

SPECIFICATION



Shenzhen Guandetong Electronic Co., Ltd.
2.4G 2DB Copper Tube Antenna
Product Specifications

Customer	MAB	Frequency band	2400MHz-2500MHz

Customer Opinion:

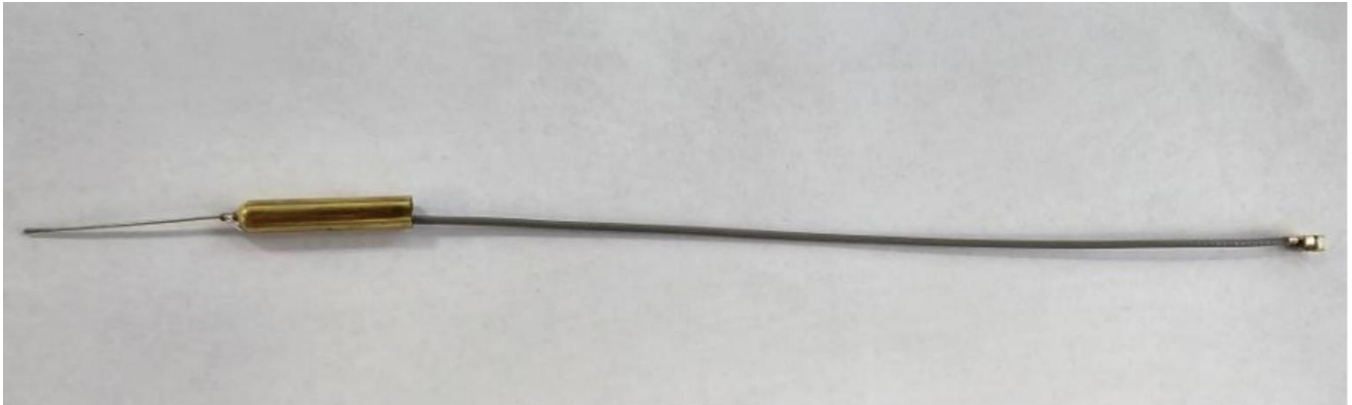
☒OK

☐NG

Table of contents

1、 cover.....	1
2、 parameter	3
3、 date	4
4、 Product Structure	4
5、 Antenna gain.....	5
6、 Reliability Test.....	5

1- Product images



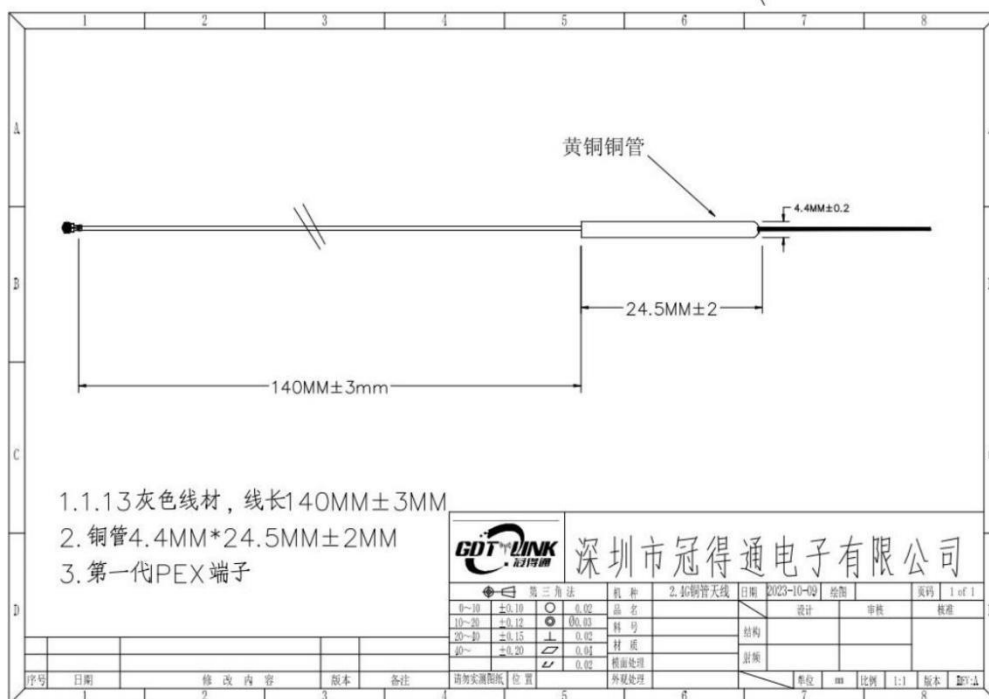
2、parameter

Test parameters			
(Name)	2.4G antenna	(Model Type)	GDT-TG-P2.4G-75
(Electrical Specifications)			
(Frequency Range)	2400MHz-2500MHz	(Polarization)	vertical
(Impedance)	50 Ω	Vertical	
(VSWR)	≤ 2.0	(Power)	50W
(Gain)	2.29dBi	(Bandwidth)	100MHz
(Mechanical Specifications)			
(Dimensions)	4.4MM*24.5MM	(Chassis Color)	Gray, yellow
(Connector)	IPEX (1)	(Cable Length)	140 $\pm$ 3mm
(Chassis Material)	Brass		
(Working Temperature)	-40 $^{\circ}$ C-+85 $^{\circ}$ C	(Limit Temperature)	-40 $^{\circ}$ C-+85 $^{\circ}$ C

