

Shanghai Shangyuan Communication Technology Co., LTD

Antenna admission book

Customer name : Yunjia		Project name : P140
Working frequency band: 2400-2500MHZ, 5150-5850MHZ		
Hardware version: PD_WIFI_V1.020230818		
Shangyuan material specifications		
specifications and models	Shang Yuan material number	Customer material number
WIFI-2 ant	SZ253651B74-2	2.1.09.12.014601

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Preparation / change date	Change the content	Change the person	edition
2025.08.06	A new release	Xiaokunxiong	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

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目录

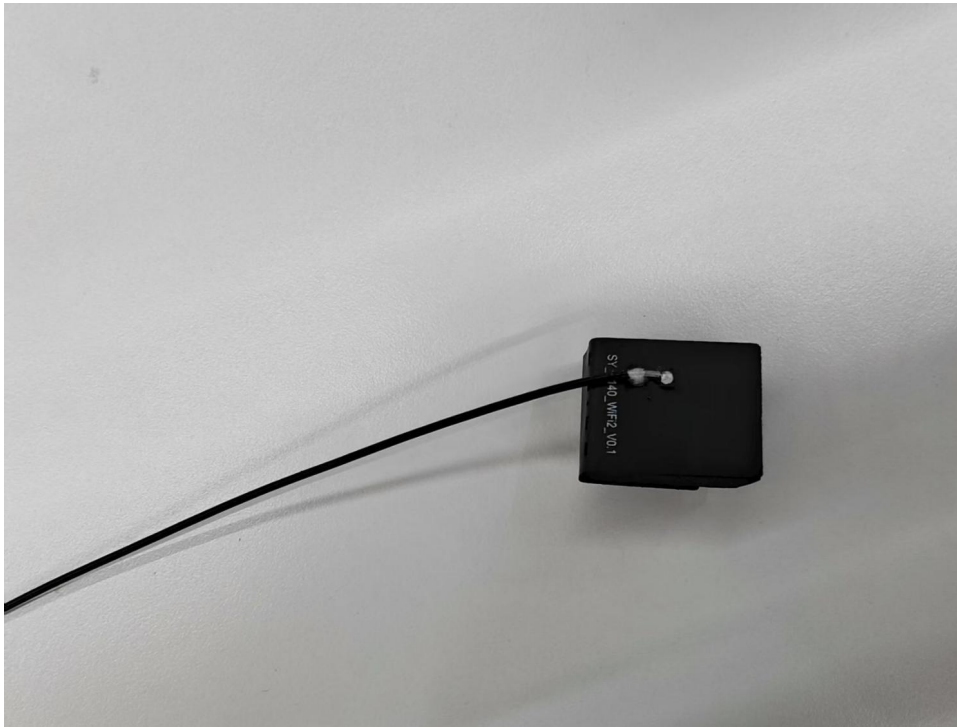
一、 Item information	3
二、 Antenna matching circuit.....	3
三、 Complete machine test data	4
3.1 S11 Description of the test method	4
3.2 Test environment	4
3.3 The passive test parameters	5
3.4 Active test data	7
四、 The prototype environment processing mode	8
五、 Antenna loading position	8
六、 Mass production antenna index	8
七、 schedule drawing	9
八、 ROHS restricted substance composition questionnaire	10
九、 manner of packing	11

