

Shanghai Shangyuan Communication Technology Co., LTD

Antenna admission book

Customer name: Yunjia		Project name: P711 一体机
Working frequency band: WiFi2.4G&5G		
Hardware version:		
Hardware version:		
Shangyuan material specifications		
specifications and models	Shang Yuan material number	Customer material number
WIFI ant	SZ241821B74	2.1.09.12.002303

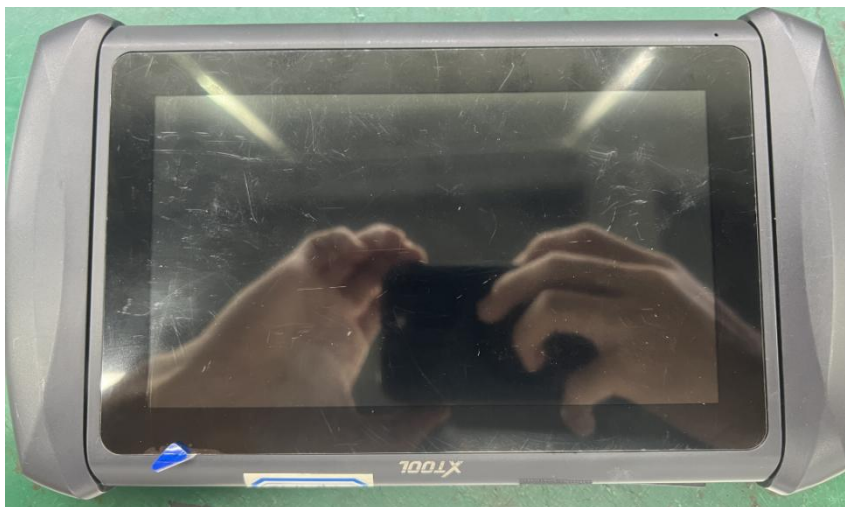
Change the resume				
Preparation / change date	Change the content		Change the person	edition
2024.08.27	A new release		XUWEI	A
Shang Yuan will sign the column				
research and development	structure:	examine and verify:	Quality Engineer:	ratify:
	radio frequency:	examine and verify:		
The customer will sign the column				
electronic engineer	project manager	construction engineer	Quality engineer	

catalogue

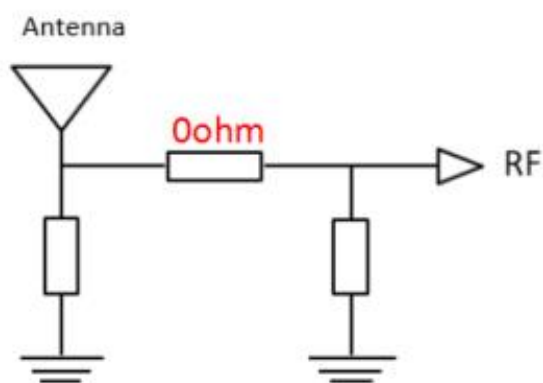
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一、 item information

.11 Schematic diagram



二、 Antenna matching circuit



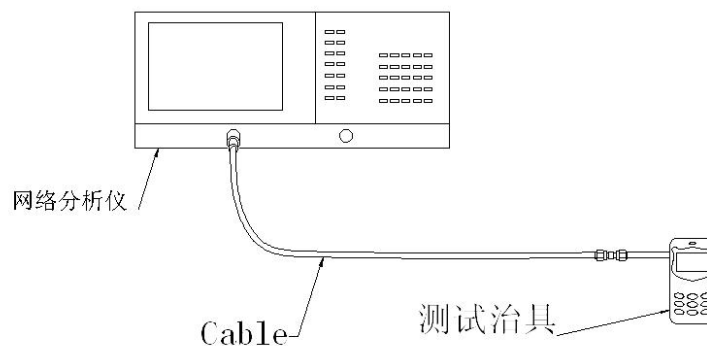
三、 Complete machine test data

3.1 S11 Description of the test method

Test Equipment: Network Analyzer (Agilent E5071C)

Test method: Export a 50 Ohm CABLE cable from the instrument test port, connect the SMA connector of the test device after the calibrator, and record the echo loss and standing wave ratio corresponding to the relevant frequency point.

The test schematic diagram is as follows:



Schematic diagram of the test

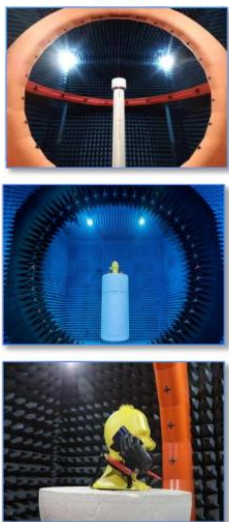
3.2 Test environment

Test System: MPS 6450 Multi-sensor OTA Measurement System (XH-IoT)

Test environment: temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

Test equipment: Use the network analyzer R & S ZND / Agilent E5071C when testing the passive data
When testing active data, use the comprehensive meter Agilent 8960 / CMW500 / S P9500E / SP 8315

