

SPECIFICATION

Shenzhen Tianda Communication Co., Ltd



ShenZhen TianDa Communication CO., LTD

Y0310 antenna Product Certification

Customers	Five grams	Frequency band	2400-2500MHz
The project name	Y0310	Edition	A
Item material number	BX-Y3-10-WI-A 02.06.0021	Color	Color
R F design	Wang Xinchuang	Structural design	He Forest
Period	2022.09.02		

Customer Confirmation:

Whether the assembly meets your company's requirements: OK NG

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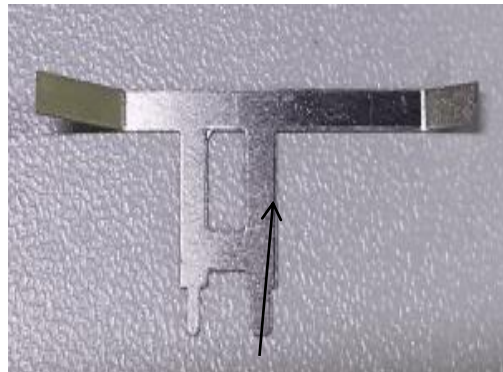
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First, WIFI antenna

1. Specifications

The acknowledgment mainly provides the test status of the electrical and structural performance parameters of the WIFI antenna of the Y0310 project. The picture below is a picture of Tianda designing a WIFI antenna.



Antenna position

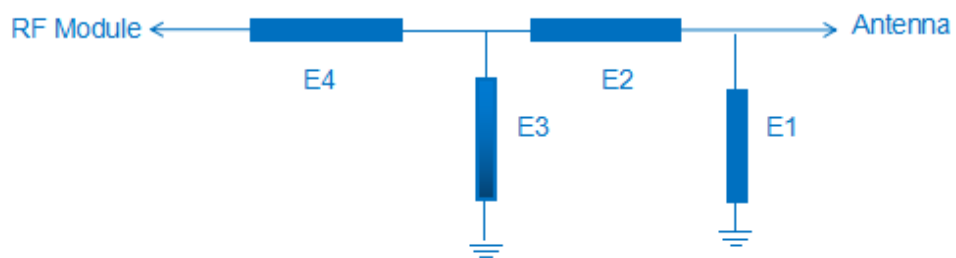
1.1、Appliance specifications

1.1.1, electrical performance indicators

The working frequency of the antenna of the project is 2400-2500MHz, and the following is the electrical performance index of the antenna designed and trial-produced by Tianda.

