

SPECIFICATION

Shenzhen Guandetong Electronic Limited



Shenzhen Guandetong Electronic Co., Ltd.

2. 4G/5.8G FPC Antenna Long line 0.81*30MM

Product Specification

connection		frequency range	2400-2500MHz 5200-5800MHZ
Frequency band wire name		edition	A1
Customer part number		<i>Guandetong</i> part number	
Guandeton g No			
R F design	肖彬	RF Manager	刘亮
Structural design	王栋	Structure Manager	王华
Technical Director	叶定坤	Date	2024-1-30

Customer confirmation:

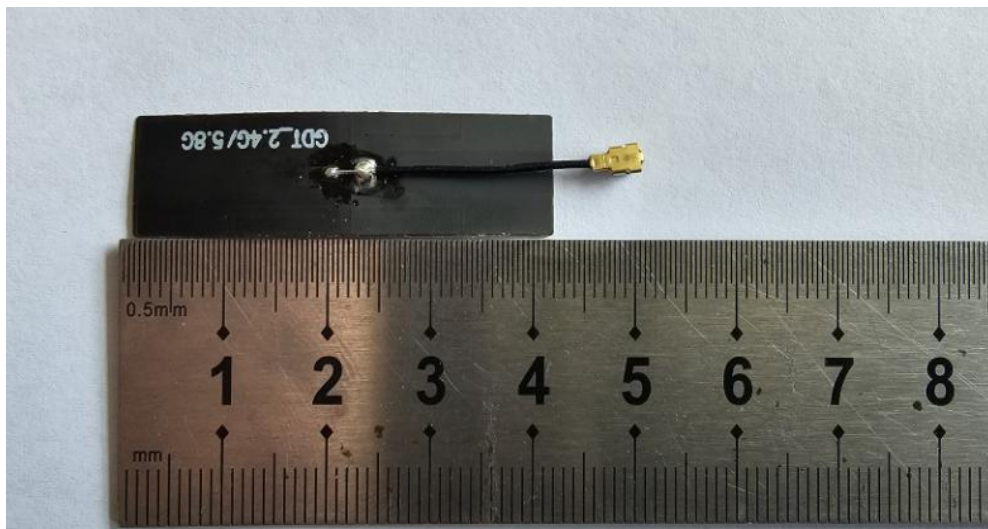
Does the assembly meet your company's requirements: OK NG

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一、 Product pictures



二、 Product parameters

Product testing parameters			
Product name	2.4G/5.8G FPC Antenna	(Model Type)	GDT-2PWIFI-001
(Electrical Specifications)			
(Frequency Range)	2400-2500MHz 5200-5800MHz	(Polarization)	perpendicular
(Impedance)	50 Ω	Radiation	QXCOMM
(VSWR)	≦2.0	(Power)	50W
(Gain)	3.47dBi	(Bandwidth)	100M
(Mechanical Specifications)			
(Dimensions)	41.40*12±1mm	(Chassis Color)	black
(Connector)	IPEX	(Cable Length)	30±5MM
(Chassis Material)	FPC	(Wire)	0.81 black
(Working Temperature)	-40℃--+85℃	(Limit Temperature)	-40℃--+85℃