一、 Item information

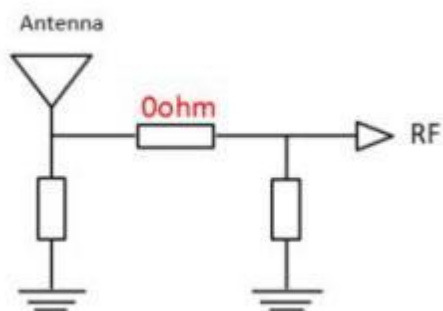
.11 Schematic diagram



.22Antenna product diagram



二、 Antenna matching circuit



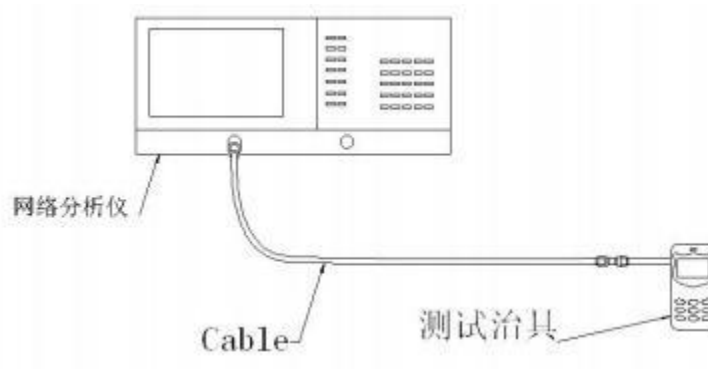
三、Complete machine test data

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 $50\% \pm 15\%$

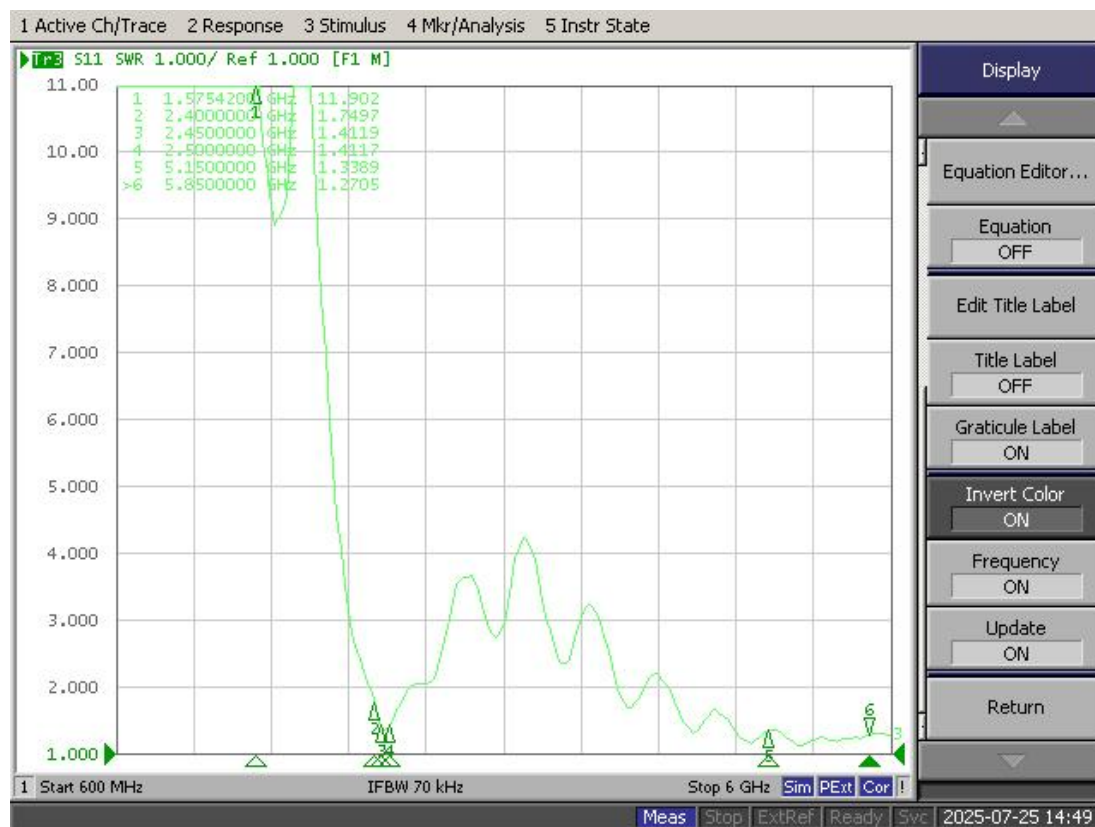
Test equipment: Use the network analyzer R & S ZND / Agilent E5071C when testing the passive data

When testing active data, use the comprehensive meter Agilent 8960 / CMW500 / S P9500E / SP 8315



