



GUANGZHOU XAIRCRAFT TECHNOLOGY
CO., LTD.

Number: **AN2450-138F04BX**

Edition: **A0**

Name: Two-hand control dual-band antenna -L

Specification: 2.4G/5G black antenna 1.37mm black cable L=68mm+MMCX 90° Plug

Surface treatment: Screen printing

manufacturer: Dongguan Haiheng electronic Technology Co., LTD

address: 209, Floor 2, No. 51, East Jinghai Road, Shatou South District, Chang 'an Town, Dongguan City

Product Number:AN2450-138F04BX
Product Name: Antenna

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Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2024.1.16	初版	

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1. Specification

Sample Photo



A. Electrical Characteristics

Frequency 频率	2400-2500 MHz/5150-5850MHz
S.W.R. 驻波比	≤ 2.5 / ≤ 2.5
Antenna Gain 增益	5.03dBi / 5.12dBi
Polarization 极化方式	Linear
Impedance 阻抗	50 Ohm

B. Material & Mechanical Characteristics

Material of Plastic 塑胶材质	PC+ABS
Cable Type 线材规格	OD1.37mm ,Black
Connector Type 连接器规格	MMCX 90° Plug

C. Environmental

Storage Temperature 存储温度	- 40°C ~ +85 °C
Operation Temperature 工作温度	- 40°C ~ +85 °C

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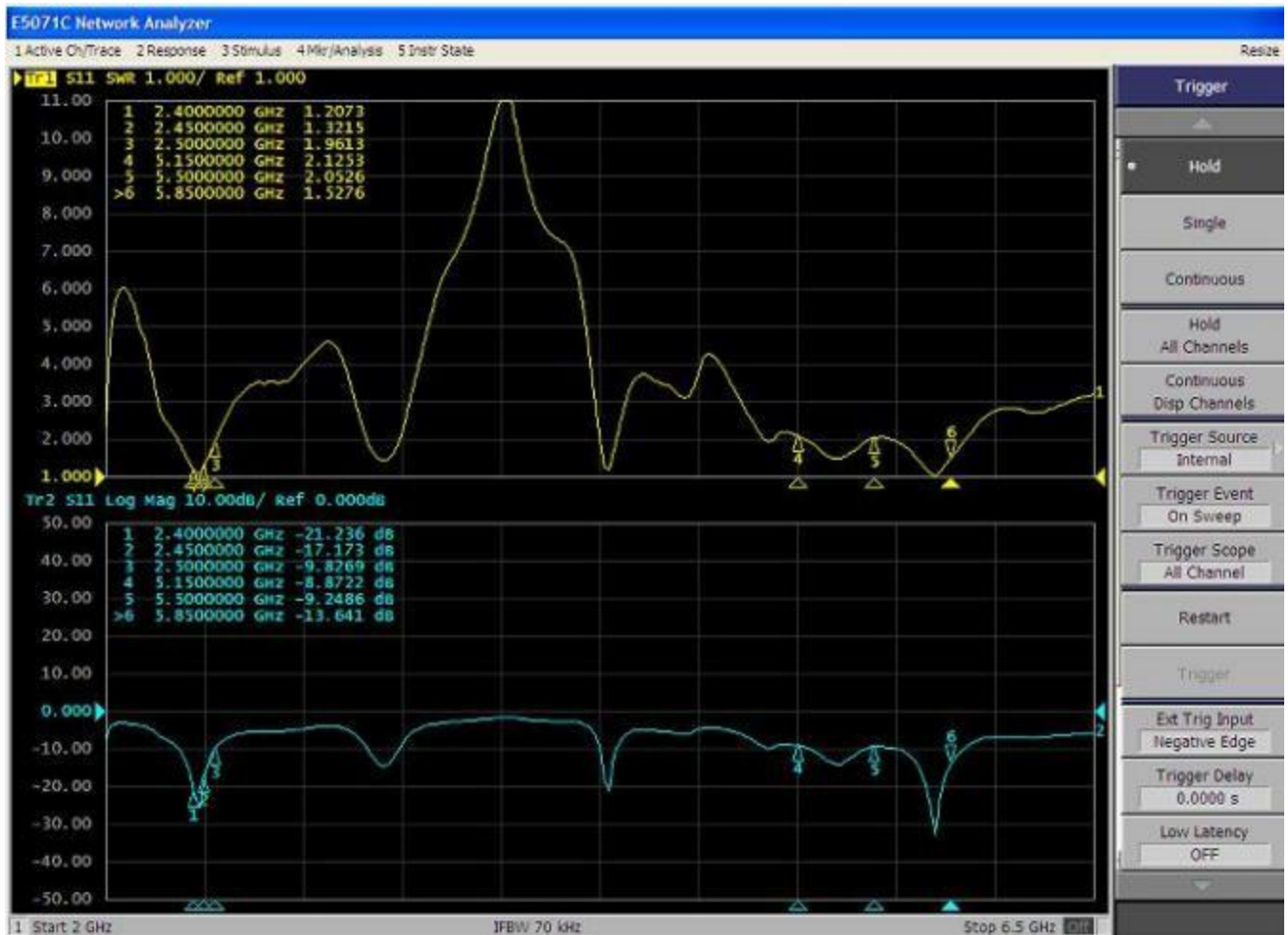
2. Characteristics and Reliability Test

