

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			
R FDesign	肖彬	RF manager	刘亮
Structural design	王栋	Structure manager	王华
Technical Director	ANDY	Date	2025-5-26

Customer confirmation:

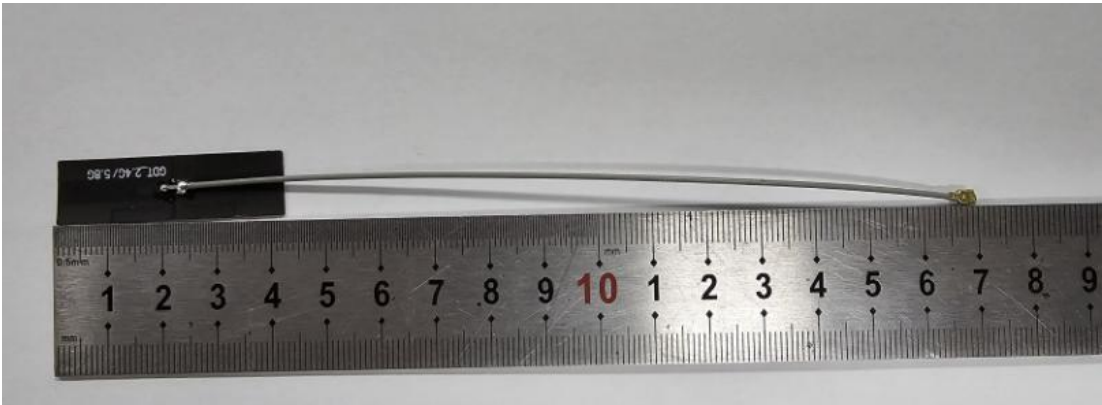
Whether the Assembly meets your requirements: ☐OK ☐NG

catalogue

Cover	1
catalogue.....	2
一、 Product pictures	3
二、 Product parameters	3
三、 S11(VSWR、 Return、 Smith)	4
四、 Antenna gain and efficiency.....	4
五、 Apple chart.....	5
六、 Structural drawings.....	5
七、 Environmental performance test.....	6

Confidentiality requirements of Shenzhen Guandetong Electronic Co. , Ltd. . The company has proprietary technology to provide the information, which should be strictly confidential, it shall not be disclosed to any person or company without the prior written consent of Shenzhen Guandetong Electronic Co. , Ltd. .

