

Product part number:01-003-00478

antenna specification:2.4G/5G PCB antenna 1.13mm

black 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-PCB176BX
Product Name: Antenna

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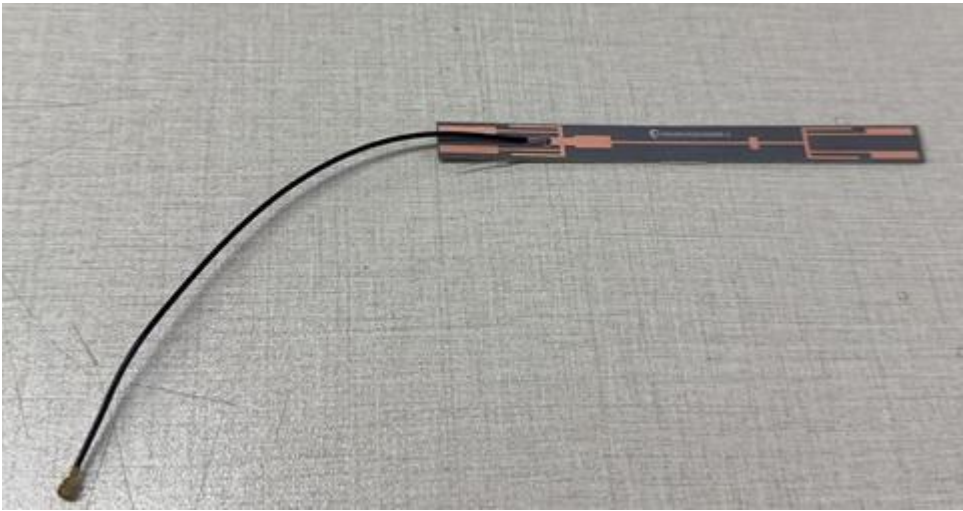
Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2025.1.7	初版	

Product Number:AN2450-PCB176BX

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	4.16dBi /6.75dBi
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