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三、S11(VSWR、Return、Smith)数据



四、Antenna gain and efficiency&Apple in 3D

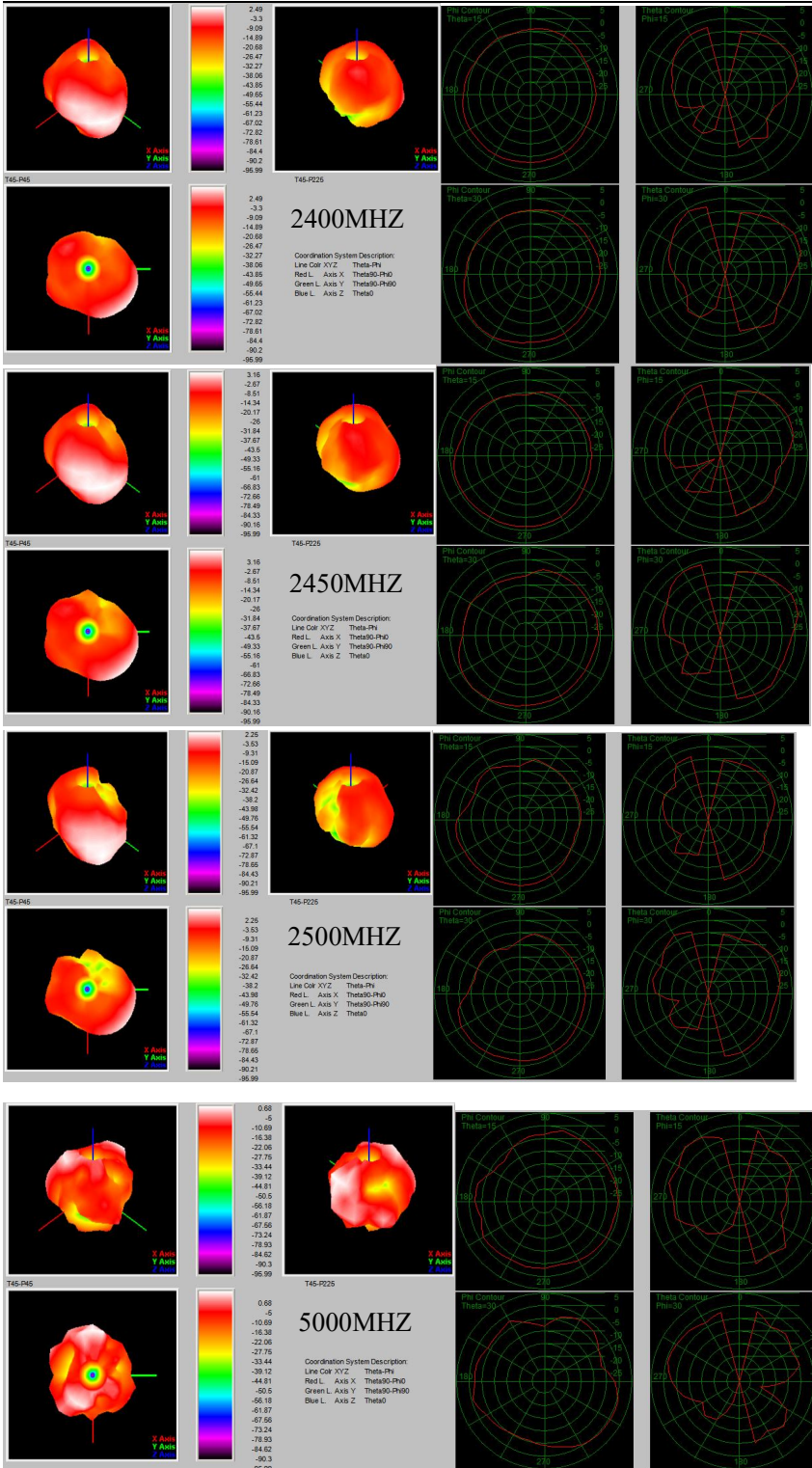
Point ID	(MHz)	(dBm)	(dBi)	y (dBi)	y (%)	y (dB)	(dBm)	Max	Max (dBm)	Min	Min (dBm)	(dB)	(dB)	(dB)	(dB)
1	2400.0	2400.00	2.49	6.78	37.2%	-4.29	2.49	75	60	-95.99	0	-4.42	98.48	6.91	-91.57
2	2410.0	2410.00	2.63	6.96	36.9%	-4.33	2.63	75	60	-95.99	0	-4.25	98.62	6.88	-91.74
3	2420.0	2420.00	3.03	7.16	38.6%	-4.13	3.03	75	45	-95.99	0	-3.82	99.02	6.85	-92.17
4	2430.0	2430.00	3.47	7.25	41.9%	-3.78	3.47	75	45	-95.99	0	-3.34	99.46	6.81	-92.65
5	2440.0	2440.00	3.07	7.13	39.3%	-4.06	3.07	75	60	-95.99	0	-3.68	99.06	6.75	-92.31
6	2450.0	2450.00	3.16	7.15	39.8%	-4.00	3.16	75	60	-95.99	0	-3.64	99.15	6.80	-92.35
7	2460.0	2460.00	3.23	7.15	40.5%	-3.92	3.23	75	60	-95.99	0	-3.59	99.22	6.82	-92.40
8	2470.0	2470.00	3.07	6.93	41.1%	-3.86	3.07	75	60	-95.99	0	-3.75	99.06	6.82	-92.24
9	2480.0	2480.00	2.71	6.51	41.7%	-3.79	2.71	75	60	-95.99	0	-4.09	98.70	6.81	-91.90
10	2490.0	2490.00	2.06	6.25	38.1%	-4.19	2.06	75	45	-95.99	0	-4.57	98.05	6.63	-91.42
11	2500.0	2500.00	2.25	6.39	38.5%	-4.14	2.25	90	60	-95.99	0	-4.61	98.24	6.86	-91.38
12	5000.0	5000.00	0.58	5.84	30.5%	-5.16	0.58	45	165	-95.99	0	-5.47	96.57	6.15	-90.52
13	5020.0	5020.00	0.59	5.62	31.4%	-5.03	0.59	45	165	-95.99	0	-5.37	96.58	5.96	-90.62
14	5040.0	5040.00	0.43	5.44	31.6%	-5.01	0.43	45	165	-95.99	0	-5.18	96.42	5.61	-90.81
15	5060.0	5060.00	0.86	5.77	32.3%	-4.91	0.86	30	330	-95.99	0	-4.71	96.85	5.56	-91.28