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



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4. Antenna - Radiation Pattern Test Data

往前右

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)	4.95	4.96	4.90	4.93	5.03	4.95	4.62	4.56	4.62	4.48	4.39
Efficiency (%)	56.97	60.11	60.42	61.37	63.18	61.66	58.99	58.05	55.88	54.56	54.45

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
4.62	4.72	4.80	4.51	4.62	4.70	4.77	4.62	4.87	4.92	4.98	5.04	5.07	5.12	4.95
50.25	52.37	51.23	54.66	54.18	58.12	59.49	54.72	57.95	58.79	61.64	62.28	65.18	63.55	58.01

往后右

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)	3.70	3.93	3.90	3.87	3.80	3.72	3.56	3.66	3.45	3.22	3.21
Efficiency (%)	54.40	56.28	58.05	58.12	58.95	57.85	55.02	54.26	51.98	50.02	53.25

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
4.33	4.42	4.36	4.72	4.80	4.50	4.40	4.70	4.42	4.73	4.82	4.86	4.92	5.10	5.06
53.25	51.61	53.25	52.26	54.62	53.63	52.84	53.71	53.91	51.13	52.97	56.76	59.11	60.32	58.28

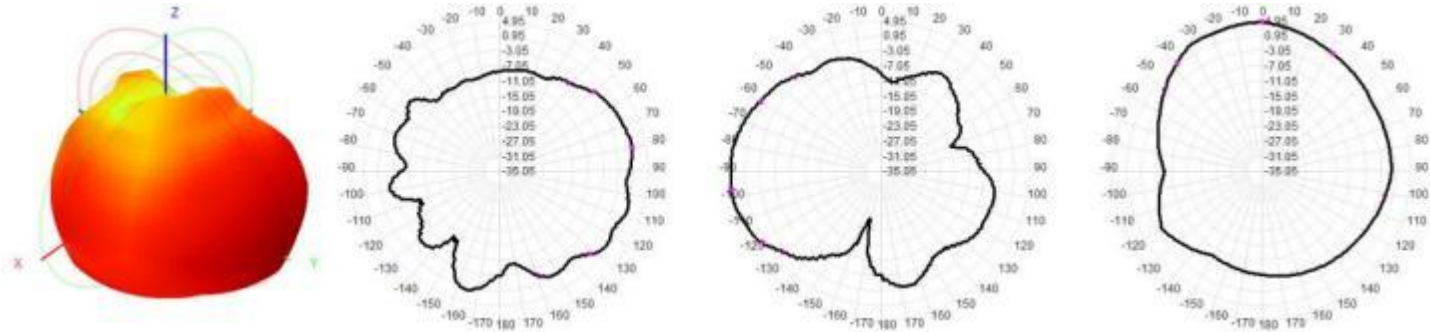
Product Number:AN2450-138F04BX
Product Name: Antenna

