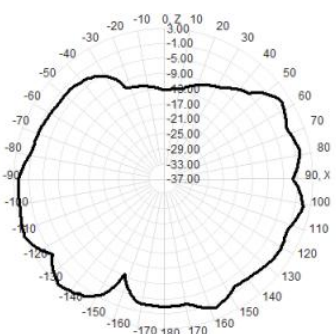
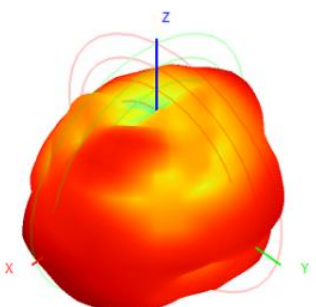
2450MHz



2500MHz



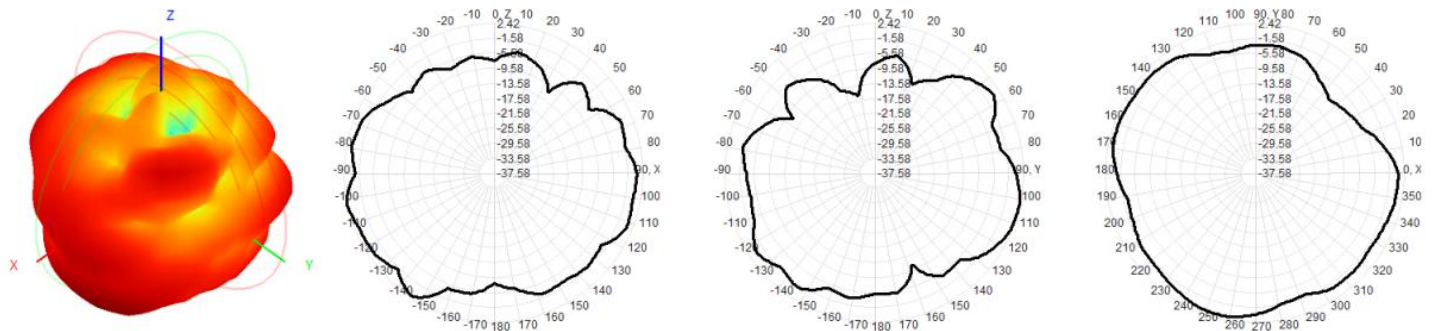
5150MHz



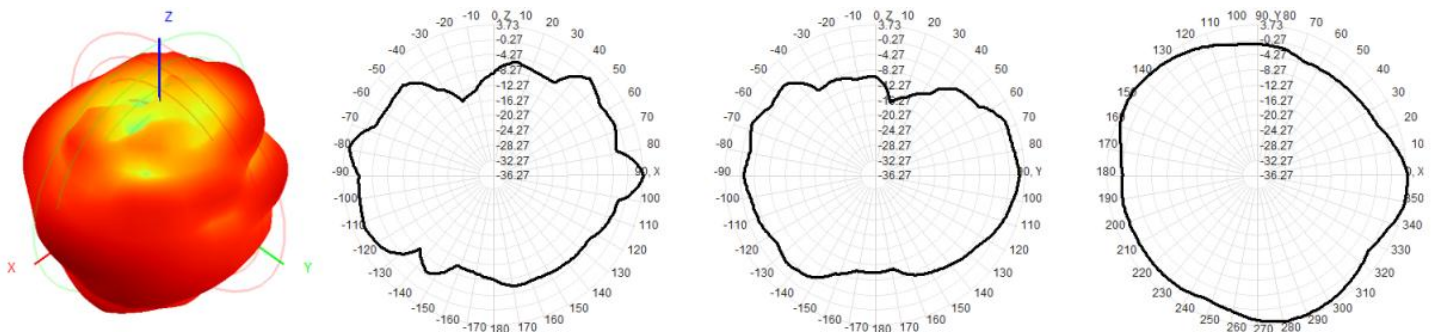
Product Number:AN2450-PCB194WX

Product Name: Antenna

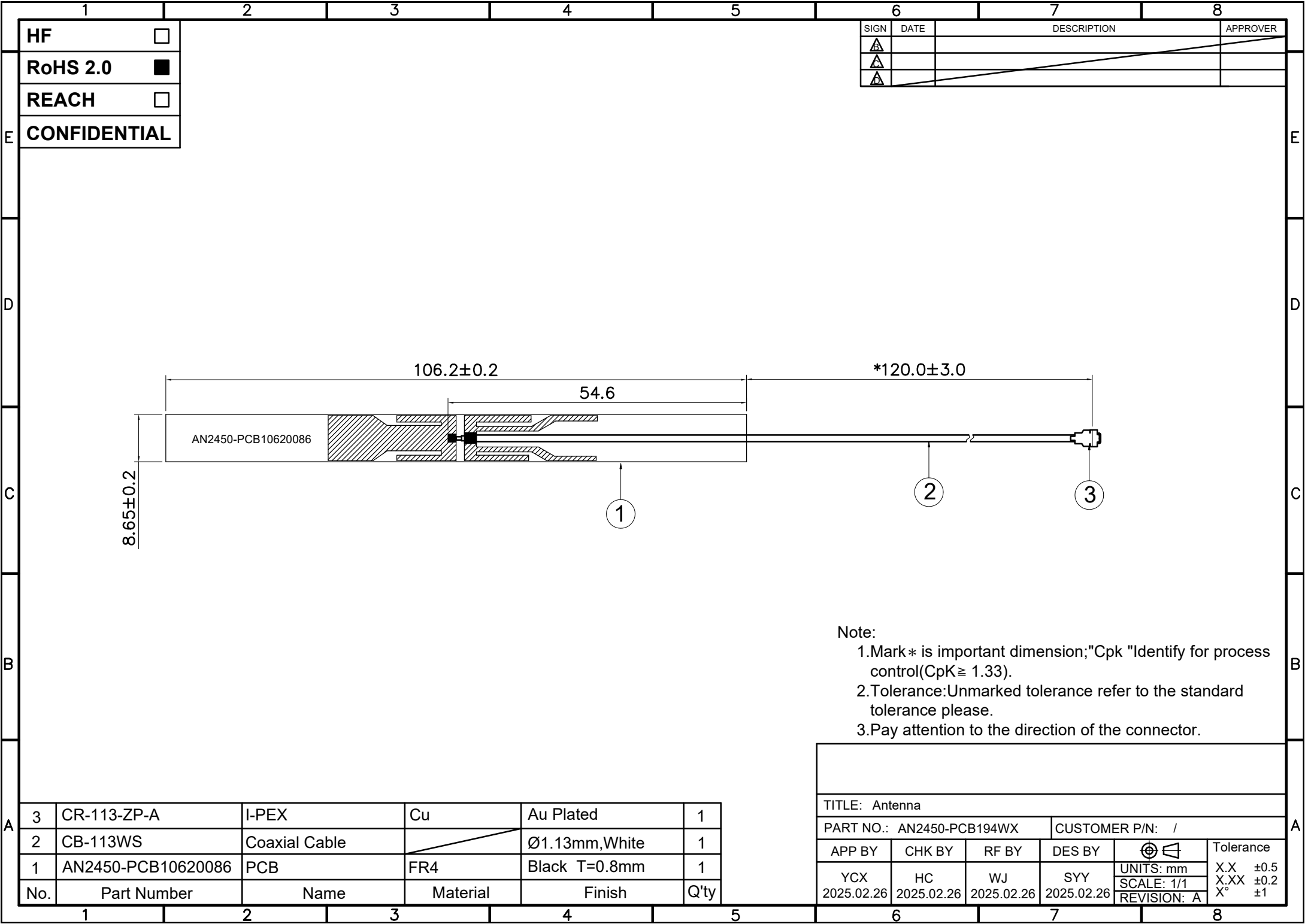
5550MHz



5850MHz



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.

3	CR-113-ZP-A	I-PEX	Cu	Au Plated	1
2	CB-113WS	Coaxial Cable		Ø1.13mm,White	1
1	AN2450-PCB10620086	PCB	FR4	Black T=0.8mm	1
No.	Part Number	Name	Material	Finish	Q'ty

TITLE: Antenna					
PART NO.: AN2450-PCB194WX				CUSTOMER P/N: /	
APP BY	CHK BY	RF BY	DES BY		Tolerance
