

SPECIFICATION



Shenzhen Guandetong Electronic Limited

2.4G 2DB Antenna (1.13White antenna *180MM) Product specification

Customers	N/A	Frequency	2400MHz—2500MHz
Name of wire rod	N/A	Version	A1
Customer data	N/A	Guandetong No.	N/A
Guandetong No.	N/A		
R FDesign	肖彬	RF manager	刘亮
Structural design	王栋	Structure manager	王华
Technical Director	ANDY	Date	2024-9-3

Customer confirmation:

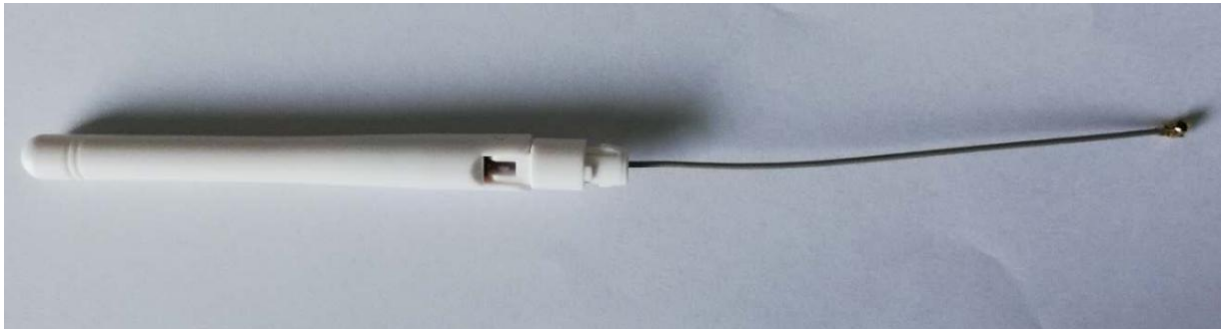
Whether the Assembly meets your requirements: ☐OK ☐NG

catalogue

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一、 Product pictures



二、 Product parameters

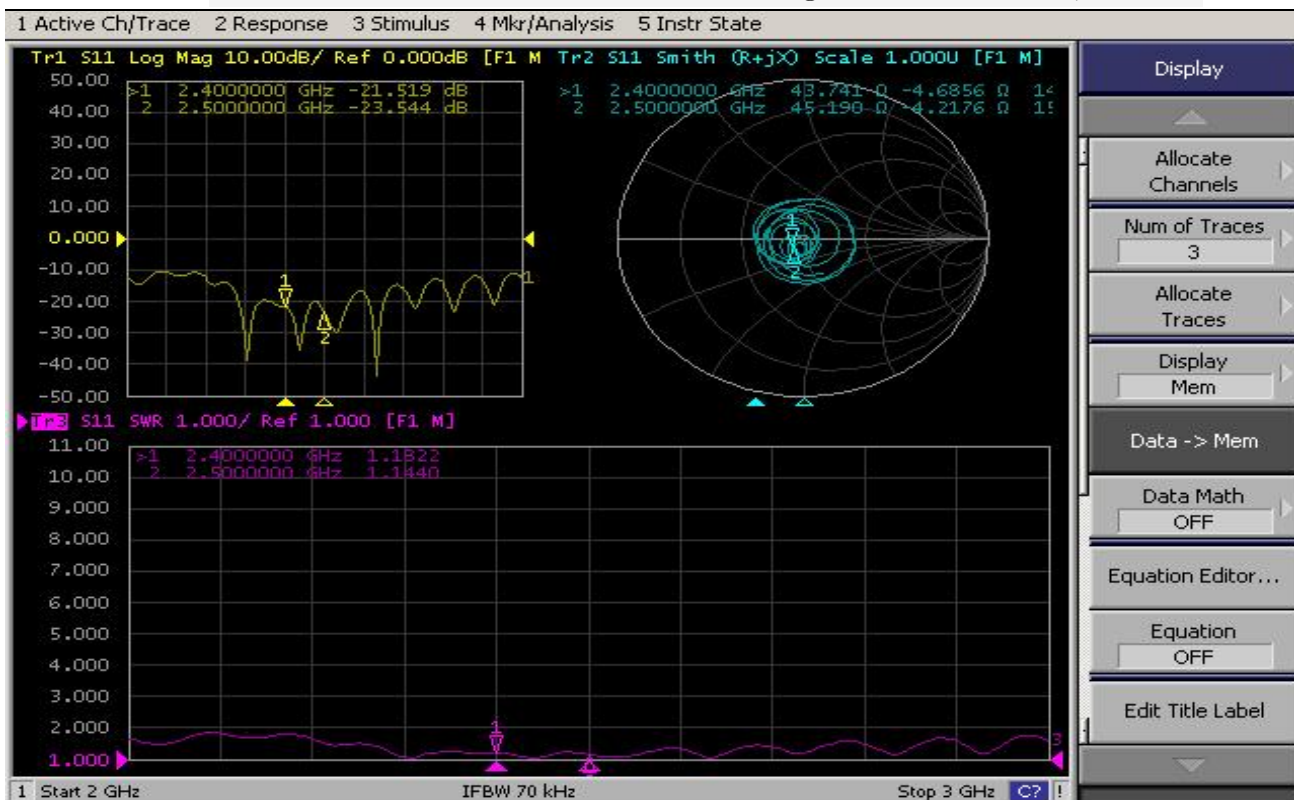
Product test parameters			
(Name)	2.4 G antenna	(Model Type)	Type B
(Electrical Specifications)			
(Frenquency Range)	2400-2500MHZ	(Polarization)	perpendicular
(Impedance)	50	Radiation	QXCOMM
(VSWR)	≦2.0	(Power)	50W
(Gain)	2.38dBi	(Bandwidth	100M
(Mechanical Specifications)			
(Copper tube dimensions)	108 ±3mm	(Chassis Color)	White
(Connector)	IPEX	(Cable Length)	180±2mm
(Wire)	1.13 Gray		
(Working Temperature)	-40℃--+85℃	(Limit Temperature)	-40℃--+85℃