XZ

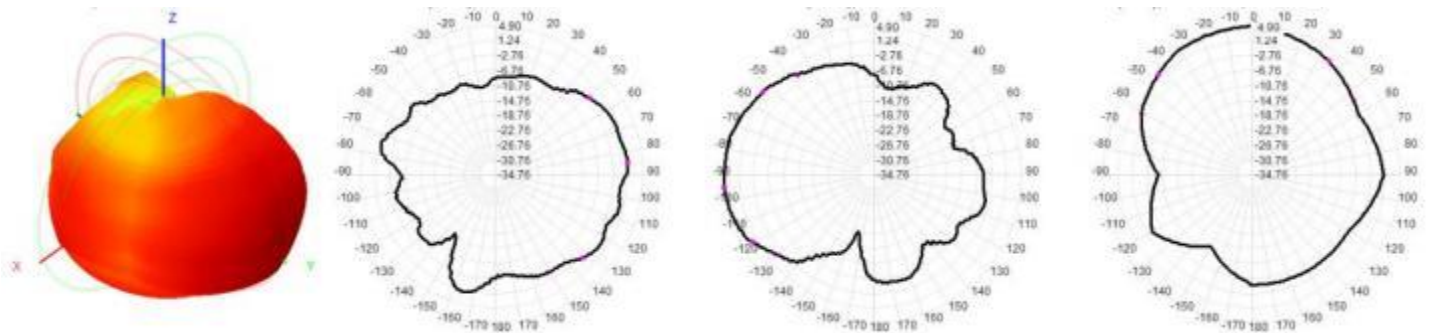
YZ

XY

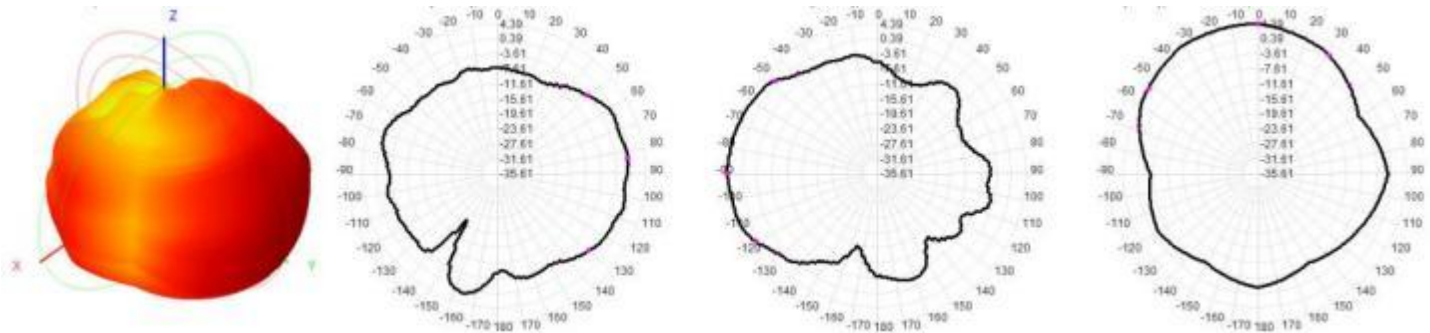
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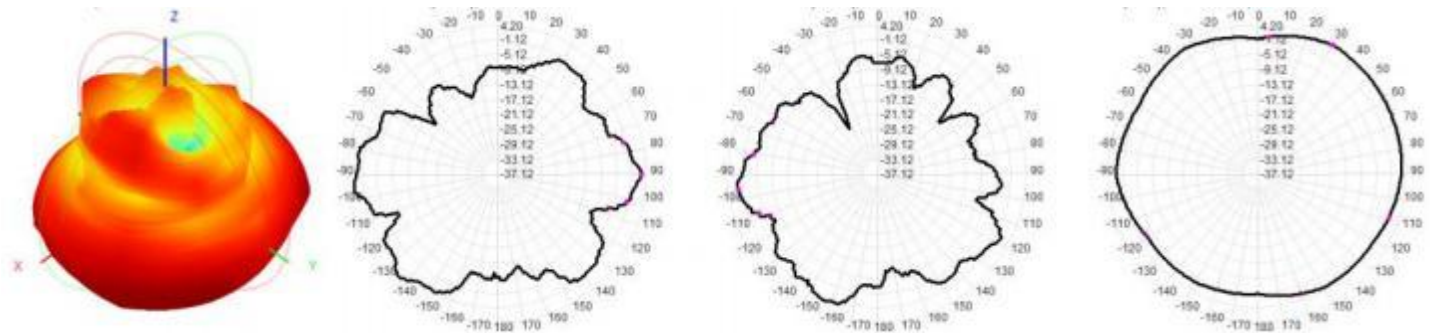
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2500MHz