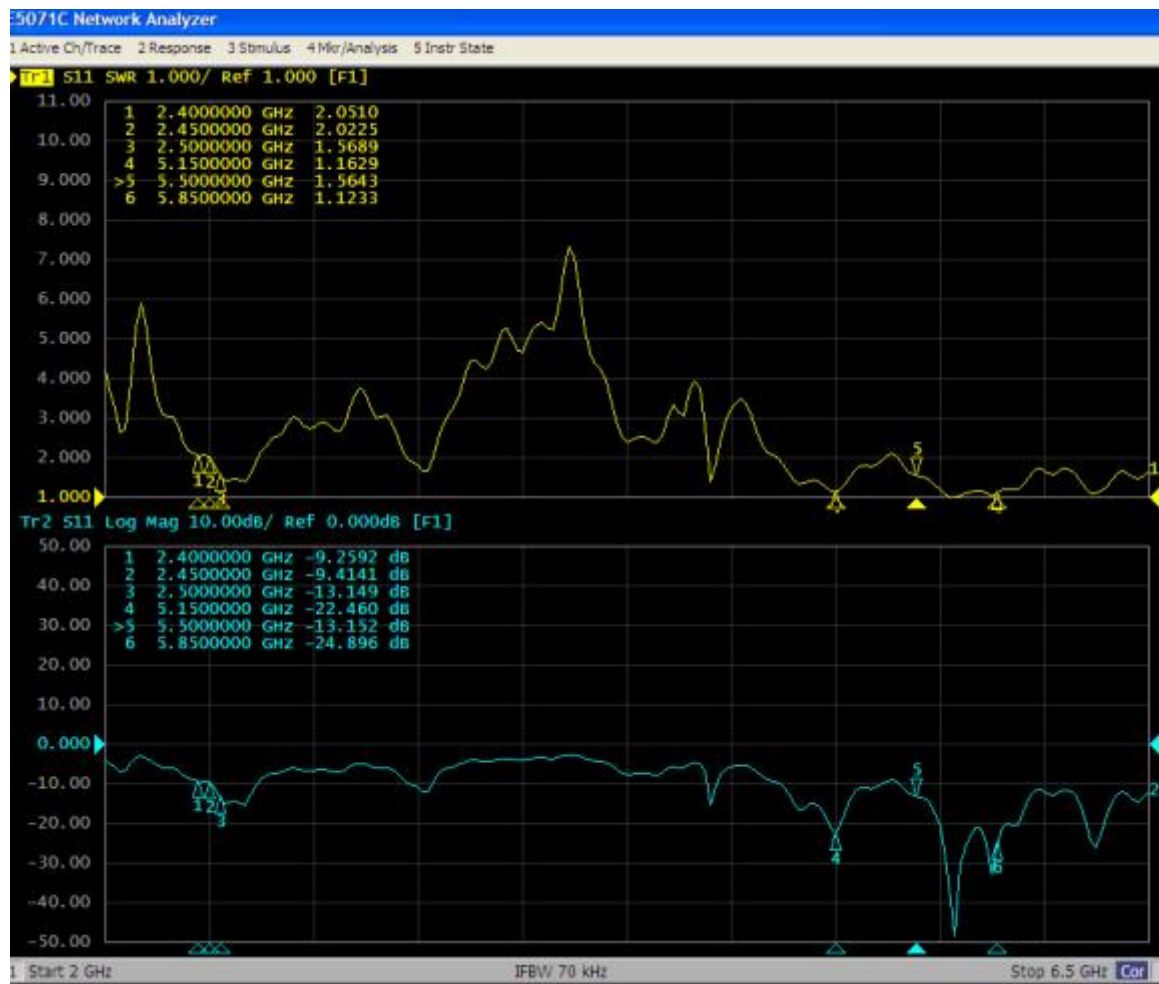
Test Items 测试项目		Test Condition and Procedure 测试方法	Requirements 要求	Result 结果
1	V.S.W.R. 电压驻波比	Set DUT on Network Analyzer; make individual calibration to test 设置网络分析仪参数进行测试	Directive DUT specification 符合待测物规范	PASS
2	Insertion Loss 插入损失	Set DUT on Network Analyzer; make individual calibration to test 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: $260 \pm 5^{\circ} \text{C}$; 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

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3. Antenna - S Parameter Test Data

2450-1



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4. Antenna - Radiation Pattern Test Data

2450-1

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)	3.49	3.67	3.75	3.79	3.82	3.88	3.95	3.98	4.06	4.01	4.16
Efficiency (%)	62.28	64.68	65.43	66.24	67.45	68.15	69.48	68.49	69.25	69.20	69.67

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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
5.28	5.52	4.77	5.14	4.54	4.15	4.85	6.00	6.63	6.52	6.47	6.55	6.67	6.72	6.75
73.93	70.81	65.48	66.02	61.02	61.23	64.75	72.42	73.00	75.71	72.78	75.28	76.36	76.13	77.02