三、 S11(VSWR/Return/Smith

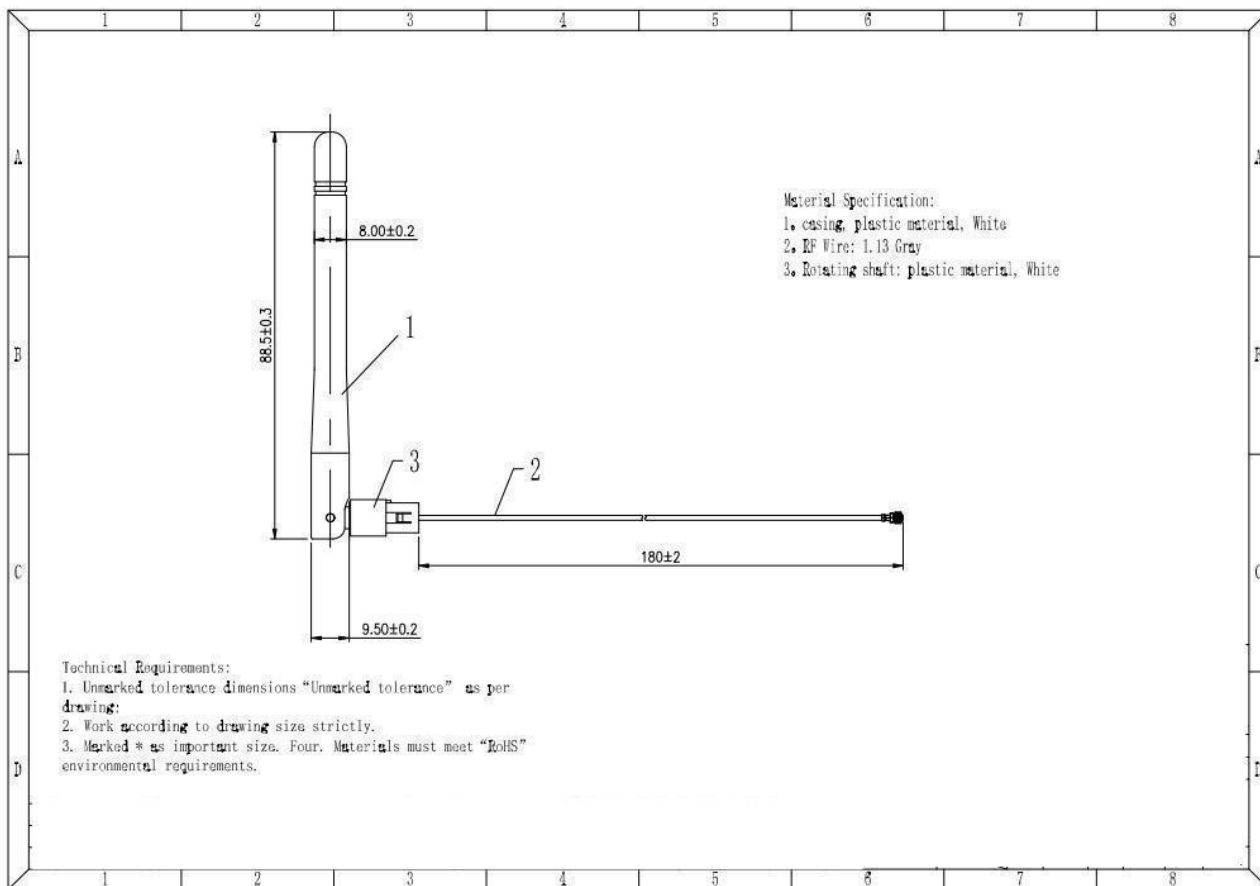
Address: 3/F, Tower D, Huanguan Nanmaoyuan Industrial Park, Guanhu Street,
Longhua District, Shenzhen. Tel: 0755-88298396 fax: 0755-89733896