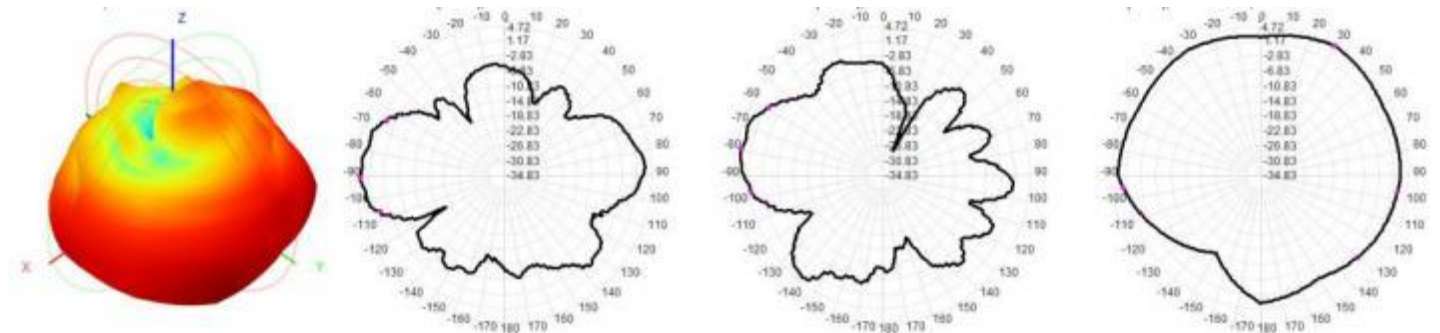
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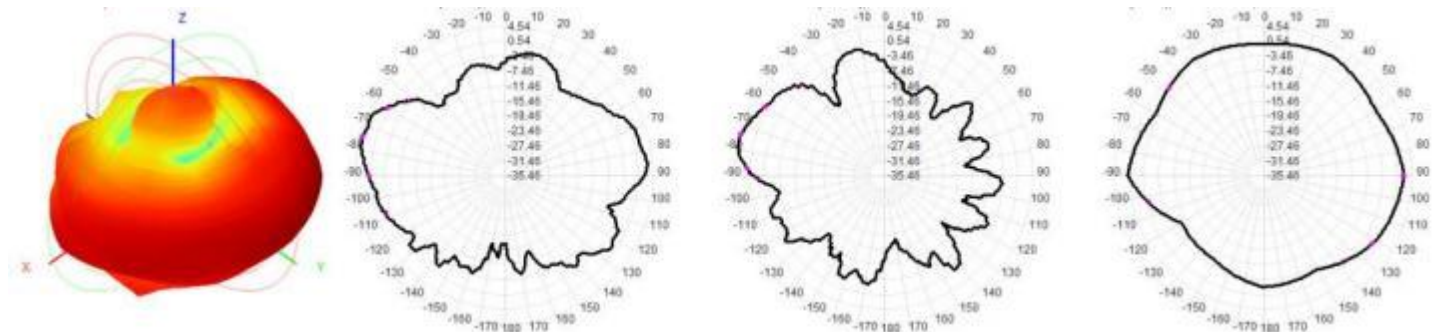
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Product Name: Antenna

