

SPECIFICATION



Shenzhen Guandetong Electronic Limited

2.4 G 3DB antenna 1.13 gray line length 250MM band
terminal

Product specification

Customers	深圳市中科迅驰	Frequency	2400MHz——2500MHz
Name of wire rod		Version	A1
Customer data	1.00.10.00022	GuandetongNo	
GuandetongNo			
R FDesign	肖彬	RF manager	刘亮
Structural design	王栋	Structure manager	王华
Technical Director	ANDY	Date	2024-1-18

Customer confirmation:

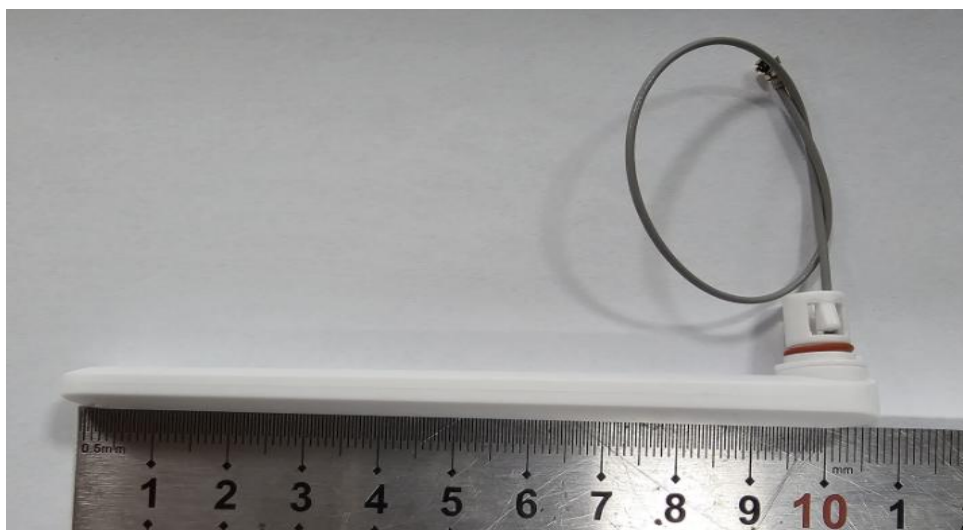
Whether the Assembly meets your requirements: ☐OK ☐NG

catalogue

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Shenzhen Guan De Tong Electronics Co. , Ltd.
Confidentiality requirements

