SPECIFICATION

ShenZhen TianDa Communication Co,LTD

P1 Antenna

Product Specification

Customer	Ke si da	Frequency band	2400-2500MHz
Project name	P1	Edition	A
Item number	KS-P1-00-WI-A	Colour	Black
R Fdesign	Wangxinchuang	Structural design	Zhouluhong
Date	2023.07.12		

Customer confirmation：

Whether the assembly meets your requirements：☐OK ☐NG

深圳市天达通信有限公司	ShenZhen TianDa Communication CO., LTD.
深圳市宝安区福海街道桥头社区金港科技园 A 栋 302	302 Building A, JinGang science and Technology Park, Qiaotou community, Fuhai Street, Bao'an District, Shenzhen

Catalog

一、WIFI antenna.....3

1、Specifications.....3

1.1、Electrical specifications.....3

1.1.1、Electrical performance index.....3

1.1.2、Matching circuit diagram.....3

1.2、Testing.....4

1.2.1、Passive test data.....4

1.2.1.1、Standing wave pattern of antenna ….....4

1.2.1.2、Antenna gain efficiency.....4

1.2.1.3、Antenna pattern.....5

二、Structural specifications.....6

2.1、Antenna composition.....6

2. 2、Drawings.....7

一、WIFI Antenna

1、Specifications

The specification mainly provides the test status of electrical and structural performance parameters of WIFI antenna in P1 project。The picture below shows the WIFI antenna designed by Tianda.

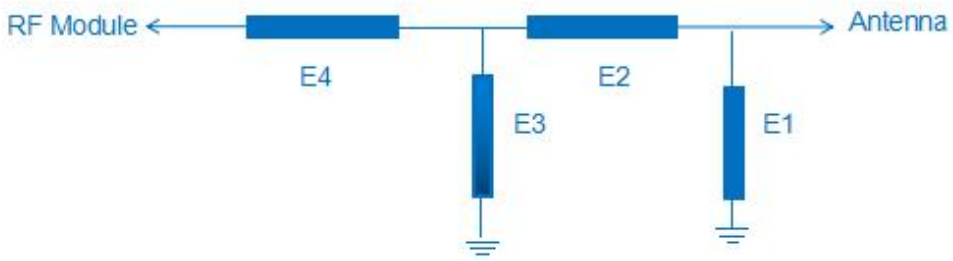
1.1、Electrical specifications

1.1.1、Electrical performance index

The operating frequency band of the antenna 2400MHz—2500MHz，The following is the electrical performance index of the antenna designed and produced by Tianda.