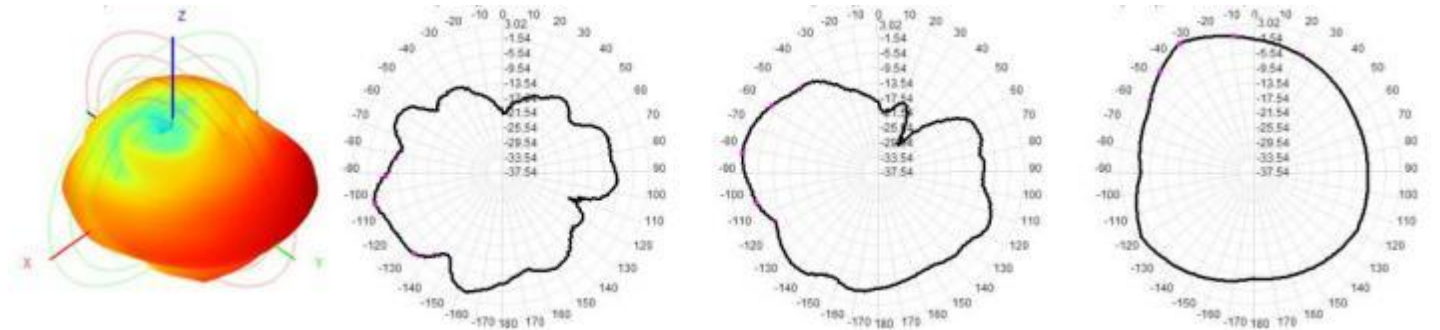
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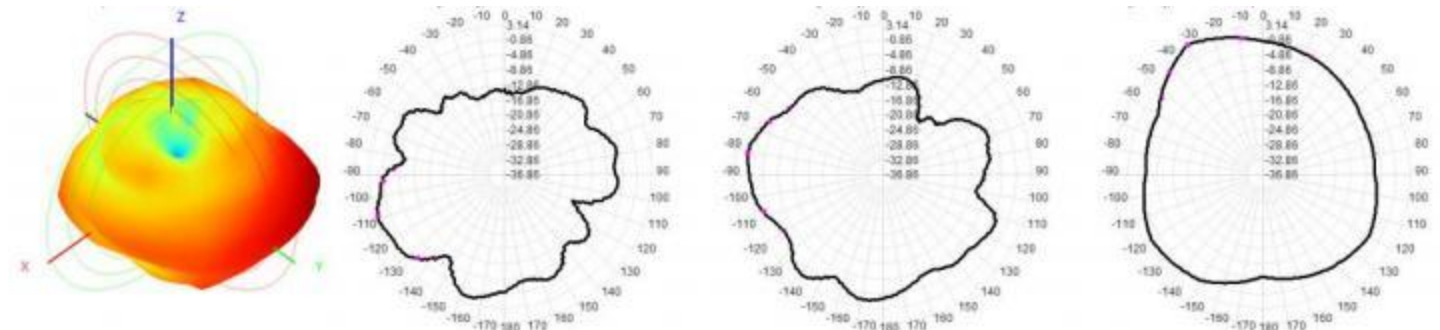
5850MHz



2400MHz



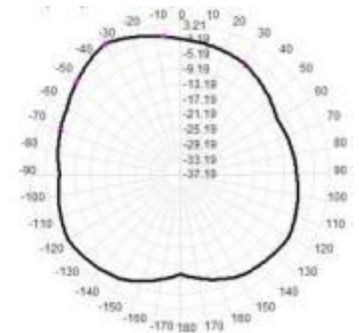
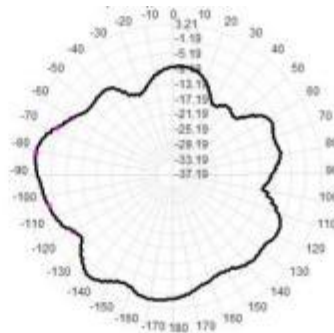
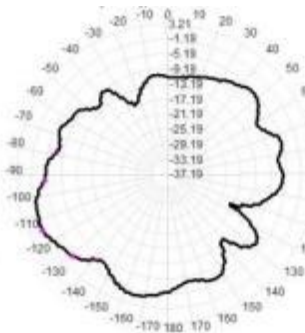
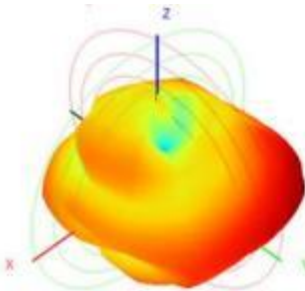
2450MHz



