

Specification For Approval

Customer: 10108

Part name: IPEX-2. 4G/5. 8G Antenna-1. 13 Black-L70MM

Part No: 3. 03. 10010031184

Customer Part No: 18600000018070

Customer confirmation		
Confirmation	check	Approver

Manufacturer recognition			
Sales	Drafters	check	Approver
Luoyi	Zhengshaojuan	Yilonghui	Lihe
Thank you for giving us the chance to approve samples. If you agree to pass it, please kindly send it back to us.			

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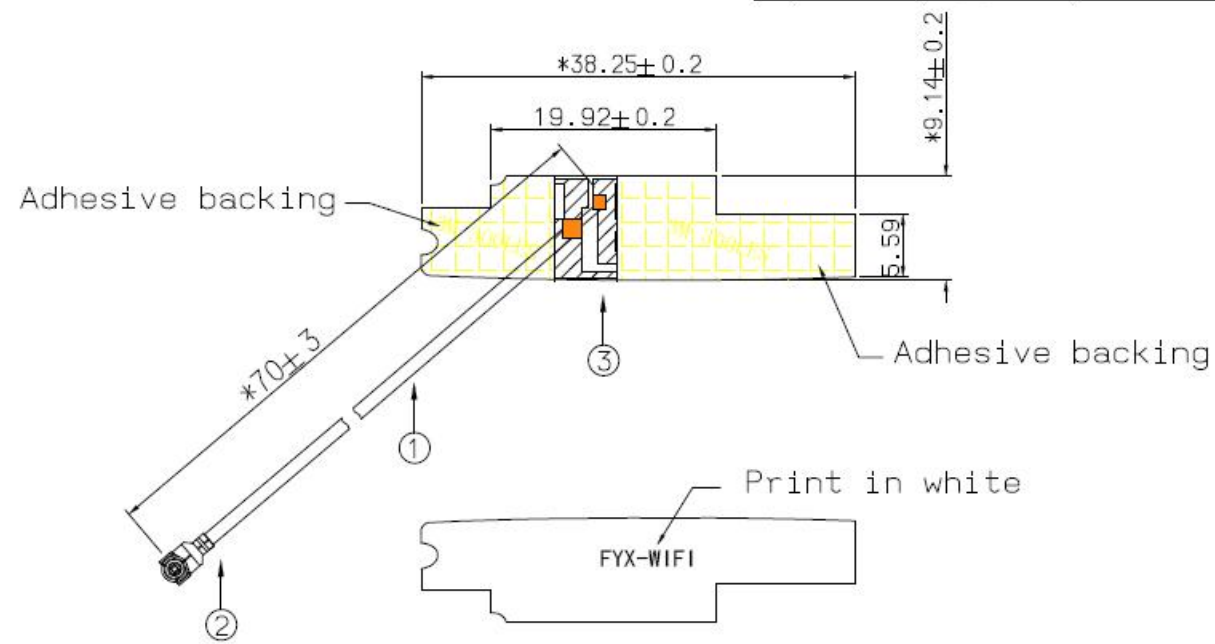
Modification record

Edition	Date	Ngineer	Modification
A0	2026-1-24	ZHENGSHAOJUAN	NEW

1. Product dimension drawing

RoHS Compliant

END PRODUCT DRAWING 成品图				
REV	DATE	DESCRIPTION	ECN NO.	NAME
A0	2026.01.24	新订图面		郑少娟



- Notes:
- 1. The product appearance is undamaged;
 - 2. The finished product must pass 100% net division test;
 - 3. The finished product must pass 100% comprehensive inspection;
 - 4. The product complies with ROHS 2.0 and REACH requirements;
 - 5. The marked * parts are the key controlled dimensions.

工作频段 (Frequency Range)	2400-2500/5150-5850MHz
极化方式 (Polarization)	Linear
特性阻抗 (Impedance)	50 ohm

客户料号 (CUSTOMER NO)
18600000018070

				角法 ANGLE PROJECTION	产品名称 (PRODUCT NAME)			
					IPEX-2.4G 5.8G FPC Antenna-113 Black-L70MM			
				公差 GENERAL TOLERANCE	产品料号 (PRODUCT NO)	单位 (UNIT)	M M	比例 (SIZE)
					3.03.10010031184	页数 (PAGE)	1 OF 1	幅面 (FORMAT)
⑥				100~200: ± 3.00	设计 (D S)	深圳飞宇信电子有限公司 SHENZHEN FLY ELECTRONIC CO.,LTD		
⑤				50~100: ± 2.00	审核 (CHK)			
④				25~50: ± 0.20	核准 (APPD)			
③	WIFI-Black	1	FPC	10~25: ± 0.10				
②	20278-112R-13-插头	1	IPEX	1~10: ± 0.05				
①	1.13 Black	1	线材					
No.	Name	Qty	Remark	▽:Critical Dim ⊕:Major				

