SPECIFICATION

Shenzhen Guandetong Electronic Limited

2.4G/5.8G FPC天线
（1.13线黑*80MM）
Product specification

Customers		Frequency	2400MHz—2500MHz 5150MHZ-5800MHZ
Name of wire rod		Version	A1
Customer data		*Guandetong*No	
*Guandetong*No			
R FDesign	肖彬	RF manager	刘亮
Structural design	王栋	Structure manager	王华
Technical Director	ANDY	Date	2025-3-19

Customer confirmation:
Whether the Assembly meets your requirements: ☐OK ☐NG

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Address: 3/F, Tower D, Huanguan Nanmaoyuan Industrial Park, Guanhu Street, Longhua District, Shenzhen. Tel: 0755-88298396 fax: 0755-89733896

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一、 Product pictures

二、Product parameters

Product test parameters			
(Name)	2.4 g/5.8G antenna	**(Model Type)**	
(Electrical Specifications)			
(Frenquency Range)	2400-2500MHZ 5150-5800MHZ	**（Polarization）**	perpendicular
(Impedance)	50 欧	**Radiation**	QXCOMM
（VSWR）	≦2.0	**(Power)**	50W
(Gain)	3dBi	**(Bandwidth**	100M
(Mechanical Specifications)			
(Copper tube dimensions)	32*10±2mm	**(Chassis Color)**	Yellow
(Connector)	IPEX	**(Cable Length)**	80±2mm
（Wire）	1.13 Black		
(Working Temperature)	-40℃-+85℃	**(Limit Temperature)**	-40℃-+85℃

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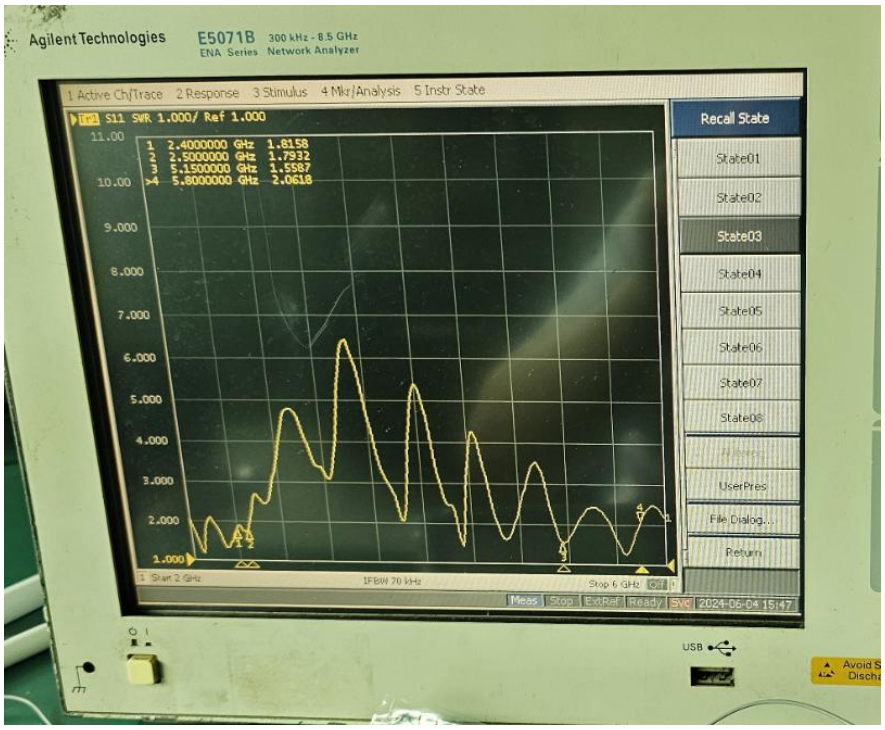
三、S11(VSWR/Return/Smith