3.3 The passive test parameters

standing-wave ratio VSWR

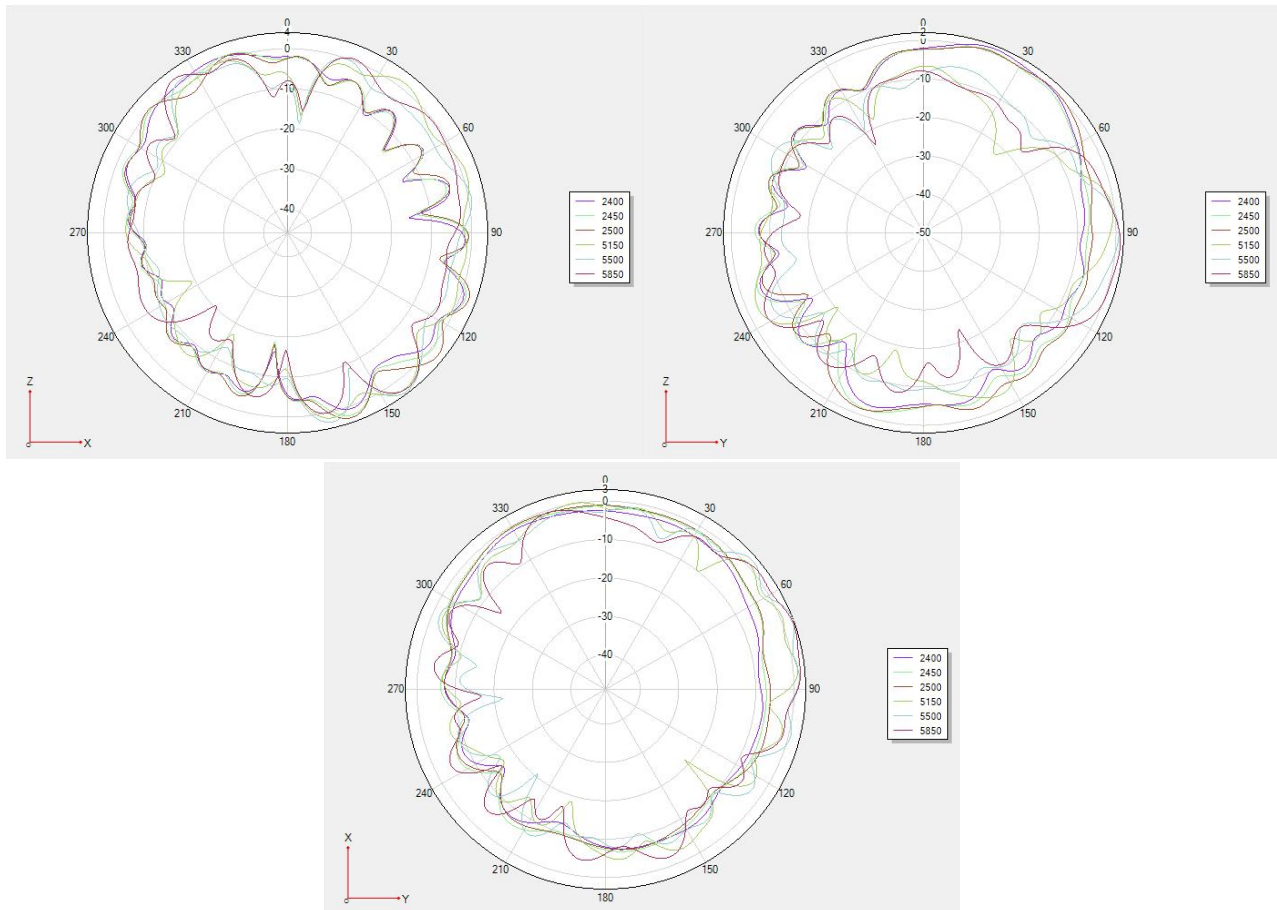


频率 (GHZ)	2400	2500	5150	5850
驻波比	1.74	1.41	1.33	1.27

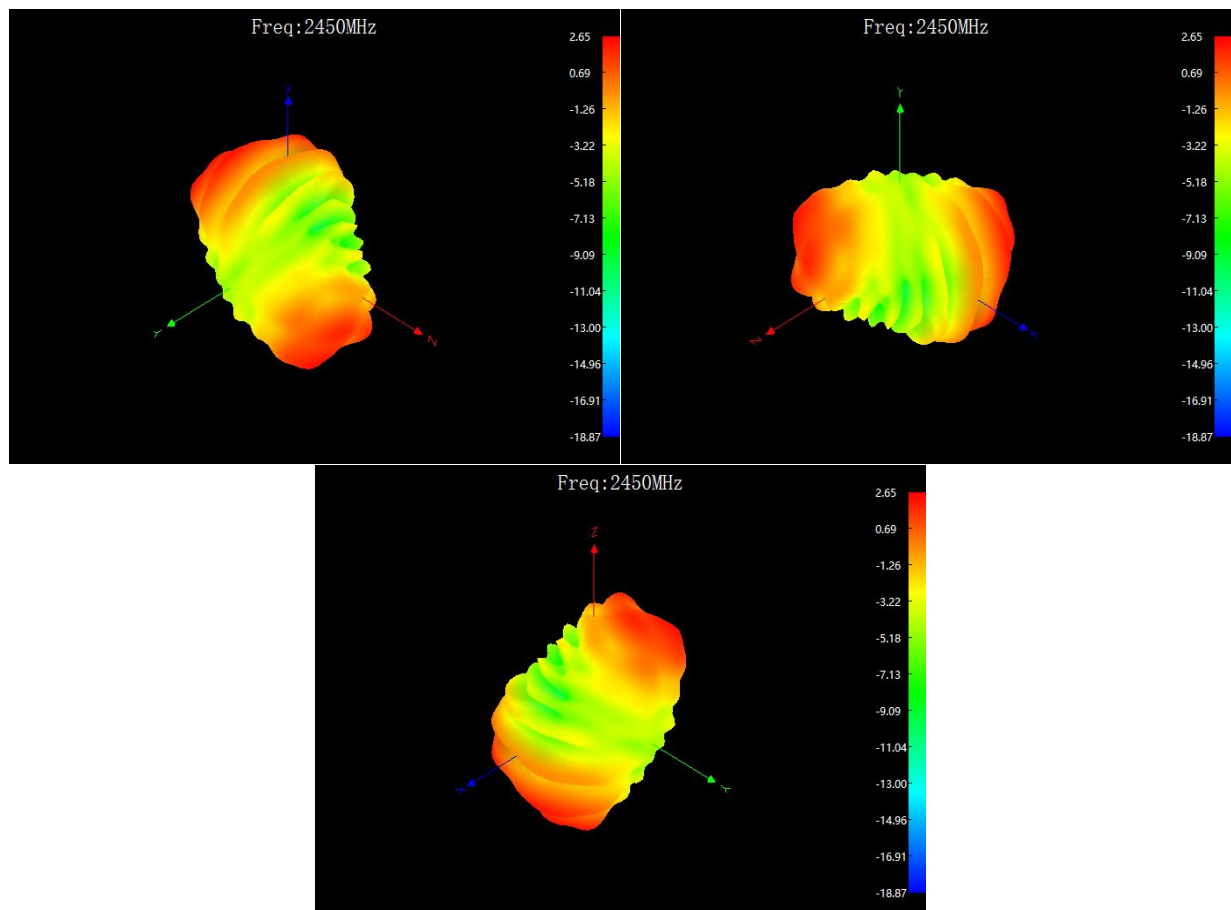
Passive efficiency

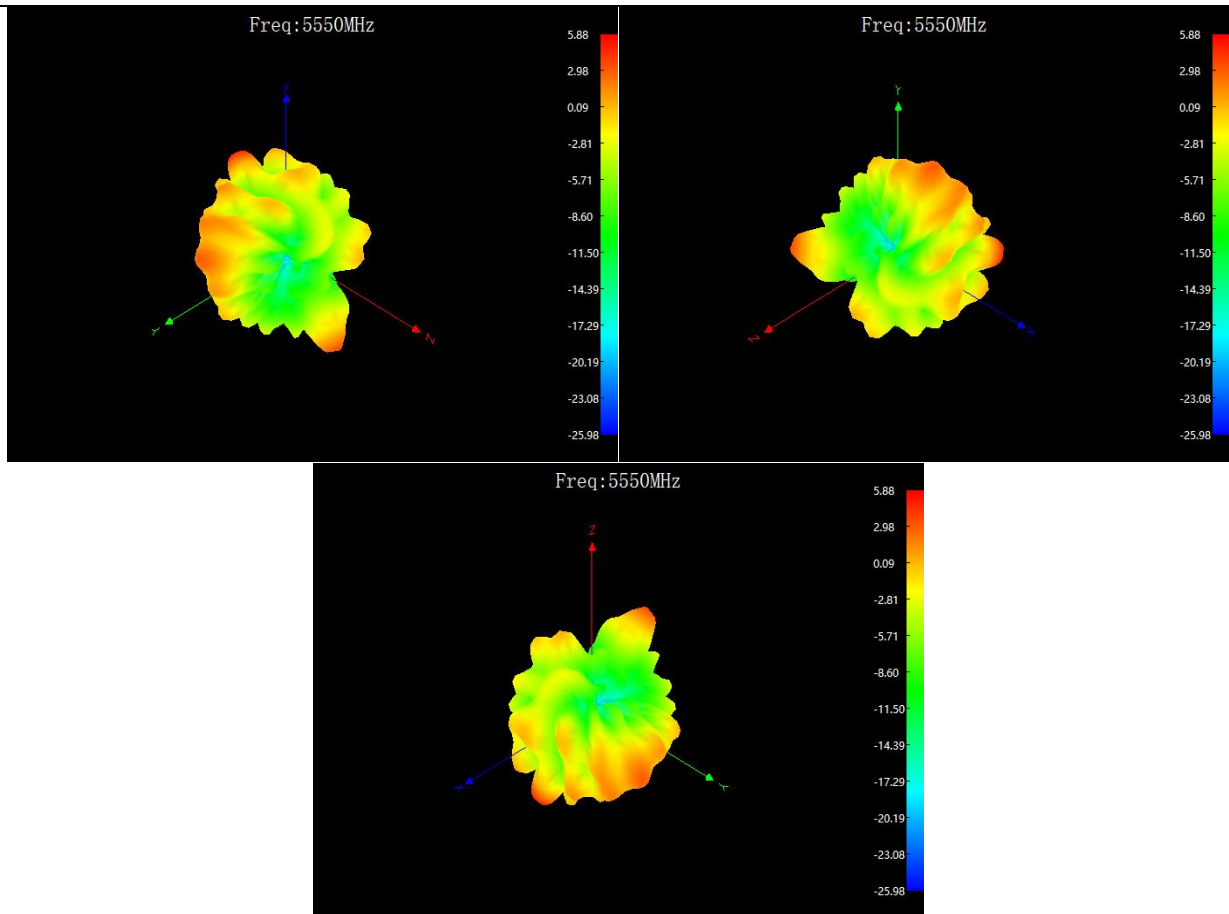
Freq (MHz)	Effi (%)	Gain (dB)	Freq (MHz)	Effi (%)	Gain (dB)
2400	48.08	2.81	5150	48.19	1.67
2410	48.75	2.57	5200	46.14	1.43
2420	43.45	2.01	5250	45.73	1.64
