

SPECIFICATION

Shenzhen Guandetong Electronic Limited

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Shenzhen Guandetong Electronic Co., Ltd.

2.4 G 3DB antenna 1.13 gray line length 150MM band terminal

Product Specification

connection		frequency range	2400-2500MHz
Frequency band wire name		edition	A1
Customer part number		Guandetong part number	
Guandeton g No			
R F design	Xiao Bin	RF Manager	Liu Liang
Structural design	Wang Dong	Structure Manager	Wang Hua
Technical Director	Ye Dingkun	Date	2024-9-26

Customer confirmation:

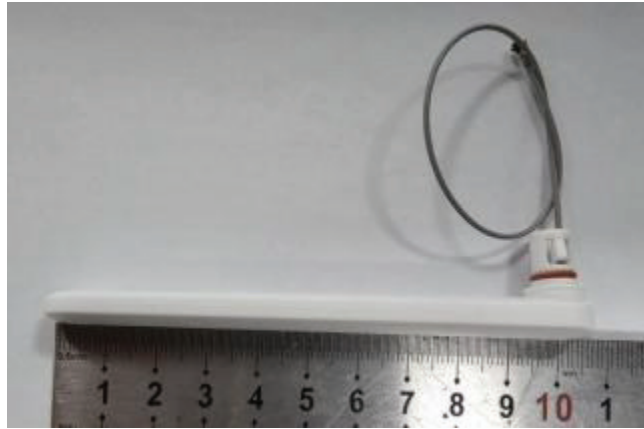
Does the assembly meet your company's requirements: ☐OK ☐NG

catalogue

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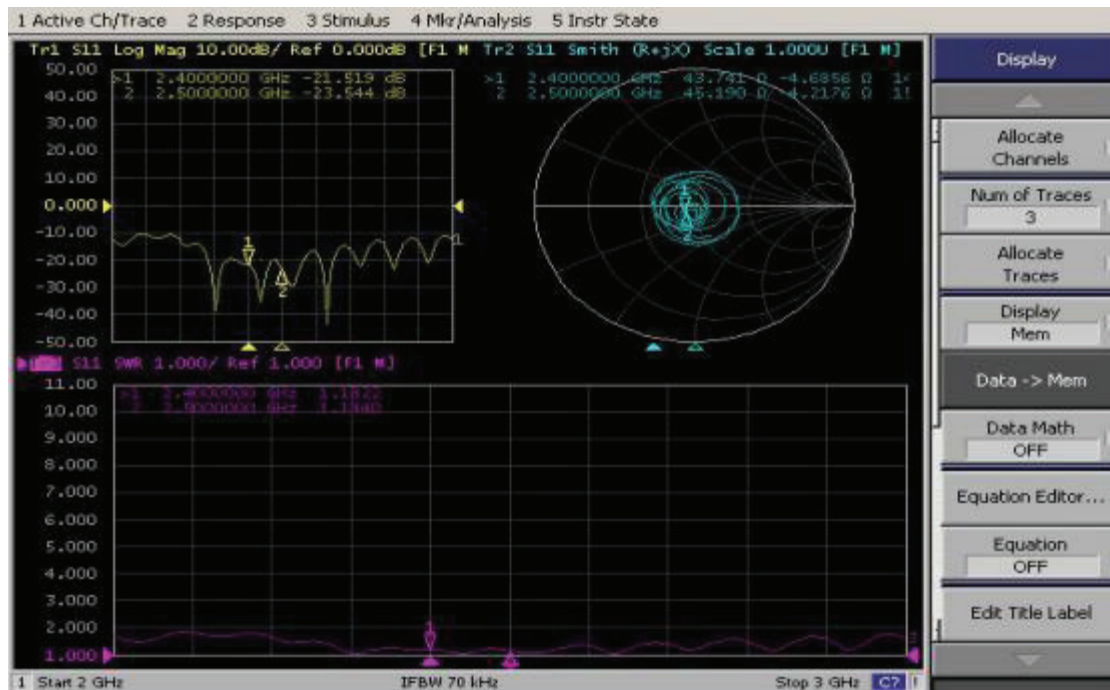
1. Product pictures



2. Product parameters

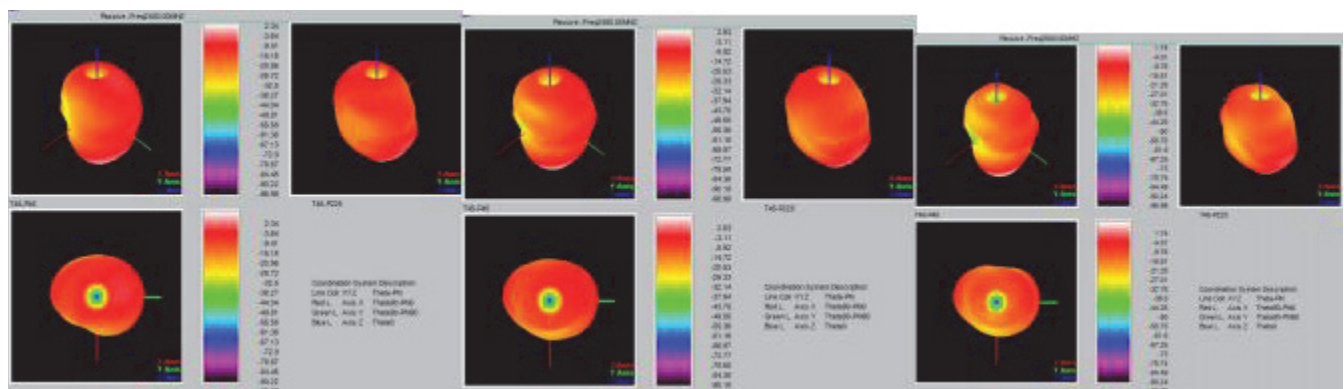
Product testing parameters			
Product name	2.4G antenna	(Model Type)	GDT-P2.4-L150
(Electrical Specifications)			
(Frequency Range)	2400-2500MHz	(Polarization)	perpendicular
(Impedance)	50 Ω	Radiation	Omnidirectional
(VSWR)	≤ 2.0	(Power)	50W
(Gain)	3.23dBi	(Bandwidth)	100M
(Mechanical Specifications)			
(Dimensions)	104.7*12.8-+0.3mm	(Chassis Color)	White
(Connector)	IPEX	(Cable Length)	150 $\pm$ 3MM
(Chassis Material)	ABS+ PC	Color of wire	1.13 grey
(Working Temperature)	-40 $^{\circ}$ C-+85 $^{\circ}$ C	(Limit Temperature)	-40 $^{\circ}$ C-+85 $^{\circ}$ C
Type of Antenna	External Antenna		