一、Product pictures



二、Product parameters

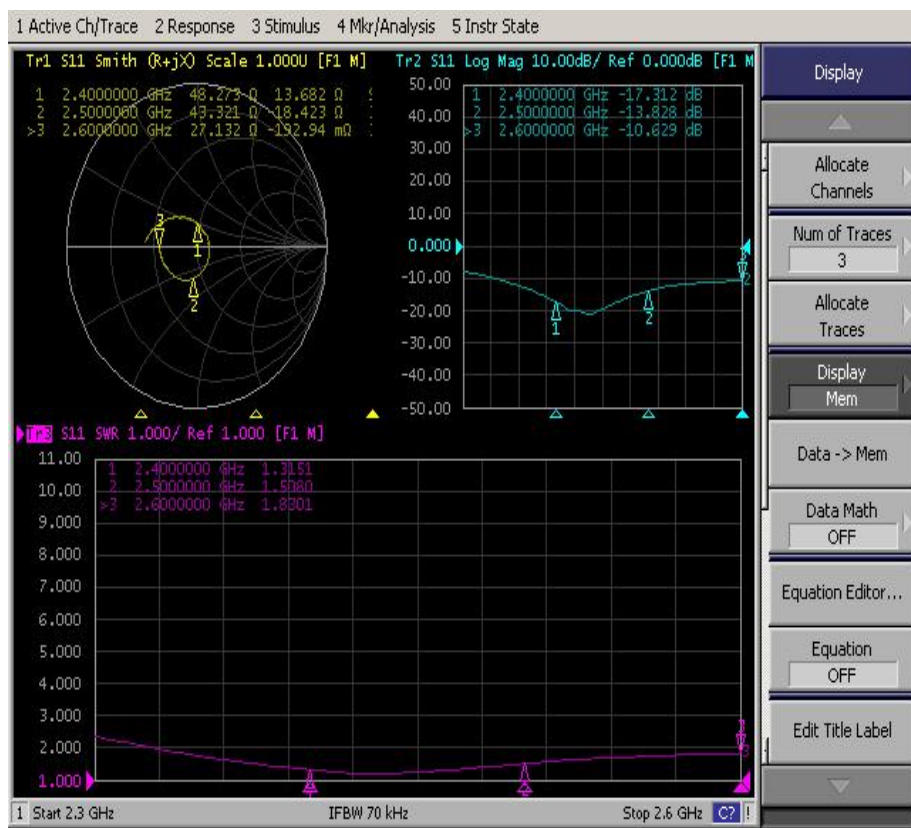
Product test parameters

(Name)	2.4 g antenna	(Model Type)	
(Electrical Specifications)			
(Frequency Range)	2400-2500MHZ	(Polarization)	perpendicular
(Impedance)	50 Oh	Radiation	QXCOMM
(VSWR)	≤ 2.0	(Power)	50W
(Gain)	2.94dBi	(Bandwidth)	100M
