



Tengxiang Technology.Inc

东莞市腾祥电子有限公司

Product Number: AN2450-143F02WX-W

Product Name: Antenna

Specification For Approval

Date: 2025.5.22

Version: 1.3

客户名称

Customer:

东莞市安冉智能科技有限公司

客户料号

Customer P/N:

BCPTX0000030

腾祥料号

TX P/N:

AN2450-143F02WX-W

规格描述

Description:

2.4G/5G 白色天线 1.13mm 白色线 L=260mm+ 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	周志红	Q.C.DEPT. 品管	
APPROVED BY 核准	韦佳	APPROVEDBY 核准	



NO.53 Shatou ShaChong Road, ChangAn Town, Guangdong province, China

中国广东省东莞市长安镇沙头区沙涌路 53 号

TEL:86-769-81873082 FAX:86-769-82663788

<http://www.tenxiang.cn>



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Product Name: Antenna

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Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2024.4.27	1.0	
1.1	2024.9.9	1.1	增加上下盖间隙管控标准，0.25mm 以下
1.2	2025.3.14	1.2	上下盖换塑胶原材料厂商
1.3	2025.5.22	1.3	塑胶外观改火花纹

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1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency 频率	2400-2500MHz/ 5150-5850MHz
S.W.R. 驻波比	≤ 2.0 / ≤ 2.5
Antenna Gain 增益	3.16dBi / 2.59dBi
Polarization 极化方式	Linear
Impedance 阻抗	50 Ohm
B. Material & Mechanical Characteristics	
Material of Plastic 塑胶材质	ABS+PC
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	- 30 °C ~ + 65°C
Operation Temperature 工作温度	- 30 °C ~ + 65°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	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
3	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
4	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
5	Salt Spray 盐雾	GB / T 2423.17-2008 Temp: 35°C; RH: $\geq 95\%$; NaCl solution: $\geq 5\%$; Time: 24H 温度 35°C; 湿度 $\geq 95\%$; 盐水浓度 $\geq 5\%$; 测试 24H	1. No Visual Damage 2. Frequency Tol. $\leq 5\%$ 无明显外观不良; 频率偏移 $\leq 5\%$	PASS
6	Temperature and Humidity Chamber 恒温恒湿	GB / T 2423.3-2006 Temp: 65°C / 12 H; -30°C / 12H RH: $\geq 90\%$; Time: 24H 温度 65°C 测试 12H 转 -30°C 测试 12H; 湿度 $\geq 90\%$; 时间 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$ 恢复 2H 后, 无明显外观不良; 频率偏移 $\leq 5\%$	PASS
7	Aging test 老化	GB / T 2423.2 - 2008 Temp: 65°C; Time: 24 hours 温度 65°C, 测试 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$ 无明显外观不良; 频率偏移 $\leq 5\%$	PASS
8	RoHS	With Reference to IEC 62321:2008 with flow chart 参考 IEC 62321 测试流程	Directive RoHS 2011/65/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)	2.29	2.62	2.85	3.07	3.16	3.02	2.71	2.49	2.14	2.11	2.17
Efficiency (%)	70.20	74.44	75.22	76.98	78.89	77.61	73.56	73.26	69.86	69.56	69.60

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
2.49	2.59	2.22	2.18	2.32	2.50	2.13	2.43	2.03	2.22	2.26	2.17	2.33	2.60	2.10
57.24	58.66	56.89	53.39	59.10	61.98	59.44	53.99	57.20	58.28	58.41	53.55	61.00	63.96	58.73

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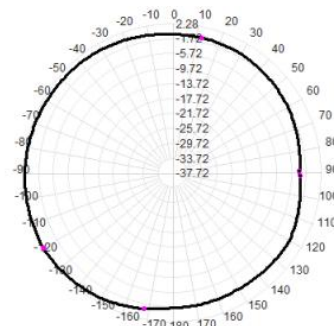
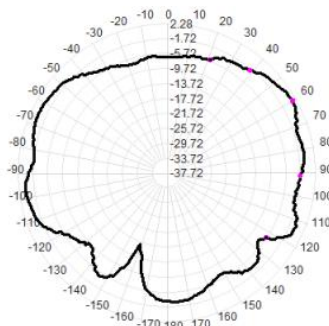
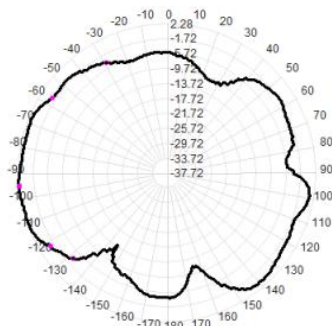
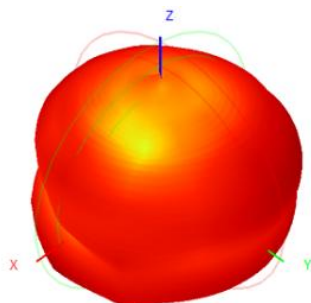
Product Name: Antenna