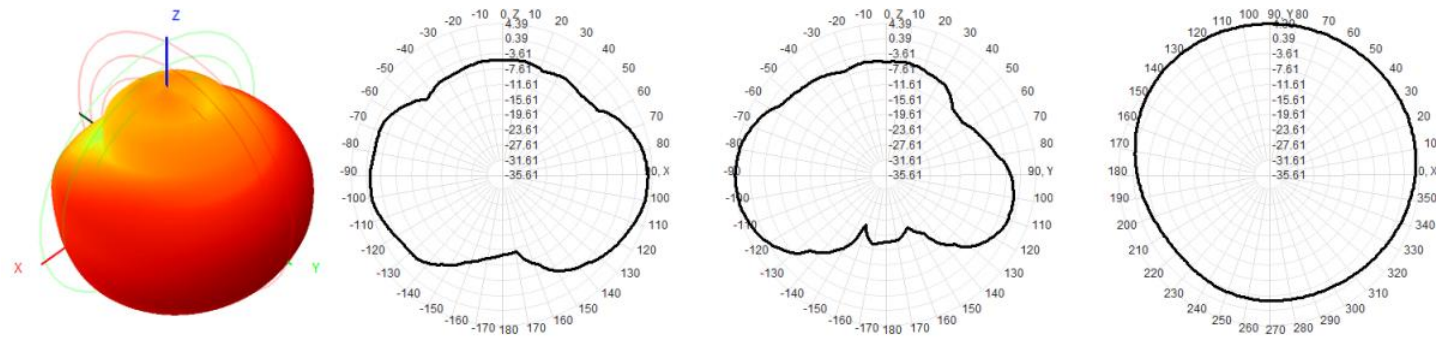
XZ

YZ

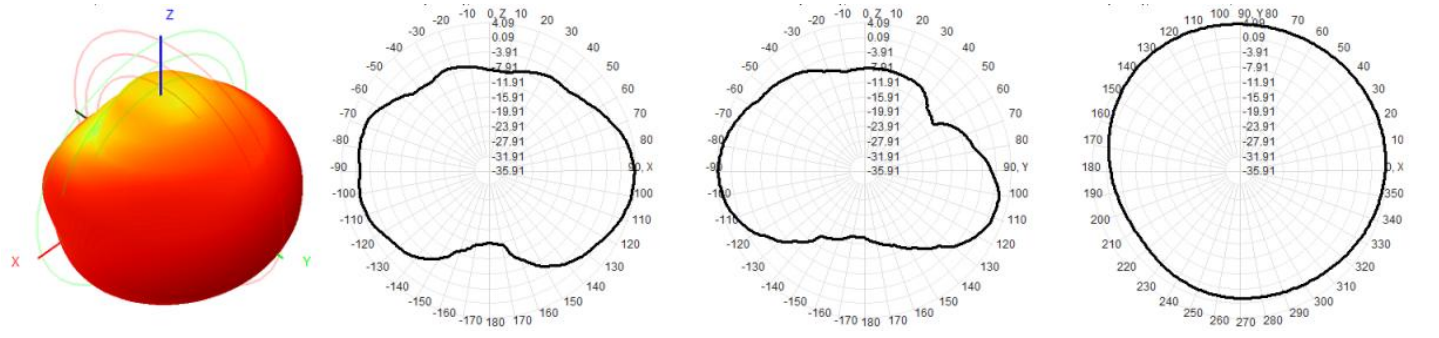
XY

2450-1

2400MHz



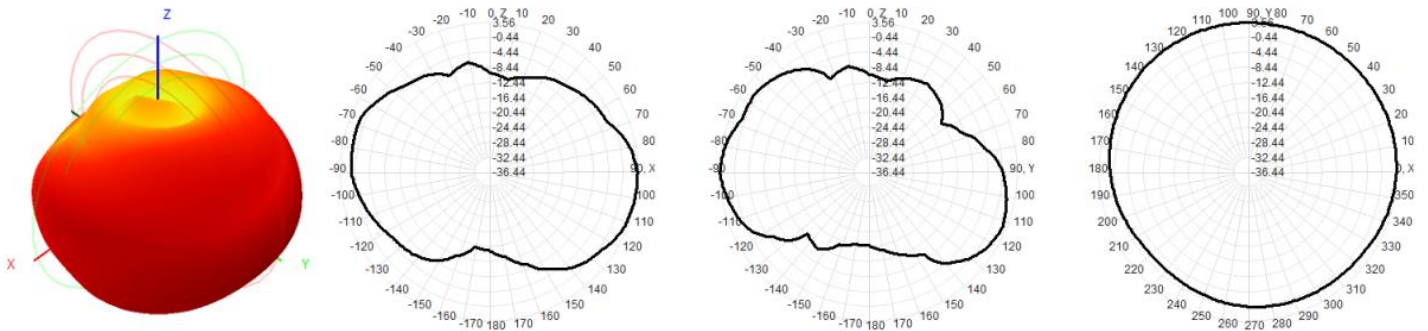
2450MHz



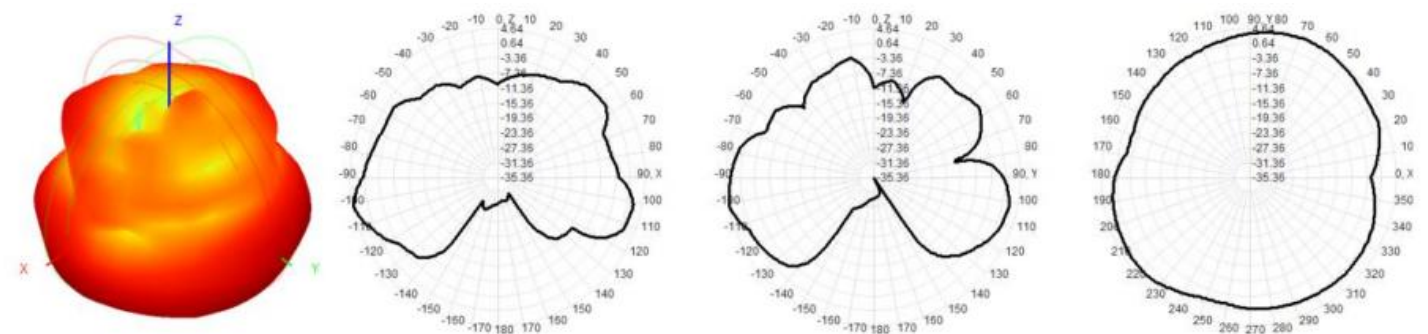
Product Number:AN2450-PCB176BX

Product Name: Antenna

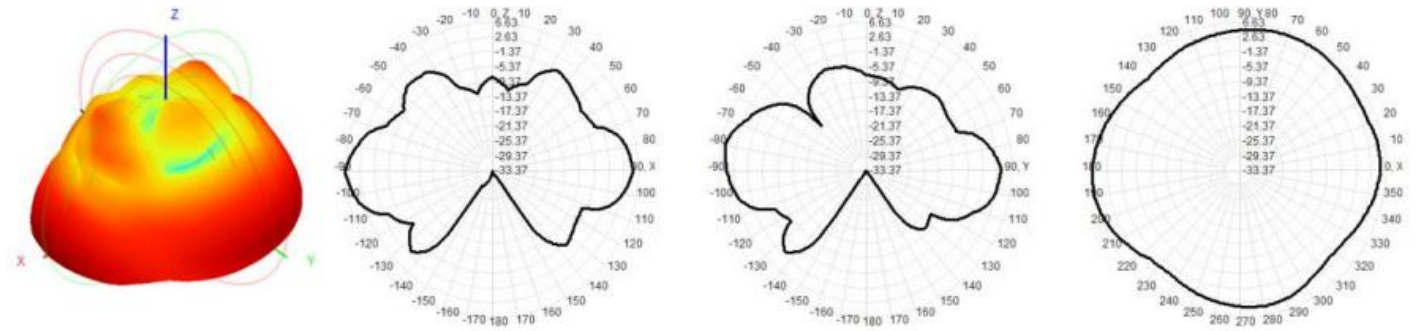
2500MHz



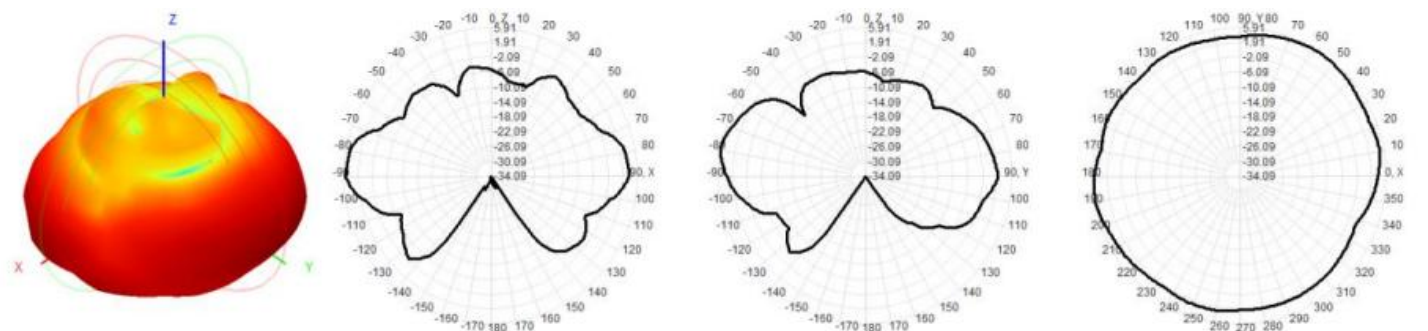