3、S11 (VS WR 、 Return loss 、 Smith) data



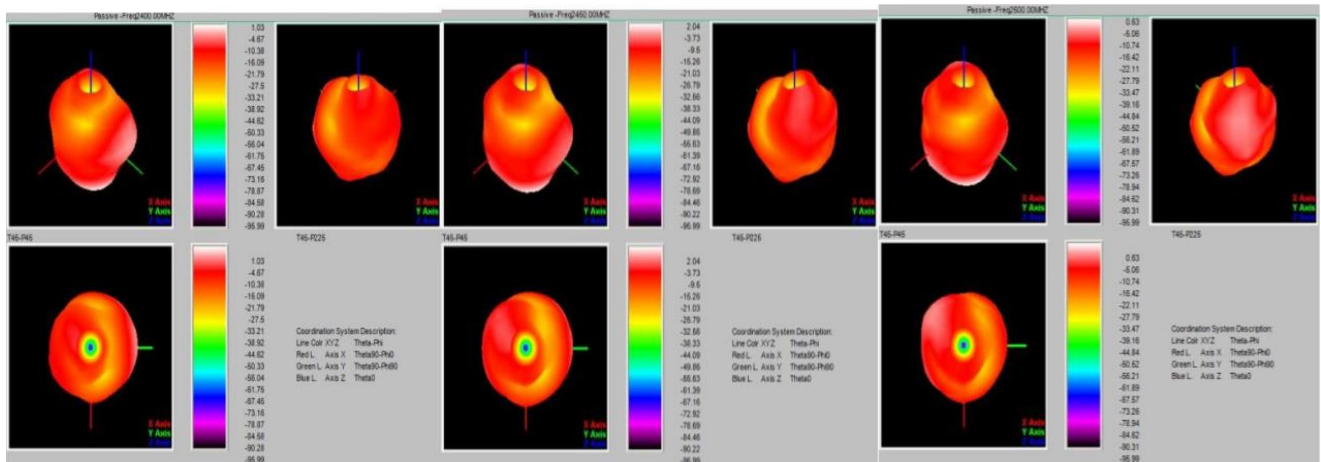
4、Product Structure



5、Antenna gain

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	1.03	5.42	36.5%	-4.38	1.03	120	60	-95.99	0	0	-4.49	97.02	5.52	-91.50
2	2410.0	2410.00	1.31	5.70	36.4%	-4.39	1.31	120	60	-95.99	0	0	-4.26	97.30	5.57	-91.73
3	2420.0	2420.00	1.74	6.01	37.4%	-4.27	1.74	120	60	-95.99	0	0	-3.88	97.73	5.62	-92.11
4	2430.0	2430.00	2.29	6.21	40.6%	-3.92	2.29	120	60	-95.99	0	0	-3.40	98.28	5.69	-92.59
5	2440.0	2440.00	2.20	6.20	39.8%	-4.00	2.20	120	60	-95.99	0	0	-3.56	98.19	5.76	-92.43
6	2450.0	2450.00	2.04	6.04	39.8%	-4.00	2.04	120	60	-95.99	0	0	-3.59	98.03	5.63	-92.40
7	2460.0	2460.00	1.97	5.90	40.5%	-3.93	1.97	120	60	-95.99	0	0	-3.54	97.96	5.51	-92.45
8	2470.0	2470.00	1.64	5.55	40.7%	-3.91	1.64	120	60	-95.99	0	0	-3.74	97.63	5.39	-92.25
9	2480.0	2480.00	1.03	5.02	39.9%	-3.99	1.03	120	60	-95.99	0	0	-4.20	97.02	5.23	-91.79
10	2490.0	2490.00	0.84	4.97	38.6%	-4.14	0.84	120	60	-95.99	0	0	-4.43	96.83	5.27	-91.56
11	2500.0	2500.00	0.63	4.80	38.3%	-4.17	0.63	120	60	-95.99	0	0	-4.54	96.62	5.17	-91.45

unit: dBi



6、Reliability Test

project	Test conditions	Specification
Storage environment	1. Temperature is $-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$ 2. Relative humidity is 45%-85% 3. Air pressure is 86kpa-106kpa	The electrical and mechanical performance is normal. The dimensions should meet the
High and low temperature test	Perform 5 cycles between 70°C and 40°C , and then check the appearance quality under normal conditions for 1-2 hours.	
Constant humidity and heat resistance test	Relative humidity is $95 \pm 3\%$, test temperature: 40°C . After 2 hours of action, the electrical performance of the sample is measured within 5 minutes after the sample is taken out, and the appearance quality of the sample is checked under normal conditions for 1-2 hours	
Vibration test	Frequency range 10-55HZ, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M/S, sweep frequency cycle number: 30 times	
Drop test	Free fall 3 times at 1M height in mutually perpendicular axial directions	