四、Antenna gain and efficiency

Point ID	(MHz)	(dBm)	(dBi)	y (dBi)	(%)
1	2400.0	2400.00	0.16	4.32	38.4%
2	2410.0	2410.00	0.41	4.62	38.0%
3	2420.0	2420.00	0.83	4.90	39.2%
4	2430.0	2430.00	1.21	5.02	41.5%
5	2440.0	2440.00	1.01	4.91	40.7%
6	2450.0	2450.00	0.96	4.85	40.9%
7	2460.0	2460.00	1.02	4.82	41.7%
8	2470.0	2470.00	0.85	4.68	41.5%
9	2480.0	2480.00	0.32	4.36	39.5%
10	2490.0	2490.00	0.26	4.36	39.0%
11	2500.0	2500.00	0.26	4.33	39.1%
12	5300.0	5300.00	1.45	6.08	34.4%
13	5310.0	5310.00	1.40	5.91	35.4%
14	5320.0	5320.00	1.01	5.77	33.4%
15	5330.0	5330.00	0.96	5.82	32.6%
16	5340.0	5340.00	1.14	5.88	33.6%
17	5350.0	5350.00	1.01	5.86	32.7%
18	5360.0	5360.00	1.32	5.81	35.6%
19	5370.0	5370.00	1.03	5.80	33.4%
20	5380.0	5380.00	1.72	5.93	37.9%
21	5390.0	5390.00	2.49	6.04	44.2%
22	5400.0	5400.00	2.23	6.13	40.7%
23	5410.0	5410.00	3.00	6.39	45.7%
24	5420.0	5420.00	2.95	6.61	43.1%
25	5430.0	5430.00	3.14	6.78	43.3%
26	5440.0	5440.00	3.58	7.01	45.3%
27	5450.0	5450.00	3.25	7.07	41.5%
28	5460.0	5460.00	3.05	7.13	39.1%
29	5470.0	5470.00	3.10	7.01	40.6%
30	5480.0	5480.00	2.71	6.80	38.9%
31	5490.0	5490.00	2.85	6.82	40.0%
32	5500.0	5500.00	3.10	6.81	42.6%
33	5510.0	5510.00	2.54	6.72	38.2%
34	5520.0	5520.00	2.95	6.58	43.3%
35	5530.0	5530.00	2.99	6.67	42.8%
36	5540.0	5540.00	2.84	6.71	41.0%
37	5550.0	5550.00	3.42	6.80	46.0%
38	5560.0	5560.00	3.23	6.82	43.7%
39	5570.0	5570.00	3.33	6.85	44.4%
40	5580.0	5580.00	3.15	6.94	41.7%
41	5590.0	5590.00	2.66	6.77	38.9%
42	5600.0	5600.00	2.59	6.65	39.3%
43	5610.0	5610.00	2.30	6.66	36.6%
44	5620.0	5620.00	2.21	6.63	36.1%
45	5630.0	5630.00	2.22	6.66	36.0%
46	5640.0	5640.00	2.40	6.60	38.1%
47	5650.0	5650.00	2.54	6.70	38.4%
48	5660.0	5660.00	2.37	6.41	39.5%
49	5670.0	5670.00	2.72	6.39	42.9%
50	5680.0	5680.00	2.26	6.14	41.0%
51	5690.0	5690.00	2.74	6.29	44.1%
52	5700.0	5700.00	2.56	6.29	42.4%
53	5710.0	5710.00	2.53	6.28	42.2%
54	5720.0	5720.00	3.13	6.35	47.6%
55	5730.0	5730.00	3.02	6.34	46.6%
56	5740.0	5740.00	2.87	6.20	46.5%
57	5750.0	5750.00	3.12	6.20	49.2%
58	5760.0	5760.00	2.57	6.09	44.4%
59	5770.0	5770.00	2.52	6.05	44.4%
60	5780.0	5780.00	2.41	6.01	43.7%
61	5790.0	5790.00	1.75	5.72	40.0%
62	5800.0	5800.00	1.68	5.52	41.4%