5150MHz



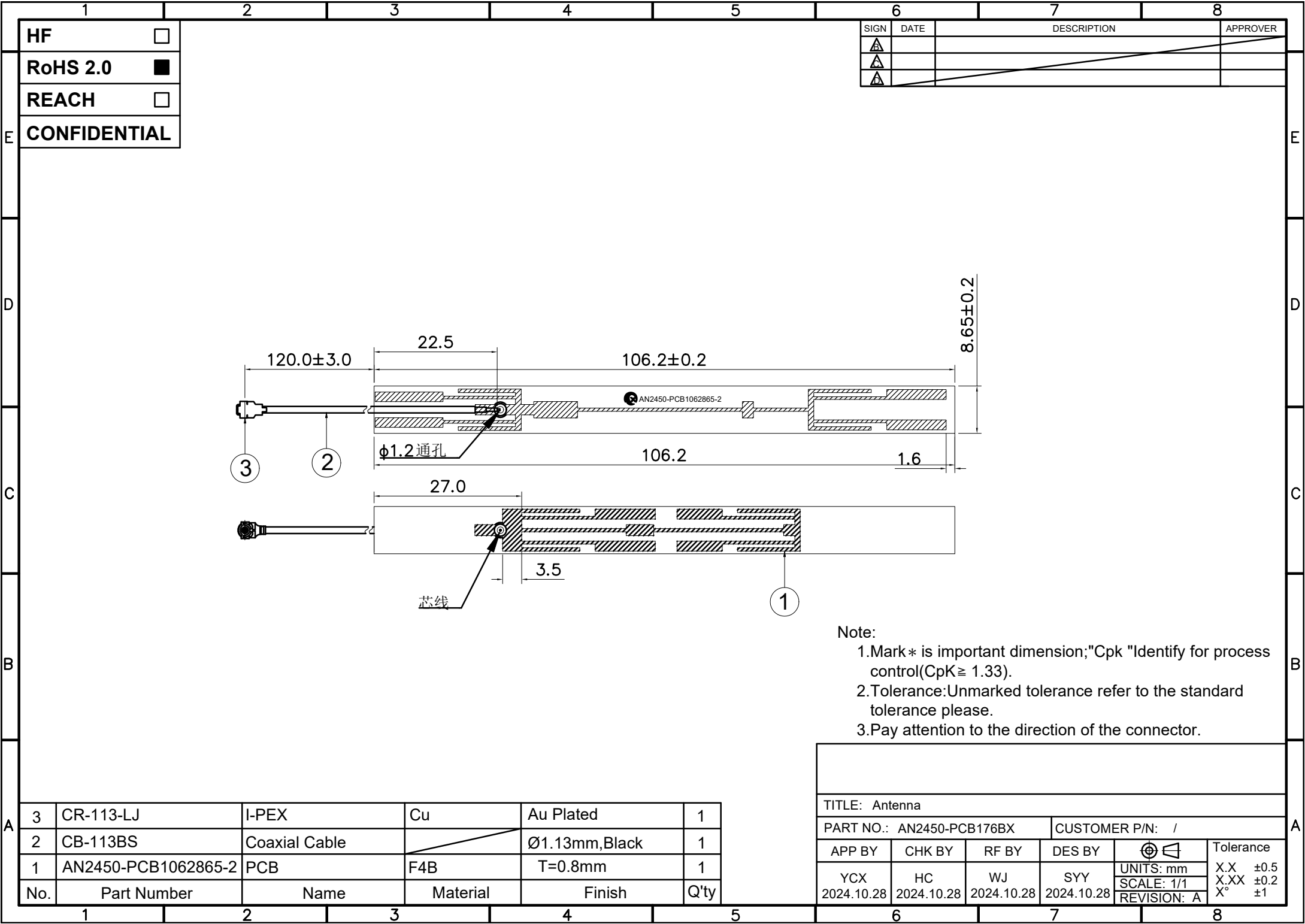
5550MHz



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-LJ	I-PEX	Cu	Au Plated	1
2	CB-113BS	Coaxial Cable		Ø1.13mm,Black	1
1	AN2450-PCB1062865-2	PCB	F4B	T=0.8mm	1
No.	Part Number	Name	Material	Finish	Q'ty

TITLE: Antenna					
PART NO.: AN2450-PCB176BX			CUSTOMER P/N: /		
