

Shanghai Shangyuan Communication Technology Co., LTD

Antenna admission book

Customer name: Yunjia		Project name: P400
Working frequency band: 2400-2500MHZ,5150-5850MHZ		
Hardware version:PAD02-SNM660-MB-EDP-V1.0-20240923		
Shangyuan material specifications		
specifications and models	Shang Yuan material number	Customer material number
WIFI2 ant	SZ25153IB74-2	2. 1. 09. 12. 013201

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2024.9.29	A new release	Xiaokunxiong	A

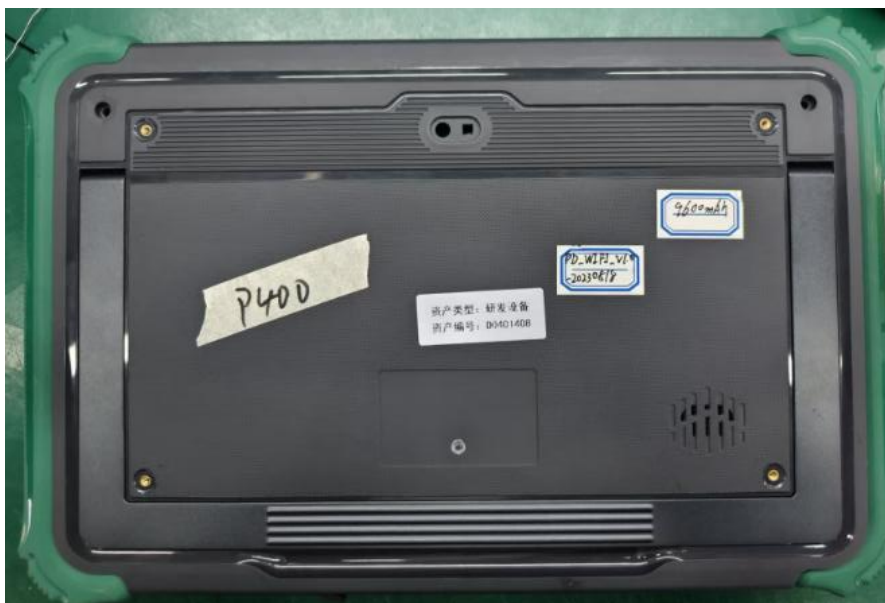
Shang Yuan will sign the column				
research and development	structure:	examine and verify:	Quality Engineer:	ratify:
	radio frequency:	examine and verify:		

The customer will sign the column			
electronic engineer	project manager	construction engineer	Quality engineer

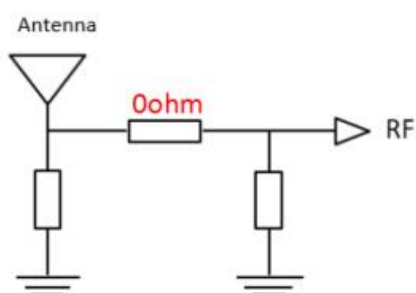
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1.item information

