

SPECIFICATION



Shenzhen Guandetong Electronic Limited

2.4G/5.8G FPC antenna (1.13 wire gray*150MM)

Product specification

Customers		Frequency	2400-2500MHz 5150-5800MHZ
Name of wire rod		Version	A1
Customer data		GuandetongNo	
GuandetongNo			
RF Design	肖彬	RF manager	刘亮
Structural design	王栋	Structure manager	王华
Technical Director	ANDY	Date	2025-8-27

Customer confirmation:

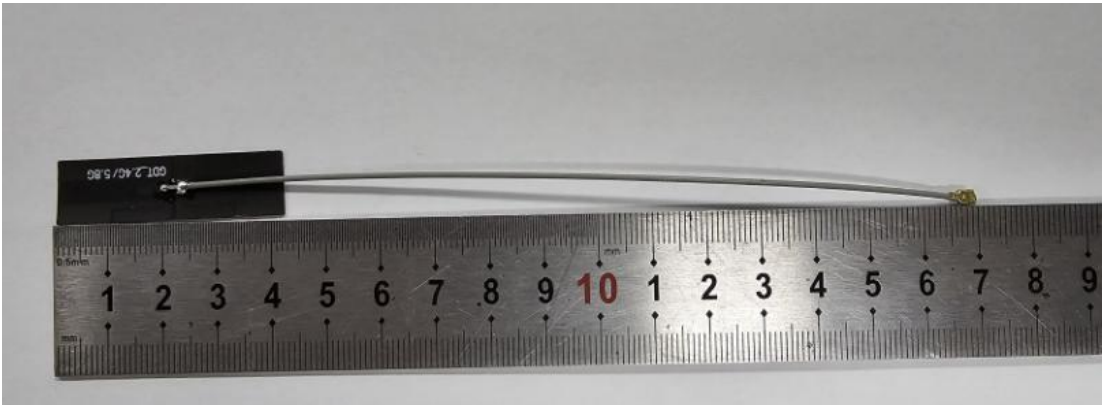
Whether the Assembly meets your requirements: ☐OK ☐NG

catalogue

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一、Product pictures



二、Product parameters

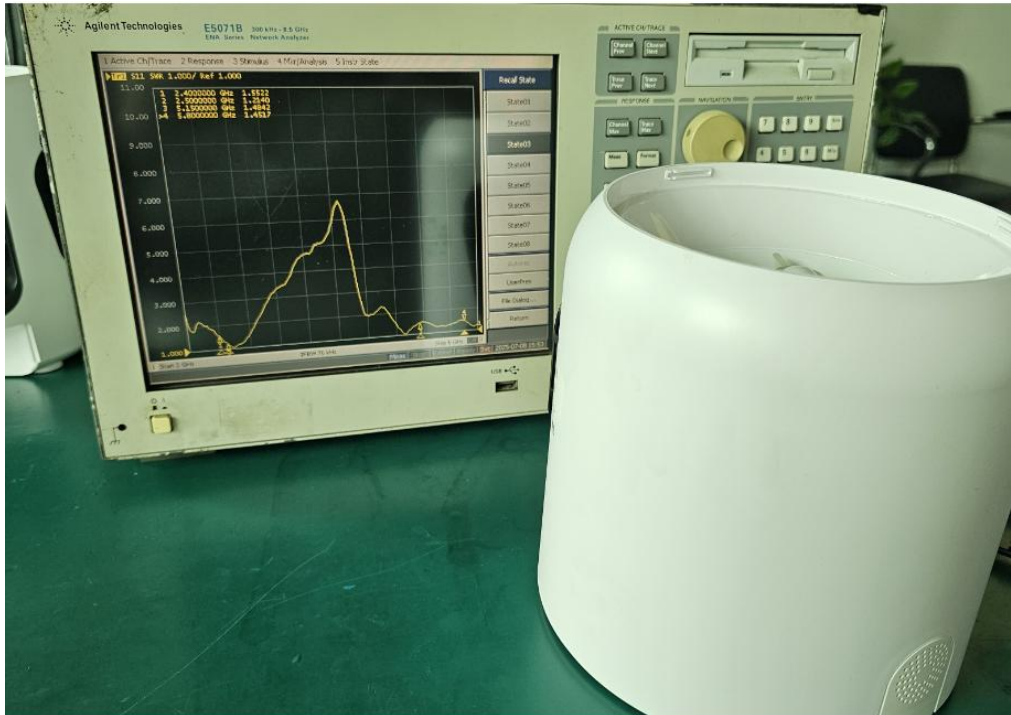
Product test parameters			
(Name)	2.4 G/5.8G antenna	(Model Type)	
(Electrical Specifications)			
(Frequency Range)	2400-2500MHZ 5150-5800MHZ	(Polarization)	perpendicular
(Impedance)	50 欧	Radiation	QXCOMM
(VSWR)	≤2.0	(Power)	50W
(Gain)	3dBi	(Bandwidth	100M
(Mechanical Specifications)			
(Copper tube dimensions)	41.4±2mm*12±1MM	(Chassis Color)	black
(Connector)	IPEX	(Cable Length)	150±2mm
(Wire)	1.13 gray		
(Working Temperature)	-40℃--+85℃	(Limit Temperature)	-40℃--+85℃