一、Product pictures



二、Product parameters

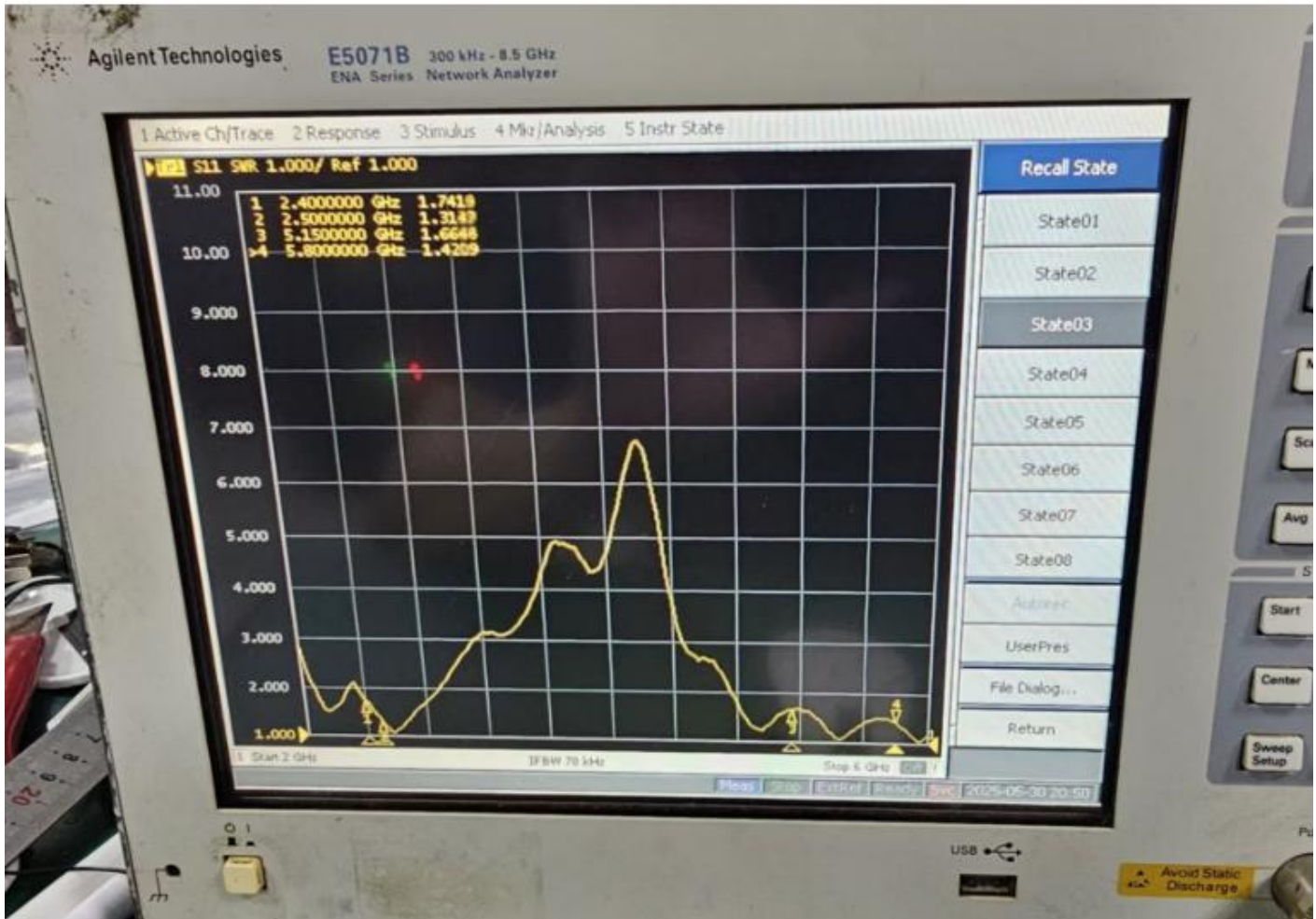
Product test parameters			
(Name)	2.4 G/5.8G antenna	(Model Type)	
(Electrical Specifications)			
(Frequency Range)	2400-2500MHZ	(Polarization)	perpendicular
(Impedance)	50	Radiation	QXCOMM
(VSWR)	≤2.0	(Power)	50W
(Gain)	3dBi	(Bandwidth	100M
(Mechanical Specifications)			
(Copper tube dimensions)	41.4±2mm*12±1MM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

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

<http://www.szgdtrf.com>

Confidentiality requirements of Shenzhen Guandetong Electronic Co., Ltd.. The company has proprietary technology to provide the information, which should be strictly confidential, it shall not be disclosed to any person or company without the prior written consent of Shenzhen Guandetong Electronic Co., Ltd..