OTA实验室



综测仪器



SP9500-CTS-5G

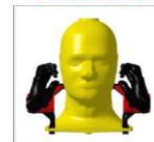


CMW500



SP8315 NB-IoT /eMTC

其他设备



OTA head hand



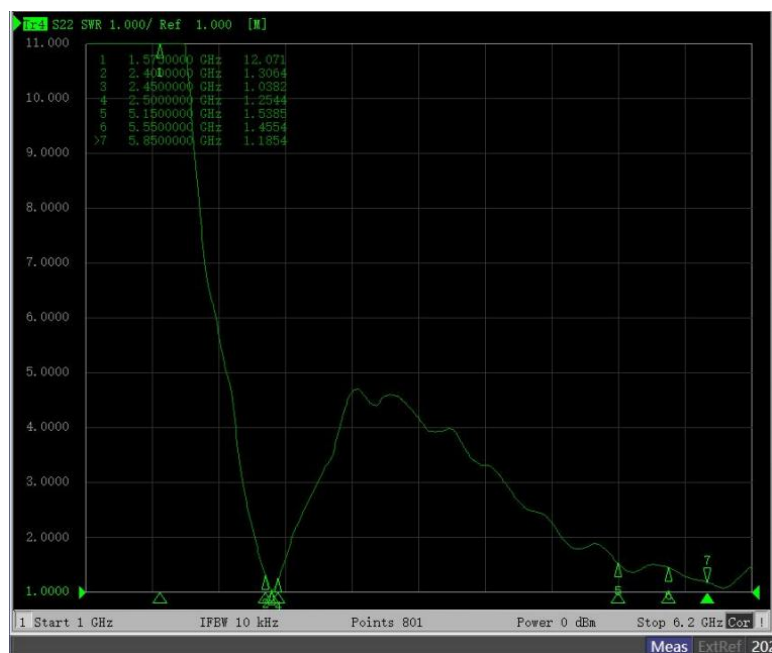
OTA ear hand



OTA arm hand

3.3 The passive test parameters

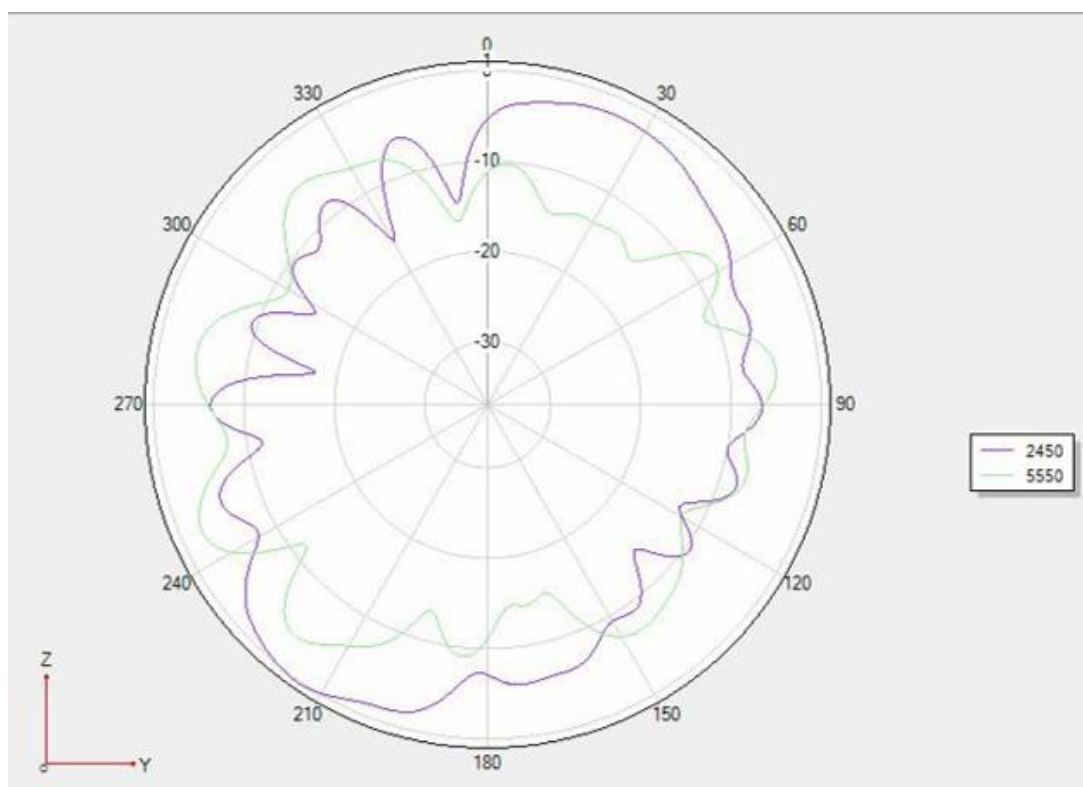
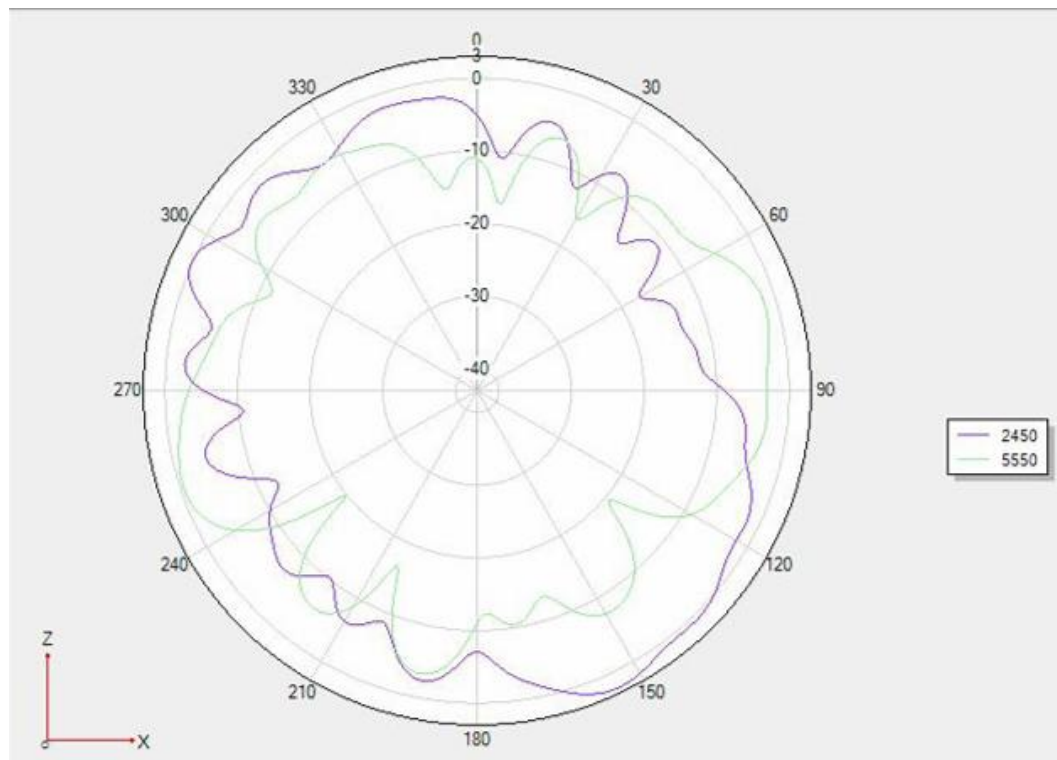
standing-wave ratio VSWR