2. Product appearance

Size	L38.25*9.14*0.2mm	Connector type	IPEX
Iron parts colour	Black	Cable	RG1.13 L70MM

3. Antenna performance parameters

Items	Specifications	unit
Center Frequency	2400~2500/5150~5850	MHz
Output impedance	50	Ω
V. S. W. R	≤ 2.0	——
Gain	4 ± 1	dBi
Polarization mode	Linear polarization	
Radiation direction	omnidirectional	
Maximum input power	5	W
working temperature	-40~+70	°C
Storage temperature	-40~+70	°C

4. Cable specification

1.13 Structure chart



Structure parameter

	Material Science	(mm) Diameter
1. Inner conductor	Tinned copper wire	$7/0.08 \pm 0.02$
2. Insulator	FEP	0.66 ± 0.02
3. Outer conductor	Tinned copper wire	0.88 ± 0.05
4. Sheath	FEP	1.13 ± 0.05

Electric performance parameters

(pF/m) Capacitance	96 ± 3
l(ohm)	50
(%) Rate	66
(mm) Bending radius	≤ 7
(VMS) Maximum working voltage	1000
(MHz) Maximum operating frequency	6000
(°C) Operating temperature range	-40 TO +80

Attenuation

(MHz)	(≧ dB/m)
100	0.42
400	0.58
1000	2.20
2000	3.40
3000	4.20
4000	4.50
5000	5.20
6000	5.60