2430	42.56	1.8	5300	44.83	1.49
2440	44.87	2.03	5350	43.81	1.53
2450	50.47	2.65	5400	46.31	2.17
2460	49.55	2.8	5450	46.14	1.98
2470	49.09	2.25	5500	46.98	2.18
2480	50.93	2.49	5550	47.67	1.88
2490	50.12	2.91	5600	46.31	1.86
2500	50.47	2.89	5650	47.33	1.68
			5700	46.64	1.45
			5750	46.48	1.38
			5800	48.46	1.79
			5850	46.9	2.09

Passive direction diagram



Radiation Apple Figure 2.4G





3.4 Active test data

Item	Measurement	Band	Channel	Total
1	TRP	WIFI_B (1M)	1	15.97
2	TRP	WIFI_B (1M)	6	15.84
3	TRP	WIFI_B (1M)	11	15.09
4	TIS(EIRP)	WIFI_B (11M)	11	-82.78
5	TRP	WIFI_G (6M)	1	14.16
6	TRP	WIFI_G (6M)	6	14.42
7	TRP	WIFI_G (6M)	11	14.37
8	TIS(EIRP)	WIFI_G (54M)	11	-70.3
9	TRP	WIFI_N_ISM (6.5M)	1	13.01
10	TRP	WIFI_N_ISM (6.5M)	6	13.73
11	TRP	WIFI_N_ISM (6.5M)	11	13.01
12	TIS(EIRP)	WIFI_N_ISM (65M)	11	-68.39