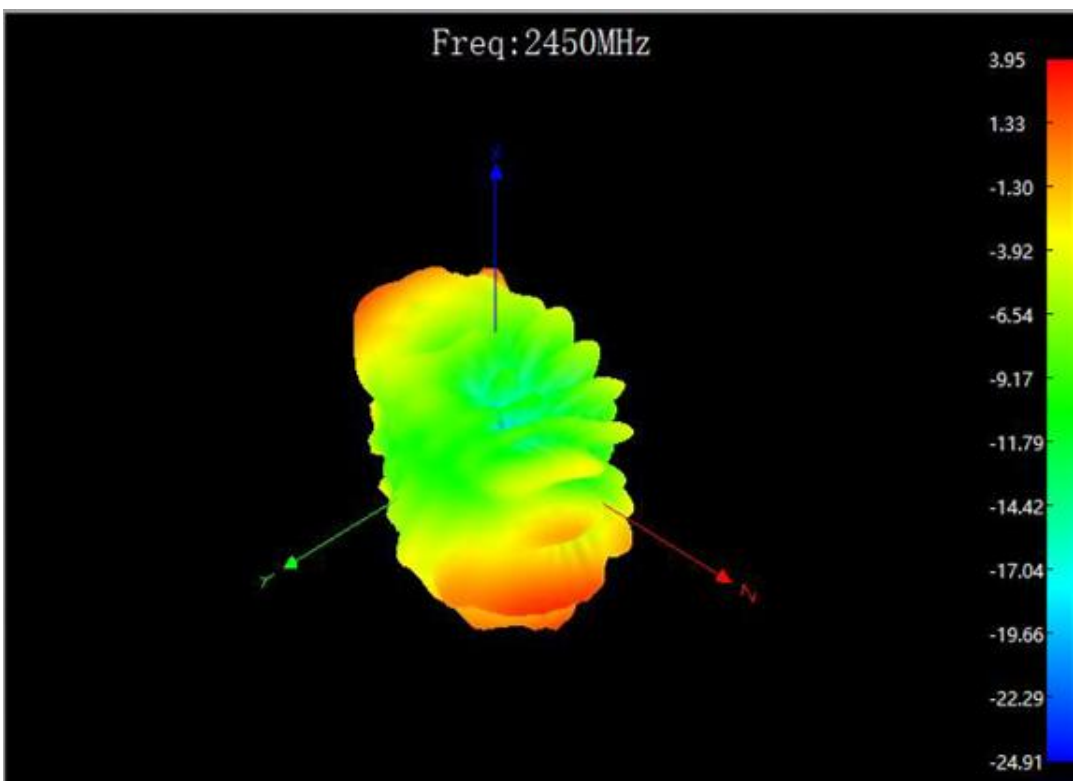
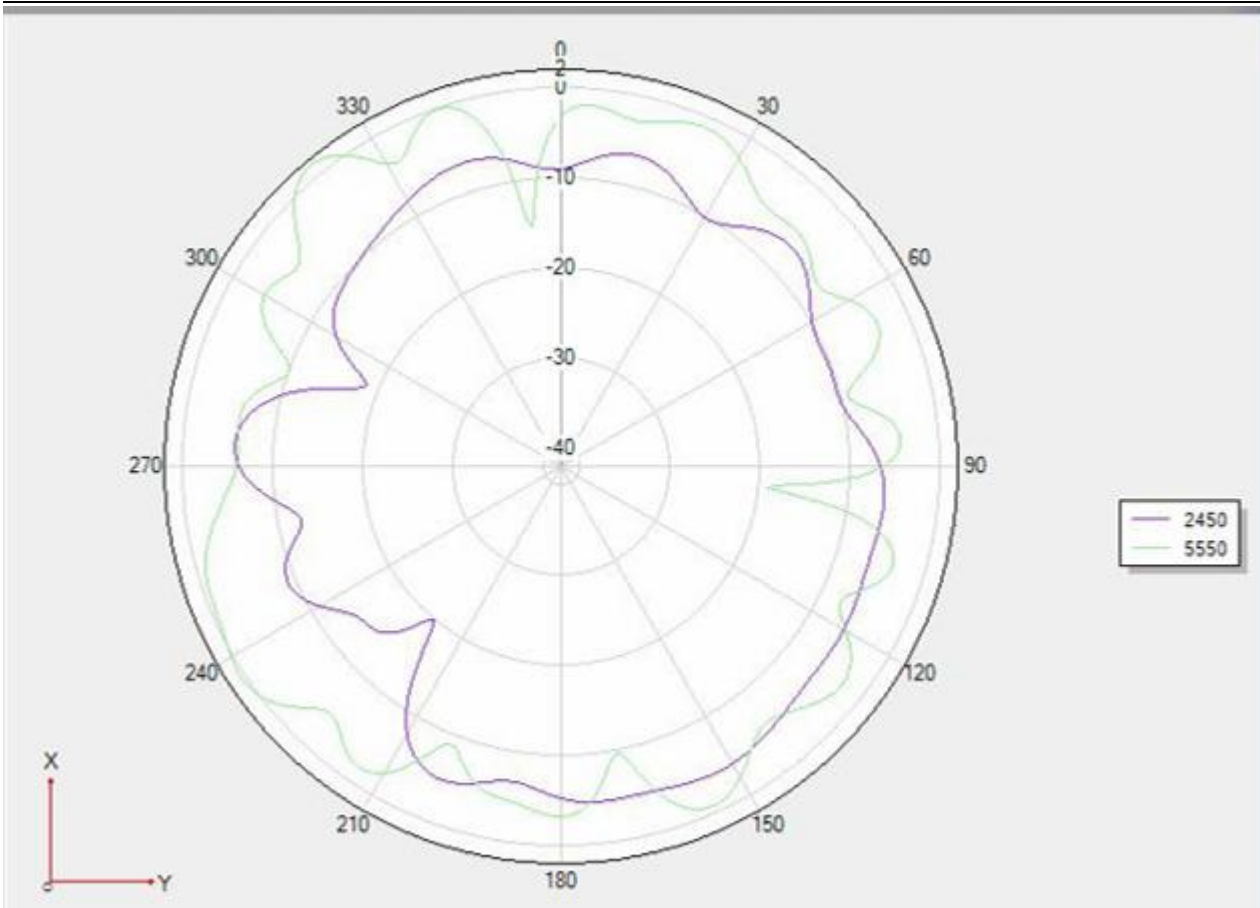