16	5080.0	5080.00	0.87	6.50	27.3%	-5.63	0.87	30	330	-95.99	0	-5.02	96.86	5.89	-90.97
17	5100.0	5100.00	2.28	7.41	30.6%	-5.14	2.28	30	330	-95.99	0	-4.18	98.27	6.46	-91.80
18	5120.0	5120.00	2.30	7.40	31.0%	-5.09	2.30	30	330	-95.99	0	-4.36	98.29	6.66	-91.63
19	5140.0	5140.00	2.50	7.46	31.9%	-4.96	2.50	30	330	-95.99	0	-4.21	98.49	6.70	-91.78
20	5160.0	5160.00	2.27	7.11	32.8%	-4.84	2.27	30	330	-95.99	0	-4.36	98.26	6.63	-91.63
21	5180.0	5180.00	2.46	7.17	33.7%	-4.72	2.46	30	330	-95.99	0	-4.34	98.44	6.79	-91.65
22	5200.0	5200.00	2.64	6.88	37.7%	-4.24	2.64	30	330	-95.99	0	-4.28	98.63	6.92	-91.71
23	5220.0	5220.00	1.94	6.52	34.8%	-4.58	1.94	30	330	-95.99	0	-4.80	97.93	6.74	-91.19
24	5240.0	5240.00	2.02	6.39	36.6%	-4.37	2.02	30	330	-95.99	0	-4.59	98.01	6.61	-91.40
25	5250.0	5250.00	1.81	6.84	32.9%	-4.63	1.81	30	330	-95.99	0	-4.72	97.80	6.52	-91.27
26	5280.0	5280.00	1.26	6.25	31.7%	-4.99	1.26	30	330	-95.99	0	-4.88	97.25	6.14	-91.11
27	5300.0	5300.00	0.66	5.91	29.9%	-5.25	0.66	30	330	-95.99	0	-5.09	96.55	5.75	-90.90
28	5320.0	5320.00	0.61	5.45	32.8%	-4.85	0.61	30	330	-95.99	0	-5.01	96.60	5.62	-90.98
29	5340.0	5340.00	0.70	5.62	32.2%	-4.92	0.70	15	75	-95.99	0	-4.97	96.69	5.67	-91.02
30	5360.0	5360.00	0.74	5.62	32.6%	-4.88	0.74	15	75	-95.99	0	-4.89	96.73	5.63	-91.10
31	5380.0	5380.00	1.29	5.97	34.1%	-4.68	1.29	15	75	-95.99	0	-4.51	97.28	5.80	-91.48
32	5400.0	5400.00	1.29	6.01	33.7%	-4.72	1.29	15	45	-95.99	0	-4.38	97.28	5.68	-91.61
33	5420.0	5420.00	1.94	6.71	33.3%	-4.77	1.94	15	45	-95.99	0	-4.03	97.93	5.97	-91.96
34	5440.0	5440.00	2.33	7.23	32.4%	-4.90	2.33	15	45	-95.99	0	-3.97	98.32	6.30	-92.02
