

SPECIFICATION

Shenzhen Guandetong Electronic Limited

*Shenzhen Guandetong Electronic Co., Ltd.*

2.4G PCB plug-in antenna

Product Specification

connection		frequency range	2400-2500MHz
Frequency band wire name		edition	A1
Customer part number		Guandetong part number	
Guandetong No			
R F design	XIAO	RF Manager	LI
Structural design	WU	Structure Manager	HUANG
Technical Director	ADD	Date	2026-02-27

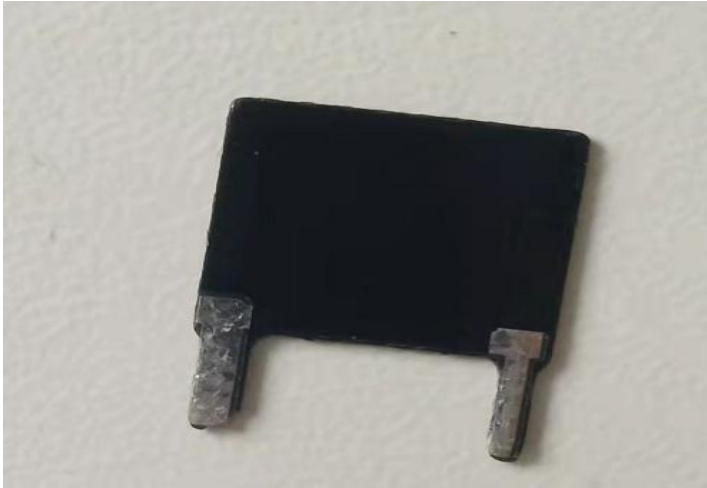
Customer confirmation:

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

catalogue

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一、 Product pictures



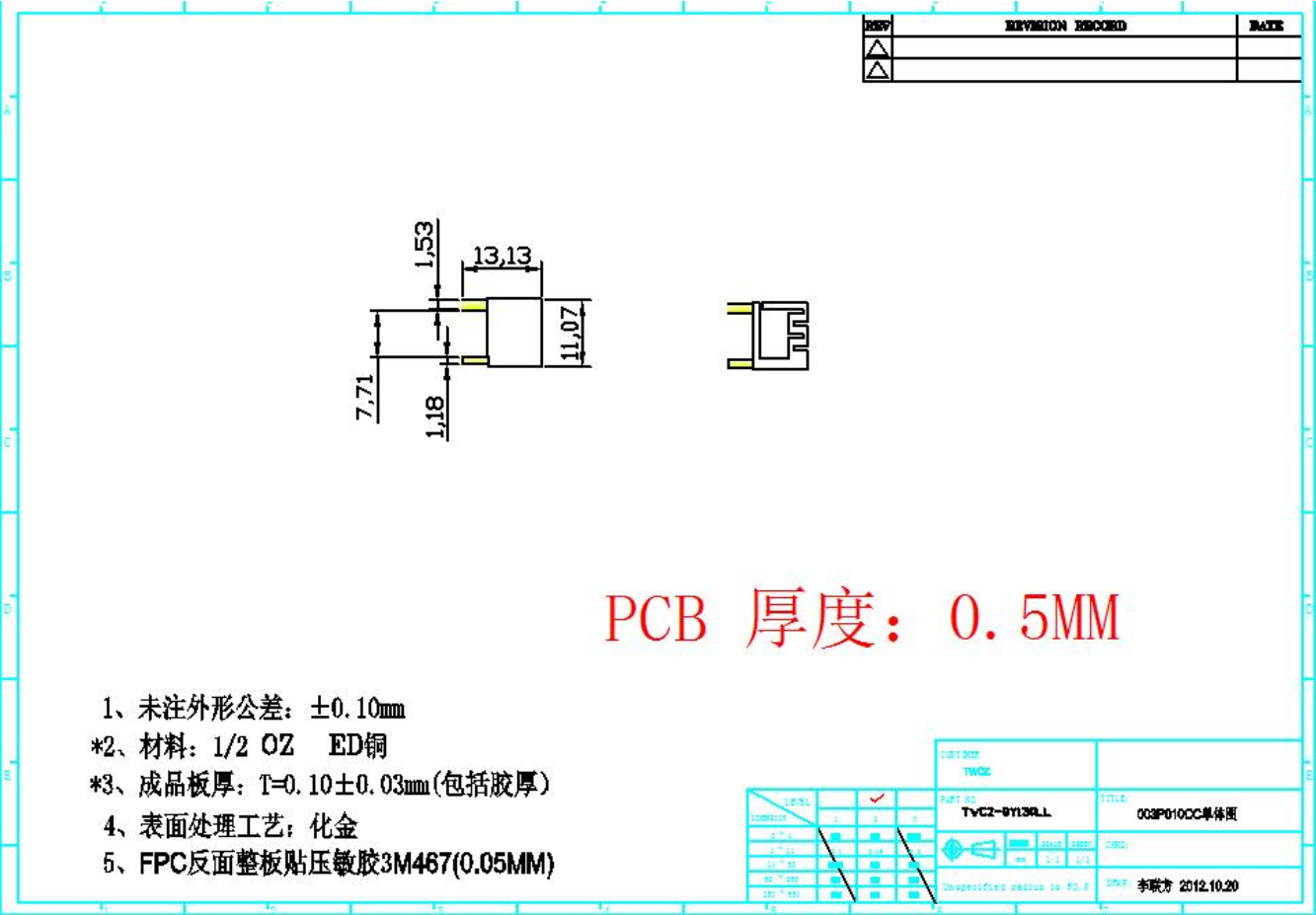
二、 Product parameters

Product testing parameters			
Product name	2.4G antenna	(Model Type)	GDT-P2.4
(Electrical Specifications)			
(Frenquency Range)	2400-2500MHz	(Polarization)	perpendicular
(Impedance)	50Ω	Radiation	QXCOMM
(VSWR)	≦2.0	(Power)	50W
(Gain)	1.54dBi	(Bandwidth	100M
(Mechanical Specifications)			
(Dimensions)	13.13*11.07±0.2mm	(Chassis Color)	black
(Connector)	Plugin	(Chassis Material)	PCB
(Working Temperature)	-40℃-+85℃	(Limit Temperature)	-40℃-+85℃

三、S11(VSWR、Return、Smith)