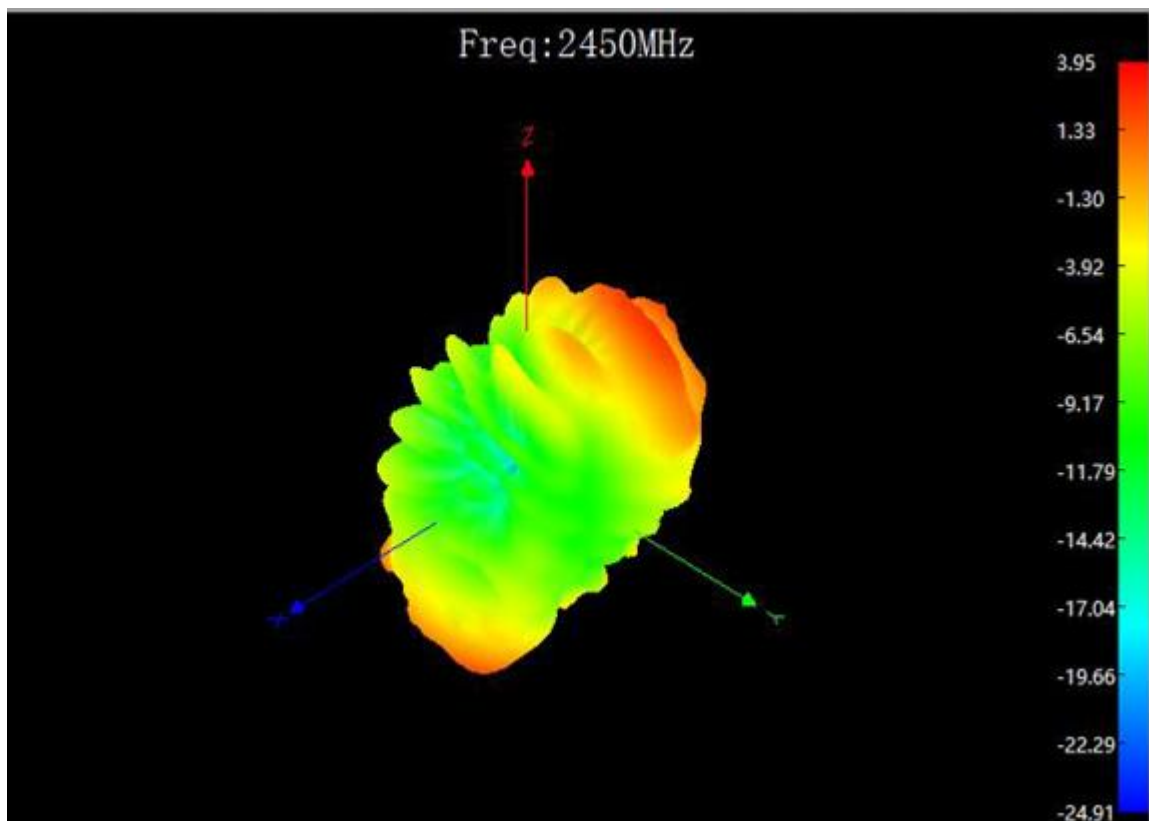
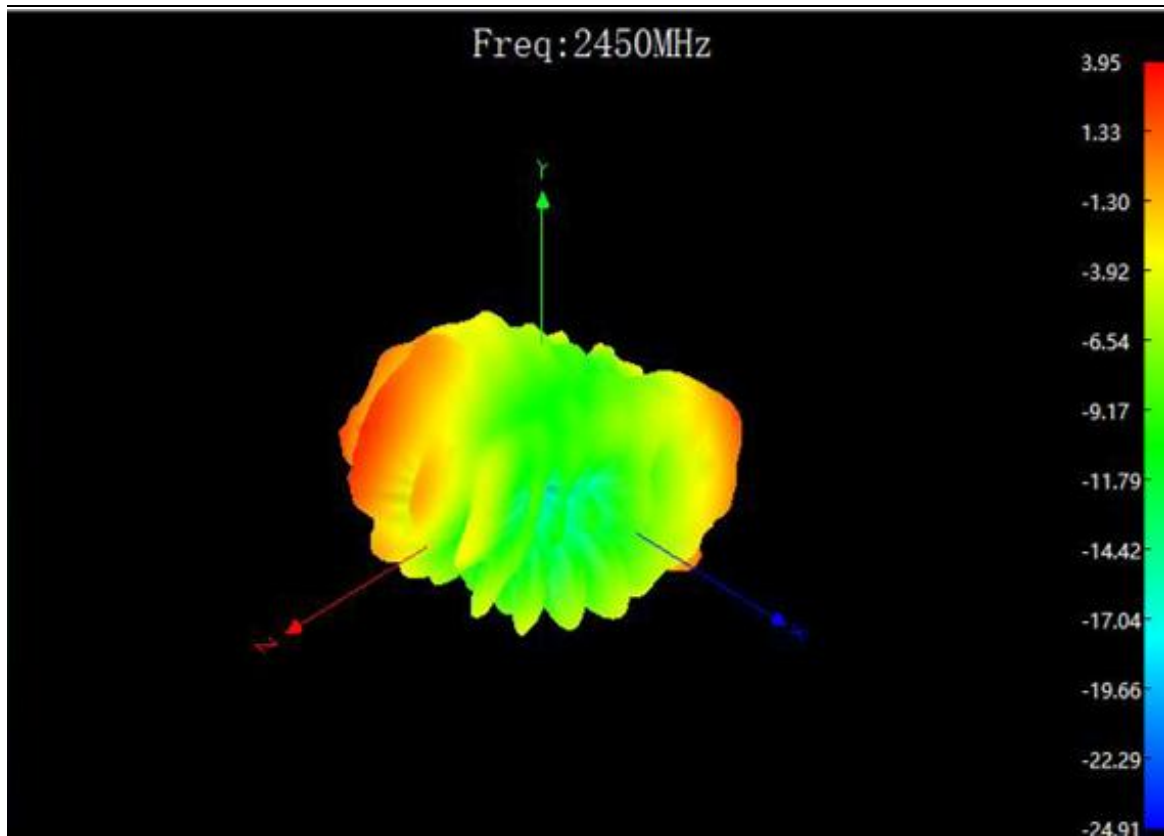
Passive efficiency