WIFI		
Band	Frequency (MHz).	VSWR
WIFI	2400~2500	≤ 2.0

1.1.2, matching circuit diagram

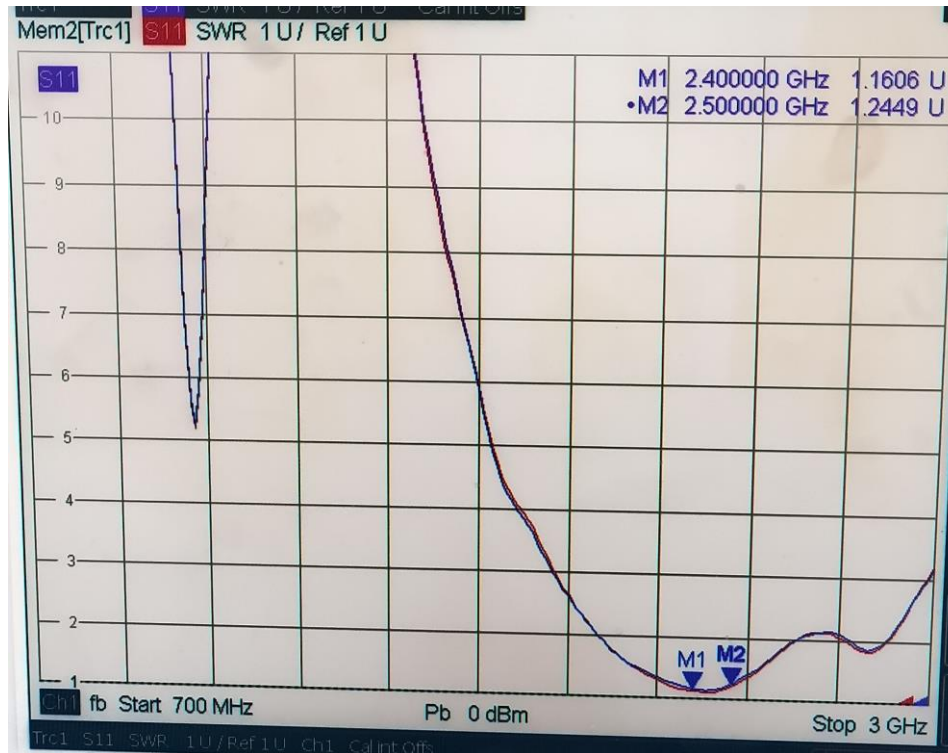


The matching circuit of the WIFI antenna is a parallel 0.5pF capacitor from the antenna end and a 2.7nH inductor in series.

1.2. Testing

1.2.1, passive testing

1.2.1.1, Antenna standing wave test (VSWR).



1.2.1.2, antenna gain, efficiency

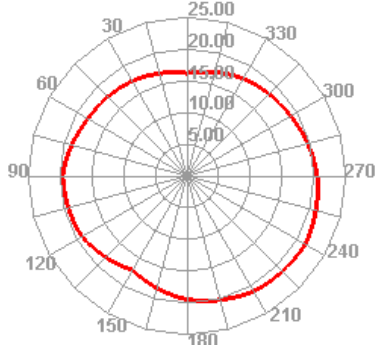
Passive Test For 2.4-2.5G									
Freq (MHz)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	52.38	1.72	-0.43	21.494	30.888	1.72	-18.56	48.31	48.37
2410	52.45	1.75	-0.4	21.019	31.427	1.75	-18.28	48.38	48.42
2420	53.97	1.79	-0.36	22.817	31.149	1.79	-18.65	48.26	48.33
2430	54.78	1.84	-0.61	22.878	31.899	1.84	-18.23	48.26	48.35
2440	55.63	1.93	-0.22	23.413	32.219	1.93	-20.04	48.44	48.44
2450	55.82	2.03	-0.12	24.631	31.194	2.03	-20.36	48.72	48.63
2460	56.57	2.15	0	24.924	31.644	2.15	-17.27	48.78	48.68
2470	55.79	2.05	-0.1	24.335	31.456	2.05	-15.1	48.72	48.61
2480	54.37	2.09	-0.06	23.303	31.068	2.09	-14.15	48.65	48.49
2490	53.96	2.17	0.02	22.901	31.058	2.17	-14.12	48.57	48.34
2500	52.49	2.18	0.03	21.118	31.375	2.18	-13.7	48.38	48.15

1.2.2, the whole machine active test data

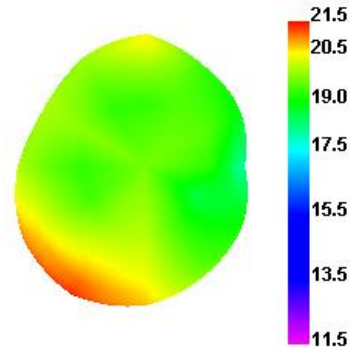
b模式 (11M)		暗室 <input checked="" type="checkbox"/> 三角锥 <input type="checkbox"/> 屏蔽箱 <input type="checkbox"/>		
Band	2.4G			
Channel	1	6	13	
TRP	18.5	18.3	19.1	
TIS	-84.2	-87.5	-85.3	