5.Environmental experiment

Environmental test report

5.1 High low temperature and constant humidity test

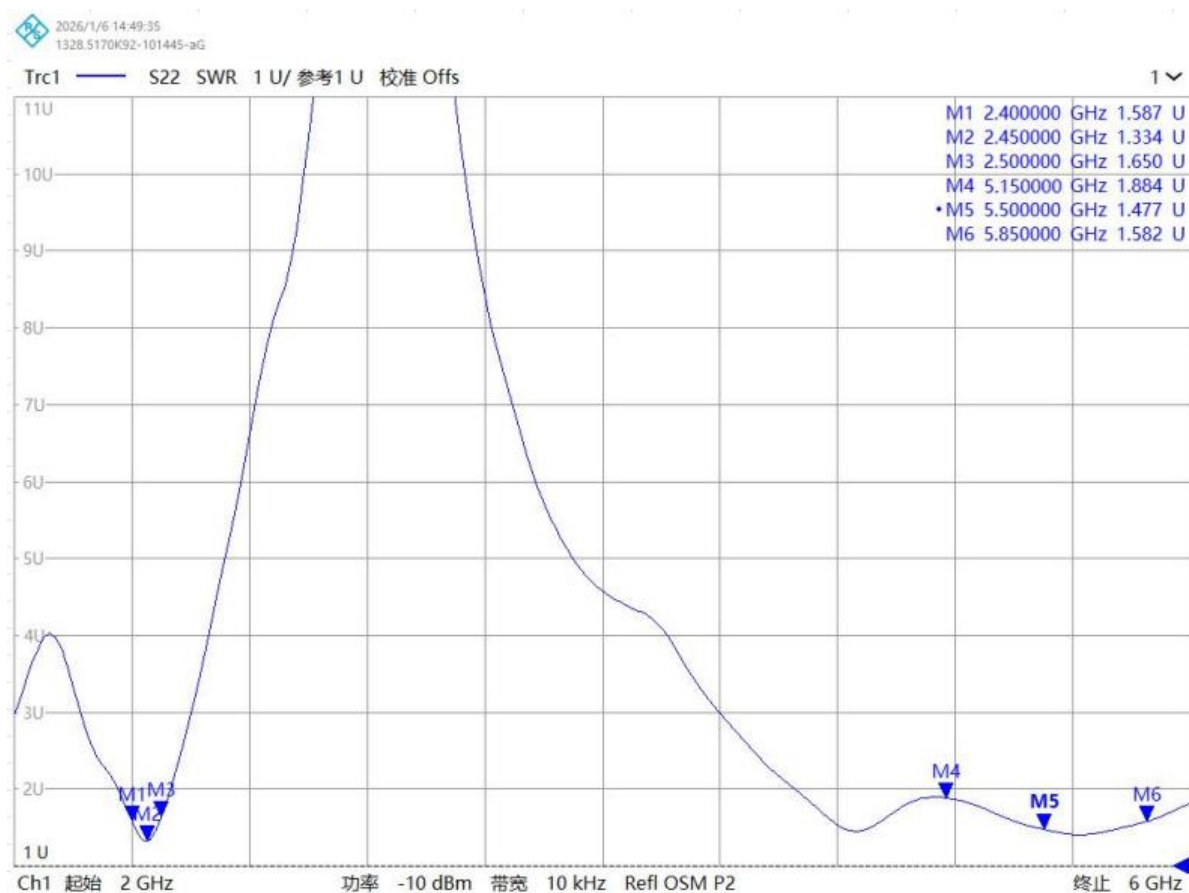
Items	High temperature, low temperature and constant humidity test			
Testing equipment	Alternating constant temperature and humidity test chamber			
Inspection standard	1. The coating on the metal surface shall be free of peeling, cracking, wrinkling and other defects; the non-metal part shall not have discoloration, cracking, deformation, degumming and other phenomena.			
Test name	Test items	requirement	test method	Result judgment
High temperature test	Temperature (°C) Test sample temperature time (H) Recovery time (H)	$70\pm 3^{\circ}\text{C}$ 12H 1H	Test procedure: a) Put the test piece into the test chamber, and then adjust the temperature of the high temperature chamber to $75^{\circ}\text{C}\pm 3^{\circ}\text{C}$, and monitor the time. b) After the test, it was placed at room temperature for 1 hour for routine inspection.	OK
Low temperature test	Temperature (°C) Test sample temperature time (H) Recovery time (H)	-40 ± 3 12H 1H	Test procedure: a) Put the tested part into the test chamber, and then adjust the temperature of the low temperature chamber to $-40^{\circ}\text{C}\pm 3^{\circ}\text{C}$, and monitor the time. b) Place at room temperature for 1 hour after test for routine inspection.	OK
Constant damp heat test	Temperature (°C) Test sample temperature time (H) Test duration (H) Recovery time (H)	$40\pm 3^{\circ}\text{C}$ 70-85% 24H 1H	a) Put the tested object into the test chamber, then adjust the temperature of the test chamber to $+40^{\circ}\text{C}\pm 3^{\circ}\text{C}$, the humidity to 90-95%, and monitor the time. b) After the test, it was placed at room temperature for 1 hour for routine inspection.	OK
Identifying person:Guoguangfen		Give permission to: Xiezhoujun		

5.2 Salt spray test

Items	Salt spray test
Testing equipment	Salt spray tester

Inspection standard	1. The coating on the metal surface shall not fall off; the appearance shall be free of rust, corrosion, oxidation and other adverse phenomena.			
Test name	Items	requirement	test method	Result judgment
Salt spray test	1. NaCl concentration: 2. Air pressure: 3. PH value: 4. spray volume: 5. Salt water test temperature setting a. Laboratory temperature: b. Pressure tank temperature: 6. Test time:	40-60g/lkg $1.0 \pm 0.01 \text{kgf m}^2$ 6.5-7.2 1.0-2.0ml/80c/h。 $35 \pm 1^\circ\text{C}$ $47 \pm 1^\circ\text{C}$ 24H	Test procedure: a) Adjust the salt spray tester to relevant test conditions. b) Put the test piece into the salt spray testing machine for 24 hours. After the test, rinse with clean water, visually inspect the appearance of the tested parts, and carry out routine inspection.	OK
Identifying person:Guoguangfen			Give permission to: Xiezhoujun	