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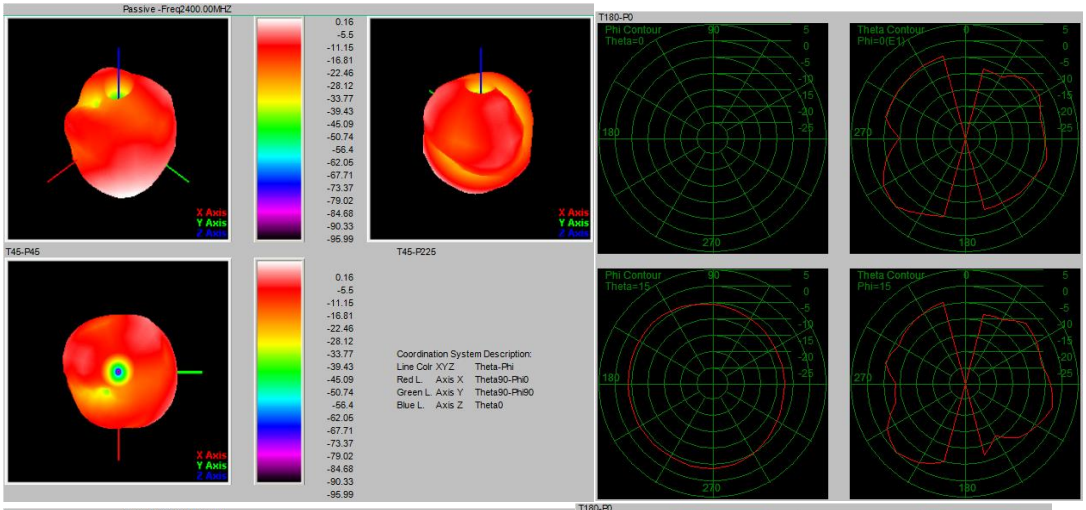
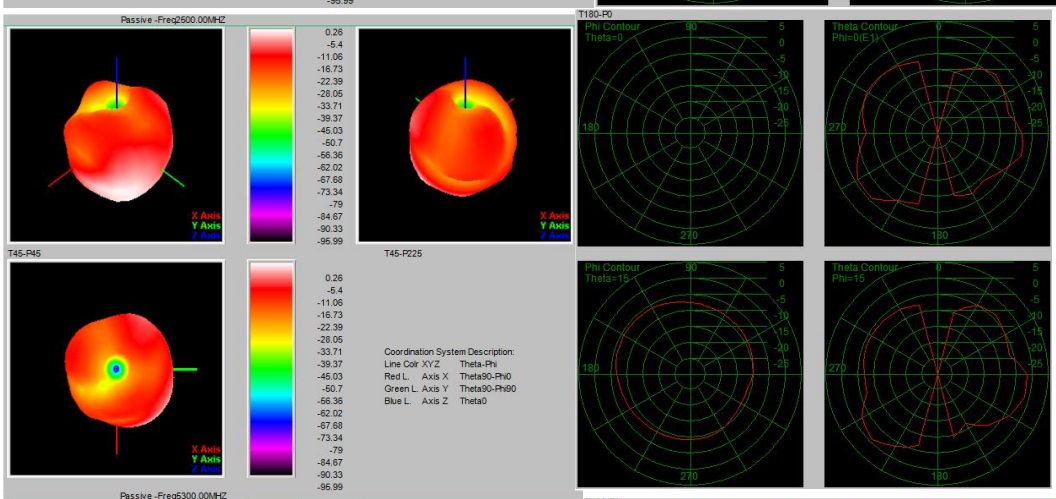
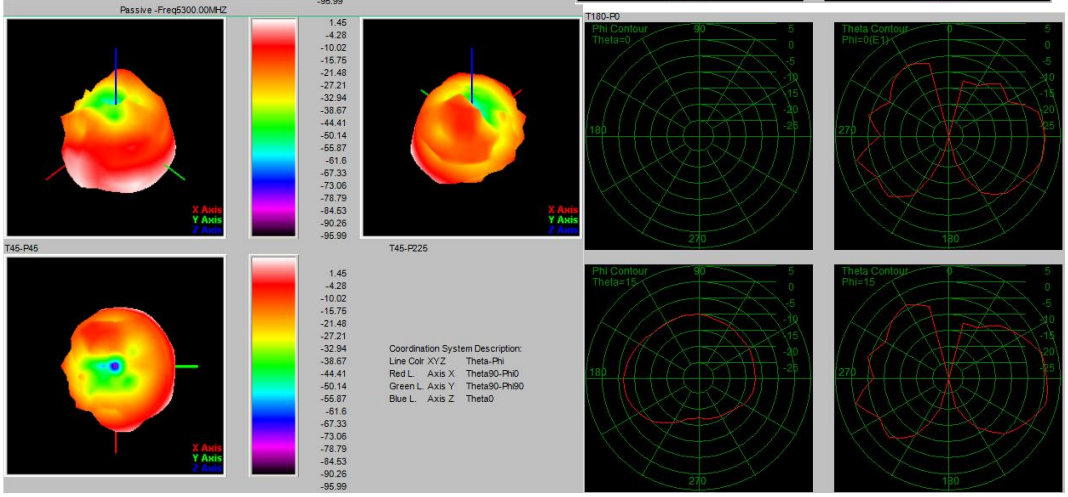
五、Apple chart