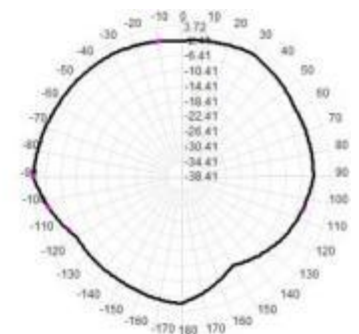
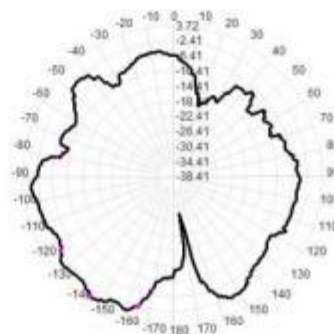
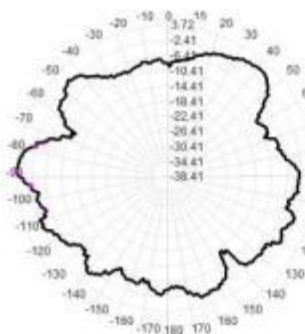
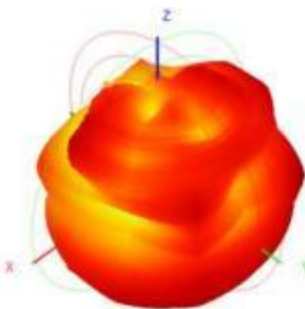
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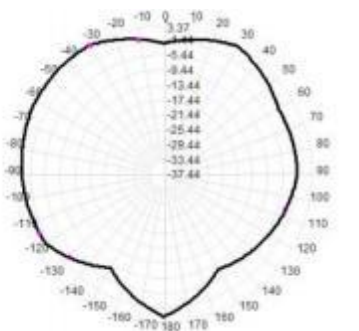
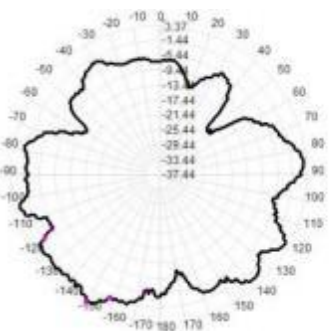
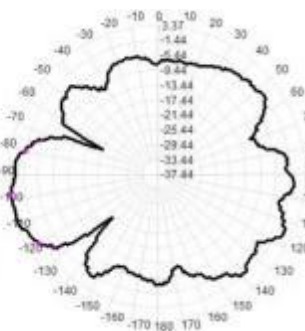
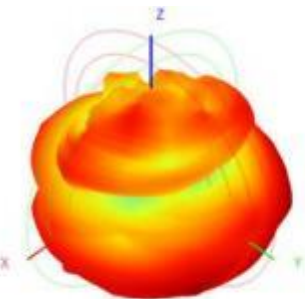
2500MHz



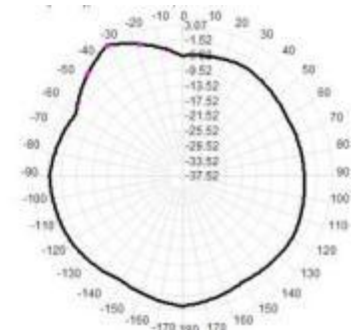
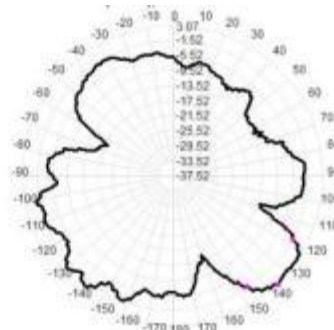
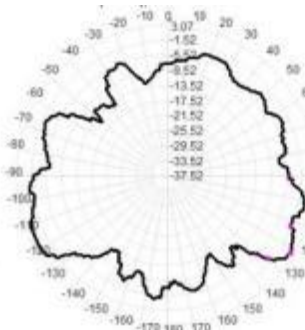
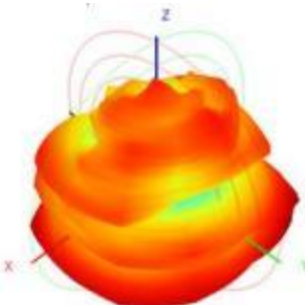
5150MHz