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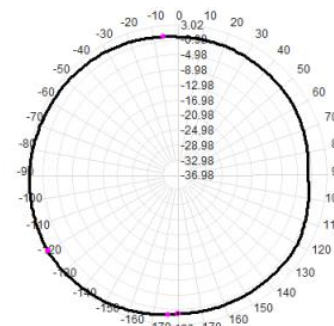
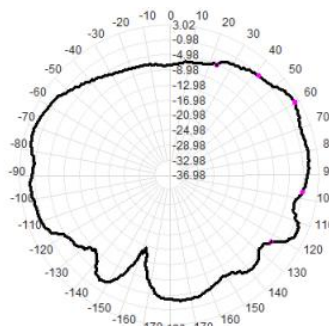
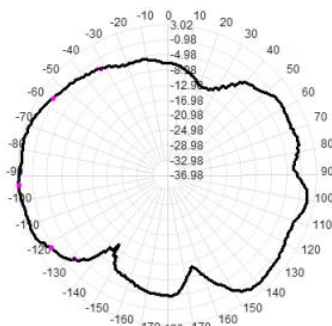
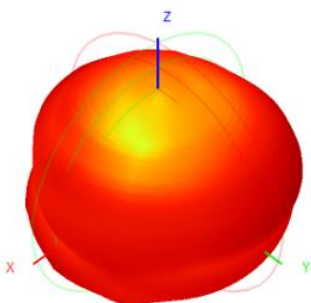
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XY

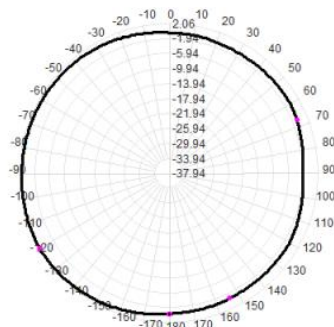
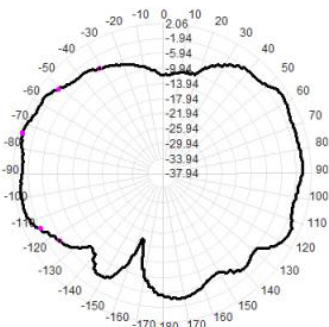
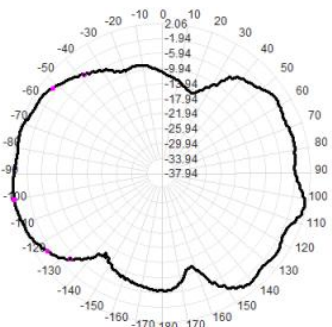
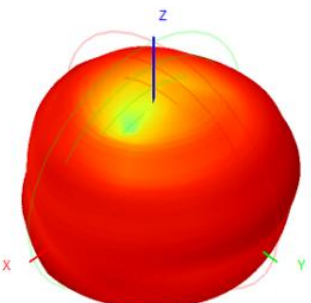
2400MHz



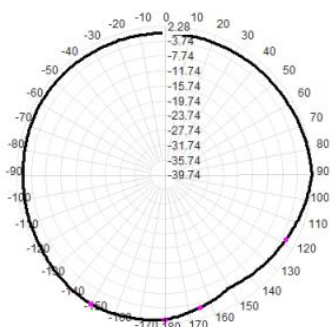
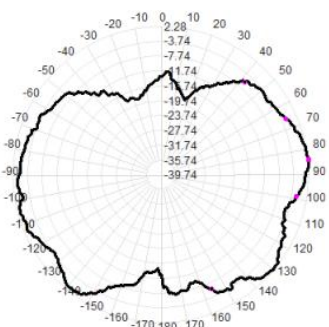
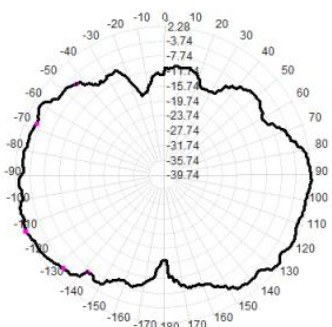
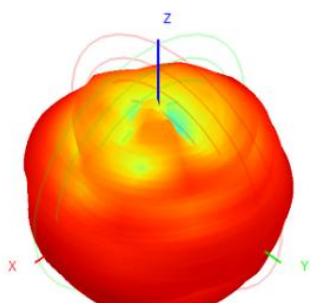
2450MHz