三、S11(VSWR/Return/Smith



四、Antenna gain and efficiency

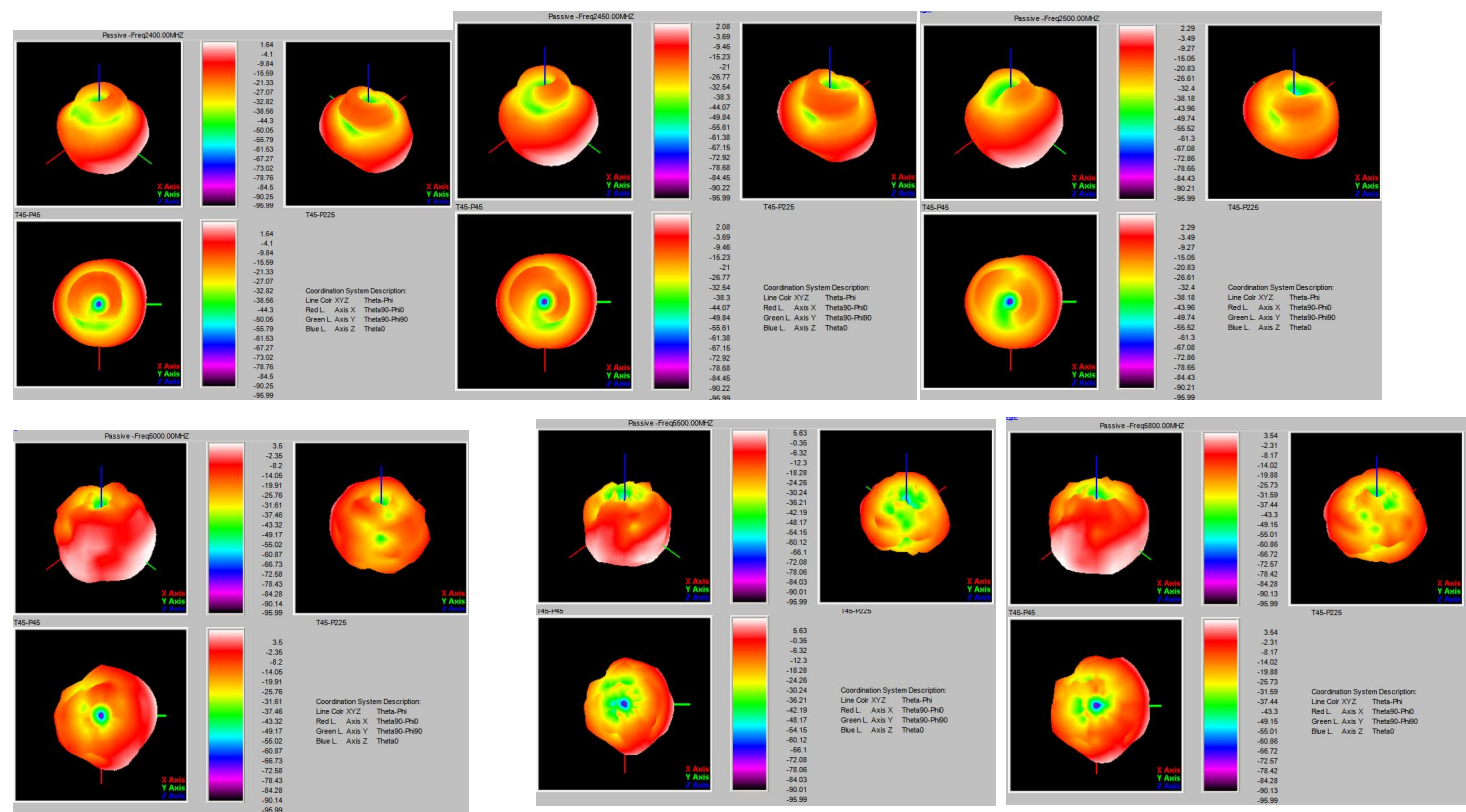
Test Point ID	Freq. (MHz)	TRP (dBm)	Gain (dBi)	Directivity (dBi)	Efficiency (%)	Efficiency (dB)	Max (dBm)	Theta of Max	Phi of Max	Min (dBm)	Theta of Min	Phi of Min	AVG (dBm)	Max/Min (dB)	Max/AVG (dB)	Min/AVG (dB)
1	2400.0	2400.00	1.64	6.09	35.9%	-4.44	1.64	90	120	-95.99	0	0	-4.94	97.63	6.58	-91.05
2	2410.0	2410.00	1.71	6.22	35.4%	-4.51	1.71	90	120	-95.99	0	0	-4.80	97.70	6.51	-91.19
3	2420.0	2420.00	2.06	6.22	38.4%	-4.16	2.06	90	120	-95.99	0	0	-4.19	98.05	6.25	-91.80
4	2430.0	2430.00	2.33	6.27	40.3%	-3.94	2.33	90	120	-95.99	0	0	-3.84	98.32	6.17	-92.15
5	2440.0	2440.00	2.09	6.24	38.5%	-4.15	2.09	90	120	-95.99	0	0	-4.14	98.08	6.23	-91.85
6	2450.0	2450.00	2.08	6.19	38.8%	-4.12	2.08	90	120	-95.99	0	0	-4.11	98.07	6.19	-91.88
7	2460.0	2460.00	2.29	6.28	39.9%	-3.99	2.29	105	60	-95.99	0	0	-4.04	98.28	6.33	-91.95
8	2470.0	2470.00	2.30	6.14	41.2%	-3.85	2.30	105	60	-95.99	0	0	-4.10	98.29	6.40	-91.88
9	2480.0	2480.00	2.06	5.87	41.6%	-3.81	2.06	105	60	-95.99	0	0	-4.46	98.05	6.52	-91.53
10	2490.0	2490.00	2.18	5.96	41.9%	-3.78	2.18	105	60	-95.99	0	0	-4.53	98.17	6.71	-91.46
11	2500.0	2500.00	2.29	5.86	44.0%	-3.66	2.29	105	60	-95.99	0	0	-4.38	98.28	6.67	-91.61
12	5000.0	5000.00	3.50	5.29	66.3%	-1.78	3.50	105	105	-95.99	0	0	-3.01	99.49	6.52	-92.98