1.2.3, the whole machine test direction

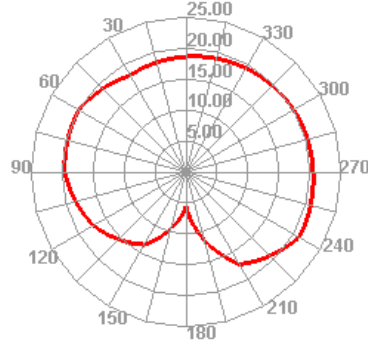
Wifi 1 TRP H



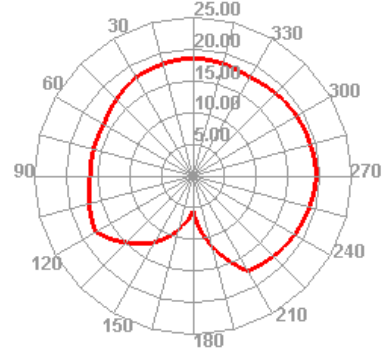
Wifi 1 TRP



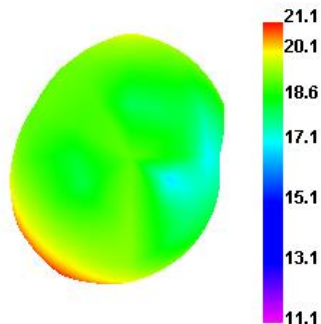
Wifi 1 TRP E2



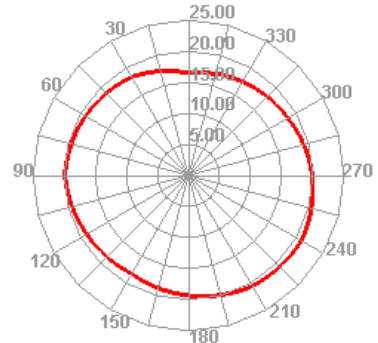
Wifi 1 TRP E1



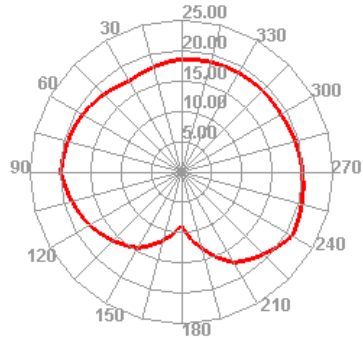
Wifi 6 TRP



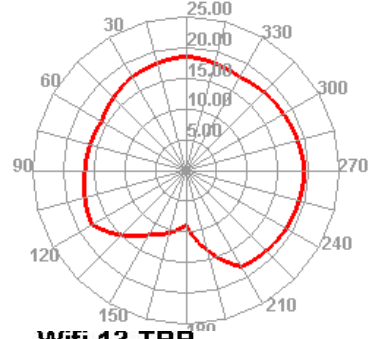
Wifi 6 TRP H



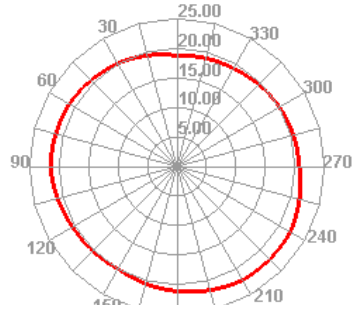
Wifi 6 TRP E2



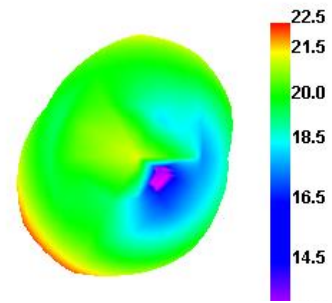
Wifi 6 TRP E1



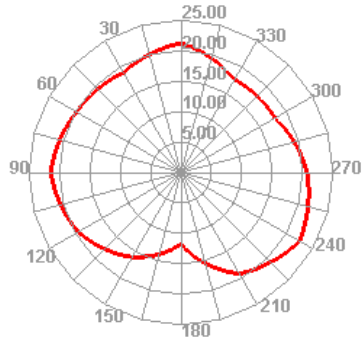
Wifi 13 TRP H



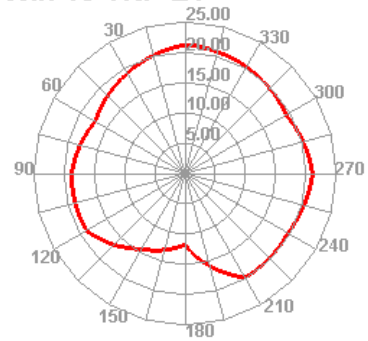
