GUANGZHOU XAIRCRAFT TECHNOLOGY
CO.,LTD.

Number: **AN2450-138F03BX**

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:AN2450-138F03BX
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	2024.1.16	初版	

Product Number:AN2450-138F03BX
Product Name: Antenna

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	**3.97dBi /5.14dBi**
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**

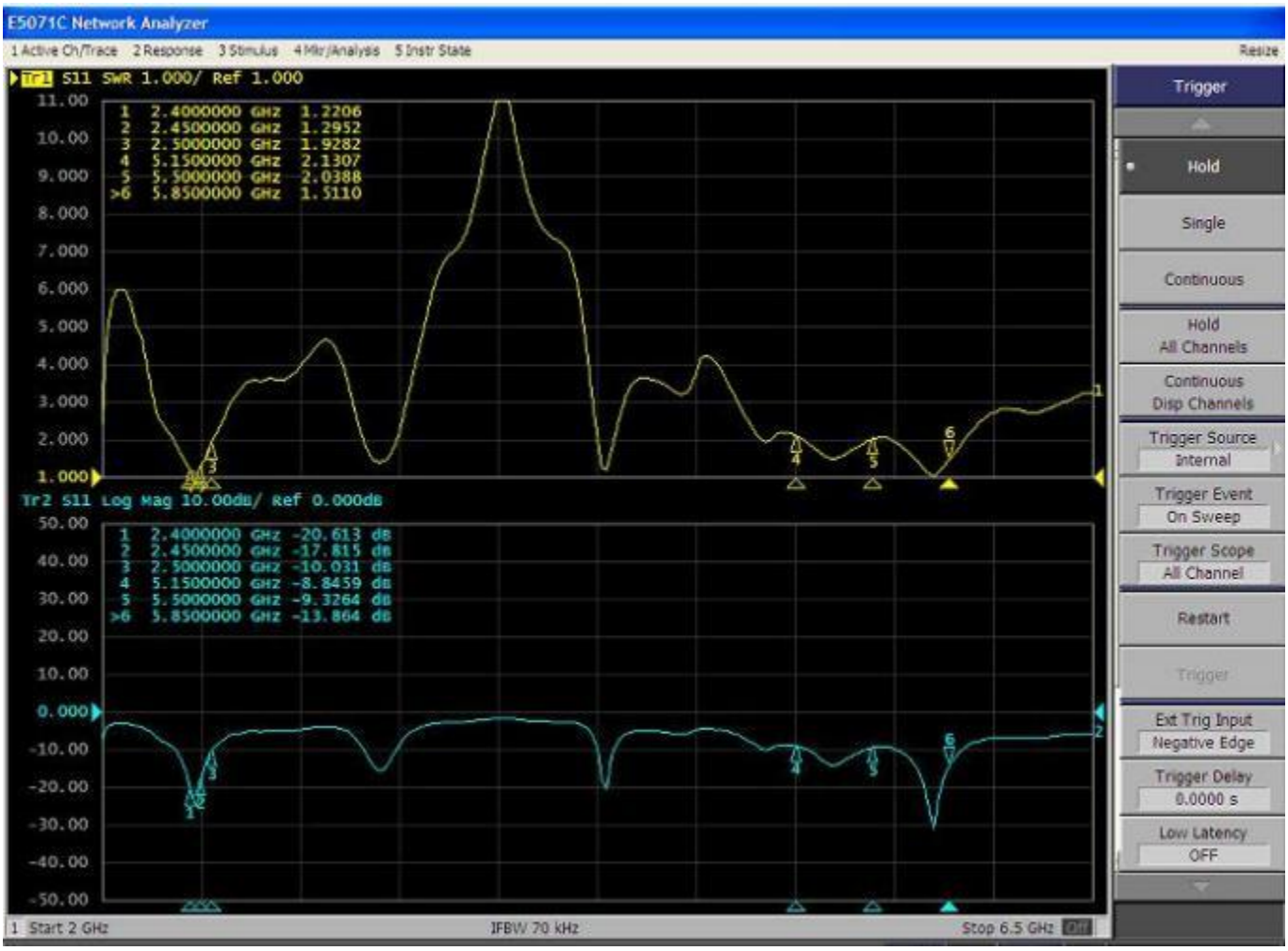
Product Number:AN2450-138F03BX
Product Name: Antenna