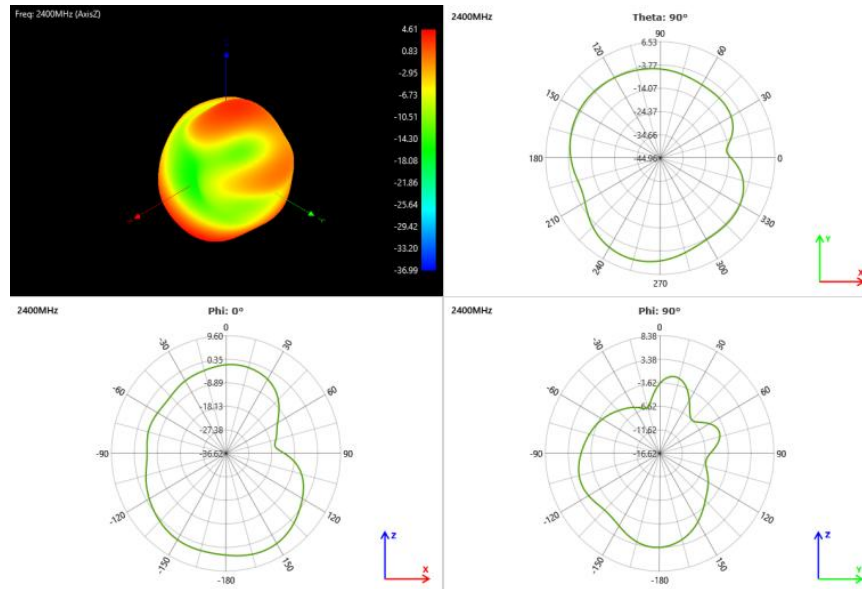
6. Antenna performance test



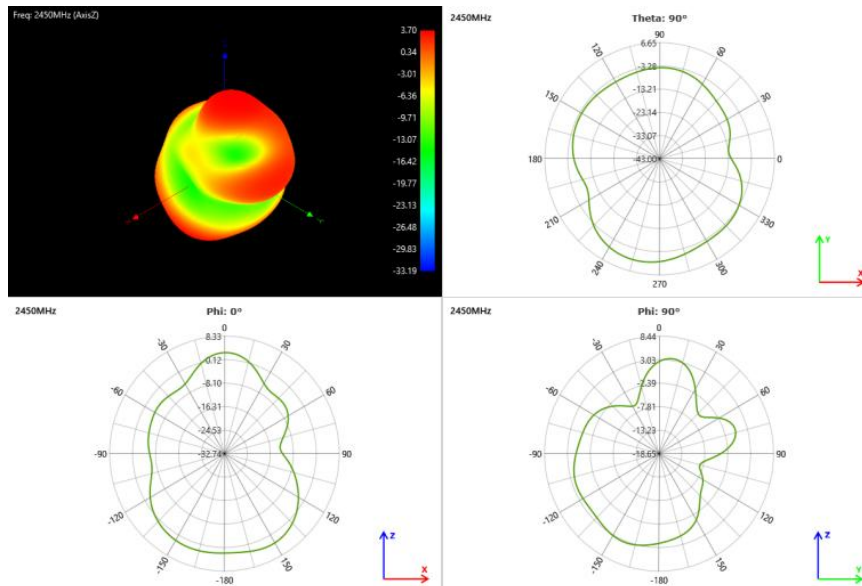
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400	3.75	54.9
2410	3.41	55.25
2420	3.47	53.67
2430	3.45	53.79
2440	3.17	52.48
2450	3.64	51.37
2460	3.47	50.44
2470	3.99	47.57
2480	3.75	46.21
2490	3.64	45.26
2500	3.55	43.71

Frequency (MHz)	Gain (dBi)	Efficiency (%)
5150	2.32	45.68
5200	2.48	48.23
5250	2.17	48.69
5300	2.02	47.81
5350	2.94	48.55
5400	3.17	49.93
5450	3.25	49.69
5500	2.9	50.64
5550	2.72	52.13
5600	3.33	55.41
5650	2.59	54.31
5700	2.83	52
5750	3.33	53.79
5800	3.42	52.16
5850	3.17	54.06

