

SPECIFICATION

Shenzhen Guandetong Electronic Limited



Shenzhen Guandeong Electronics Co., Ltd. Shenzhen Guandetong Electronic Co., Ltd.

External antenna: 2.4 G 3 dBi (white-small lower seat antenna) Feeder L:
150mm + / -3mm

specification

client	Foscom, Shenzhen City	frequency range	2400 MHZ-2500 MHZ
Wire name		edition	A1
Customer material number	303305000118	Coronet material number	
Coronet No			
RF design	Xiao Bin	Radio frequency manager	Liu Liang
architectur al design	Wang Dong	Structure manager	Wang Hua
Technical Director	andy	date	2024/12/25

Customer confirmation:

Whether the assembly meets your requirements: ☐ OK ☐ NG

catalogue

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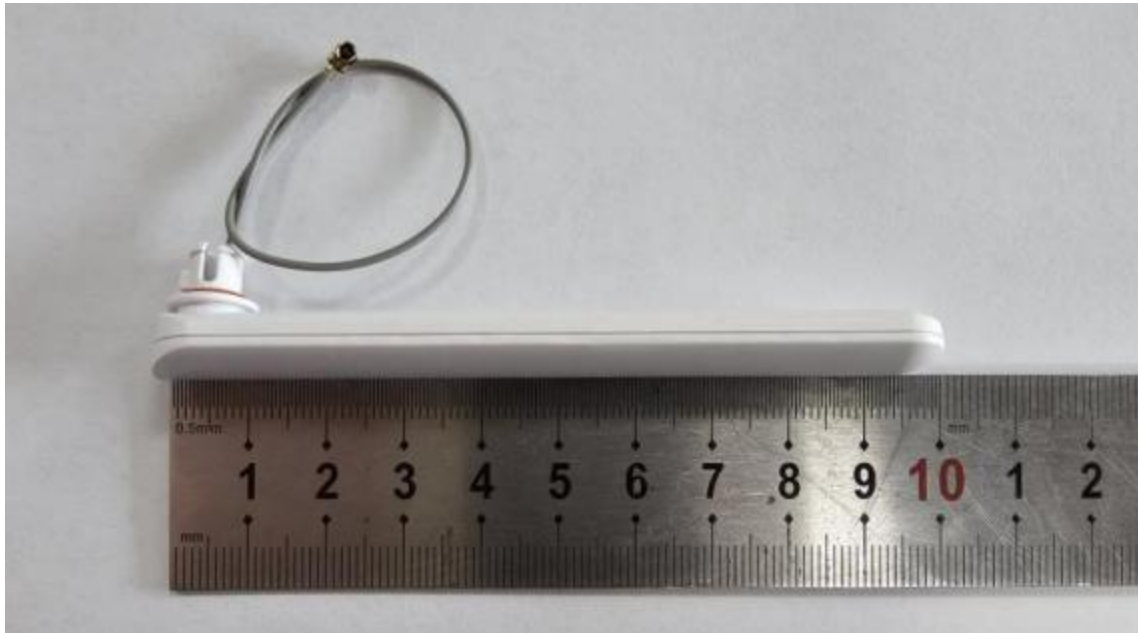
**Confidentiality
requirements of
Shenzhen
Guantong
Electronics Co., Ltd**