WIFI		
频段	频率（MHz）	VSWR
2.4G	2400~2500	≤2.0

1.1.2、Matching circuit diagram

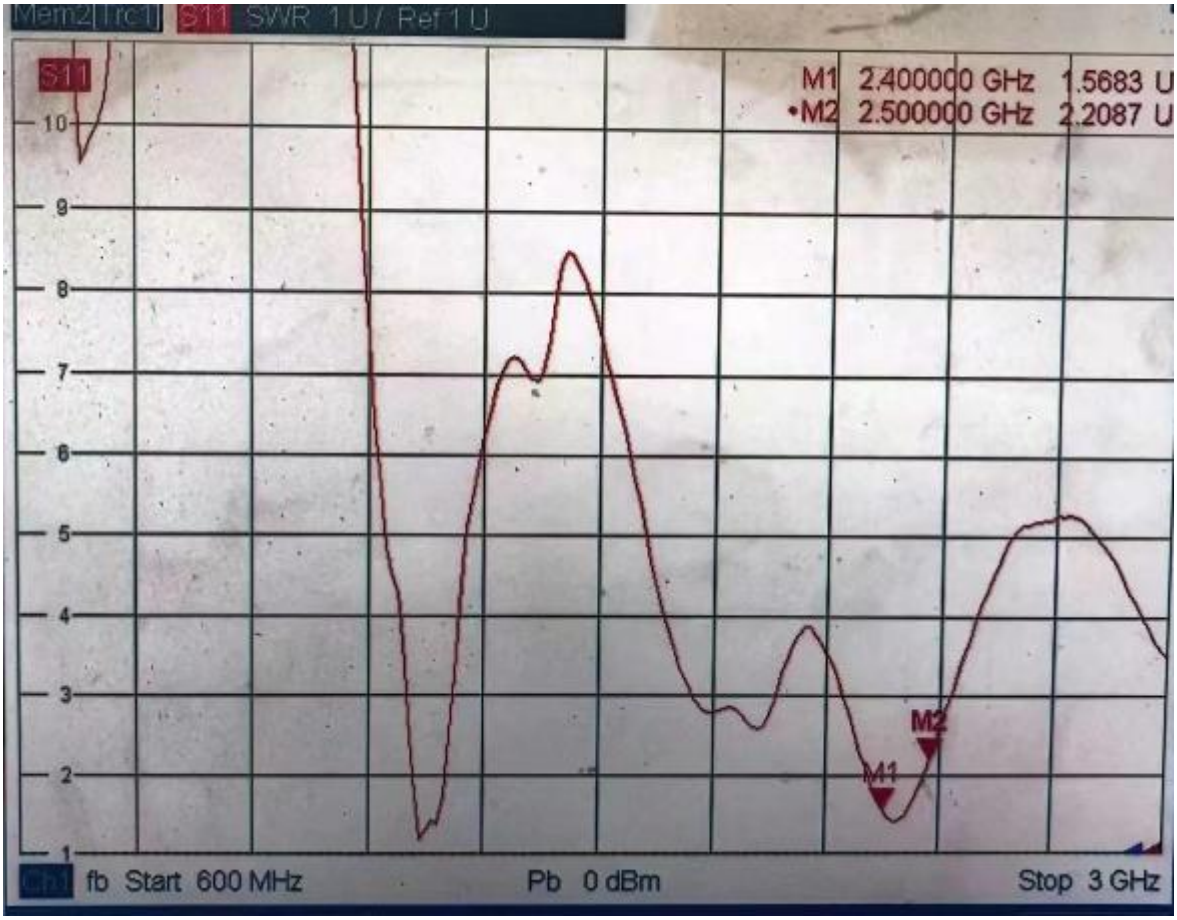


The matching circuit of WIFI antenna is a series 0 ohm resistor.

1.2、Testing

1.2.1、Passive test

1.2.1.1、VSWR

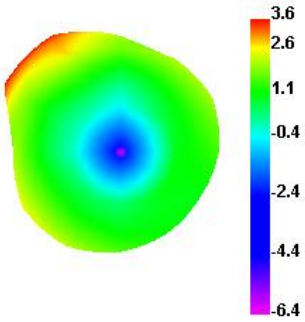


1.2.1.2、Antenna Gain and Efficiency

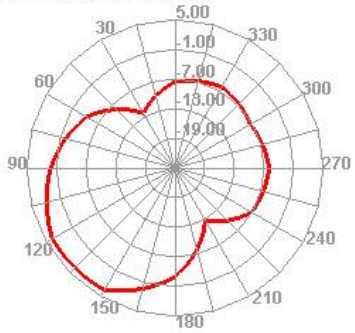
Passive Test For 2.4G WIFI									
Freq (MHz)	Effi (%)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	AttH (dB)	AttV (dB)
2400	52.87	3.64	1.49	31.486	21.389	3.64	-21.38	46.87	46.81
2410	53.58	3.78	1.63	32.226	21.353	3.78	-20.04	47.08	47.17
2420	56.95	4.01	1.86	34.41	22.537	4.01	-17.71	47.06	47.12
2430	53.87	3.87	1.72	32.2	21.669	3.87	-17.04	47	47.09
2440	61.44	4.11	1.96	37.576	23.86	4.11	-14.93	47.5	47.69
2450	61.47	4.29	2.14	37.078	24.39	4.29	-15.07	47.48	47.63
2460	63.02	4.28	2.13	39.027	23.996	4.28	-14.54	47.73	47.89
2470	65.98	4.11	1.96	41.63	24.349	4.11	-13.59	47.81	48.06
2480	61.53	4.26	2.11	38.456	23.079	4.26	-15.7	47.79	47.96
2490	66.46	4.6	2.45	42.684	23.772	4.6	-14.76	48.2	48.46
2500	52.77	4.08	1.93	33.041	19.728	4.08	-21.42	47.83	48.01