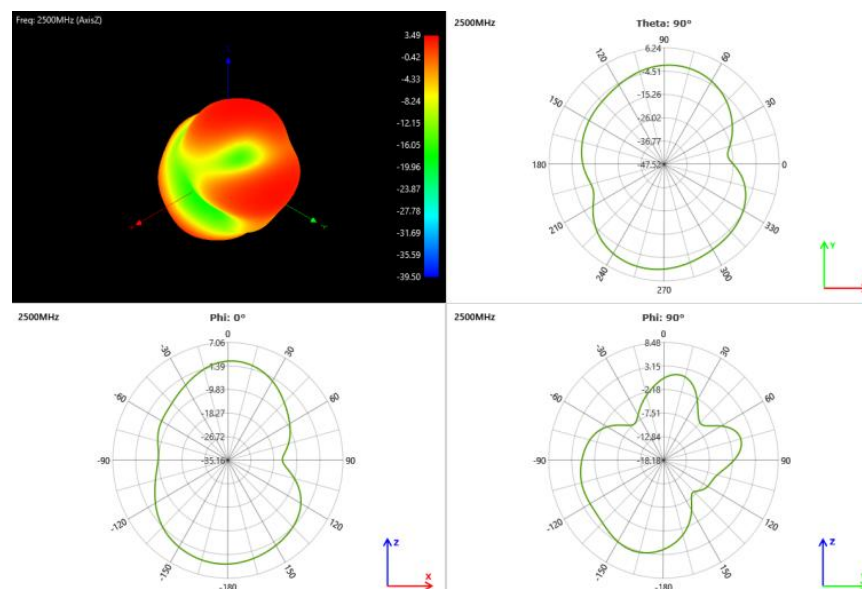
2400MHZ



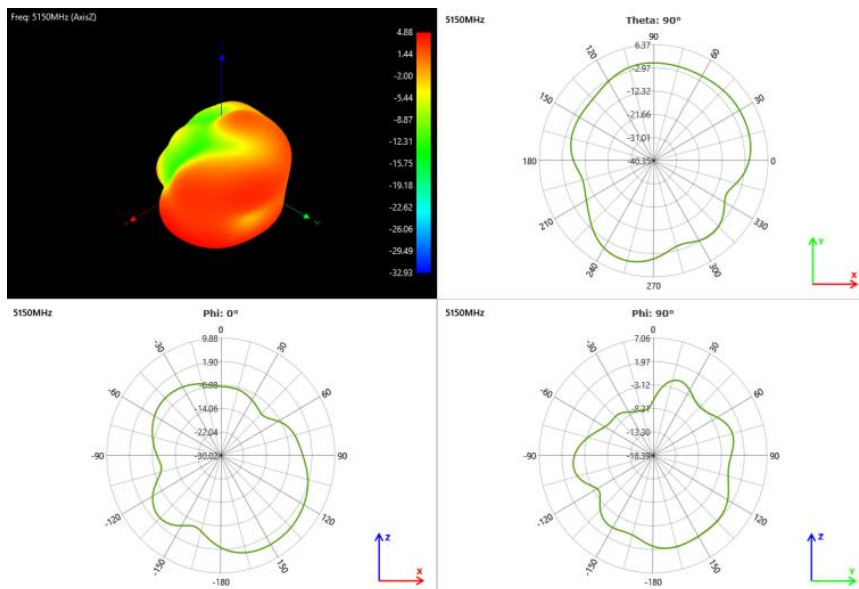
2450MHZ



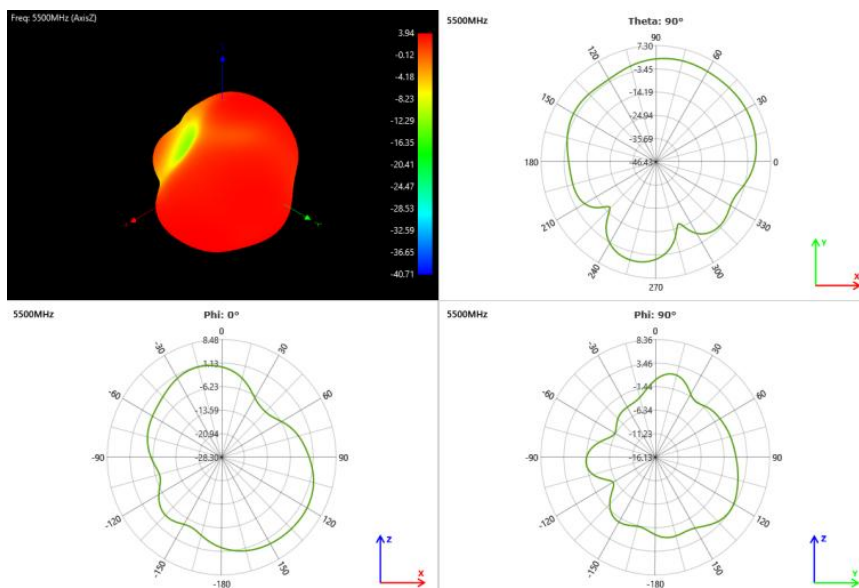
2500MHZ



5150MHZ



5500MHZ



5850MHZ