YCX	HC	WJ	SY	UNITS: mm	X.X ±0.5
2025.02.26	2025.02.26	2025.02.26	2025.02.26	SCALE: 1/1	X.XX ±0.2
				REVISION: A	X° ±1

产品包装规范

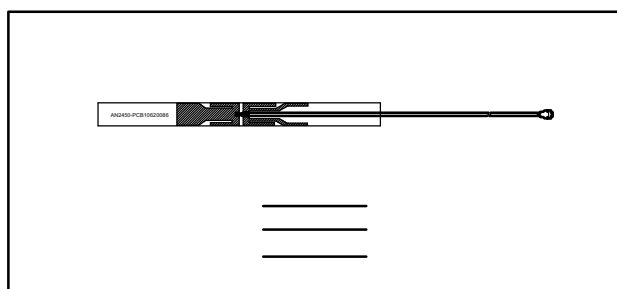
PACKING CRITERION

Date: 2025.02.26

Page: 1 of 1

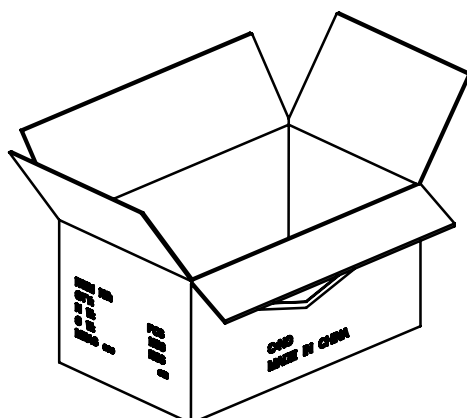
Part Number : AN2450-PCB194WX	Revision : A
Name: Antenna	Customer : ALL

1 . Enter PE bag。



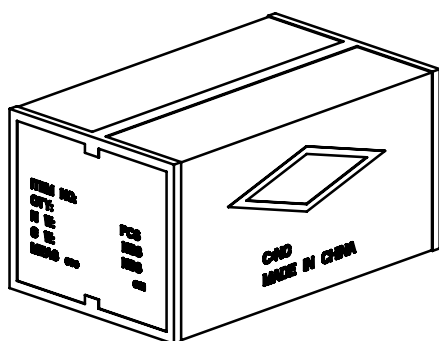
100pcs/ PE bag

2.PACKING。

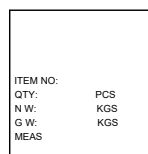


8000pcs/Carton

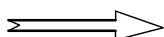
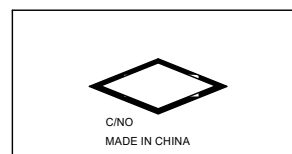
3. SEALING。



SIDE



FRONT



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