13	5050.0	5050.00	2.76	5.68	51.0%	-2.93	2.76	105	105	-95.99	0	0	-3.94	98.75	6.70	-92.05
14	5100.0	5100.00	4.03	6.64	54.9%	-2.61	4.03	105	90	-95.99	0	0	-3.02	100.02	7.05	-92.97
15	5150.0	5150.00	3.26	6.12	51.8%	-2.86	3.26	105	90	-95.99	0	0	-3.54	99.25	6.80	-92.45
16	5200.0	5200.00	2.62	5.40	52.7%	-2.78	2.62	90	15	-95.99	0	0	-4.06	98.61	6.68	-91.93
17	5250.0	5250.00	3.55	6.14	55.1%	-2.59	3.55	105	120	-95.99	0	0	-3.85	99.54	7.40	-92.14
18	5300.0	5300.00	4.68	6.04	73.0%	-1.36	4.68	105	90	-95.99	0	0	-2.37	100.67	7.05	-93.62
19	5350.0	5350.00	4.47	5.59	77.4%	-1.11	4.47	90	75	-95.99	0	0	-2.33	100.46	6.80	-93.66
20	5400.0	5400.00	4.24	6.26	62.8%	-2.02	4.24	105	90	-95.99	0	0	-2.98	100.23	7.22	-93.01
21	5450.0	5450.00	4.40	6.29	64.7%	-1.89	4.40	105	75	-95.99	0	0	-2.37	100.39	6.77	-93.62
22	5500.0	5500.00	5.63	6.25	86.8%	-0.62	5.63	105	75	-95.99	0	0	-1.38	101.62	7.01	-94.61
23	5550.0	5550.00	4.64	5.94	74.1%	-1.30	4.64	105	75	-95.99	0	0	-2.46	100.63	7.10	-93.53
24	5600.0	5600.00	4.47	5.73	74.9%	-1.26	4.47	105	75	-95.99	0	0	-2.43	100.46	6.91	-93.56
25	5650.0	5650.00	4.90	6.07	76.3%	-1.18	4.90	90	15	-95.99	0	0	-2.10	100.89	7.00	-93.89
26	5700.0	5700.00	4.89	6.22	73.7%	-1.33	4.89	105	60	-95.99	0	0	-2.28	100.88	7.18	-93.71
27	5750.0	5750.00	4.71	6.04	73.5%	-1.34	4.71	90	15	-95.99	0	0	-2.32	100.69	7.03	-93.66
28	5800.0	5800.00	3.54	5.32	66.5%	-1.77	3.54	105	15	-95.99	0	0	-3.15	99.53	6.69	-92.84