Wifi 13 TRP



Wifi 13 TRP E2



Wifi 13 TRP E1

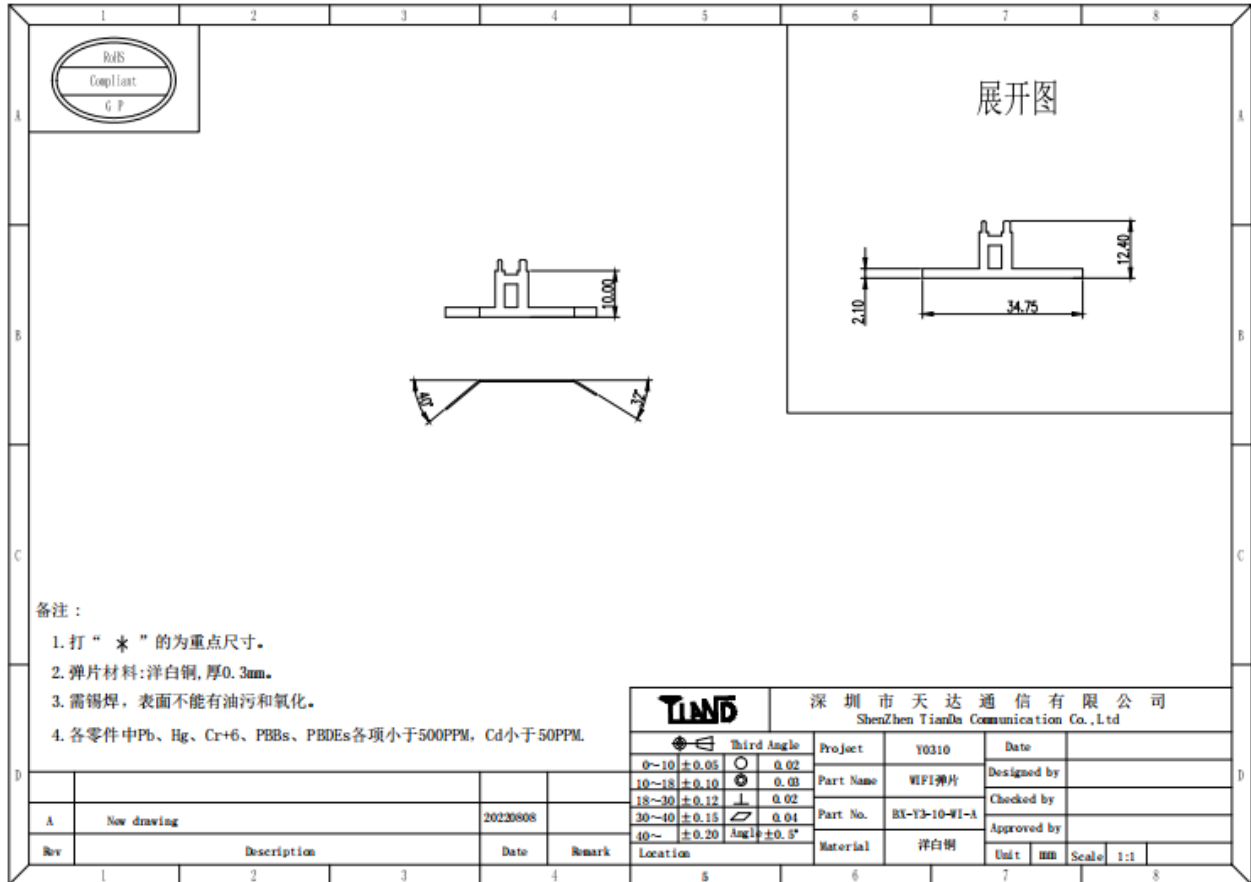


Second, the structural specifications

2.1, antenna composition

The WIFI antenna is mainly composed of white copper.

2.2. Engineering drawings



2.3. Dimensional measurement

quantity Focus size	1	2	3	4
10.00±0.1	10.01	10.02	9.98	10.00
2.10±0.1	2.10	2.08	2.09	2.11

Conclusion

This antenna is designed on the prototype currently provided by the customer, and the electrical parameters and structural dimensions have reached the technical requirements, please confirm!

Fourth, packaging

Packed in a plastic box.