35	5460.0	5460.00	2.69	7.34	34.3%	-4.65	2.69	30	30	-95.99	0	-3.60	98.68	6.29	-92.39
36	5480.0	5480.00	2.55	7.06	35.4%	-4.51	2.55	30	30	-95.99	0	-3.69	98.54	6.24	-92.30
37	5500.0	5500.00	2.88	7.12	37.7%	-4.23	2.88	30	30	-95.99	0	-3.54	98.87	6.42	-92.45
38	5520.0	5520.00	2.50	6.76	37.4%	-4.27	2.50	30	30	-95.99	0	-3.85	98.49	6.34	-92.14
39	5540.0	5540.00	1.90	6.55	34.3%	-4.65	1.90	30	30	-95.99	0	-4.32	97.89	6.22	-91.67
40	5560.0	5560.00	1.91	6.59	34.1%	-4.68	1.91	30	30	-95.99	0	-4.44	97.90	6.35	-91.55
41	5580.0	5580.00	1.92	6.97	31.3%	-5.05	1.92	30	30	-95.99	0	-4.65	97.91	6.57	-91.34
42	5600.0	5600.00	1.50	6.80	29.5%	-5.30	1.50	30	30	-95.99	0	-5.07	97.49	6.57	-90.92
43	5620.0	5620.00	1.31	6.90	27.6%	-5.59	1.31	30	30	-95.99	0	-5.15	97.30	6.47	-90.83
44	5640.0	5640.00	1.86	7.07	30.1%	-5.21	1.86	30	30	-95.99	0	-4.72	97.85	6.58	-91.27
45	5660.0	5660.00	1.70	6.87	30.4%	-5.18	1.70	30	30	-95.99	0	-4.76	97.69	6.46	-91.23
46	5680.0	5680.00	1.24	6.39	30.6%	-5.15	1.24	30	30	-95.99	0	-4.95	97.23	6.19	-91.04
47	5700.0	5700.00	1.56	6.80	30.0%	-5.24	1.56	30	30	-95.99	0	-4.80	97.55	6.36	-91.19
48	5720.0	5720.00	2.44	7.05	34.6%	-4.61	2.44	30	15	-95.99	0	-4.00	98.43	6.44	-91.99
49	5740.0	5740.00	2.19	6.61	36.2%	-4.42	2.19	30	15	-95.99	0	-3.90	98.18	6.10	-92.09
50	5760.0	5760.00	1.98	6.42	36.0%	-4.43	1.98	30	256	-95.99	0	-3.92	97.97	5.90	-92.07
51	5780.0	5780.00	1.88	6.62	33.6%	-4.74	1.88	30	240	-95.99	0	-4.20	97.87	6.09	-91.79
52	5800.0	5800.00	1.56	6.51	32.0%	-4.96	1.56	15	30	-95.99	0	-4.73	97.55	6.29	-91.26