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三、S11(VSWR/Return/Smith



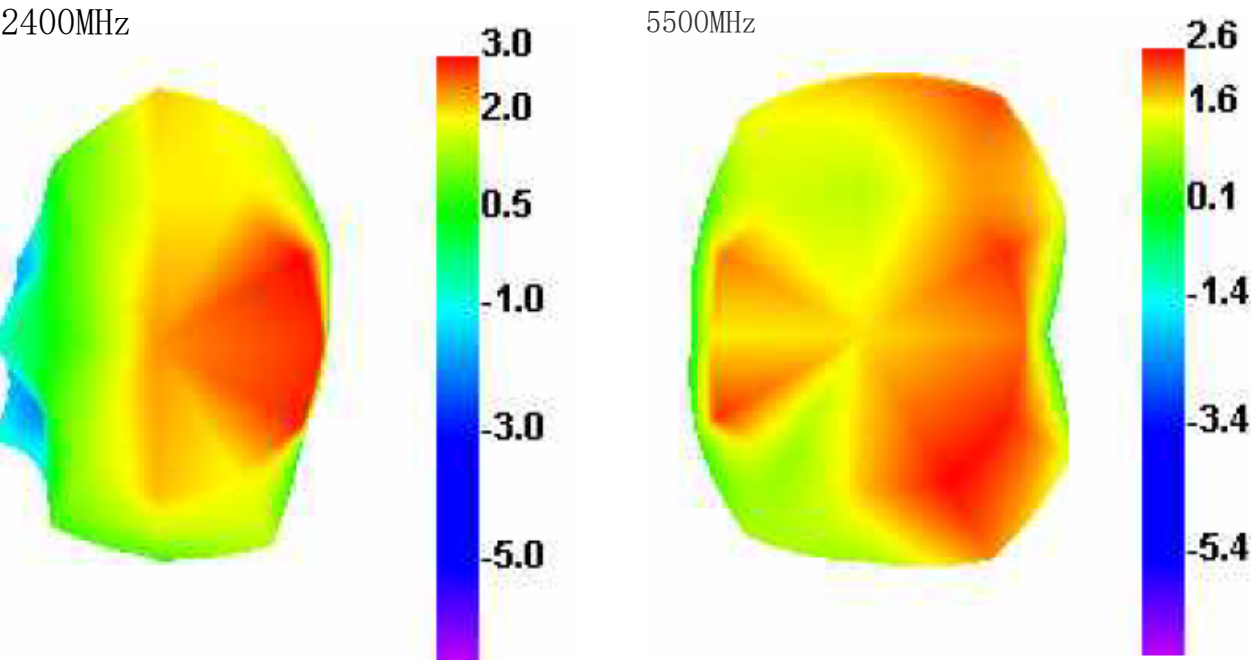
四、Antenna gain and efficiency

Test Point ID	Freq. (MHz)	TRP (dBm)	Gain (dBi)	Directivity y (dBi)	Efficiency y (%)	Efficiency y (dB)	Max (dBm)	Theta of Max	Phi of Max	Min (dBm)	Theta of Min	Phi of Min	AVG (dBm)	Max/Min (dB)	Max/AVG (dB)	Min/AVG (dB)
1	2400.0	2400.00	3.00	6.48	45.5%	-3.42	3.05	120	345	-95.99	0	0	-2.88	99.04	5.93	-93.11
2	2410.0	2410.00	3.34	6.65	46.7%	-3.30	3.34	135	180	-95.99	0	0	-2.52	99.33	5.86	-93.47
3	2420.0	2420.00	3.06	6.96	51.3%	-2.90	3.06	135	180	-95.99	0	0	-1.85	100.05	5.91	-94.14
4	2430.0	2430.00	3.66	7.20	55.8%	-2.54	3.66	135	180	-95.99	0	0	-1.34	100.65	6.00	-94.65
5	2440.0	2440.00	3.38	7.17	52.6%	-2.79	3.38	135	180	-95.99	0	0	-1.65	100.37	6.03	-94.34
6	2450.0	2450.00	3.44	7.17	53.3%	-2.73	3.44	135	180	-95.99	0	0	-1.61	100.43	6.05	-94.38
7	2460.0	2460.00	3.54	7.12	55.2%	-2.58	3.54	135	180	-95.99	0	0	-1.48	100.53	6.02	-94.51
8	2470.0	2470.00	3.51	7.11	55.0%	-2.59	3.51	150	345	-95.99	0	0	-1.71	100.50	6.22	-94.28
9	2480.0	2480.00	3.57	6.96	57.6%	-2.40	3.57	150	345	-95.99	0	0	-1.92	100.56	6.49	-94.07
10	2490.0	2490.00	3.28	7.08	52.4%	-2.81	3.28	150	345	-95.99	0	0	-2.46	100.27	6.74	-93.53