1.2.1.3、Antenna pattern

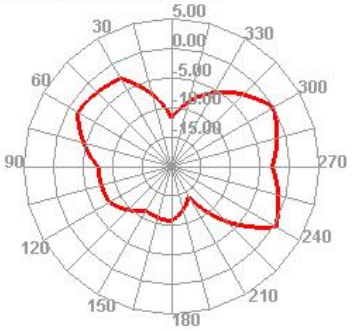
2400.000MHz



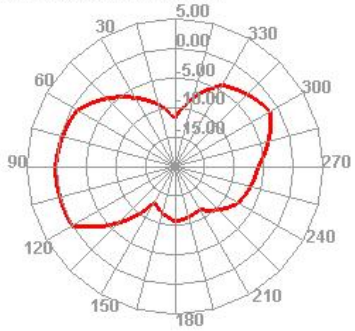
2400.000MHz H



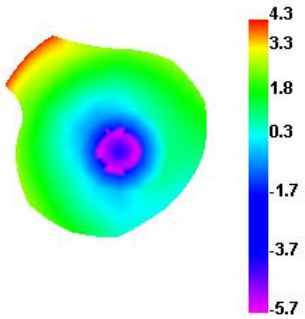
2400.000MHz E1



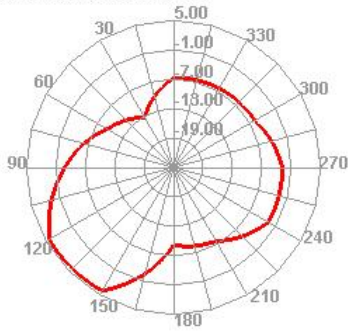
2400.000MHz E2



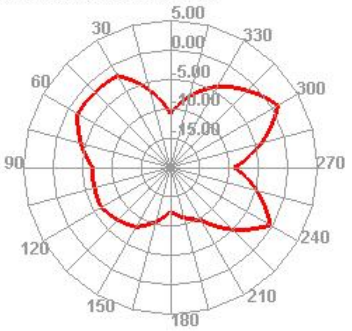
2450.000MHz



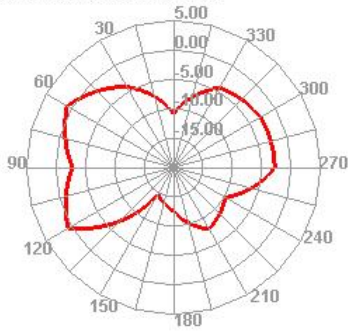
2450.000MHz H

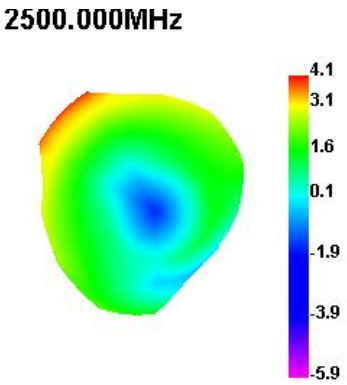


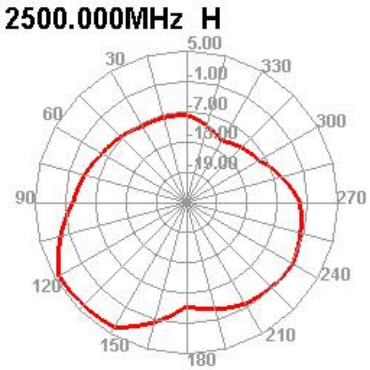
2450.000MHz E1

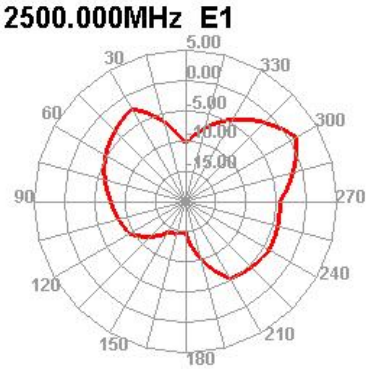


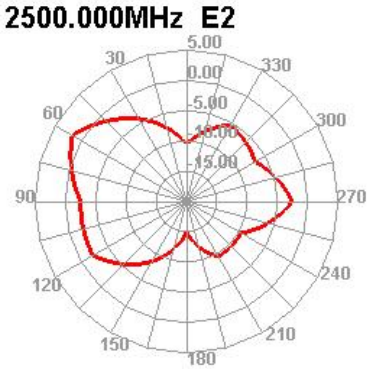
2450.000MHz E2