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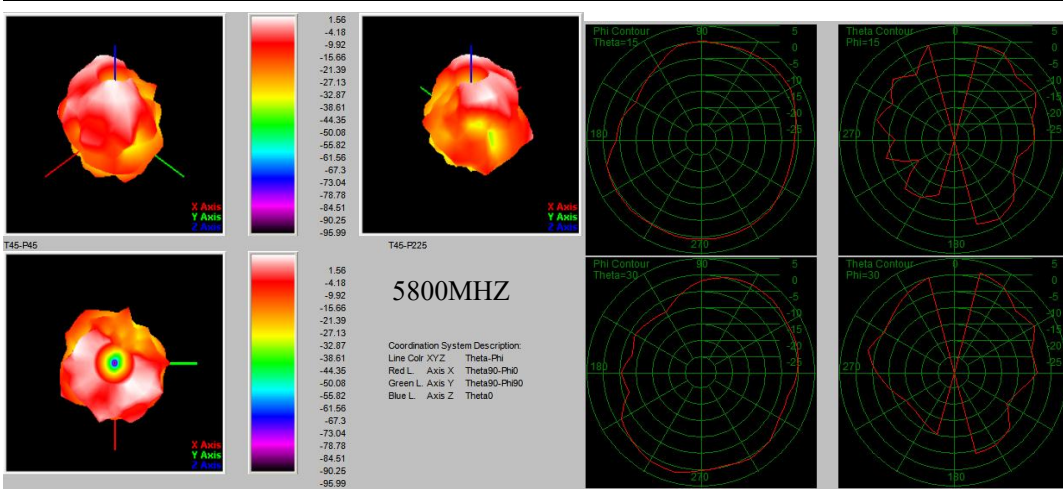
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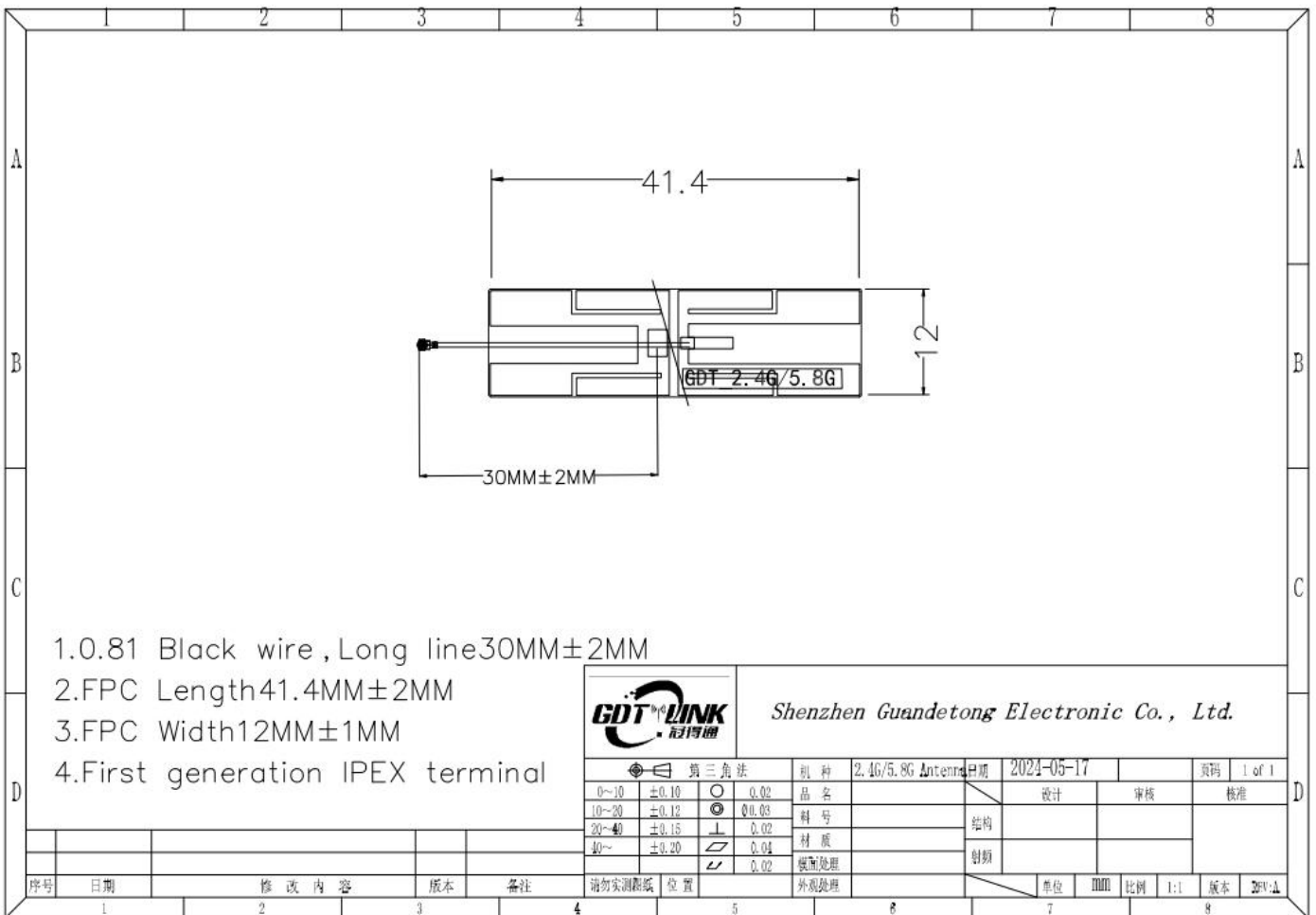


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五、Structural drawings



六、 Environmental performance test

project	Project test conditions	Specificati ons
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 °C~+80 °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 ± 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