

SPECIFICATION

ShenZhenTianDaCommunicationCO., LTD



D2 WIFI antenna

Product acknowledgement

client	xunmei	Frequency band	2400-2500MHz
Project name	D2	edition	A
Item part number	天达: XN-D2-WI-FP-A 客户料号: 1. M03. 00. 0. 011	colour	black
RF design	wangxinchuang	Structural design	ZHOULUHU
日期	2024.06.27		

Customer confirmation:

Whether the assembly meets your requirements: ☐OK☐NG

ShenZhen TianDa Communication CO., LTD.

302BuildingA,JinGangscienceandTechnologyPark,
Qiaotoucommunity,FuhaiStreet,Bao'anDistrict,
Shenzhen

catalogue

一、WIFI antenna.....	3
1、specification.....	3
1.1、Electrical specification.....	3
1.1.1、Electrical performance index.....	3
1.1.2、Match the circuit diagram.....	3
1.2、test.....	4
1.2.1、Passive test data.....	4
1.2.1.1、Antenna standing wave pattern.....	4
1.2.1.2、Antenna gain, efficiency	4
1.2.2、Antenna pattern.....	5
1.2.3、Active test data of the whole machine	5
二、Structural specification.....	5
2.1、Antenna composition.....	5
2.2、Engineering drawing.....	6
2.3、Dimensional measurement	6
三、conclusion.....	6
四、package.....	6

保密要求

深圳市天达通信有限公司已拥有专有技术所提供的资料，这些专有资料应严加保密，在未经深圳市天达通信有限公司事先书面同意时不允许透露给任何人或公司。

Confidentiality requirement

Shenzhen Tianda Communications Co., Ltd. has proprietary technology provided by the information, such proprietary information should be strictly confidential, without the prior written consent of Shenzhen Tianda Communications Co., Ltd. is not allowed to disclose to any person or company.

First, WIFI antenna

1. Specifications

The admission document mainly provides the test status of the electrical and structural performance parameters of the WIFI antenna of the D2 project. Below is Investec Design

Picture of WIFI antenna.



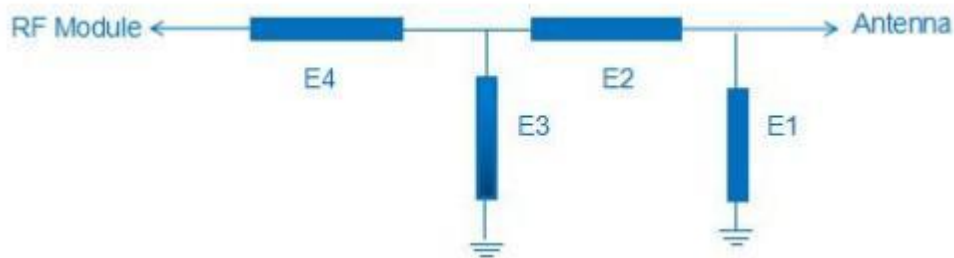
1.1, electrical specifications

1.1.1. Electrical performance index

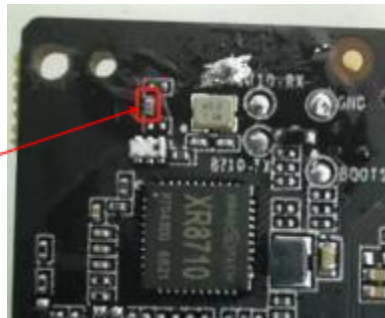
The antenna of this project works at 2400-2500mhz. The following is the electrical performance index of the antenna designed and trial-produced by Investec

WIFI		
Frequency band	frequency (MHz)	VSWR
2.4G	2400~2500	≤ 2.0

1.1.2、Match the circuit diagram



WIFI antenna	
Element	Value
E1 (0201)	NC
E2 (0201)	2.7nH
E3 (0201)	NC
E4 (0201)	