(Mechanical Specifications)			
(Copper tube dimensions)	104.7*12.8-+0.3mm	(Chassis Color)	White
(Connector)	IPEX	(Cable Length)	250 $\pm$ 3mm
(Wire)	1.13 Gray		
(Working Temperature)	-40℃--+85℃	(Limit Temperature)	-40℃--+85℃

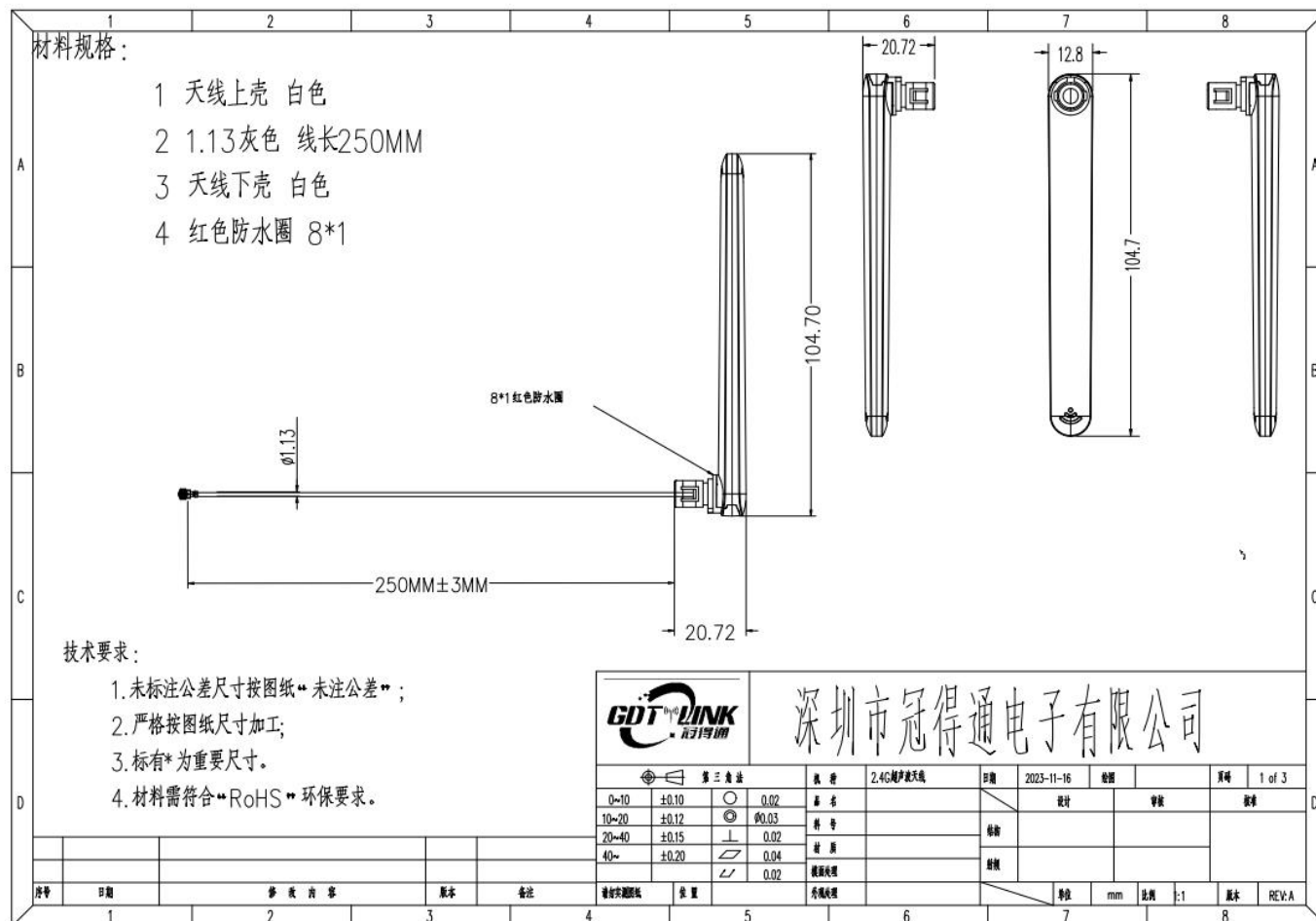
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三、S11(VSWR/Return/Smith