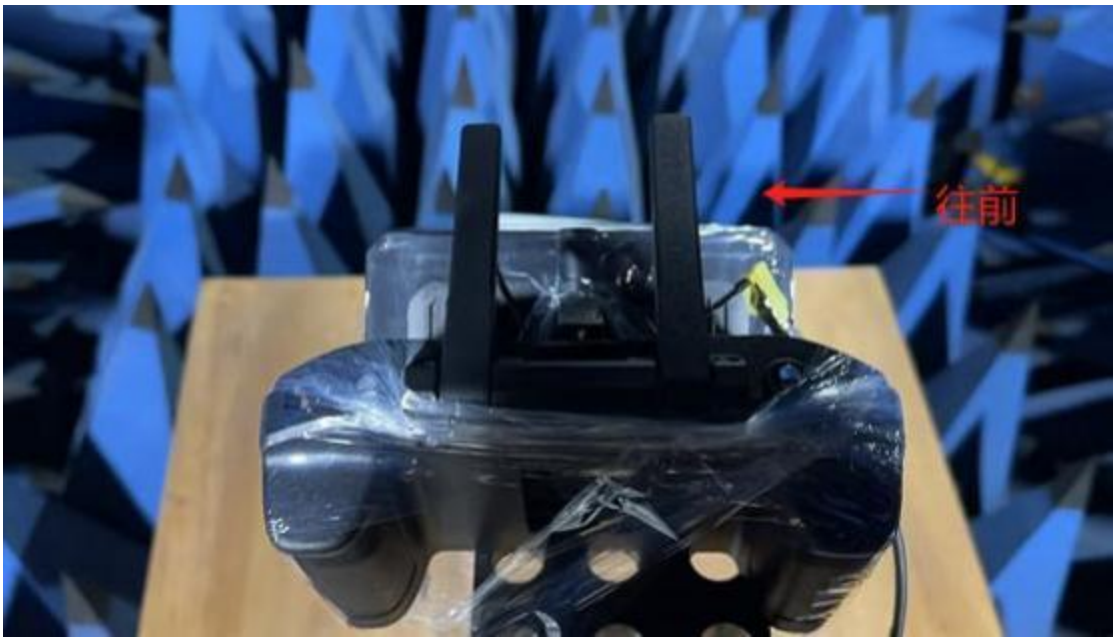
2. Characteristics and Reliability Test

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	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.≤5% 符合待测物规范;频率偏移≤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: ≥ 95%; NaCl solution: ≥ 5%;Time: 24H 温度 35°C；湿度≥95%;盐水浓度≥5%；测试 24H	1. No Visual Damage 2. Frequency Tol.≤5% 无明显外观不良;频率偏移≤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: ≥ 90%; Time: 24H 温度 65°C 测试 12H 转-30°C 测试 12H；湿度≥ 90%；时间 24H	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
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.≤5% 无明显外观不良;频率偏移≤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

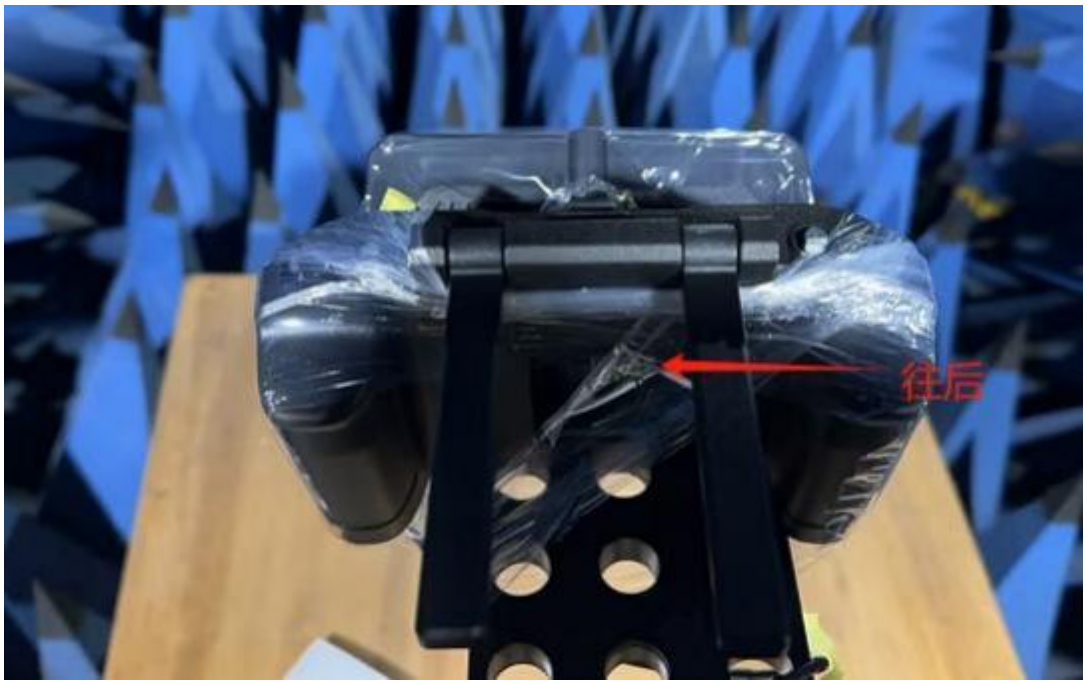
Product Number:AN2450-138F03BX
Product Name: Antenna