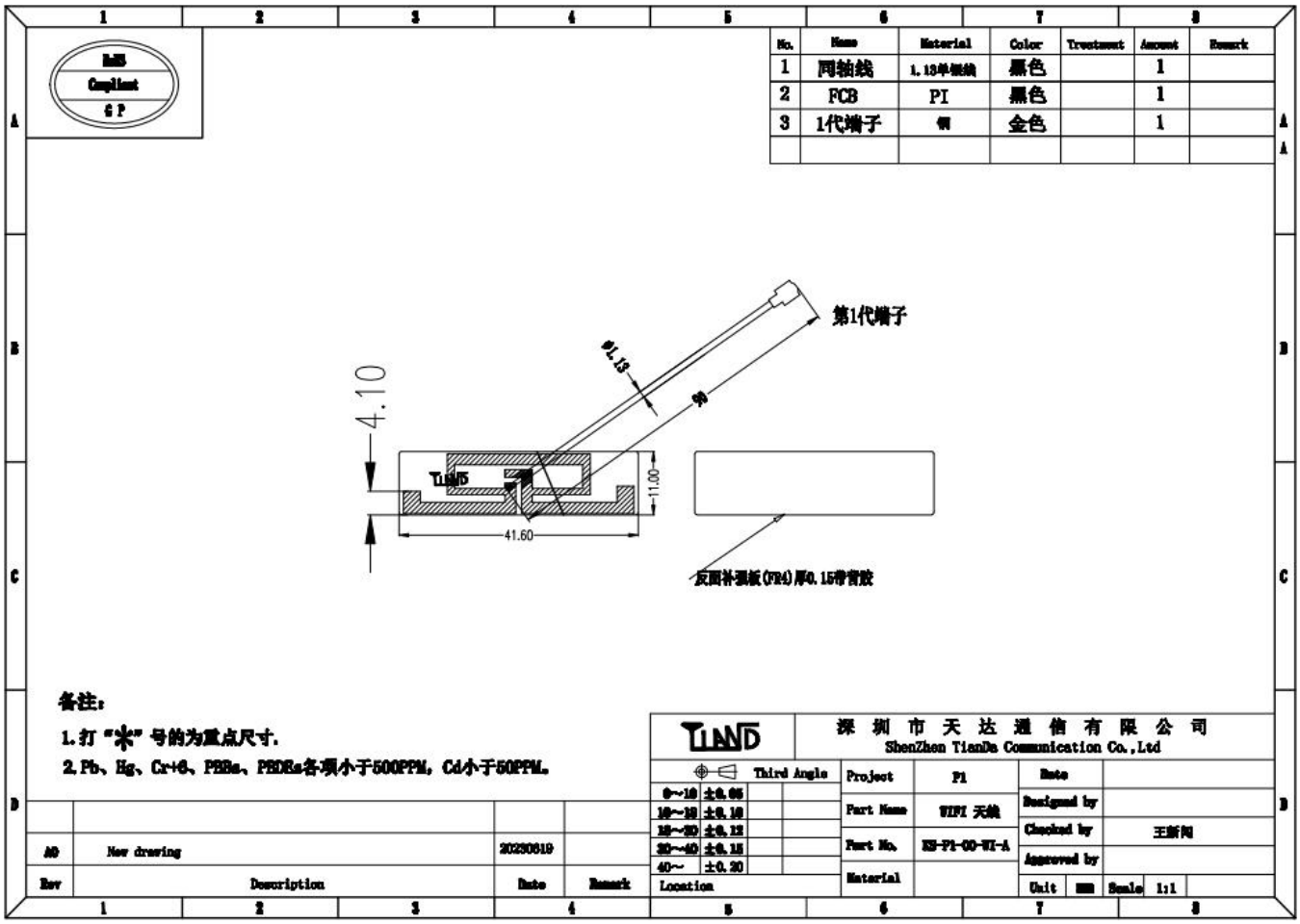


二、Structural specifications

2.1、Antenna composition

WIFI antenna is mainly composed of FPC+Cable.

2.2、Drawings



No. Name Material Color Treatment Amount Remark
1 同轴线 1.13单根线 黑色 1
2 FCB PI 黑色 1
3 1代端子 铜 金色 1
第1代端子
4.10
11.00
41.60
反面补强板(FR4)厚0.15带背胶
备注:
1.打"*"号的为重点尺寸.
2.Pb、Hg、Cr+6、PBBs、PBDEs各项小于500PPM，Cd小于50PPM。
深圳市天达通信有限公司
ShenZhen TianDa Communication Co.,Ltd
Third Angle
Project P1
Part Name WIFI 天线
Part No. ES-P1-00-WI-A
Material
Date
Designed by
Checked by 王新闻
Approved by
Unit
Scale 1:1
A0 New drawing 20230619
Rev Description Date Remark
Location