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1. product picture



2. Product Parameter

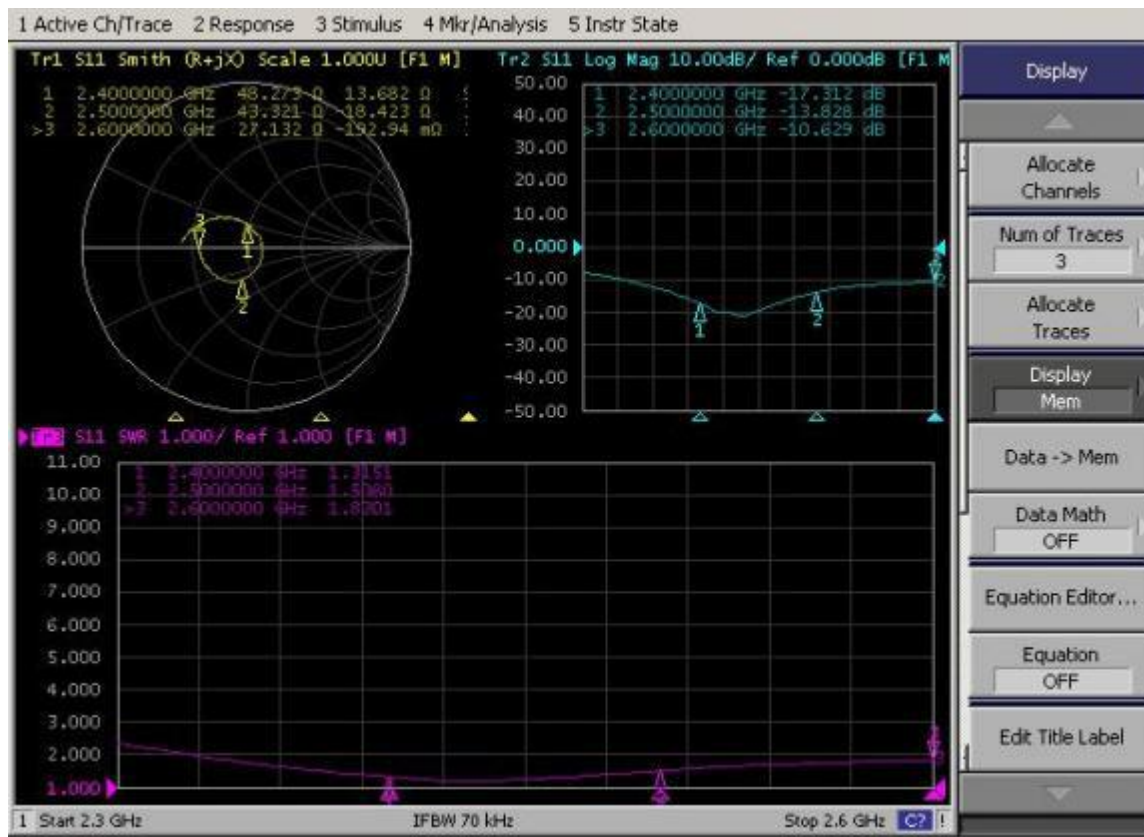
Product test parameters			
Product Name (Name)	2.4G antenna	Product Model Number (Model Type)	
Electrical performance index (Electrical Specifications)			
Frequency Range (Frequency Range)	2400 MHZ-2500 MHZ	Polarization mode (Polarization)	perpendicular
Input impedance (Impedance)	50Ω	radiation direction	omnidirectional
Standing Bobby (VSWR)	≤ 2.0	Power capacity (Power)	50W
Gain (Gain)	3.08 dBi	Bandwidth (Bandwidth)	100 MHz
Mechanical index (Mechanical Specifications)			
Dimensions (Dimensions)	97.98-+0.3 mm	Shell Color (Radome Color)	white
Connector Model Number (Connector)	The IPEX first-generation terminal	Lead length (Cable Length)	150-+3 mm
Case material, Radome Material	ABS	waterproof ring	Red 8 * 1
working temperature (Working Temperature)	-40℃-+85℃	Storage temperature (Limit Temperature)	-40℃-+85℃

Company address: 3rd floor, Building D, Dongguan South Maoyuan Industrial Park, Guanhu Street, Longhua District, Shenzhen Tel: 0755-88298396 Fax: 0755-89733896

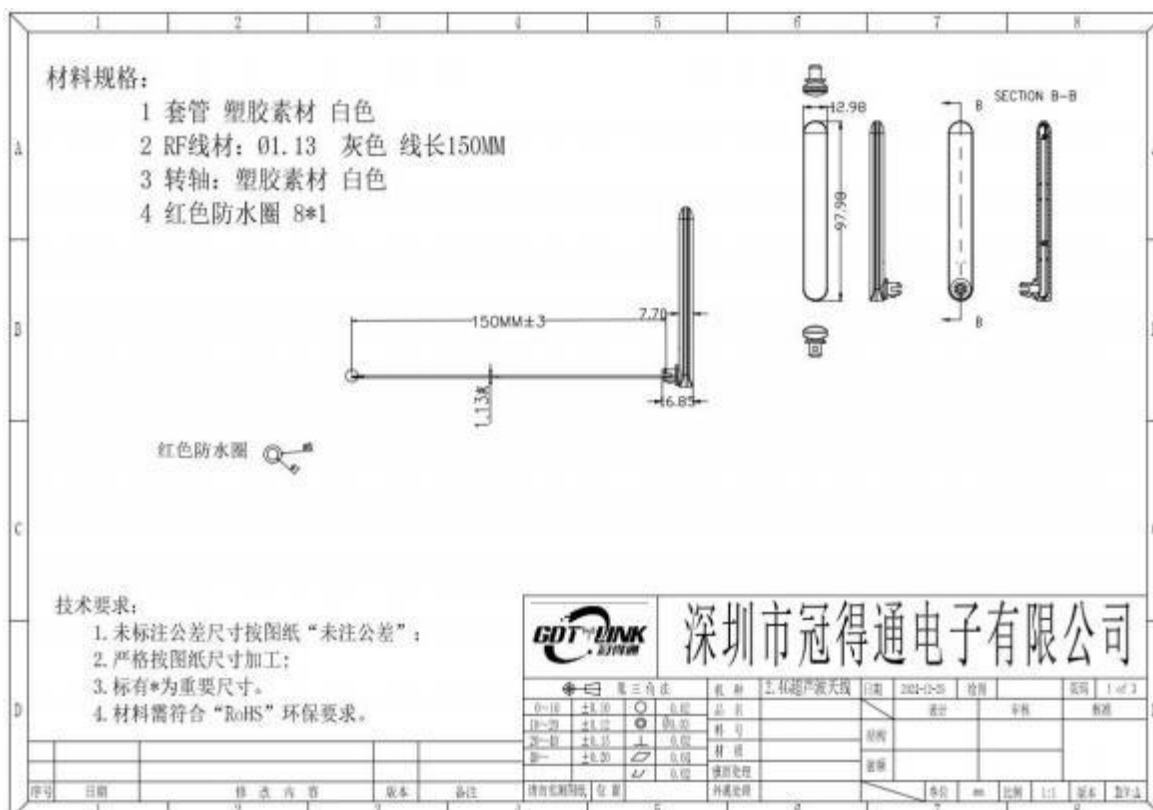
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3. VSWR, Return loss, and Smith data