3. Antenna - S Parameter Test Data





Product Number:AN2450-138F03BX
Product Name: Antenna



4. Antenna - Radiation Pattern Test Data

往前左

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)	4.64	4.91	4.82	4.92	5.00	4.93	4.57	4.43	4.19	4.12	4.30
Efficiency (%)	55.56	58.21	57.52	58.78	59.36	58.52	55.48	54.42	52.30	50.46	50.19

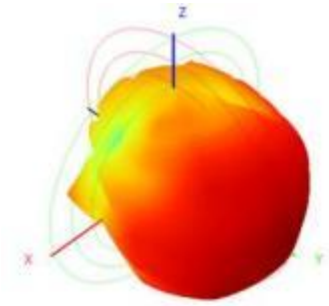
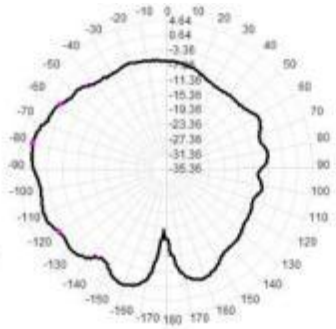
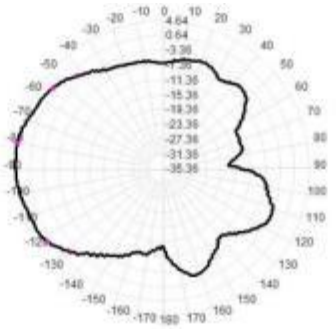
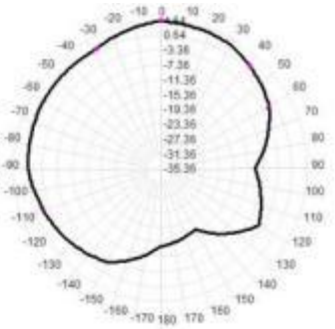
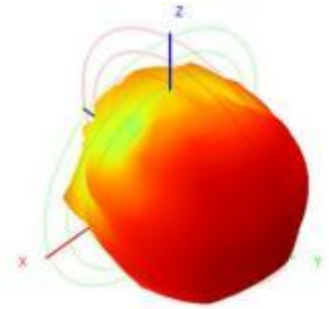
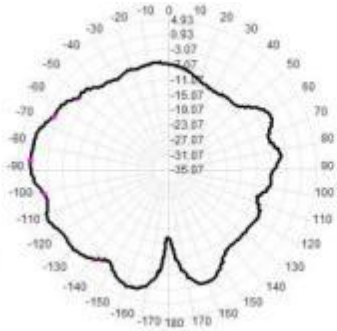
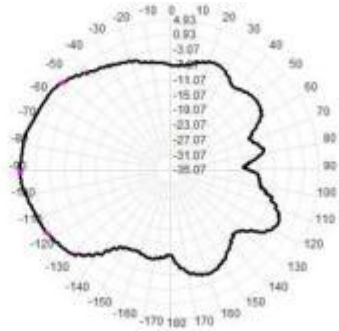
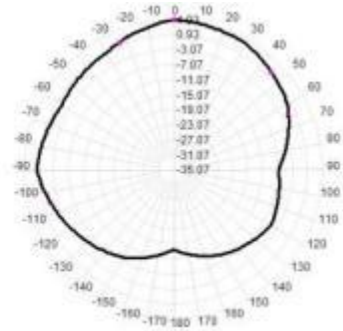
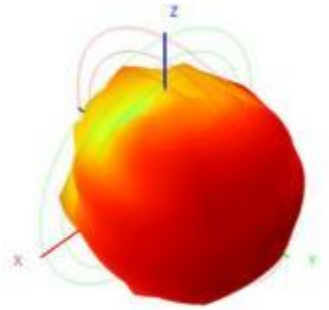
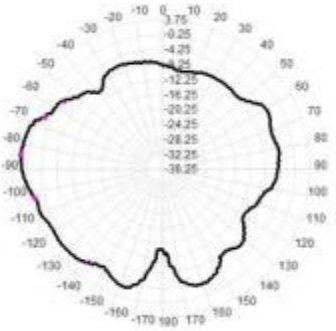
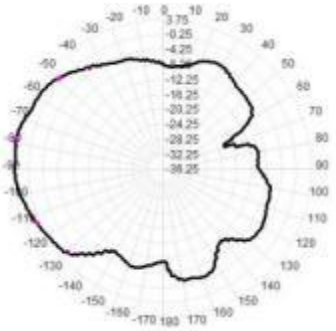
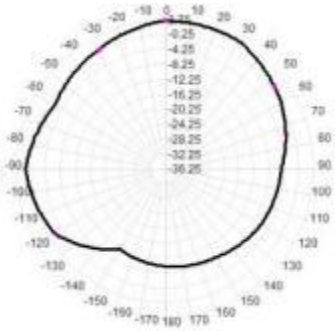
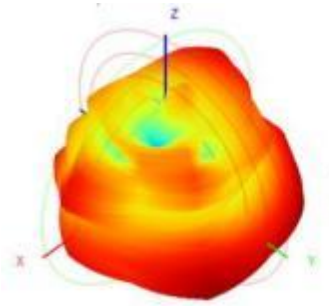
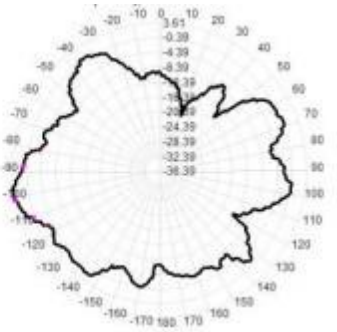
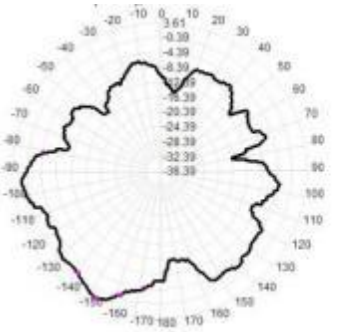
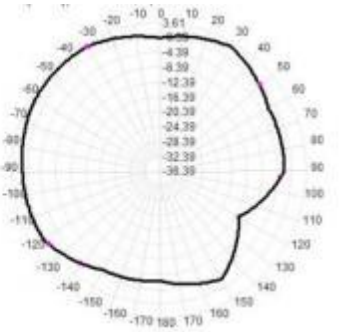
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
4.55	4.62	4.75	4.68	4.67	4.82	4.96	4.67	4.95	4.96	5.01	5.06	5.02	5.09	4.90
50.94	52.15	51.24	53.83	55.53	57.20	58.19	55.25	59.39	60.59	60.75	60.11	64.56	62.32	57.88