2500MHz



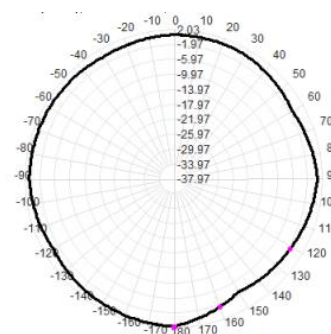
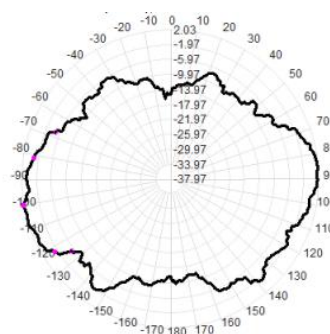
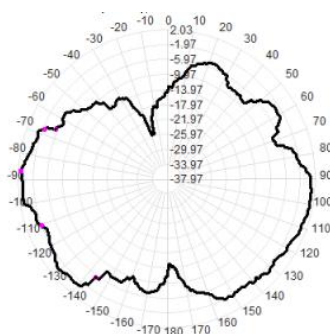
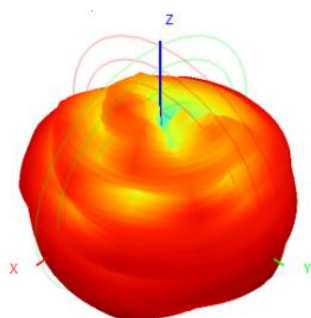
5150MHz



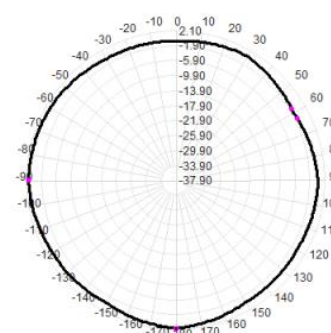
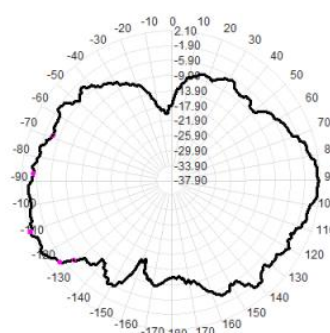
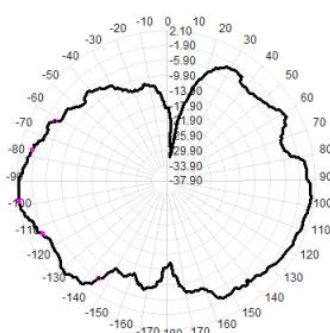
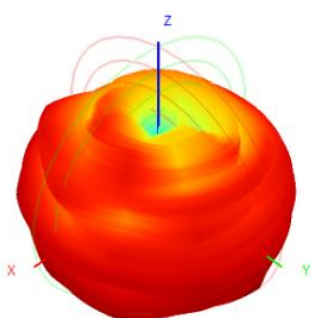
Product Number: AN2450-143F02WX-W