四、 The prototype environment processing mode

NONE

五、 Antenna loading position



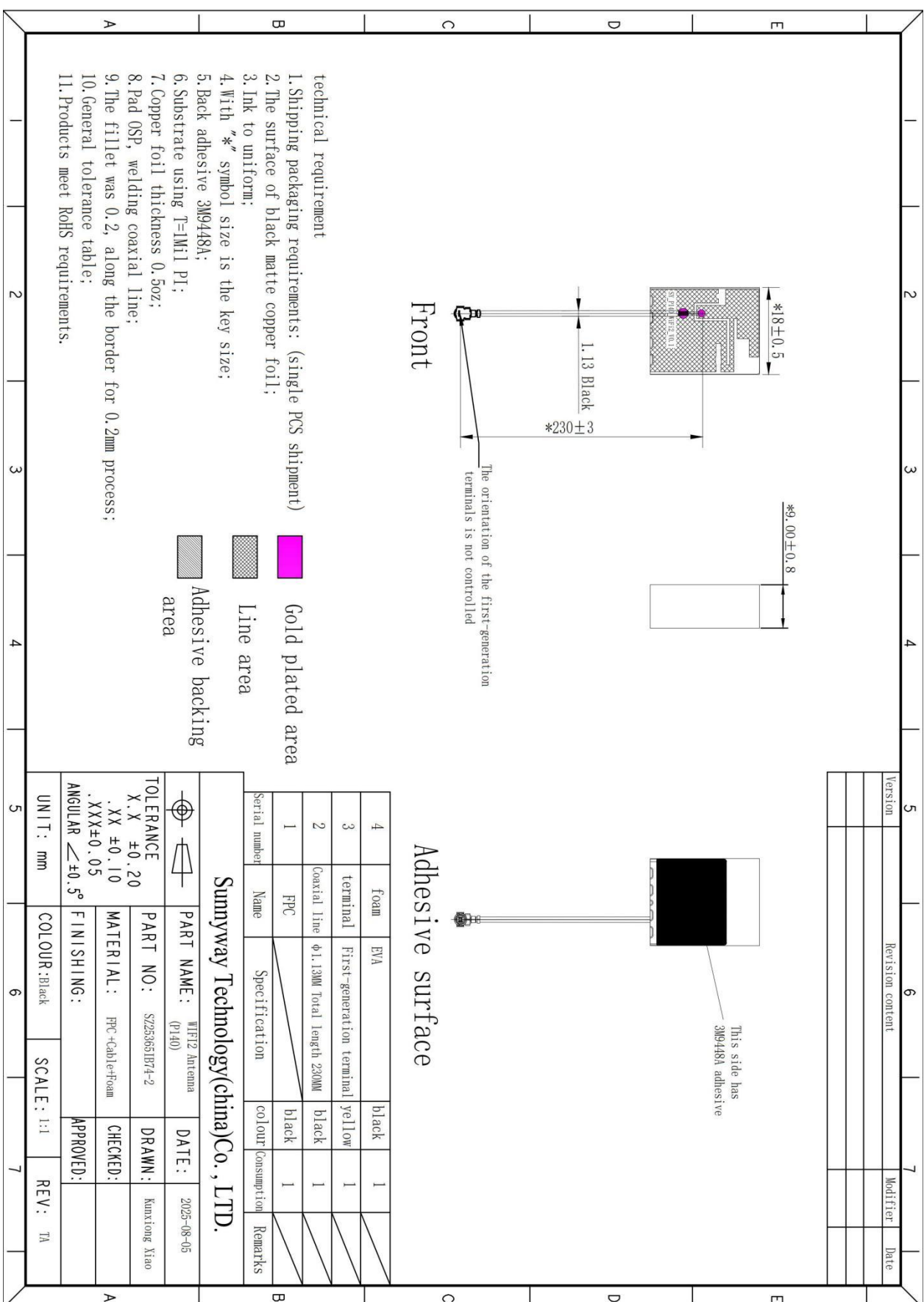
六、 Mass production antenna index

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

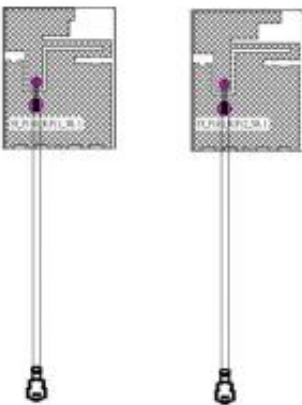
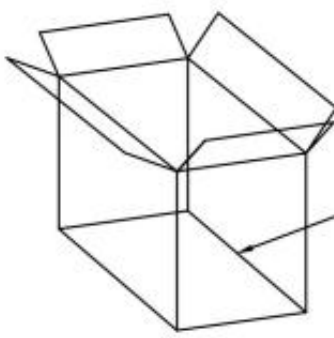