11	2500.0	2500.00	3.26	7.31	49.5%	-3.05	3.26	150	345	-95.99	0	0	-2.85	100.25	7.10	-93.14
12	5150.0	5150.00	3.04	7.48	36.0%	-4.43	3.04	75	90	-95.99	0	0	-4.65	99.03	7.70	-91.34
13	5200.0	5200.00	2.38	6.63	37.6%	-4.24	2.38	75	90	-95.99	0	0	-5.05	98.37	7.44	-90.94
14	5250.0	5250.00	2.73	6.49	42.0%	-3.77	2.73	75	90	-95.99	0	0	-4.45	98.72	7.17	-91.54
15	5300.0	5300.00	3.82	6.44	54.6%	-2.63	3.82	45	300	-95.99	0	0	-3.01	99.81	6.82	-92.98
16	5350.0	5350.00	3.44	6.78	46.4%	-3.33	3.44	45	300	-95.99	0	0	-3.97	99.43	7.41	-92.02
17	5400.0	5400.00	2.46	6.48	39.6%	-4.03	2.46	45	300	-95.99	0	0	-4.35	98.45	6.81	-91.64
18	5450.0	5450.00	2.64	6.53	40.8%	-3.89	2.64	45	105	-95.99	0	0	-3.72	98.63	6.37	-92.27
19	5500.0	5500.00	2.60	6.48	49.7%	-3.03	3.44	45	315	-95.99	0	0	-3.12	99.43	6.56	-92.87
20	5550.0	5550.00	2.69	6.69	39.8%	-4.00	2.69	45	120	-95.99	0	0	-4.40	98.68	7.09	-91.59
21	5600.0	5600.00	2.87	6.46	43.8%	-3.59	2.87	45	120	-95.99	0	0	-4.03	98.86	6.90	-91.96
22	5650.0	5650.00	3.15	6.23	49.2%	-3.08	3.15	45	120	-95.99	0	0	-3.29	99.14	6.44	-92.70
23	5700.0	5700.00	2.38	6.32	40.4%	-3.94	2.38	60	285	-95.99	0	0	-4.20	98.37	6.58	-91.78
24	5750.0	5750.00	2.96	6.74	41.9%	-3.78	2.96	45	105	-95.99	0	0	-3.97	98.95	6.93	-92.02
25	5800.0	5800.00	2.75	6.15	45.6%	-3.41	2.75	45	90	-95.99	0	0	-3.93	98.74	6.68	-92.05