往后左

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)	3.78	3.96	3.97	3.91	3.86	3.74	3.69	3.71	3.56	3.37	3.25
Efficiency (%)	55.23	57.89	57.45	58.22	59.15	58.00	55.08	54.22	52.02	50.23	54.22

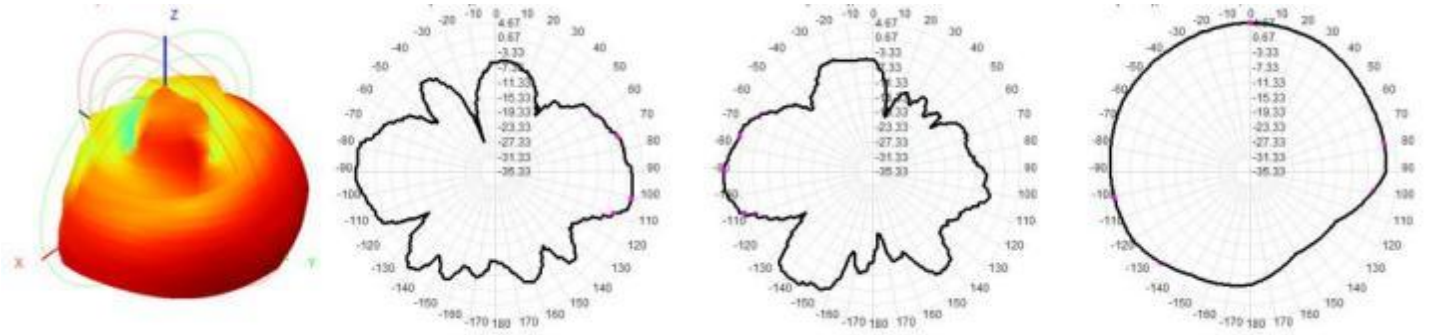
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
4.42	4.50	4.39	4.82	4.91	4.69	4.38	4.75	5.00	5.36	4.85	4.90	4.96	5.14	5.08
54.97	52.82	54.12	53.05	54.11	56.05	55.73	53.67	56.45	58.13	56.81	57.71	61.88	62.36	57.74