八、 ROHS restricted substance composition questionnaire

RoHS限用物质成分表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		制造商名称/Name of manufacturer											
		P140		SZ25365IB7-4-1/2		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 使用量 /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 Yes / no	铅 Pb	镉 Cd	汞/Hg	六价 铬 /Cr6+		PBB	PBDE	编号/number		生效日期 /effective date
1	FPC	基材			蔡伦格蒂	有	ND	ND	ND	ND	ND	ND	审核SGS报告及 定期抽样送检	SHAEC24028809006	2024.12.20	www.sgsgroup.com.cn	/
2	FPC	油墨			优立	有	ND	ND	ND	ND	ND	ND	审核SGS报告及 定期抽样送检	ETR25501383	2025.5.20	www.sgsgroup.com.cn	/
3	FPC	背胶			3M	有	ND	ND	ND	ND	ND	ND	审核SGS报告及 定期抽样送检	SHAEC25000170802	2025.1.9	www.sgsgroup.com.cn	/
4	FPC	OSP			金伟晟达	有	ND	ND	ND	ND	ND	ND	审核SGS报告及 定期抽样送检	CANEC25002887302	2025.2.25	www.sgsgroup.com.cn	/
5	Terminal	外壳C5210			紫金铜业	有/yes	ND	ND	ND	ND	ND	ND	审核SGS报告 /Review SGS report	CANEC24029407215	2024.12.26	www.sgsgroup.com.cn	/
6	Terminal	塑胶PBT			新光合成	有/yes	ND	ND	ND	ND	ND	ND	审核SGS报告 /Review SGS report	A2250134628103007E	2025.3.8	www.sgsgroup.com.cn	/
7	Terminal	镀AU			翔腾电子	有/yes	ND	ND	ND	ND	ND	ND	审核SGS报告 /Review SGS report	A2250437743101001E	2025.6.27	www.sgsgroup.com.cn	/
8	Terminal	镀NI			翔腾电子	有/yes	ND	ND	ND	ND	ND	ND	审核SGS报告 /Review SGS report	A2250437743101002E	2025.6.27	www.sgsgroup.com.cn	/
9	Cable	镀锡铜线			震雄	有/yes	ND	ND	ND	ND	ND	ND	审核SGS报告 /Review SGS report	A2240555311102001C	2024.9.9	www.sgsgroup.com.cn	/
10	Cable	绝缘FEP			巨圣	有/yes	ND	ND	ND	ND	ND	ND	审核SGS报告 /Review SGS report	NGBPC24007471212	2024.12.17	www.sgsgroup.com.cn	/
11	Cable	护套			见龙	有/yes	ND	ND	ND	ND	ND	ND	审核SGS报告 /Review SGS report	A2250269592101001E	2025.4.24	www.sgsgroup.com.cn	/
12	Forma	EVA			繁中宝橡塑	有/yes	ND	ND	ND	ND	ND	ND	审核SGS报告 /Review SGS report	CANEC24028865442	2025.1.3	www.sgsgroup.com.cn	/
制表部门/Tabulator Department:: 品质部/ 品质工程师 Quality Department														日期/date: 2025/7/29			

九、 manner of packing

Sunnyway Technology (China) Co. Ltd.					
Product packaging operation specifications					
Customer: Yunjia		Packaging product name: #140		Packaging Number :SYC-BZ-001	
				Packaging version:TEST:A	
package Material details	Serial number	Product name	Specification	Dosage	package loading protection product flow is
	PE	Ziplock bag			
	SYC-BZ-01	Carton			
Work steps	1.Prepare the required packaging materials and place them in a favorable position for work. 2.According to the packaging specification of SYC-BZ01, it is packed in cartons and ziplock bag 3.Keep filling each box until it is full. Seal the box with transparent tape				
Shipping Label					
					1.Operators must wear gloves when operating. 2. Pay attention to the quantity of packing. Do not overpack or underpack. The last number of boxes must be indicated 3. Cartons should not be stacked too high to prevent glue overflow due to heavy pre
Illustration  Note: The quantity is subject to the actual packaging. This is the reference quantity.					
Approval		Review		Production	
				Xiaoping Chen	
				Date	
				2025.08.05	

Number: ED-QR-09-20 Version/Edition: A/0 Page 1, total 1 page

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