4. Product structure diagram



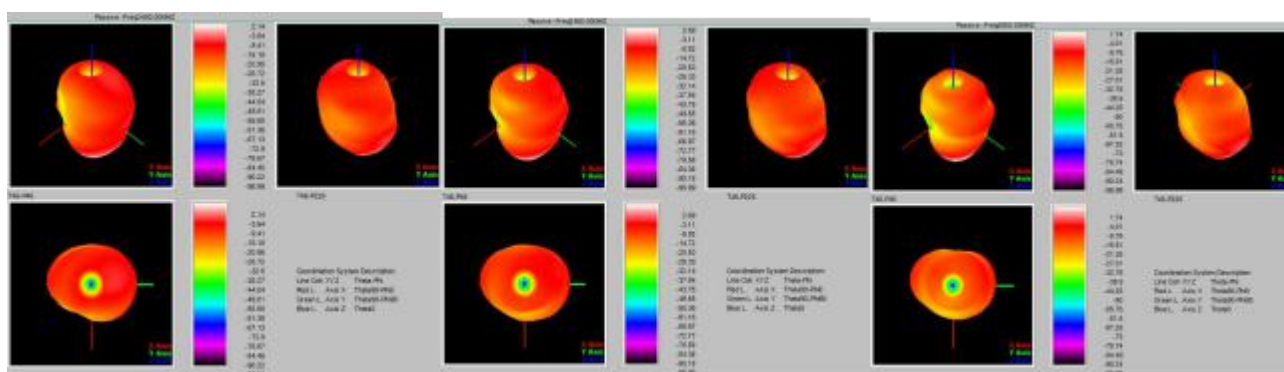
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5. Antenna gain and efficiency

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	2.14	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	2.25	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	57.6%	-3.22	3.08	135	60	-95.99	0	0	-2.30	99.07	5.38	-93.69
5	2440.0	2440.00	2.77	6.27	54.7%	-3.60	2.77	135	60	-95.99	0	0	-2.66	98.76	5.43	-93.33
6	2450.0	2450.00	2.69	6.34	63.1%	-3.65	2.69	135	60	-95.99	0	0	-2.83	98.68	5.52	-93.16
7	2460.0	2460.00	2.66	6.41	62.2%	-3.75	2.66	135	60	-95.99	0	0	-2.95	98.65	5.61	-93.04
8	2470.0	2470.00	2.53	6.29	62.1%	-3.78	2.53	135	60	-95.99	0	0	-3.18	98.52	5.71	-92.81
9	2480.0	2480.00	2.22	6.00	61.9%	-3.78	2.22	135	60	-95.99	0	0	-3.60	98.21	5.82	-92.39
10	2490.0	2490.00	2.04	6.05	69.7%	-4.01	2.04	135	60	-95.99	0	0	-3.92	98.03	5.96	-92.07
11	2500.0	2500.00	1.74	6.02	57.3%	-4.28	1.74	135	60	-95.99	0	0	-4.27	97.73	6.00	-91.72

6,3D apple chart



7: Environmental performance test:

project	test condition	specifications
Storage environment	Test temperature, humidity, air pressure without specified: 1. The temperature is -30℃ ~ + 80℃ 2. Relative humidity is 45% -85% 3. Air pressure is 86 kpa-106 kpa	Electrical and mechanical properties are normal
thermocycling	Five cycles were performed between 70℃ and 40℃ and then under normal conditions 1-2H, check the appearance quality.	The dimensions shall be as specified and shall be full Enough to satisfy In the mechanical and electrical performance
Resistance to constant damp and heat test	Relative humidity: 95 ± 3%, test temperature: 40℃. After a sustained 2H action, The electrical performance is measured within 5 min after the removal, and the test article is in the normal strip Part under 1-2H, to check the appearance quality	The dimensions shall be as specified and shall be full Enough to satisfy In the mechanical and electrical performance
vibration test	Vibration frequency range: 10-55 HZ, displacement amplitude: 0.35 MM, acceleration amplitude: 50.0M/S, Scan cycle times: 30 times	Electrical and mechanical properties are normal

fall-down test	1M falls 3 times in the axis direction vertical to each other	Electrical and mechanical properties are normal
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