Product Number:AN2450-138F03BX
Product Name: Antenna

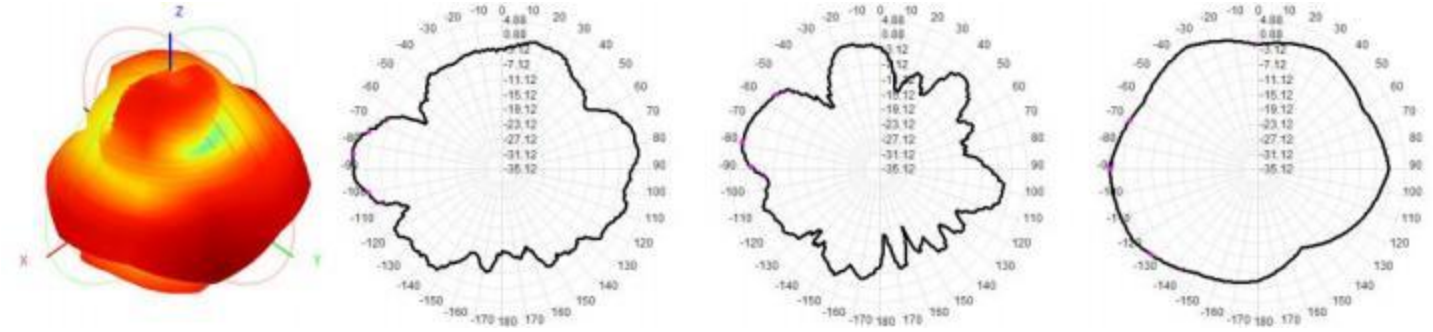
	XZ	YZ	XY
2400MHz				
2450MHz				
2500MHz				
5150MHz				