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

<http://www.szgdtrf.com>

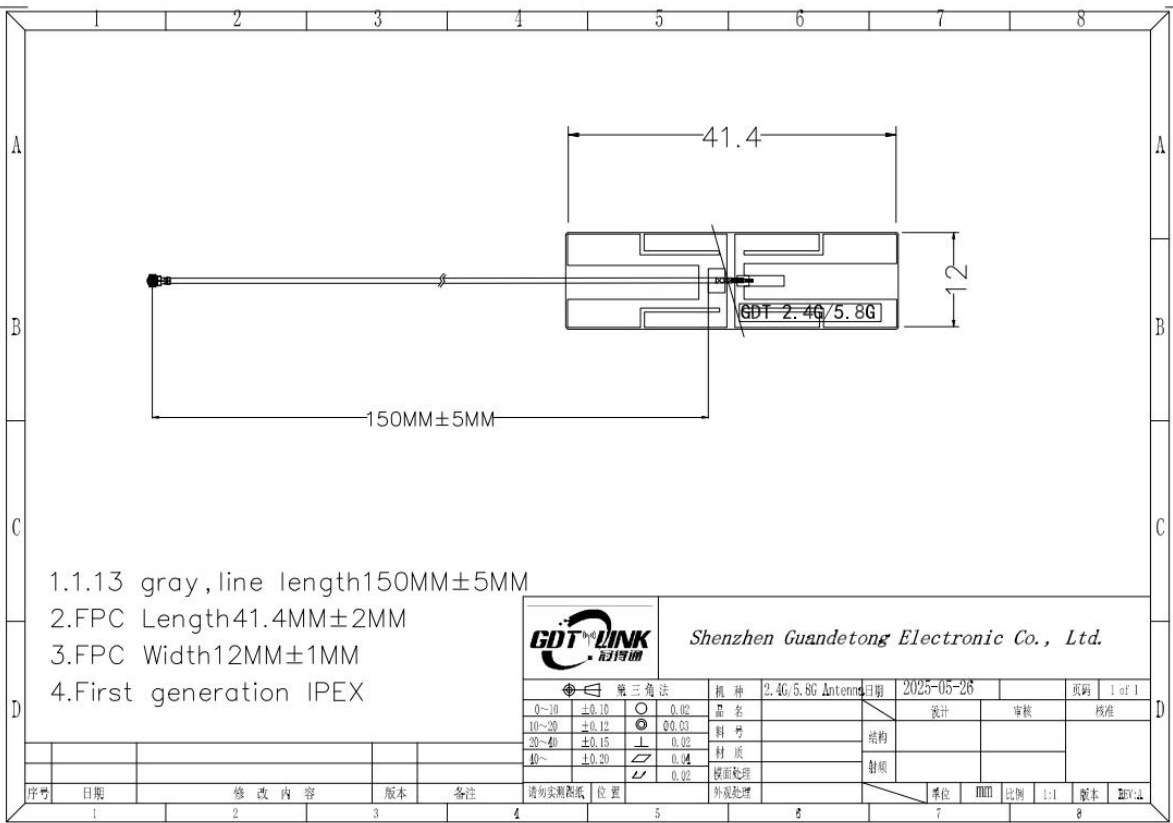
Confidentiality requirements of Shenzhen Guandetong Electronic Co. , Ltd. . The company has proprietary technology to provide the information, which should be strictly confidential, it shall not be disclosed to any person or company without the prior written consent of Shenzhen Guandetong Electronic Co. , Ltd. .

五、Apple chart



Structural drawings

六、



Longhua District, Shenzhen. Tel: 0755-88298396 fax: 0755-89733896

<http://www.szgdtrf.com>

Confidentiality requirements of Shenzhen Guandetong Electronic Co. , Ltd. . The company has proprietary technology to provide the information, which should be strictly confidential, it shall not be disclosed to any person or company without the prior written consent of Shenzhen Guandetong Electronic Co. , Ltd. .

七、Environmental performance test

project	Project test conditions	Specifications
Storage environment	<p>The test temperature, humidity and air pressure are as follows when there is no specific condition:</p> <ol style="list-style-type: none"> 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.	<p>The size shall meet the requirements and</p> <p>Mechanical and electrical performance</p>
Constant damp heat resistance test	<p>Relative humidity: $95 \pm 3\%$, test temperature: 40°C. After lasting for 2h,</p> <p>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</p> <p>Part 1-2H, check the appearance quality</p>	<p>The size shall meet the requirements and</p> <p>Mechanical and electrical performance</p>
vibration test	<p>Vibration frequency range: 10-55HZ, displacement amplitude: 0.35MM, acceleration amplitude:</p> <p>50.0M/s, frequency sweep cycles: 30 times</p>	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

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

<http://www.szgdtrf.com>