3. S11(VSWR, Return, Smith)



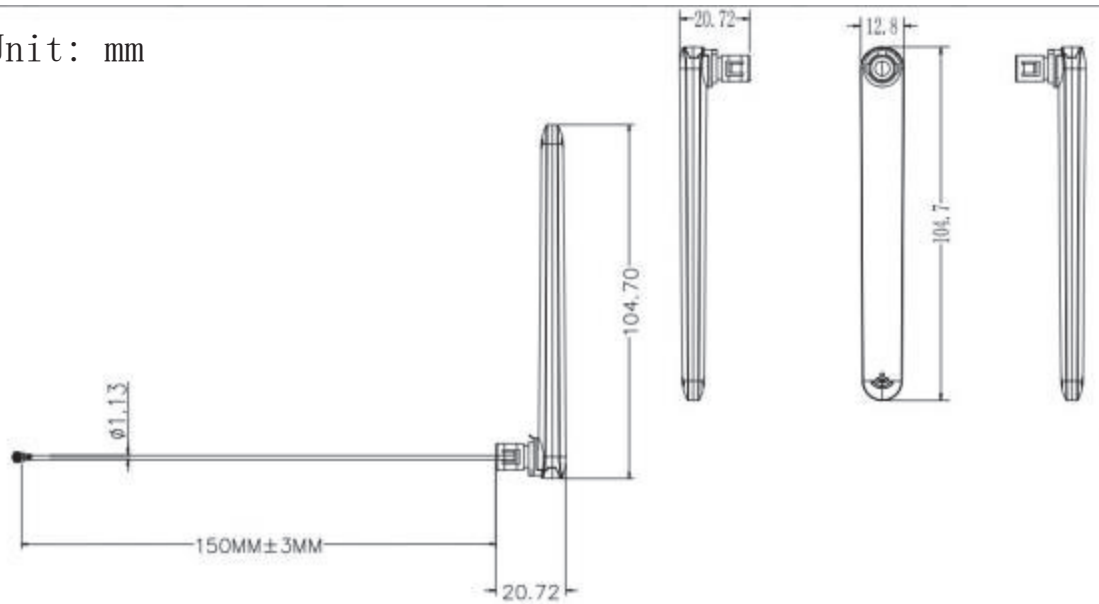
4. Antenna gain and efficiency & Apple in 3D

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	2.34	5.51	56.0%	-3.37	2.14	135	60	-95.99	0	0	-3.04	98.13	5.18	-92.95
2	2410.0	2410.00	2.55	5.82	54.0%	-3.57	2.25	135	60	-95.99	0	0	-3.02	98.24	5.27	-92.97
3	2420.0	2420.00	2.54	6.12	53.9%	-3.58	2.54	135	60	-95.99	0	0	-2.79	98.53	5.33	-93.20
4	2430.0	2430.00	3.08	6.30	60.6%	-3.22	3.08	135	60	-95.99	0	0	-2.30	99.07	5.38	-93.69
5	2440.0	2440.00	3.15	6.27	58.7%	-3.50	2.77	135	60	-95.99	0	0	-2.66	98.76	5.43	-93.33
6	2450.0	2450.00	3.23	6.34	57.1%	-3.65	2.69	135	60	-95.99	0	0	-2.83	98.68	5.52	-93.16
7	2460.0	2460.00	2.15	6.41	52.2%	-3.75	2.66	135	60	-95.99	0	0	-2.95	98.65	5.61	-93.04
8	2470.0	2470.00	2.96	6.29	52.1%	-3.76	2.53	135	60	-95.99	0	0	-3.18	98.52	5.71	-92.81
9	2480.0	2480.00	2.72	6.00	51.9%	-3.78	2.22	135	60	-95.99	0	0	-3.60	98.21	5.82	-92.39
10	2490.0	2490.00	2.64	6.05	49.7%	-4.01	2.04	135	60	-95.99	0	0	-3.92	98.03	5.96	-92.07
11	2500.0	2500.00	2.63	6.02	47.3%	-4.28	1.74	135	60	-95.99	0	0	-4.27	97.73	6.00	-91.72



5. Product Structure Diagram

Unit: mm



6. 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 °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.	The size shall meet the requirements and Mechanical and electrical performance
Constant damp heat resistance test	Relative humidity: 95 ± 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