

SPECIFICATION

Shenzhen Guandetong Electronic Limited

*Manufacturer: Shenzhen Guandetong Electronic Co., Ltd.*

2.4G B model white ultrasonic antenna 1.13 gray wire length
250MM with terminals (red waterproof ring 8*10)

Product Specification

connection		frequency range	2400MHZ-2500MHZ
Frequency band wire name		edition	A1
Customer part number		Guandetong part number	
Guandetong No			
R F design	肖彬	RF Manager	刘亮
Structural design	王栋	Structure Manager	王华
Technical Director	叶定坤	Date	2025-8-28

Customer confirmation:

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

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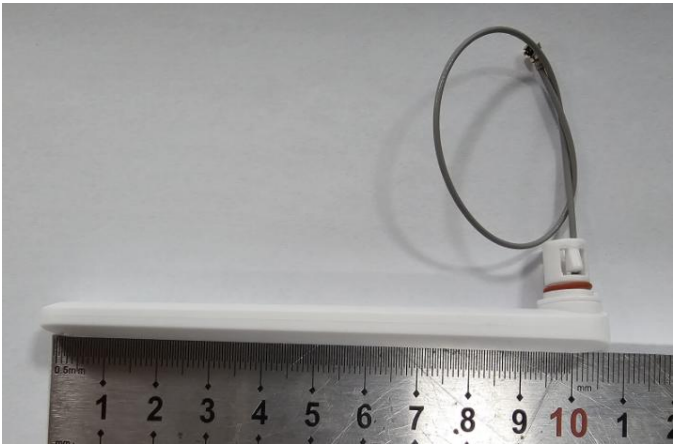
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一、 Product pictures



二、 Product parameters

Product testing parameters			
Product name	2.4G/5.8G antenna	(Model Type)	
(Electrical Specifications)			
(Frenquency Range)	2400MHz-2500MHz	(Polarization)	perpendicular
(Impedance)	50Ω	Radiation	QXCOMM
(VSWR)	≤2.0	(Power)	50W
(Gain)	2.59dBi	(Bandwidth	100MHz
(Mechanical Specifications)			
(Dimensions)	104.7*12.8-+0.3mm	(Chassis Color)	White
(Connector)	IPEX	(Cable Length)	250±5MM
(Chassis Material)	ABS	Wire color	1.13 Gray
(Working Temperature)	-40℃--+85℃	(Limit Temperature)	-40℃--+85℃

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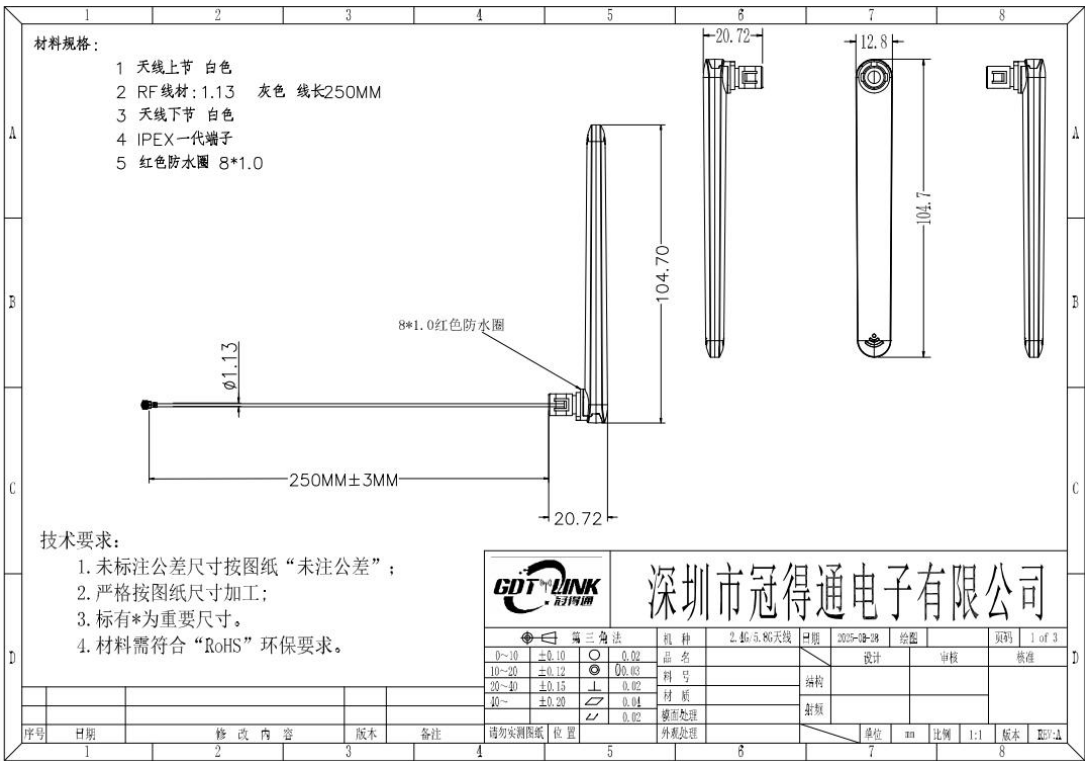
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三、S11(VSWR、Return、Smith)