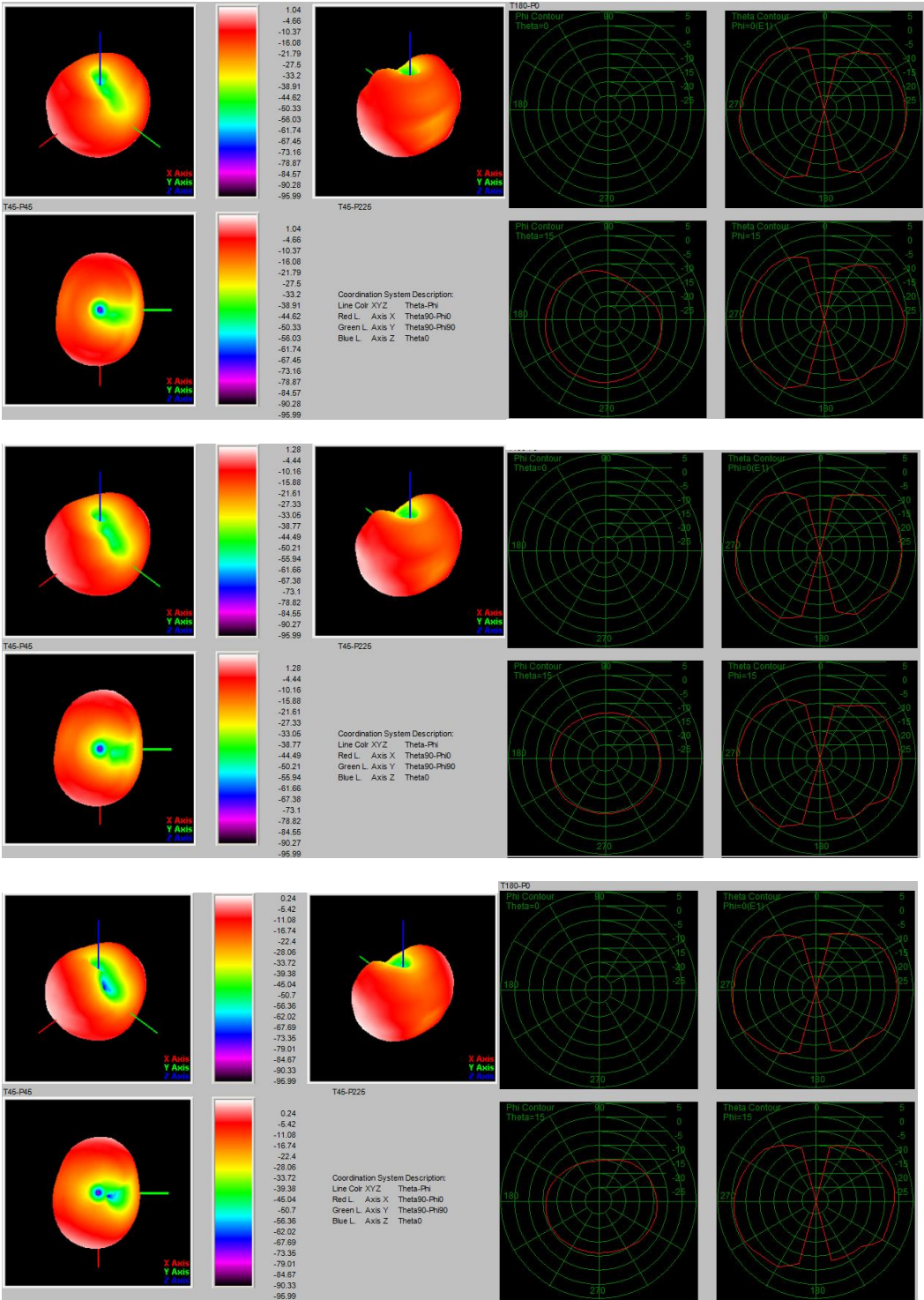


四、Structural drawings



五、Antenna gain and efficiency&Apple in 3D

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	1.04	4.53	44.9%	-3.48	1.04	105	165	-95.99	0	0	-3.89	97.03	4.93	-92.10
2	2410.0	2410.00	1.15	4.75	43.7%	-3.60	1.15	105	165	-95.99	0	0	-3.79	97.14	4.94	-92.20
3	2420.0	2420.00	1.41	4.94	44.4%	-3.53	1.41	105	165	-95.99	0	0	-3.48	97.40	4.89	-92.51
4	2430.0	2430.00	1.54	5.05	44.5%	-3.51	1.54	135	315	-95.99	0	0	-3.34	97.53	4.88	-92.65
5	2440.0	2440.00	1.29	5.01	42.4%	-3.73	1.29	135	315	-95.99	0	0	-3.64	97.28	4.93	-92.35
6	2450.0	2450.00	1.28	5.03	42.2%	-3.75	1.28	135	315	-95.99	0	0	-3.70	97.27	4.98	-92.29
7	2460.0	2460.00	1.35	4.92	44.0%	-3.57	1.35	135	315	-95.99	0	0	-3.56	97.34	4.92	-92.43
8	2470.0	2470.00	1.04	4.64	43.7%	-3.60	1.04	135	315	-95.99	0	0	-3.82	97.03	4.86	-92.17
9	2480.0	2480.00	0.34	4.24	40.7%	-3.90	0.34	105	165	-95.99	0	0	-4.52	96.33	4.87	-91.47
10	2490.0	2490.00	0.11	4.20	39.0%	-4.09	0.11	105	165	-95.99	0	0	-4.80	96.10	4.91	-91.19
11	2500.0	2500.00	0.24	4.16	40.6%	-3.91	0.24	105	165	-95.99	0	0	-4.70	96.23	4.94	-91.29



六、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