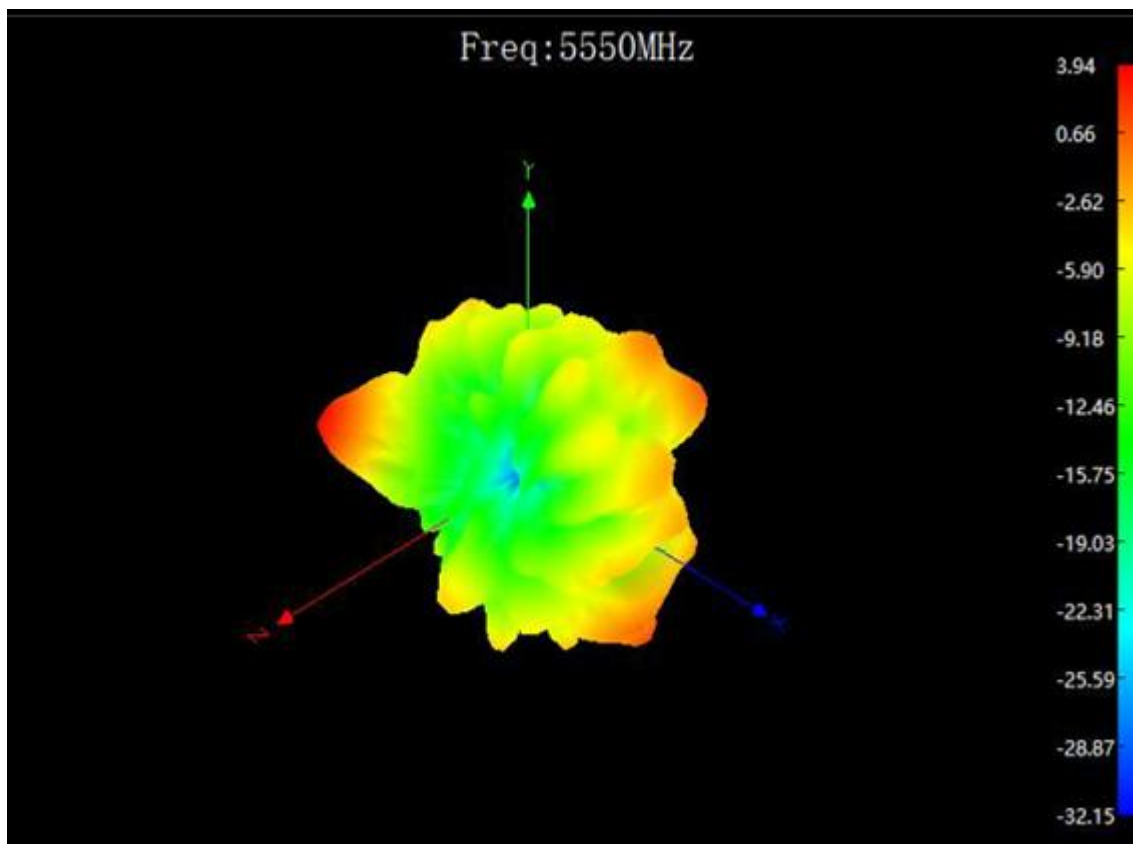
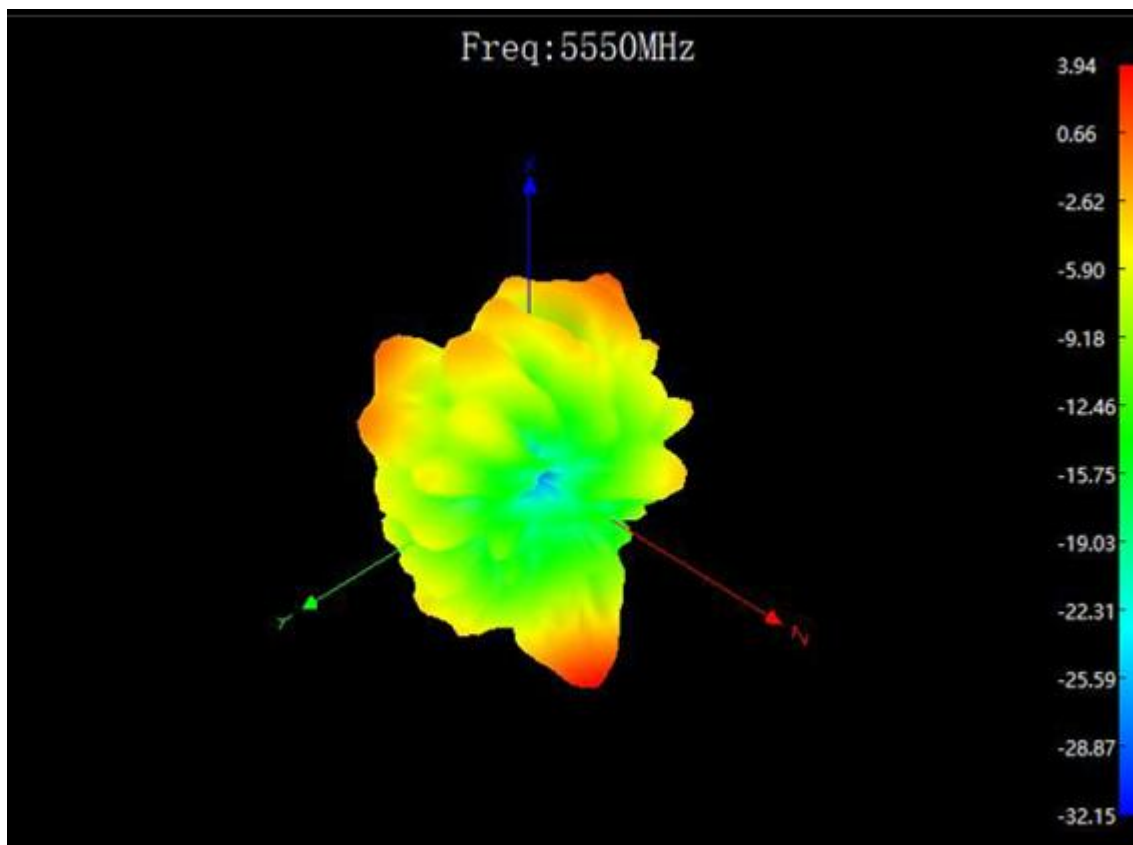
Frequency/Mhz	MaxGain/dBi	Efficiency / %	Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	2.89	52.21	5150	4.72	42.43
2410	2.79	52.51	5200	4.74	42.06
2420	2.74	53.19	5250	4.62	41.26
2430	3.28	53.88	5300	4.44	40.83
2440	3.41	55.4	5350	4.16	40.97
2450	3.95	56.39	5400	4.05	42.58
2460	3.84	58.11	5450	5.68	43.11
2470	4.21	58.73	5500	5.36	43.5
2480	3.96	50.27	5550	3.94	42.73
2490	4.25	50.64	5600	4.52	42.81
2500	3.88	50.36	5650	4.13	43.73
			5700	4.06	43.27
			5750	4.03	43.34
			5800	4.09	42.81
			5850	3.91	43.73