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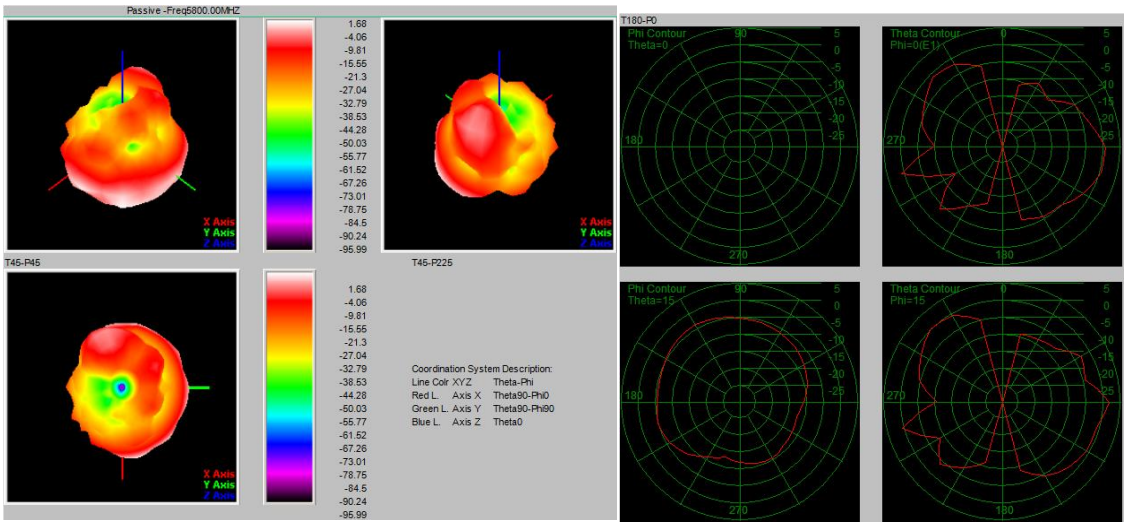
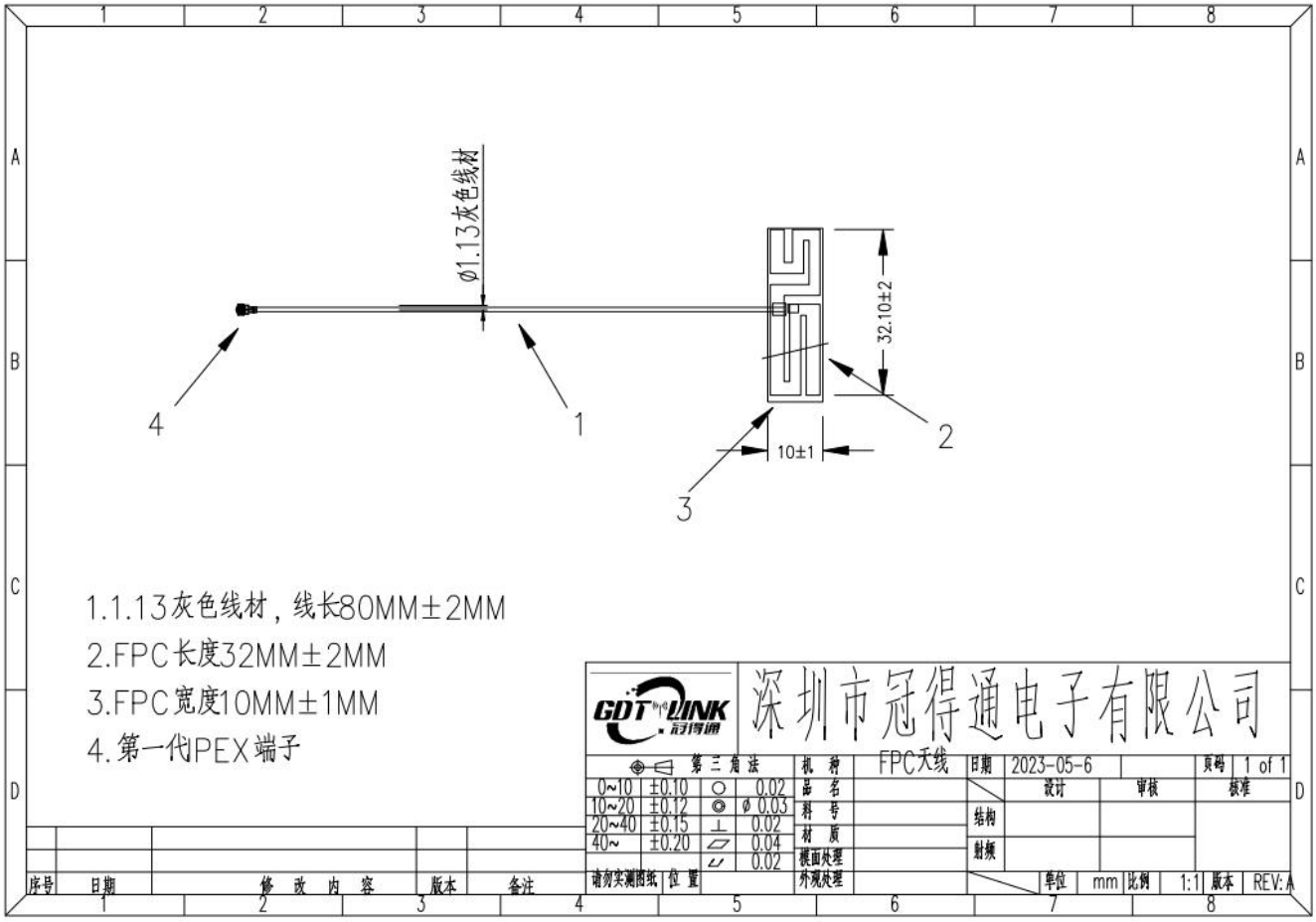


六、Structural drawings



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七、Environmental performance test

project	Project test conditions	Specifications
Storage environment	The test temperature, humidity and air pressure are as follows when there is no specific condition: 1. The temperature is - 30 ℃~+80 ℃ 2. Relative humidity: 45% - 85% 3. The air pressure is 86kpa-106kpa	Normal electrical and mechanical performance
High and low temperature test	5 cycles between 70 ° C and 40 ° C, then under normal conditions1-2H, check the appearance quality.	The size shall meet the requirements and Mechanical and electrical performance
Constant damp heat resistance test	Relative humidity: 95 ± 3%, test temperature: 40 ℃. After lasting for 2h, The electrical performance shall be measured within 5 minutes after the test object is taken out, and the test object shall be within the normal range Part 1-2H, check the appearance quality	The size shall meet the requirements and Mechanical and electrical performance
vibration test	Vibration frequency range: 10-55HZ, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M/s, frequency sweep cycles: 30 times	Normal electrical and mechanical performance
Drop test	Free fall for 3 times in the direction of mutually perpendicular axes at a height of 1M	Normal electrical and mechanical performance