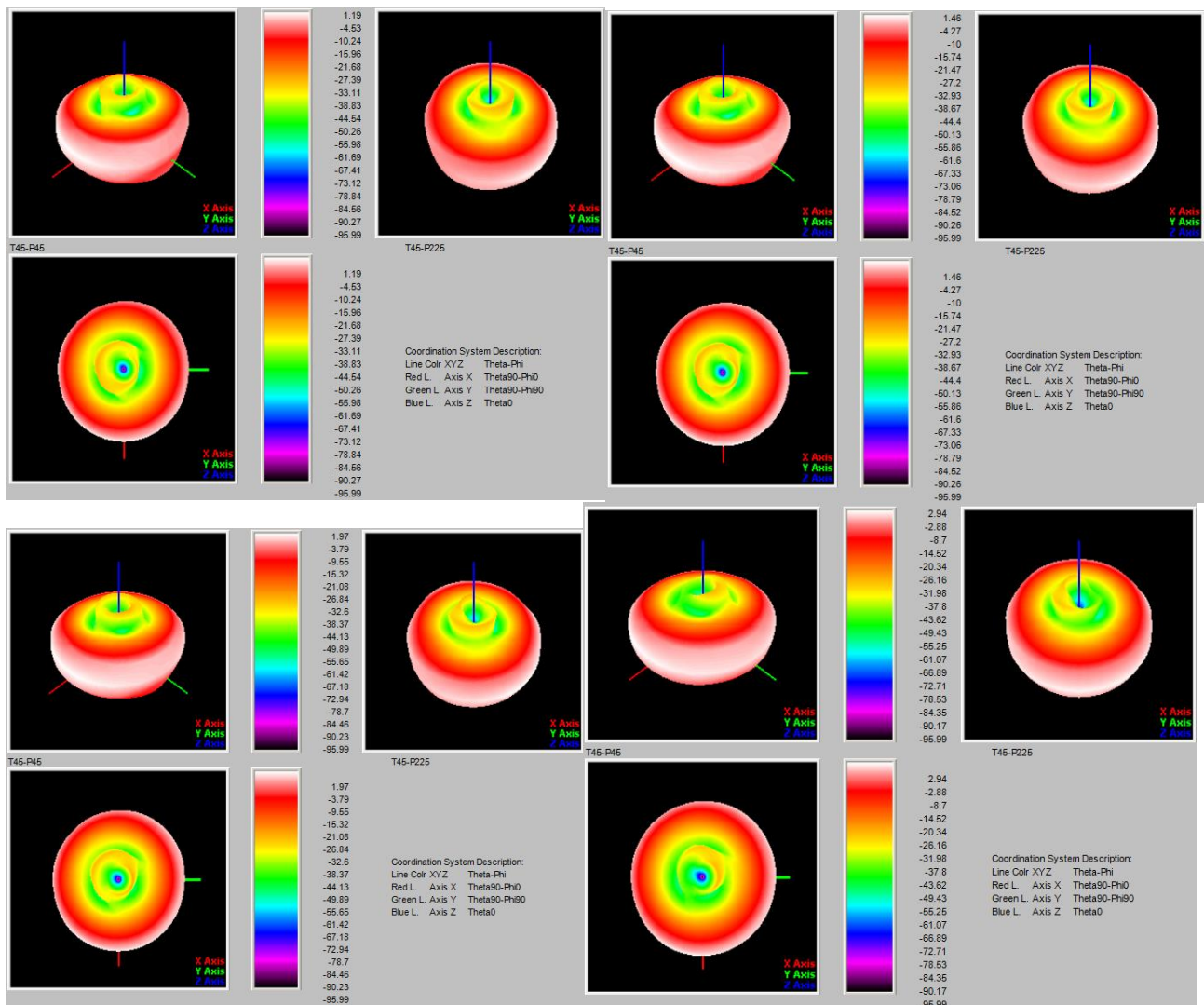


四、Structural drawings



五、Apple chart 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	1.19	4.74	44.1%	-3.56	1.19	90	315	-95.99	0	0	-4.47	97.18	5.66	-91.52
2	2410.0	2410.00	1.46	4.94	44.9%	-3.48	1.46	75	15	-95.99	0	0	-4.22	97.45	5.68	-91.77
3	2420.0	2420.00	1.97	5.29	46.5%	-3.32	1.97	90	270	-95.99	0	0	-3.86	97.96	5.83	-92.13
4	2430.0	2430.00	2.70	5.58	51.5%	-2.88	2.70	90	270	-95.99	0	0	-3.31	98.69	6.02	-92.68
5	2440.0	2440.00	2.76	5.58	52.2%	-2.82	2.76	75	330	-95.99	0	0	-3.36	98.75	6.12	-92.63
6	2450.0	2450.00	2.76	5.60	52.0%	-2.84	2.76	75	330	-95.99	0	0	-3.41	98.75	6.17	-92.58
7	2460.0	2460.00	2.94	5.63	53.9%	-2.69	2.94	75	345	-95.99	0	0	-3.29	98.93	6.23	-92.70
8	2470.0	2470.00	2.81	5.40	55.1%	-2.69	2.81	75	345	-95.99	0	0	-3.41	98.80	6.22	-92.58
9	2480.0	2480.00	2.24	4.97	53.4%	-2.72	2.24	90	255	-95.99	0	0	-3.93	98.23	6.17	-92.06
10	2490.0	2490.00	2.28	4.97	53.8%	-2.69	2.28	90	240	-95.99	0	0	-3.98	98.27	6.26	-92.01
11	2500.0	2500.00	2.15	4.96	52.4%	-2.81	2.15	90	240	-95.99	0	0	-4.16	98.14	6.32	-91.83



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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 $-30^{\circ}\text{C}\sim+80^{\circ}\text{C}$ 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.	The size shall meet the requirements and Mechanical and electrical performance
Constant damp heat resistance test	Relative humidity: $95 \pm 3\%$, 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