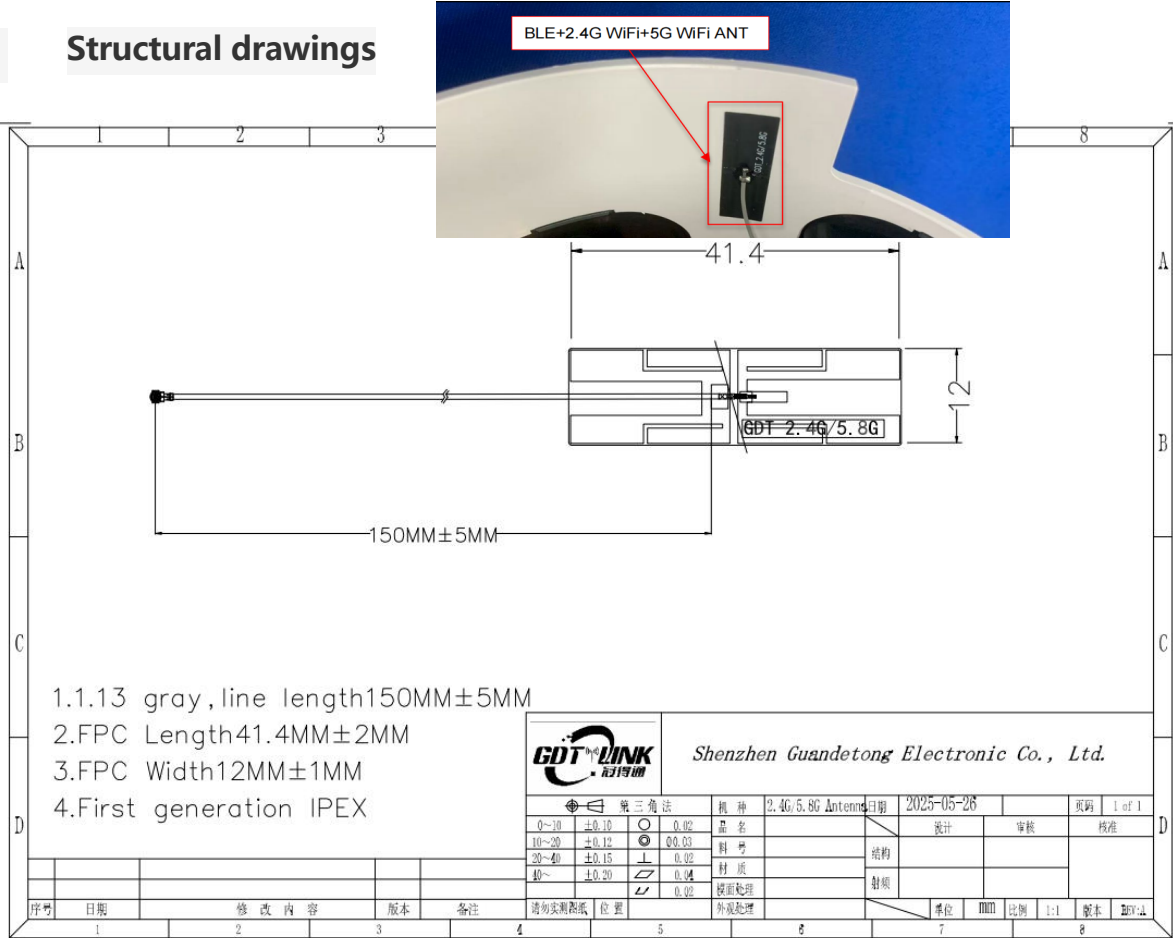
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五、Apple chart



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 $-30^{\circ}\text{C}\sim+80^{\circ}\text{C}$ 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 conditions 1-2H, check the appearance quality.	The size shall meet the requirements and Mechanical and electrical performance
Constant damp heat resistance test	Relative humidity: $95 \pm 3\%$, test temperature: 40°C. 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

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