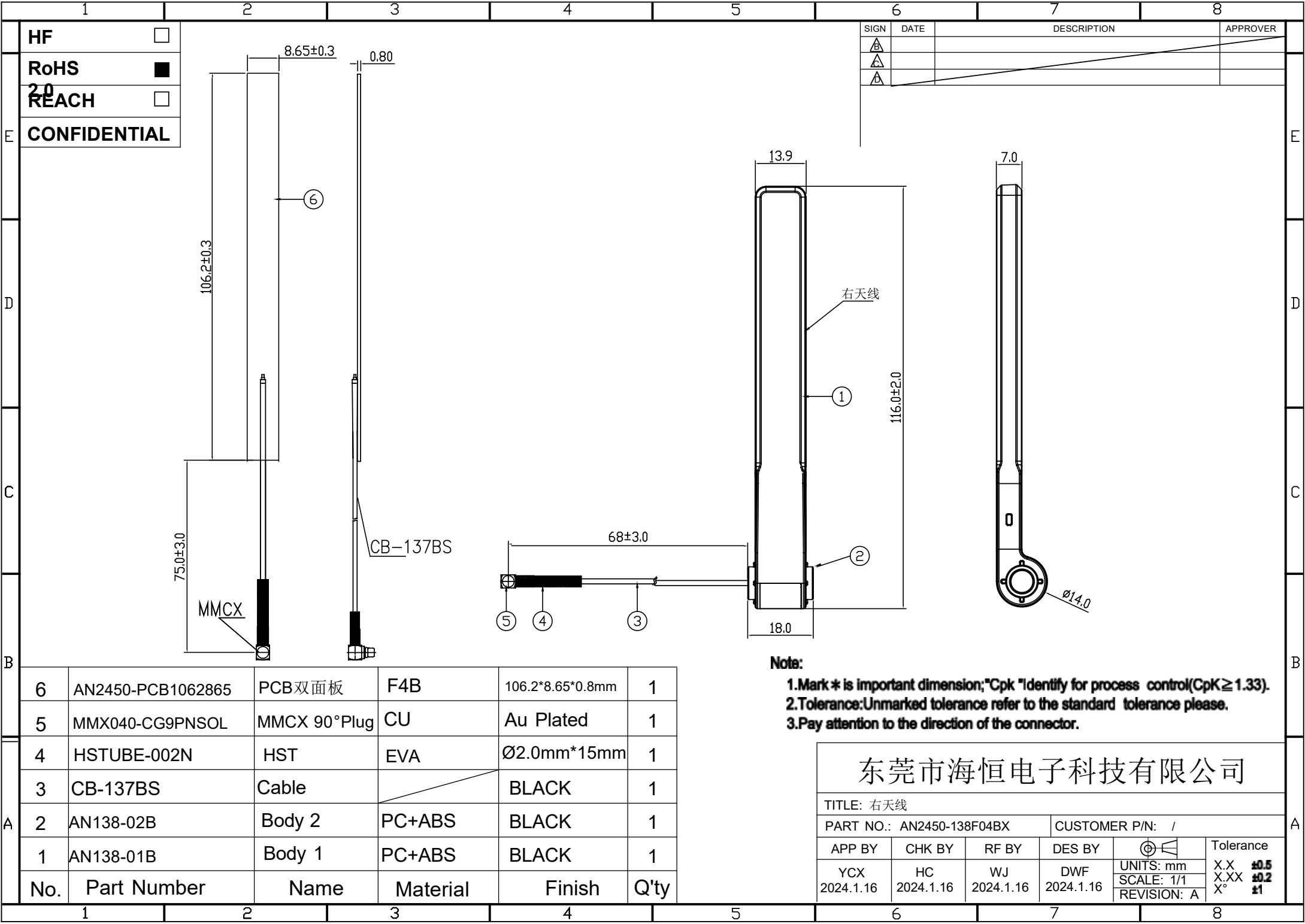
5550MHz



5850MHz



5. Mechanical Drawing See attached files



HF	☐
RoHS	☒
REACH	☐
CONFIDENTIAL	

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			

6	AN2450-PCB1062865	PCB双面板	F4B	106.2*8.65*0.8mm	1
5	MMX040-CG9PNSOL	MMCX 90°Plug	CU	Au Plated	1
4	HSTUBE-002N	HST	EVA	Ø2.0mm*15mm	1
3	CB-137BS	Cable	BLACK		1
2	AN138-02B	Body 2	PC+ABS	BLACK	1
1	AN138-01B	Body 1	PC+ABS	BLACK	1
No.	Part Number	Name	Material	Finish	Q'ty

Note:
1.Mark * is important dimension;*Cpk 1Identify 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					
TITLE: 右天线					
PART NO.: AN2450-138F04BX			CUSTOMER P/N: /		