1.1 Schematic diagram



2.Antenna matching circuit



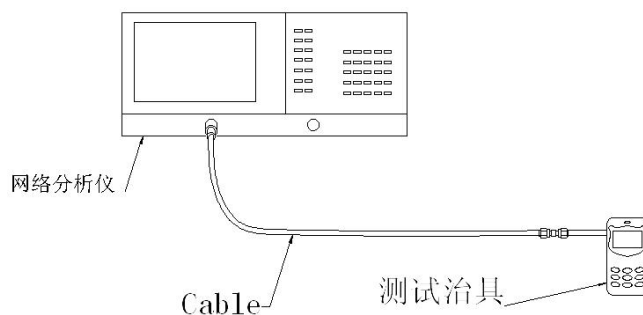
3.Complete machine test data

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

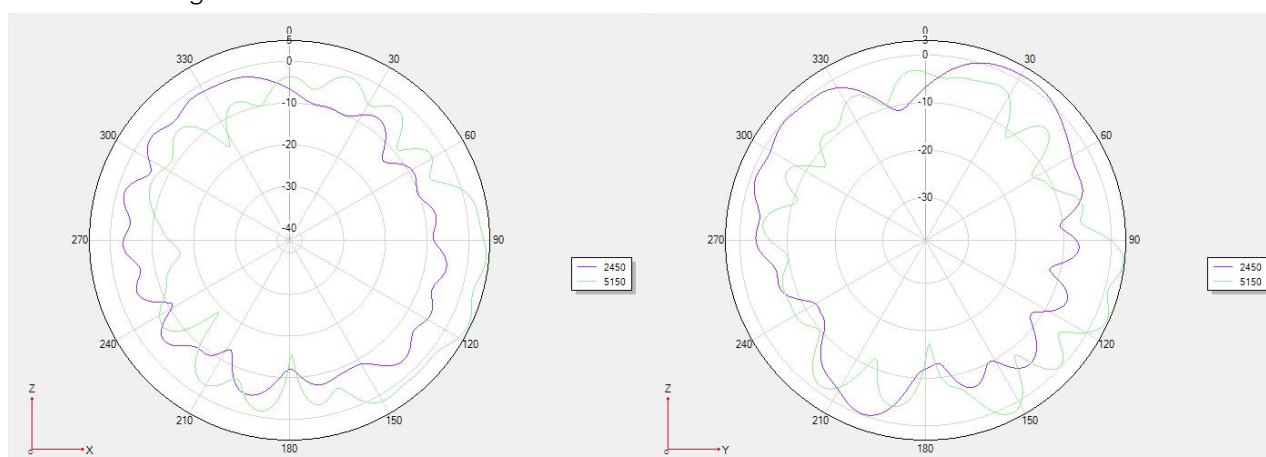
standing-wave ratio VSWR

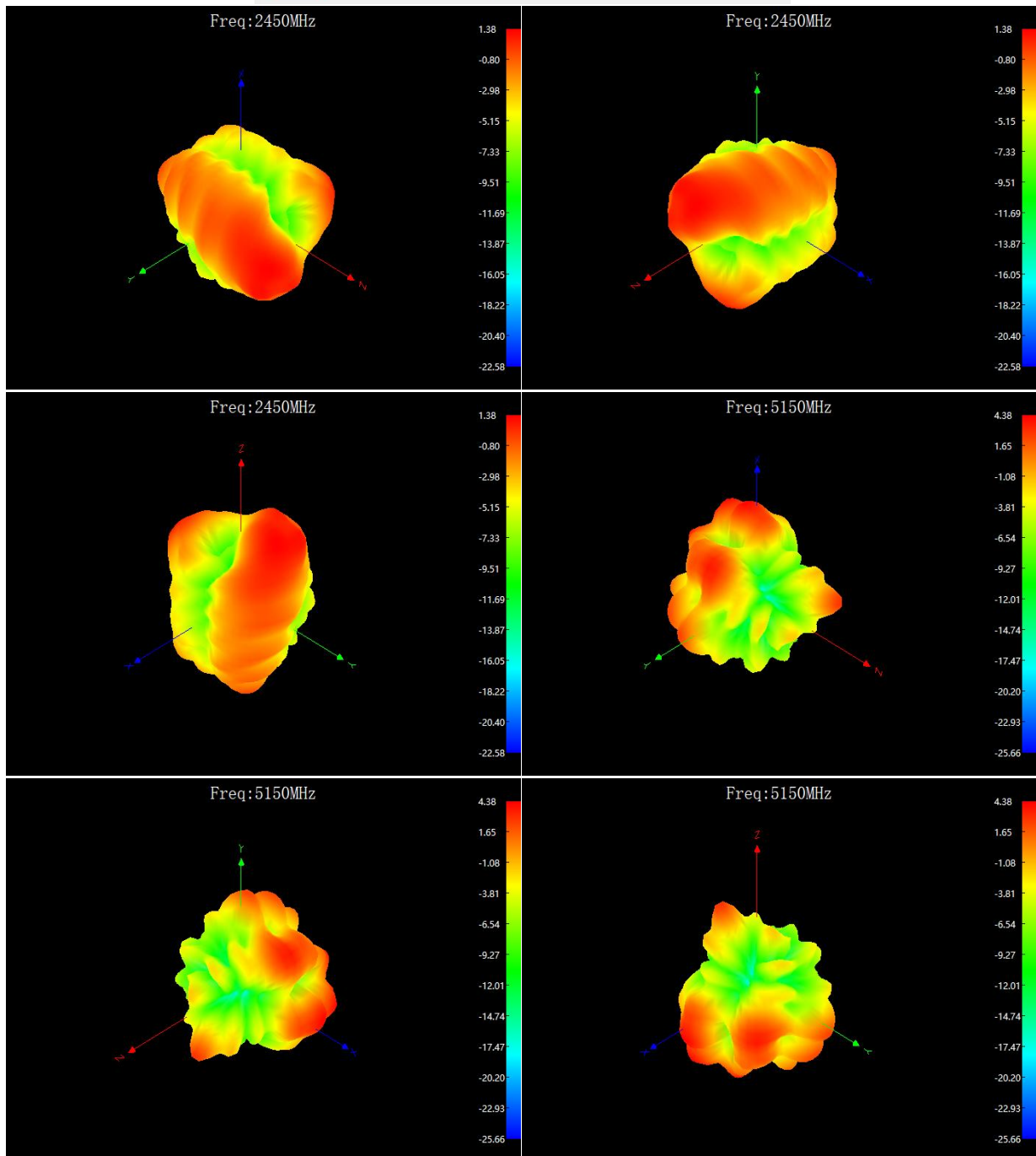
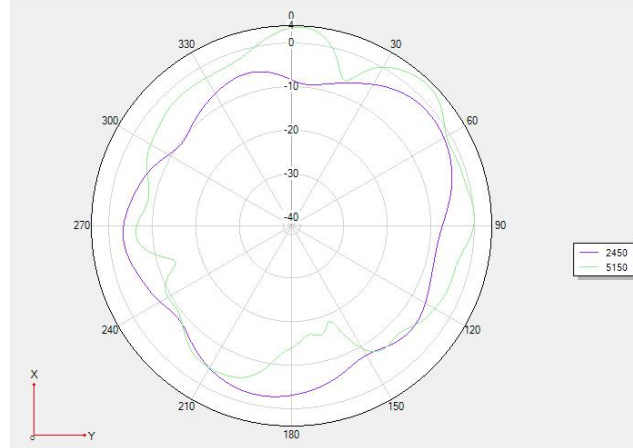
频率 (GHZ)	2400	2500	5150	5850
驻波比	1.59	1.67	1.17	1.28



Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	1.12	47.53
2410	1.48	46.88
2420	0.64	45.93
2430	0.59	45.99
2440	0.96	45.88
2450	1.38	47.1
2460	1.32	44.06
2470	0.97	45.59
2480	1.33	45.16
2490	1.46	46.13
2500	1.7	44.26
5150	4.38	35.19
5200	4.18	34.77
5250	3.96	32.07
5300	4.08	38.19
5350	3.35	33.55
5400	3.7	33.45
5450	4.71	33.09
5500	3.71	33.45
5550	-0.23	34.46
5600	3.74	35.81
5650	4.05	37.21
5700	4.02	34.77
5750	4.24	32.56
5800	5.11	34.58
5850	4.02	34.28

Passive direction diagram





3.4 Active test data

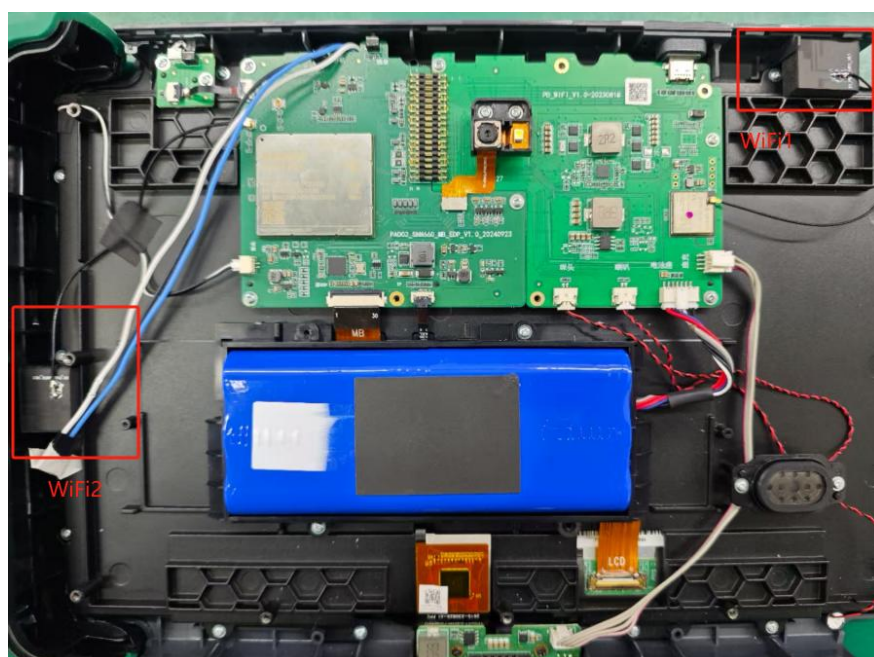
Measurement	Band	Channel	Total	Measurement	Band	Channel	Total
TRP	WIFI_B (11M)	1	15.5	TRP	WIFI_A (54M)	36	13.55
TRP	WIFI_B (11M)	6	15.09	TRP	WIFI_A (54M)	149	12.38
TRP	WIFI_B (11M)	11	15.01	TRP	WIFI_A (54M)	165	12.65
TIS(EIRP)	WIFI_B (11M)	1	-80.51	TIS(EIRP)	WIFI_A (54M)	36	-69.22
TIS(EIRP)	WIFI_B (11M)	6	-80.11	TIS(EIRP)	WIFI_A (54M)	149	-69.82
TIS(EIRP)	WIFI_B (11M)	11	-80.23	TIS(EIRP)	WIFI_A (54M)	165	-69.81
TRP	WIFI_G (54M)	1	14.55	TRP	WIFI_N_UNII (6.5M)	36	12.63
TRP	WIFI_G (54M)	6	14.63	TRP	WIFI_N_UNII (6.5M)	149	12.12
TRP	WIFI_G (54M)	11	14.45	TRP	WIFI_N_UNII (6.5M)	165	13.33
TIS(EIRP)	WIFI_G (54M)	1	-67.02	TIS(EIRP)	WIFI_N_UNII (6.5M)	36	-64.51
TIS(EIRP)	WIFI_G (54M)	6	-66.67	TIS(EIRP)	WIFI_N_UNII (6.5M)	149	-64.71
TIS(EIRP)	WIFI_G (54M)	11	-66.59	TIS(EIRP)	WIFI_N_UNII (6.5M)	165	-64.89
TRP	WIFI_N_ISM (65M)	1	14.33				
TRP	WIFI_N_ISM (65M)	6	14.65				
TRP	WIFI_N_ISM (65M)	11	14.91				
TIS(EIRP)	WIFI_N_ISM (65M)	1	-63.95				
TIS(EIRP)	WIFI_N_ISM (65M)	6	-63.85				
TIS(EIRP)	WIFI_N_ISM (65M)	11	-64.05				