四、Structural drawings



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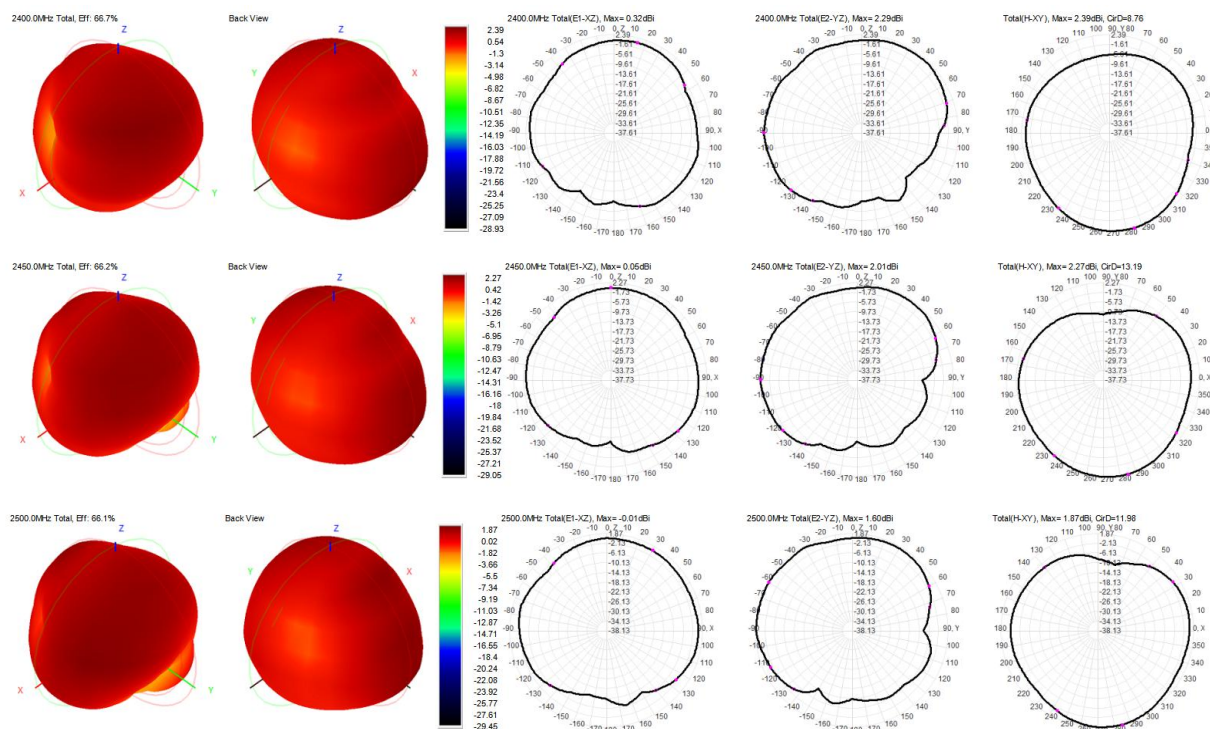
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五、Antenna gain and efficiency

序号	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
频率(MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0
效率 (dBd)	-1.76	-1.78	-1.59	-1.75	-1.94	-1.79	-1.51	-1.65	-1.76	-1.94	-1.80	-0.92	-1.05	-2.26	-1.65	-0.94	-1.85	-1.34	-1.17	-1.07	-1.22	-0.73	-0.65	-1.32	-0.86
增益 (dB)	2.39	2.41	2.59	2.39	2.14	2.27	2.50	2.32	2.14	1.84	1.87	3.68	3.65	3.21	4.34	5.82	4.83	5.69	6.22	6.35	5.96	6.00	6.32	5.88	6.00
效率 (%)	66.65	66.32	69.31	66.77	63.91	66.24	70.56	68.34	66.62	63.96	66.09	80.98	78.57	59.47	68.33	80.51	65.28	73.40	76.30	78.10	75.47	84.45	86.14	73.71	82.03
方向性(dB)	4.15	4.19	4.18	4.14	4.08	4.05	4.01	3.97	3.91	3.78	3.66	4.59	4.69	5.46	5.99	6.76	6.68	7.03	7.40	7.42	7.18	6.73	6.97	7.21	6.86
最大增益位置(theta)	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
最大增益位置(phi)	285.00	285.00	285.00	285.00	285.00	285.00	285.00	285.00	285.00	285.00	285.00	60.00	60.00	60.00	60.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
上半球效率(%)	17.97	17.07	17.98	17.43	16.75	17.51	18.73	18.27	17.72	16.83	17.11	27.55	26.38	20.83	23.40	27.77	22.68	24.69	25.47	25.16	26.22	29.61	29.61	25.39	28.99
垂直极化效率(%)	49.58	49.25	51.33	49.33	47.17	48.73	51.83	50.07	48.91	47.13	48.99	53.43	52.19	38.64	44.92	52.74	42.61	48.71	50.83	52.94	49.25	54.84	57.08	48.32	53.04
上半球效率 (%)	42.14	42.26	44.33	42.74	40.90	42.37	45.26	43.96	42.82	40.98	42.04	44.99	43.22	32.99	38.60	46.85	39.20	44.92	47.70	48.51	47.13	52.59	52.63	44.76	48.56
下半球效率 (%)	24.52	24.06	24.98	24.03	23.02	23.87	25.31	24.38	23.88	22.98	24.06	35.99	35.35	26.48	29.72	33.67	26.09	28.49	28.60	29.59	28.34	31.86	33.50	28.95	33.47

六、2D&3D images



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七、Environmental performance test

project	Project test conditions	Specificat ions
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 conditions1-2H, check the appearance quality.	The size shall meet the requirements and Mechanical and electrical performance
Constant damp heat resistance test	Relative humidity: $95 \pm 3\%$, 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

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