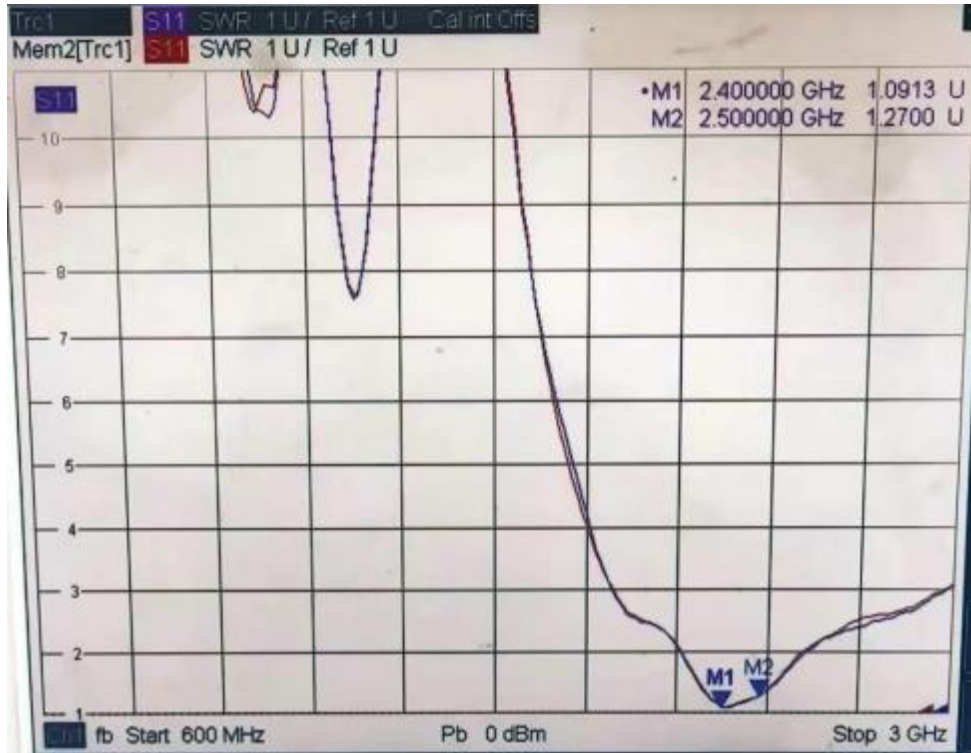


WIFI The antenna matching circuit is a 2.7nH inductance in series from the antenna end.