Product Number:AN2450-138F03BX
Product Name: Antenna

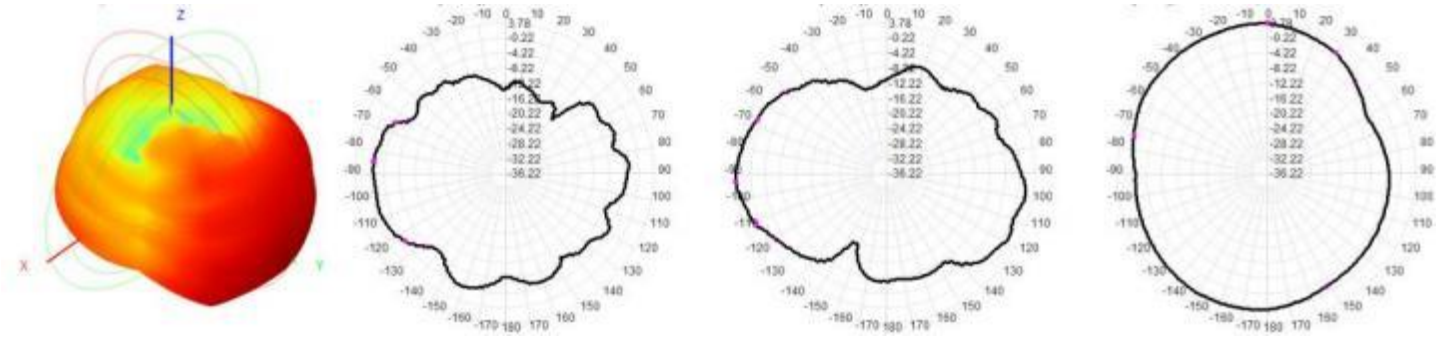
5550MHz



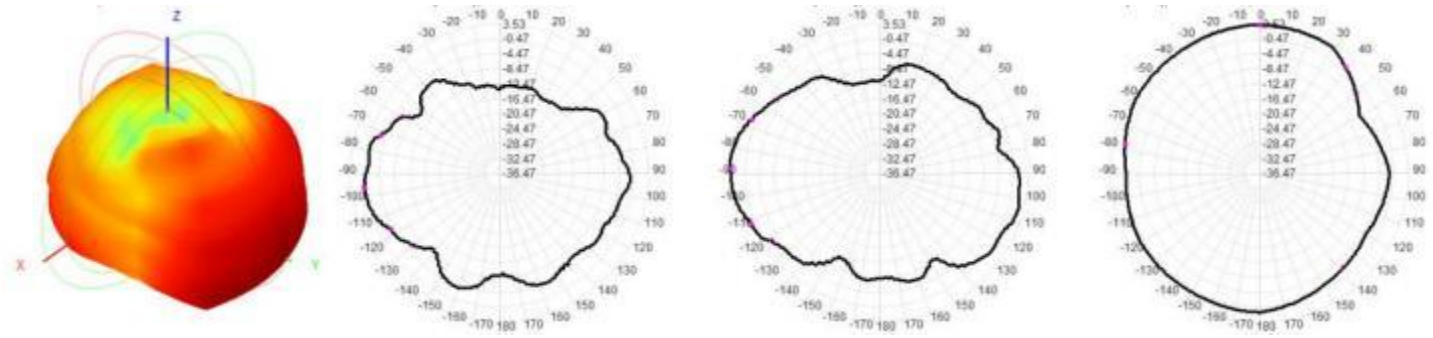
5850MHz



2400MHz

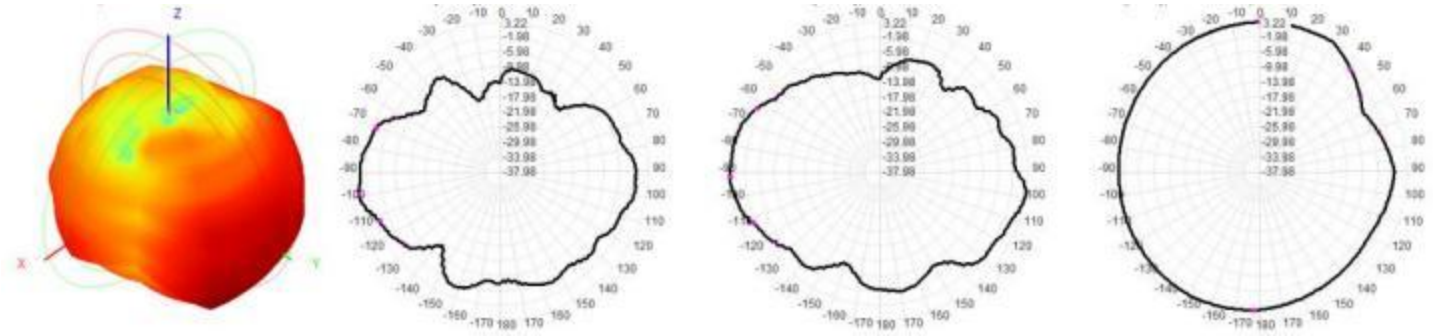


2450MHz

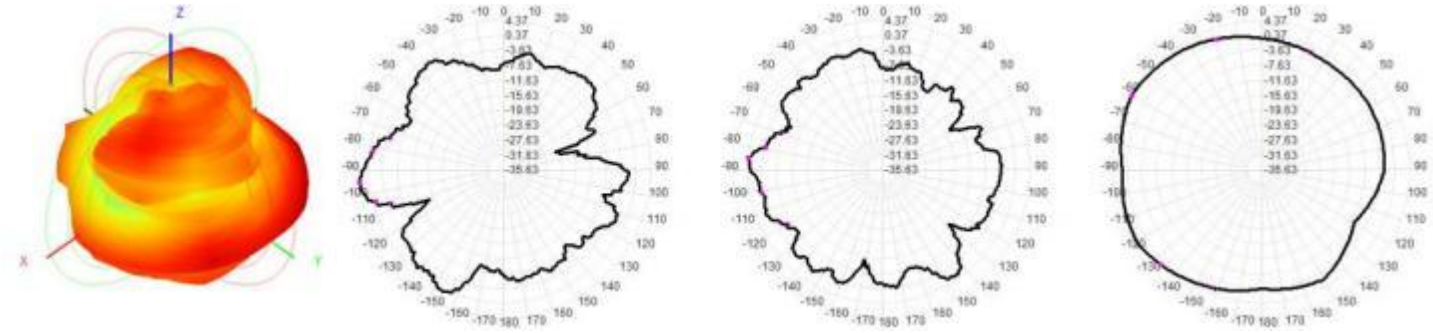


Product Number:AN2450-138F03BX
Product Name: Antenna

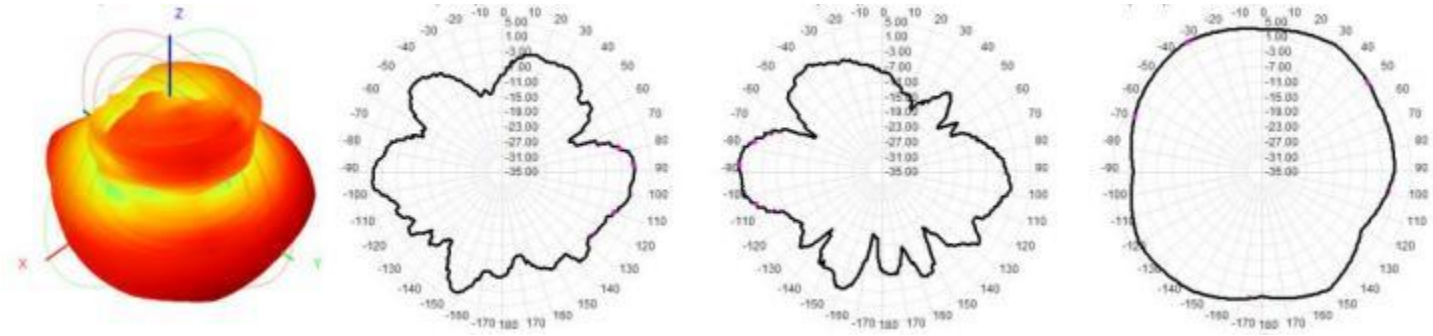
2500MHz



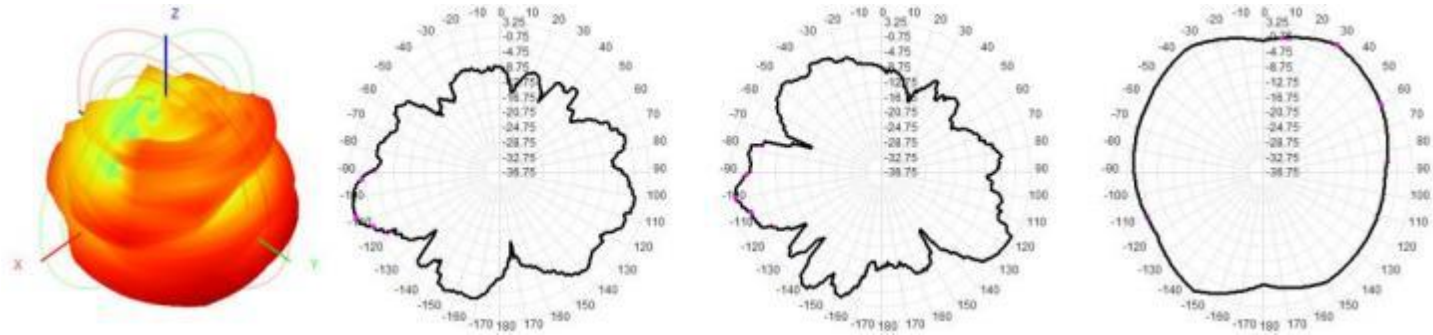
5150MHz



5550MHz



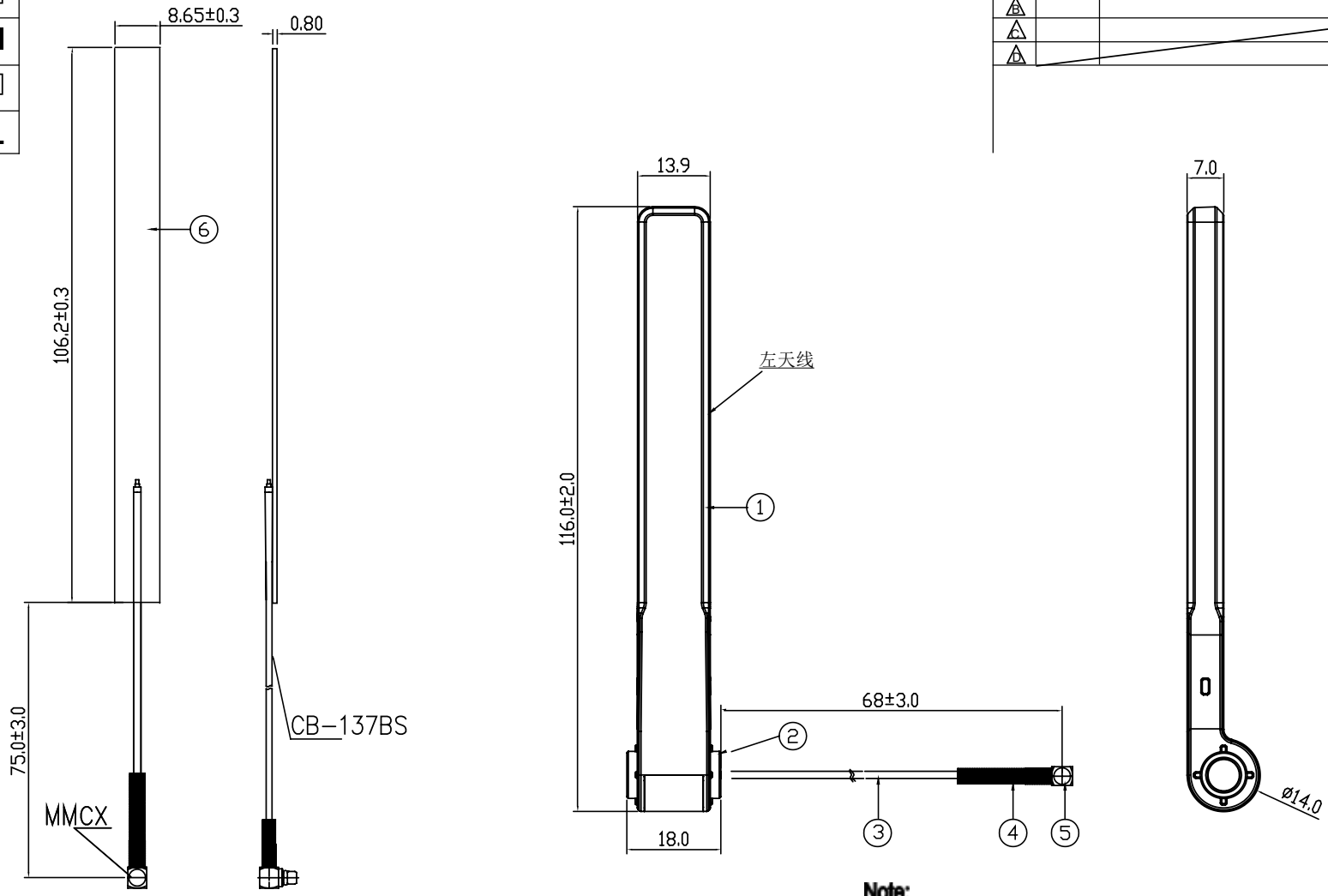