APP BY	CHK BY	RF BY	DES BY		Tolerance
YCX	HC	WJ	SY	UNITS: mm	X.X ±0.5
2024.10.28	2024.10.28	2024.10.28	2024.10.28	SCALE: 1/1	X.XX ±0.2
				REVISION: A	X° ±1

产品包装规范

PACKING CRITERION

Date: 2024.10.28

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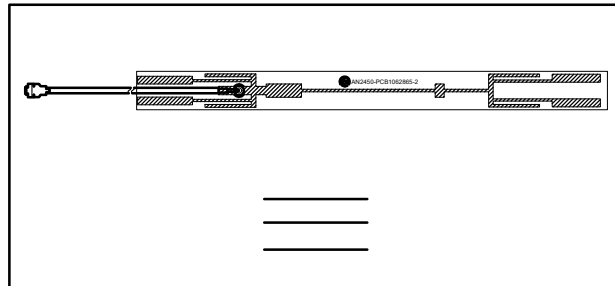
Part Number : AN2450-PCB176BX

Revision : A

Name: Antenna

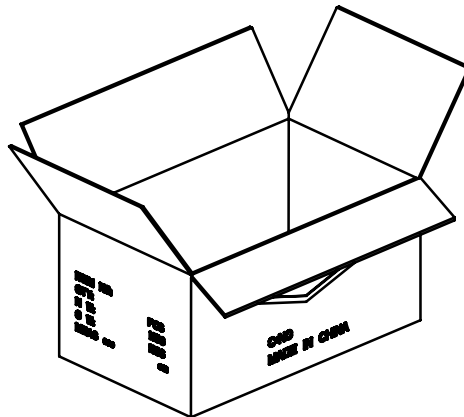
Customer : ALL

1 . Enter PE bag。



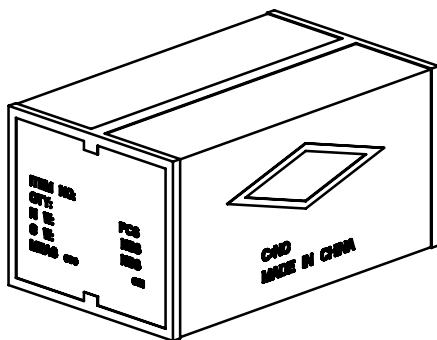
100pcs/ PE bag

2.PACKING。

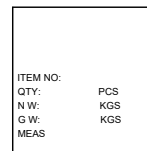


8000pcs/Carton

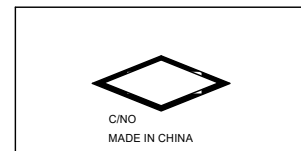
3. SEALING。



SIDE



FRONT



APPROVED BY : YCX

CHECKED BY : HC

DESIGNED BY : SY Y