1.2. Test

1.2.1 Passive test

1.2.1.1 Antenna Standing Wave Test (VSWR)



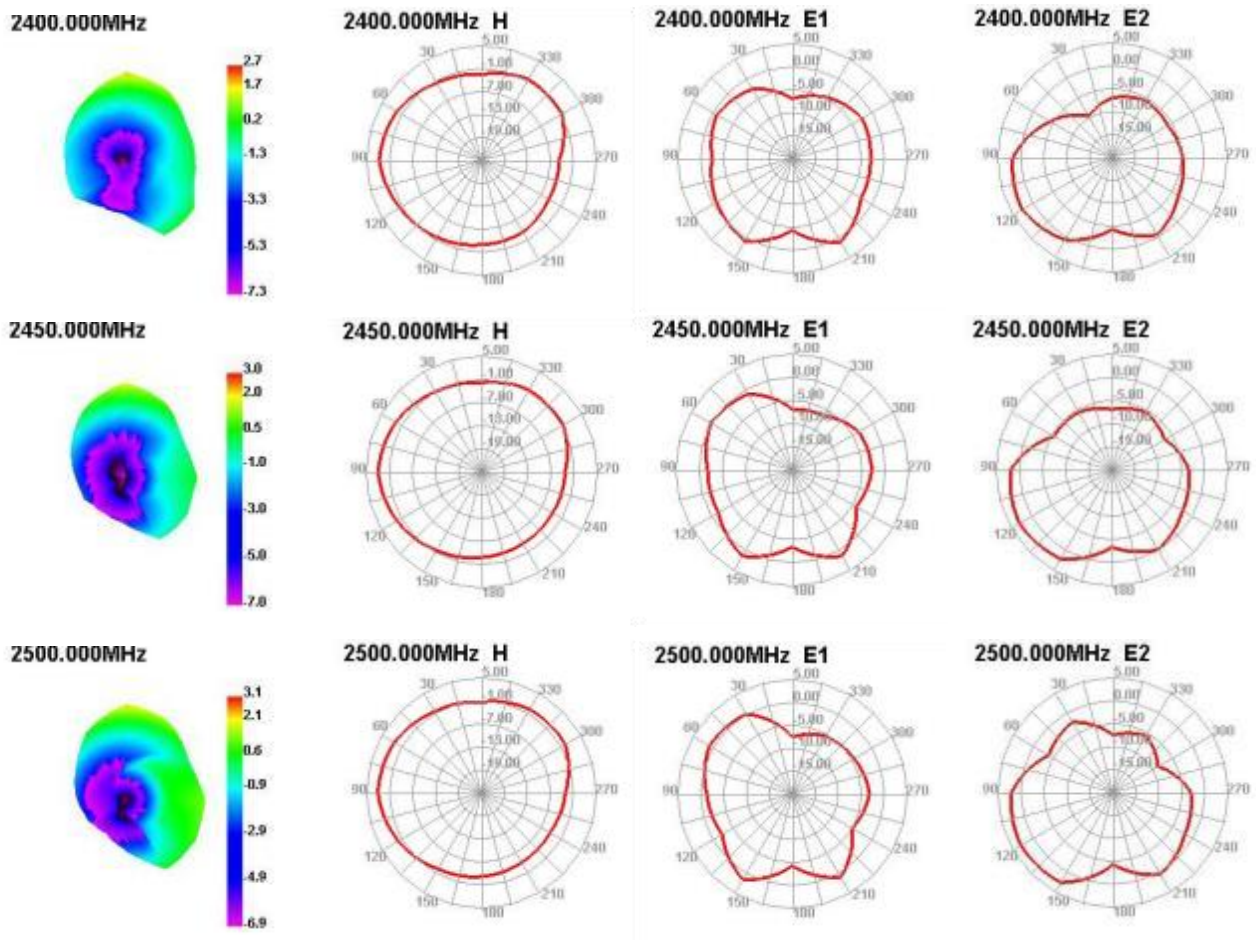
1.2.1.2、Antenna gain, efficiency

Freq (MHz)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	AttH (dB)	AttV (dB)
2400	62	2.93	0.78	23.453	38.546	2.93	-7.91	46.87	46.81
2410	64.24	2.8	0.65	25.082	39.159	2.8	-7.45	47.08	47.17
2420	63.47	2.63	0.48	25.192	38.276	2.63	-7.29	47.06	47.12
2430	59.6	2.18	0.03	23.666	35.935	2.18	-7.07	47	47.09
2440	64.48	2.45	0.3	25.456	39.02	2.45	-6.81	47.5	47.69
2450	63.37	2.25	0.1	25.001	38.369	2.25	-6.92	47.48	47.63
2460	64.22	2.27	0.12	25.431	38.788	2.27	-7.54	47.73	47.89
2470	68.23	2.42	0.27	27.517	40.708	2.42	-7.36	47.81	48.06
2480	65.83	2.23	0.08	26.962	38.871	2.23	-8.19	47.79	47.96
2490	67.28	2.41	0.26	27.666	39.61	2.41	-8.17	48.2	48.46
2500	68.89	2.2	0.05	28.965	39.923	2.2	-8.65	47.83	48.01

Confidentiality requirement

Shenzhen Tianda Communications Co., Ltd. has proprietary technology provided by the information, such proprietary information should be strictly confidential, without the prior written consent of Shenzhen Tianda Communications Co., Ltd. is not allowed to disclose to any person or company.

1.2.2、Antenna pattern



1.2.3、Active test data of the whole machine

b模式 (11M)	暗室 ■ 三角锥 □ 屏蔽箱 □		
Band	2.4G		
Channel	1	7	13
TRP	19.8	20.0	20.2
TIS	-84.1	-88.7	-88.6

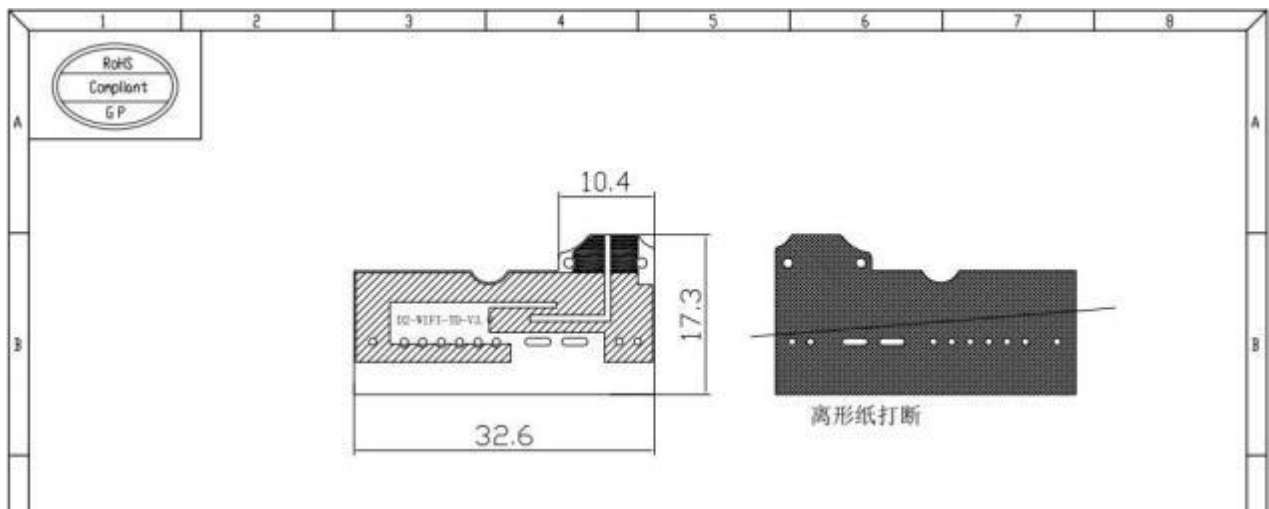
The above is the data of the whole machine tested by our company in the dark room on the customer pilot production machine.

二、Second, structural specifications

2.1、Antenna composition

WIFI The antenna is mainly composed of FPC.

2.2、Engineering drawing



2.3、Dimensional measurement

Quat ity quantity	1	2	3	4
32.60 ± 0.20	32.61	32.60	32.61	32.58
17.30 ± 0.20	17.31	17.32	17.30	17.29
10.40 ± 0.20	10.40	10.41	10.39	10.41

Iii. Conclusion

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

Iv. Packaging

Pack in PE bag.