5850MHz



5. Mechanical Drawing See attached files

HF	☐
RoHS 2.0	■
REACH	☐
CONFIDENTIAL	

SIGN	DATE	DESCRIPTION	APPROVER
B			
C			
D			



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.

No.	Part Number	Name	Material	Finish	Q'ty
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

东莞市海恒电子科技有限公司

TITLE: 左天线

PART NO.: AN2450-138F03BX | CUSTOMER P/N: /

APP BY	CHK BY	RF BY	DES BY	
YCX 2024.1.16	HC 2024.1.16	WJ 2024.1.16	DWF 2024.1.16	UNITS: mm SCALE: 1/1 REVISION: A

Tolerance: X.X ±0.5, X.XX ±0.2, X° ±1

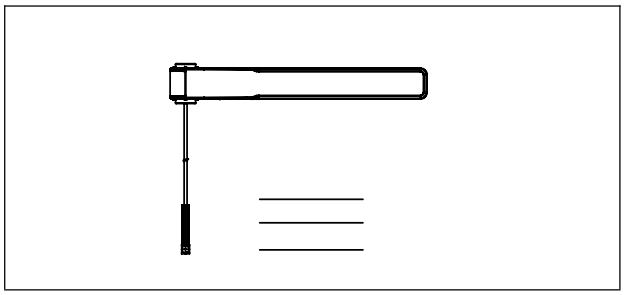
产品包装规范

PACKING CRITERION

Date: 2024.1.16

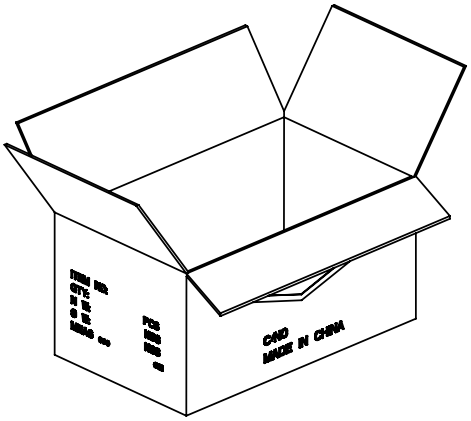
Part Number : AN2450-138F03BX	Revision : A
Name: Antenna	Customer : ALL

1 . Enter PE bag。



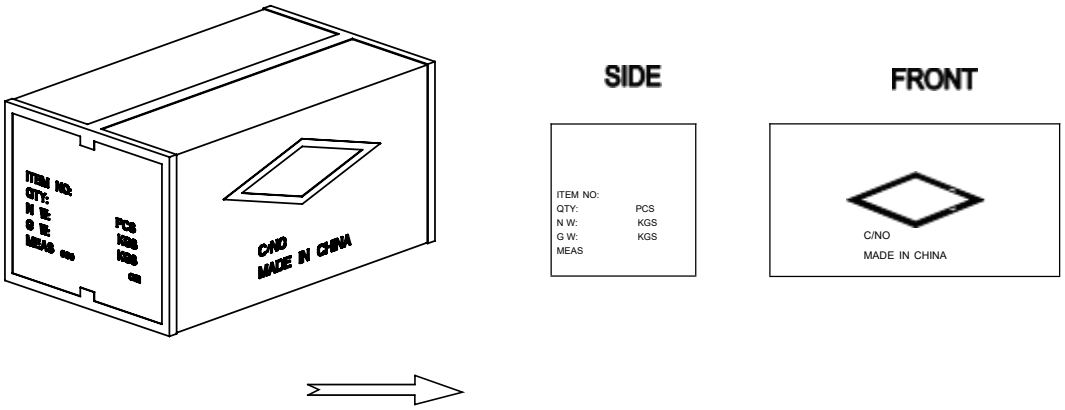
20pcs/ PE bag

2.PACKING 。



800pcs/Carton

3. SEALING。



APPROVED BY : YCX CHECKED BY : HC DESIGNED BY : DWF