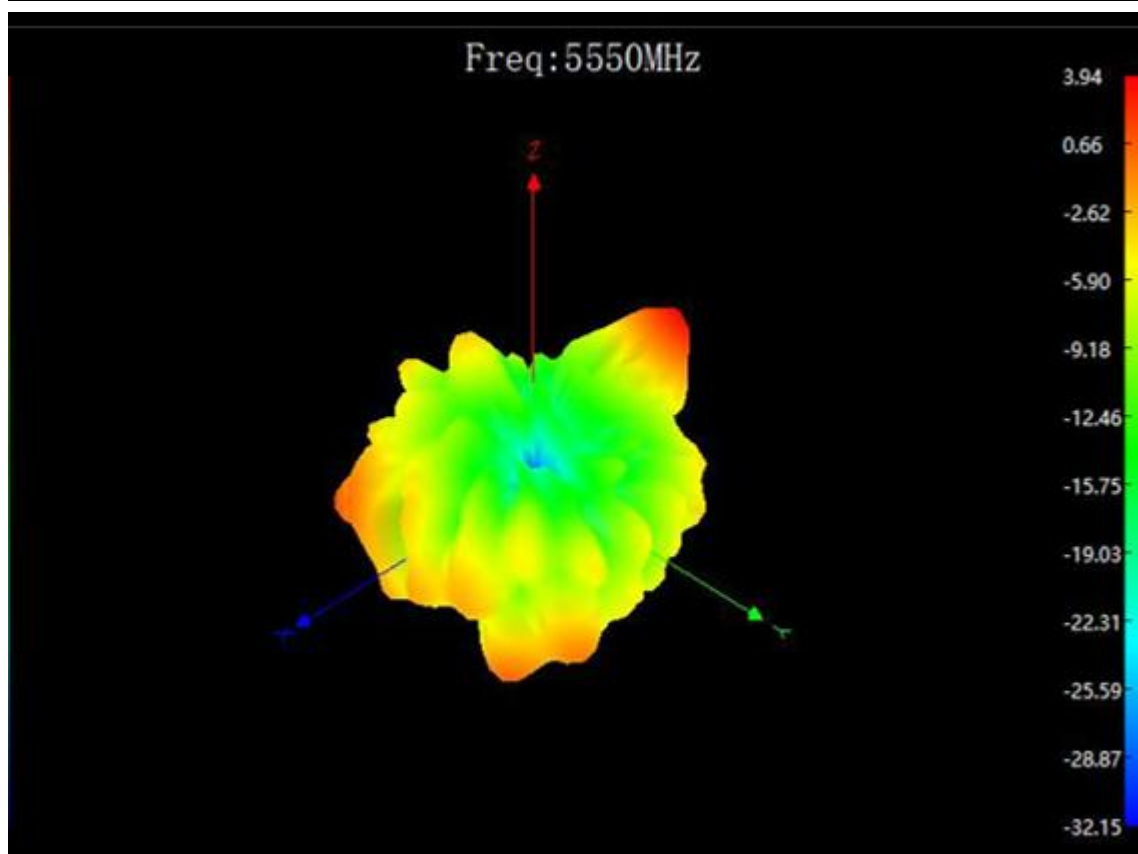
Passive direction diagram







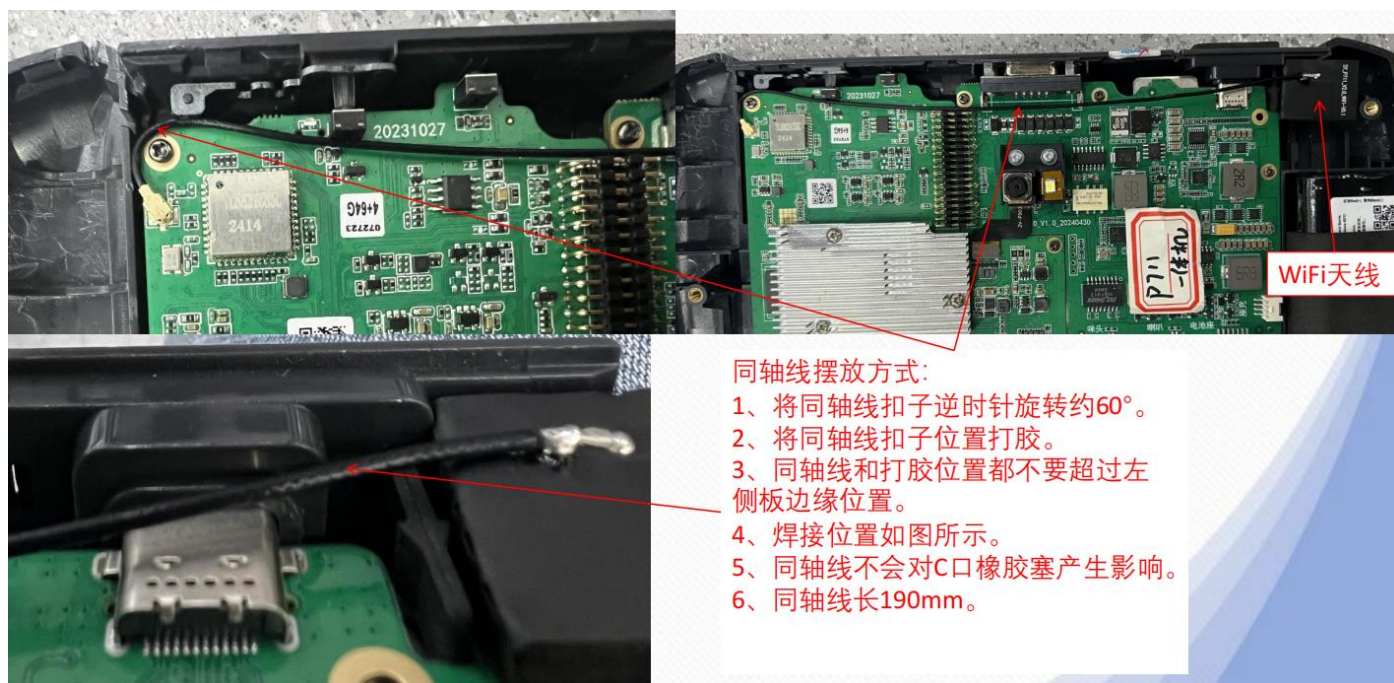




3.4 Active test data

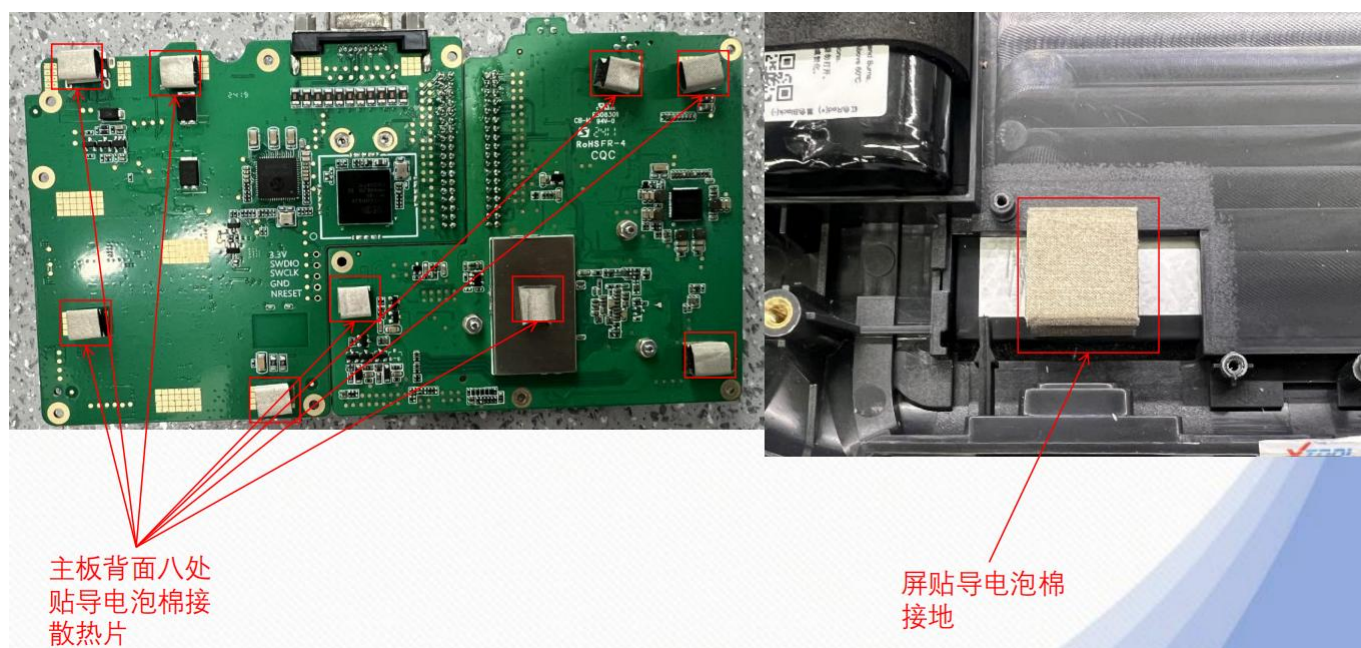
Measurement	Band	Channel	Frequency	Total
TRP	WIFI_B (1M)	1	2412	15.06
TRP	WIFI_B (1M)	6	2437	15.14
TRP	WIFI_B (1M)	11	2462	15.64
TIS(EIRP)	WIFI_B (11M)	1	2412	-81.33
TIS(EIRP)	WIFI_B (11M)	6	2437	-82.4
TIS(EIRP)	WIFI_B (11M)	11	2462	-81.39
TRP	WIFI_G (6M)	1	2412	13.64
TRP	WIFI_G (6M)	6	2437	14.4
TRP	WIFI_G (6M)	11	2462	15.33
TIS(EIRP)	WIFI_G (54M)	1	2412	-65.84
TIS(EIRP)	WIFI_G (54M)	6	2437	-65.04
TIS(EIRP)	WIFI_G (54M)	11	2462	-65.22
TRP	WIFI_N_ISM (6.5M)	1	2412	13.52
TRP	WIFI_N_ISM (6.5M)	6	2437	15.59
TRP	WIFI_N_ISM (6.5M)	11	2462	14.65
TIS(EIRP)	WIFI_N_ISM (65M)	1	2412	-65.31
TIS(EIRP)	WIFI_N_ISM (65M)	6	2437	-65.56
TIS(EIRP)	WIFI_N_ISM (65M)	11	2462	-65.75
TRP	WIFI_A (6M)	36	5180	15.21
TRP	WIFI_A (6M)	149	5745	17.41
TRP	WIFI_A (6M)	165	5825	16.34
TIS(EIRP)	WIFI_A (54M)	36	5180	-68.88
TIS(EIRP)	WIFI_A (54M)	149	5745	-67.35
TIS(EIRP)	WIFI_A (54M)	165	5825	-67.1