APP BY	CHK BY	RF BY	DES BY		Tolerance
YCX	HC	WJ	DWF		X.X ±0.5
2024.1.16	2024.1.16	2024.1.16	2024.1.16		X.XX ±0.2
				REVISION: A	X° ±1

产品包装规范

PACKING CRITERION

Date: 2024.1.16

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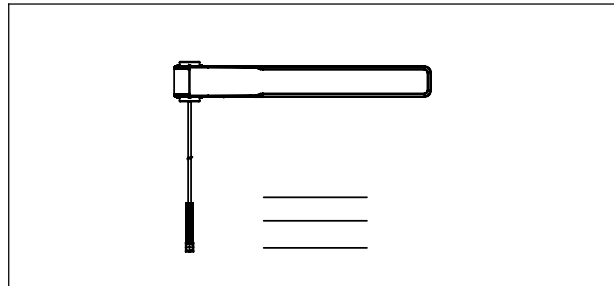
Part Number : AN2450-138F04BX

Revision : A

Name: Antenna

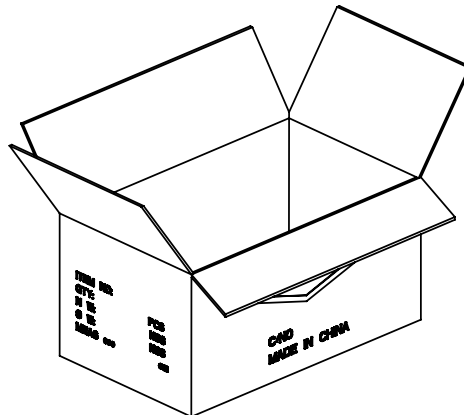
Customer : ALL

1 . Enter PE bag。



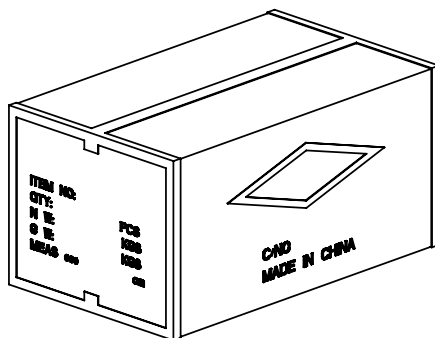
20pcs/ PE bag

2.PACKING 。

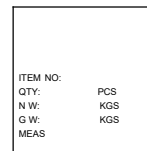


800pcs/Carton

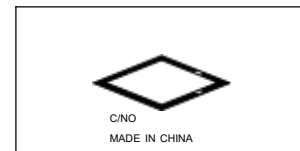
3. SEALING 。



SIDE



FRONT



APPROVED BY : YCX

CHECKED BY : HC

DESIGNED BY : DWF