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四、Structural drawings

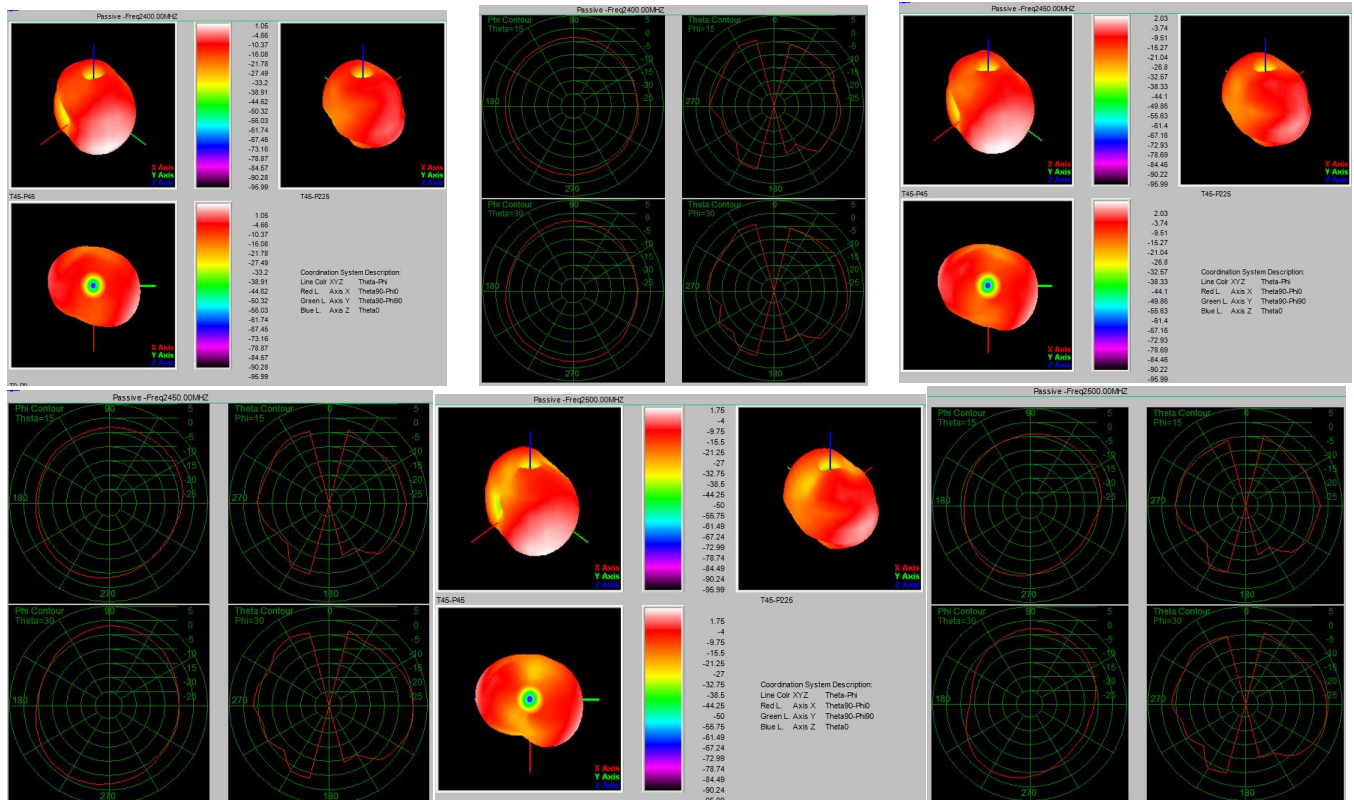


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五、Apple chart & Equipment

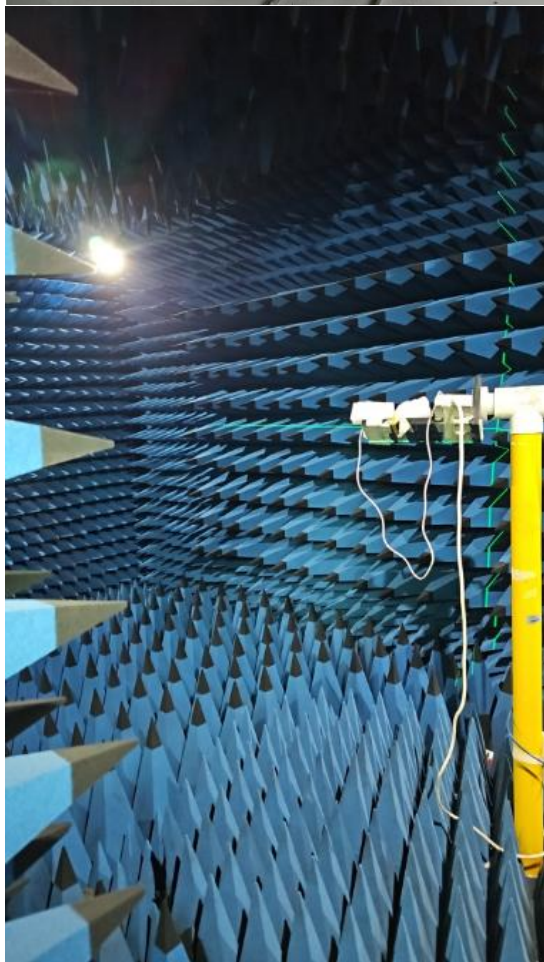


Test Point ID	Freq. (MHz)	TRP (dBm)	Gain (dBi)	Directivity (dBi)	Efficiency (%)	Efficiency (dB)	Max (dBm)	Theta of Max	Phi of Max	Min (dBm)	Theta of Min	Phi of Min	AVG (dBm)	Max/Min (dB)	Max/AVG (dB)	Min/AVG (dB)
1	2400.0	2400.00	1.05	5.20	38.5%	-4.15	1.05	90	60	-95.99	0	0	-4.31	97.04	5.35	-91.68
2	2410.0	2410.00	1.26	5.39	38.6%	-4.14	1.26	90	60	-95.99	0	0	-4.11	97.25	5.36	-91.88
3	2420.0	2420.00	1.60	5.58	40.0%	-3.98	1.60	90	60	-95.99	0	0	-3.73	97.59	5.32	-92.26
4	2430.0	2430.00	2.12	5.66	44.2%	-3.54	2.12	90	60	-95.99	0	0	-3.17	98.11	5.29	-92.82
5	2440.0	2440.00	1.86	5.59	42.3%	-3.73	1.86	90	60	-95.99	0	0	-3.46	97.85	5.32	-92.53
6	2450.0	2450.00	2.03	5.68	43.1%	-3.66	2.03	105	60	-95.99	0	0	-3.42	98.02	5.45	-92.57
7	2460.0	2460.00	2.33	5.84	44.6%	-3.51	2.33	105	60	-95.99	0	0	-3.32	98.32	5.65	-92.67
8	2470.0	2470.00	2.38	5.74	46.1%	-3.36	2.38	105	60	-95.99	0	0	-3.41	98.37	5.79	-92.58
9	2480.0	2480.00	2.08	5.36	46.9%	-3.29	2.08	105	60	-95.99	0	0	-3.74	98.07	5.81	-92.25
10	2490.0	2490.00	1.77	5.23	45.1%	-3.46	1.77	105	60	-95.99	0	0	-4.01	97.76	5.78	-91.98
11	2500.0	2500.00	1.75	5.14	45.8%	-3.39	1.75	105	60	-95.99	0	0	-4.00	97.74	5.75	-91.99

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六、Environmental performance test

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

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