四、 The prototype environment processing mode



五、 Antenna loading position

The antenna is assembled in the following figure



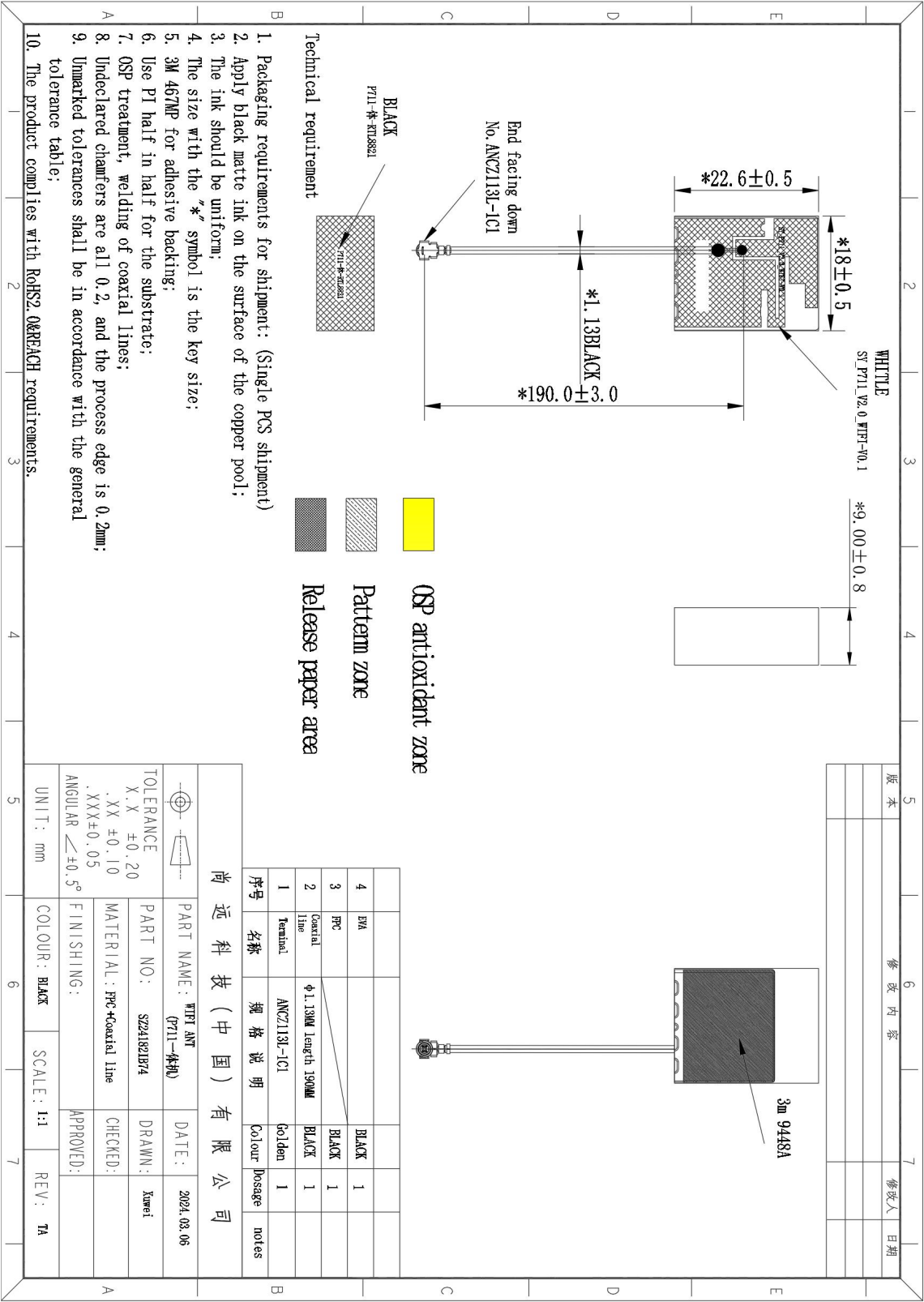
六、 Mass production antenna index

When the antenna is in mass production, the standing wave ratio is used as the test standard for mass production.

Based on the differences of the project itself, the following criteria are given:

Frequency (MHz)	Mass production standards
2400-2450MHz	VSWR (mass production performance)
5150-5850MHz	<VSWR (recognized performance) ± 0.5

七、 schedule drawing



八、 ROHS restricted substance composition questionnaire

RoHS List of RoHS restricted substances

SALEABLE PART																	
零件料号/Part number			零件名称/型号/Part name / model				供应商料号/Supplier item number		制造商名称/Name of manufacturer								
			P711一体机				SZ241821B74		深圳市尚远科技有限公司								
SUB-PART																	
序号 Serial number	名称/name		料号 Item No	单件产品 Usage of single product(g)	供应商/supplier	检测报告 /Test report	限用物质含量PPM/Content of restricted substances ppm						控制方法 /Control method	SGS Report			备注 Remarks
	单体 Monomer	成分 /component					有/无 Yes / no	铅 /Pb	镉 Cd	汞/Hg	六价 铬 /Cr6+	PBB		PBDE	编号/number	生效日期 /effective date	
1	PFC	基材/base material			蔡伦格蒂 /Cherengetti	有/yes	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS report	SHAEC24000428806	2024/1/12	www.sgsgroup.com.cn	/
2	PFC	油墨 /printing ink			优立/You li	有/yes	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS report	ETR23701480	2023/6/13	www.sgsgroup.com.cn	/
3	PFC	背胶/Gum back			3M	有/yes	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS	SHAEC23021627701	2023/12/27	www.sgsgroup.com.cn	/
4	PFC	电金 /Dianjin			鑫达昇	有/yes	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS report	A2230153997101001E	2023/4/12	www.sgsgroup.com.cn	/
5	CABLE	镀锡圆铜线			震雄铜业	N.D	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS	A2230496550101001C	2023/09/22	www.sgsgroup.com.cn	/
6	CABLE	FEP				N.D	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS	NGBPC24000131241	2024/1/16	www.sgsgroup.com.cn	/
7	CABLE	线材色母			见龙	N.D	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS	A2240269286101001C	2024/5/16	www.sgsgroup.com.cn	/
8	CABLE	C5191			紫金铜业	N.D	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS	CANEC24000977304	2024/01/22	www.sgsgroup.com.cn	/
9	CABLE	C5210			紫金铜业	N.D	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS	CANEC24000977302	2024/01/22	www.sgsgroup.com.cn	/
10	CABLE	胶芯				N.D	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS	ETR23705937	2023/08/04	www.sgsgroup.com.cn	/
11	CABLE	镀金			翔腾电子	N.D	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS	A2230400553101001E	2023/08/09	www.sgsgroup.com.cn	/
12	CABLE	镀镍			翔腾电子	N.D	N.D	N.D	N.D	N.D	N.D	N.D	审核SGS报告 /Review SGS	A2230400553101002E	2023/08/09	www.sgsgroup.com.cn	/
13																	

制表/Tabulation: 陈小平

制表者部门/Tabulator Department:: 品质部/品质工程师

日期/date: 2024/6/10

九、 manner of packing

Parts packing instructions report			
customer name	Yunjia	manufacturer	SUNNYWAY
entry name	SZ24182IB74	product name	FPC antenna module
Bale quantity	50 PCS * 1 ☐ bundle ☒ PE bag ☐ disc ☐ layer ☐ other _____		
Moisture-proof & slow walking	☐ desiccant ☐ Vacuum bag ☐ Bubble pack ☐ foam ☐ Paper wood ☒ other _____		
内包装方式及标签	 客户名称: 云伽 产品名称: FPC天线组件 订单号码: 厂商编码: SZ24182IB74 客户编码: 数量: 检验员 : 发货日期: ____年__月__日 注意事项: 防潮, 防震, 防压, 小心轻放..... 50pcs / PE bag Carton label		
外包装方式示意图及标签	客户名称: 云伽 产品名称: FPC天线组件 订单号码: 厂商编码: SZ24182IB74 客户编码: 数量: 检验员 : 发货日期: ____年__月__日 注意事项: 防潮, 防震, 防压, 小心轻放.....  Carton label Check packaging, paste product		
		manufacturer	
		XUWEI	
* The packaging picture is a schematic, does not mean that the picture is the actual product.			