4.The prototype environment processing mode

NONE

5.Antenna loading position

The antenna is assembled in the following figure



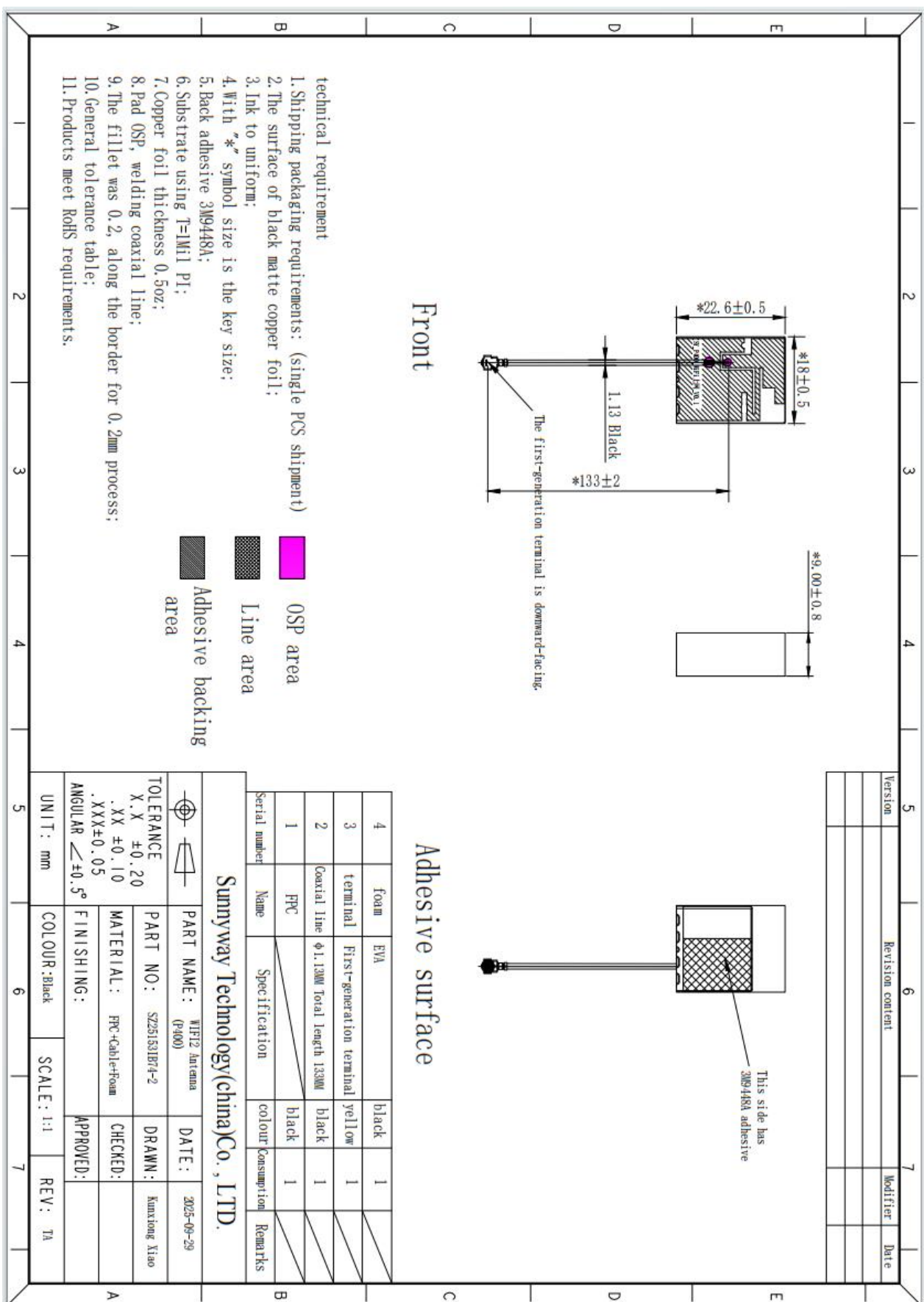
6. Mass production antenna index

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

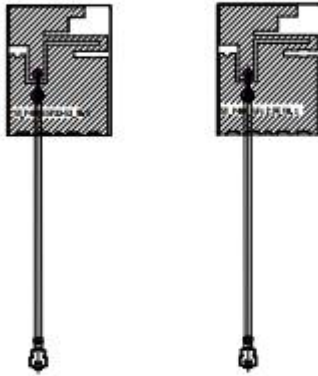
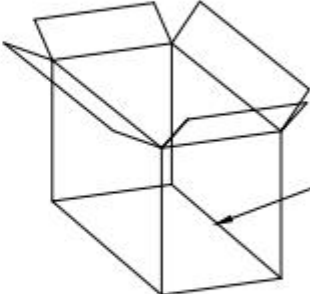
Based on the differences of the project itself, the following criteria are given:

Frequency (MHz)	Mass production standards
2400MHz-2500MHz	VSWR (mass production performance) <VSWR (recognized performance) ± 0.5
5150MHz-5850MHZ	

7. schedule drawing



8.manner of packing

Sunnyway Technology (China) Co. Ltd.					
Product packaging operation specifications					
Customer: Yunjia		Packaging product name: P000		Packaging Number :SYC-EZ-001	
				Packaging version:TEST:A	
package material details	Serial number	Product name	Specification	Dosage	
	PE	Ziplock bag			
	SYC-EZ-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-EZ01, it is packed in cartons and ziplock bag 3.Keep filling each box until it is full. Seal the box with transparent tape				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
Shipping label					
Illustration  Note: The quantity is subject to the actual packaging. This is the reference quantity.					
Approval		Review		Production	
				Xiaoping Chen	
				2025. 09. 29	

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