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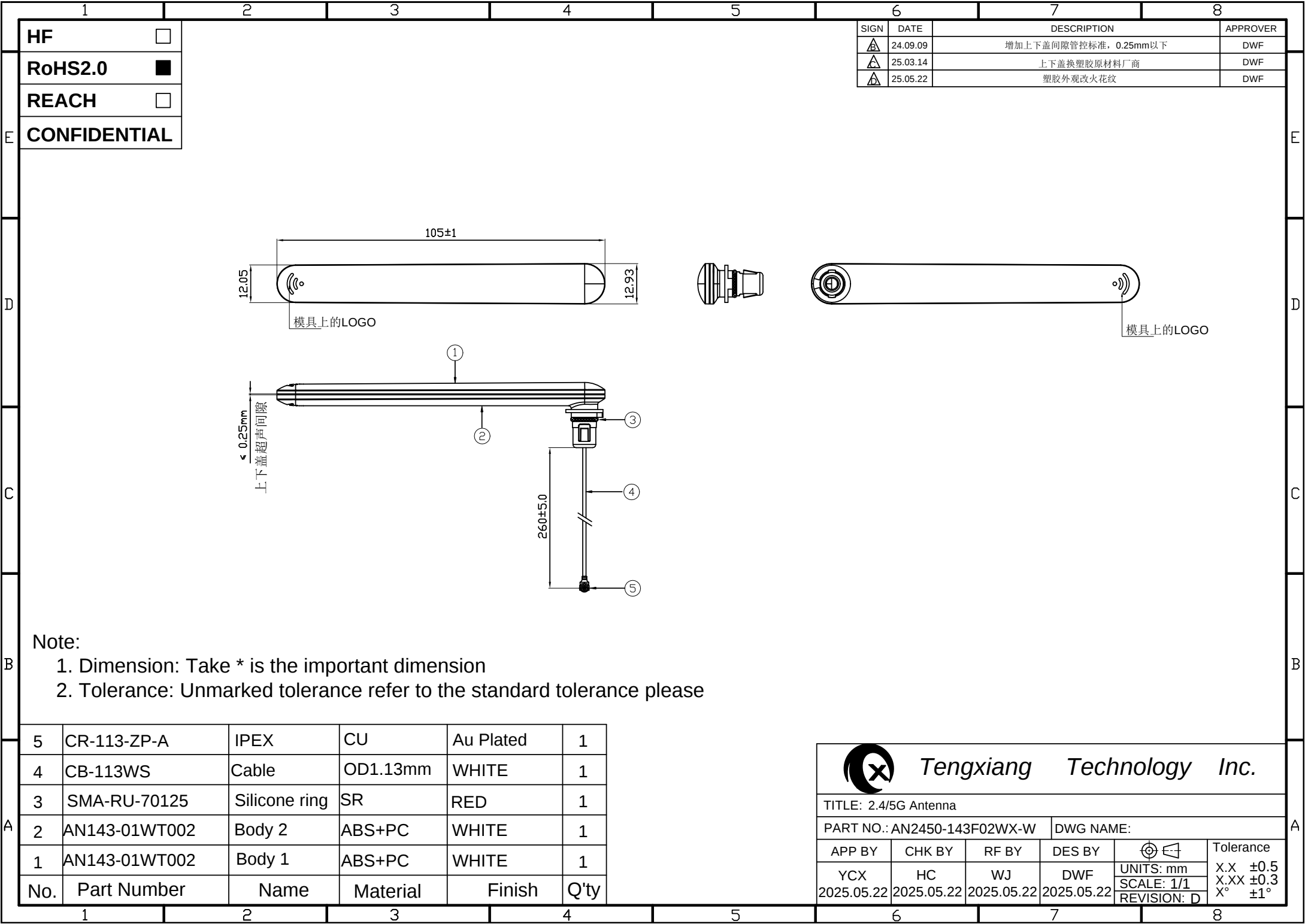
5550MHz



5850MHz



5. Mechanical Drawing See attached files



產品包裝規範

PACKING CRITERION

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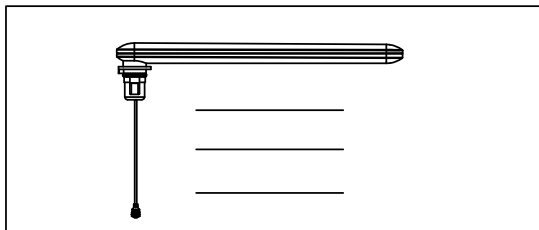
Part Number : AN2450-143F02WX-W

Revision : D

Name: Antenna

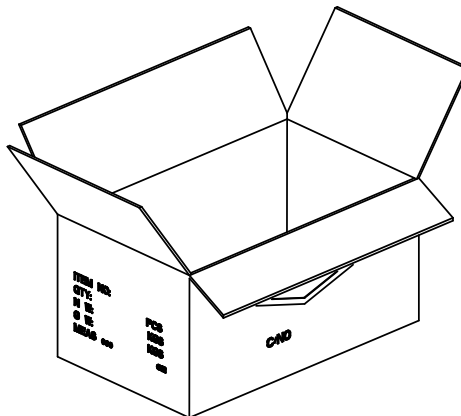
Customer : ALL

1 . Enter PE bag。



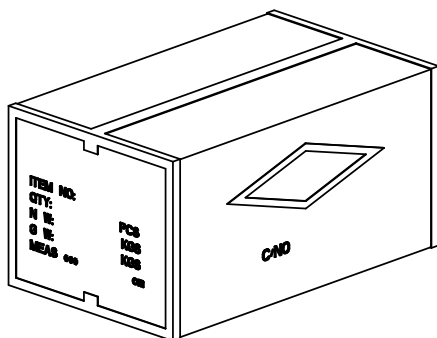
50pcs/ PE bag

2.PACKING 。

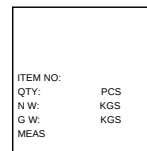


700pcs/Carton

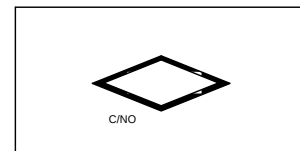
3. SEALING 。



SIDE



FRONT



APPROVED BY : YCX

CHECKED BY : HC

DESIGNED BY : DWF