

SPECIFICATION



ShenZhen TianDa Communication CO., LTD

B1S Antenna

Product Specification

Customer	Xun mei	Frequency band	2400-2500MHz
Project name	B1S	Edition	A
Item number	XM-B1-S0-WI-A	Colour	black
R Fdesign	Huang Zhilin	Structural design	Zhou Luhong
Date	2023.10.13		

Customer confirmation:

Whether the assembly meets your requirements: OK NG

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Security is required

一、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 B1S project. Below is a picture of Investec's WIFI antenna design.



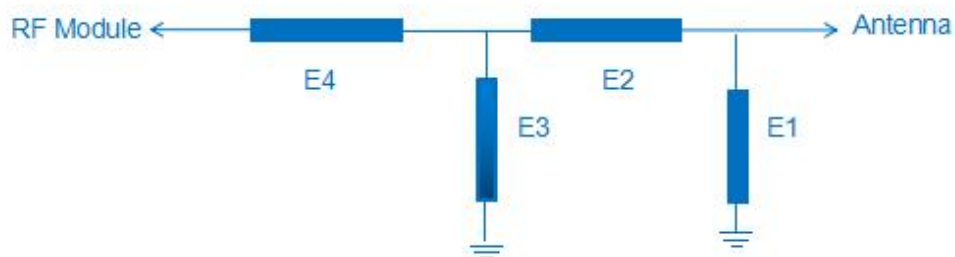
1.1、electrical specifications

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
WIFI	2400~2500	≤2.0

1.1.2、Match the circuit diagram



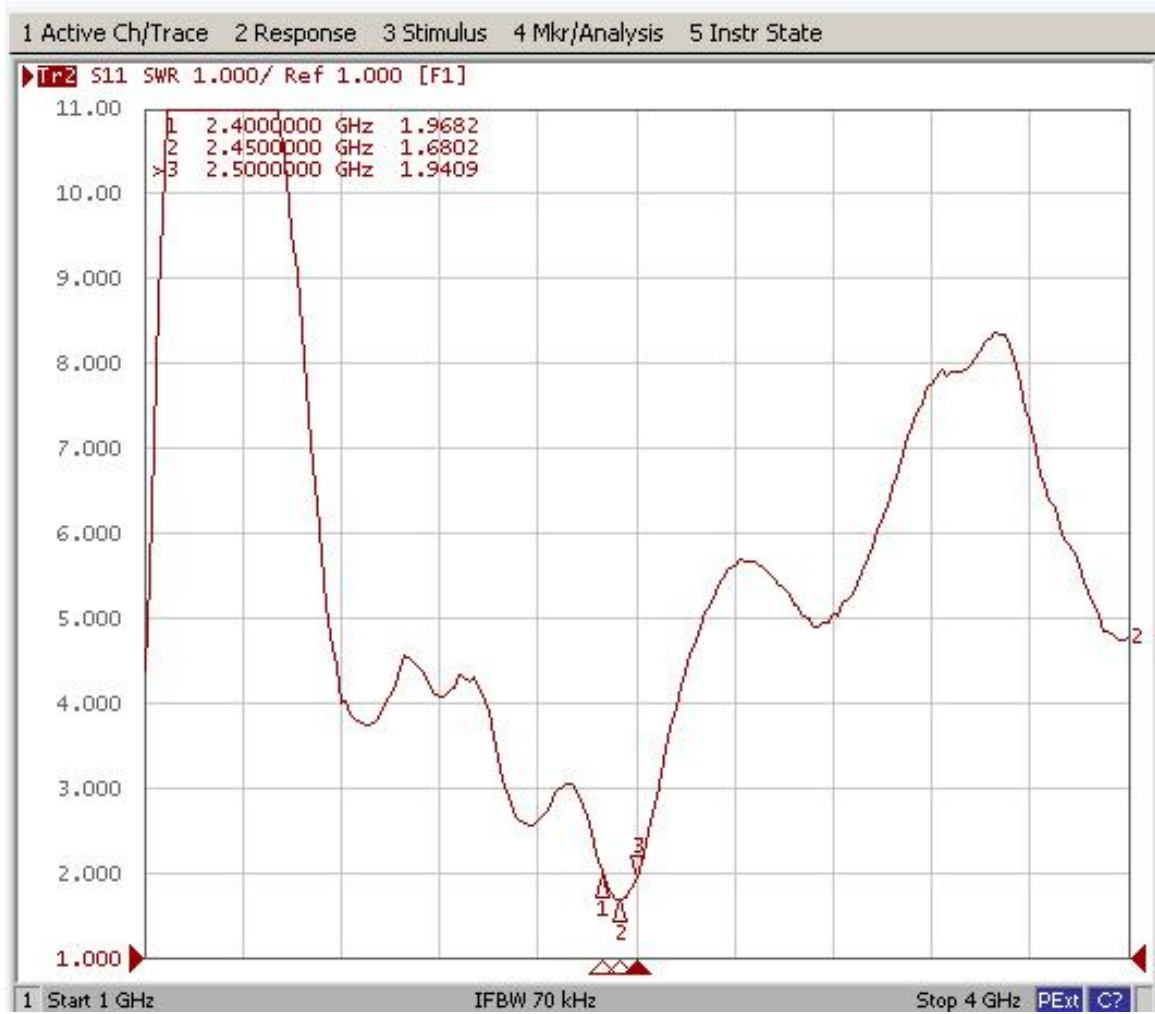
The matching circuit of the WIFI antenna is the original matching circuit of the motherboard and has not been changed.

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1.2、 Test

1.2.1、 Passive test

1.2.1.1、 Antenna standing wave test (VSWR)



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1.2.1.2、 Antenna gain, efficiency

Passive Test For WiFi Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	54.73	-2.62	1.8
2410	53.3	-2.73	1.91
2420	53.88	-2.69	1.82
2430	51.53	-2.88	1.95
2440	53.7	-2.7	2.02
2450	56.29	-2.5	1.91
2460	52.96	-2.76	1.92
2470	53.35	-2.73	2.14
2480	55.39	-2.57	2.38
2490	55.6	-2.55	1.85
2500	58.69	-2.31	1.71

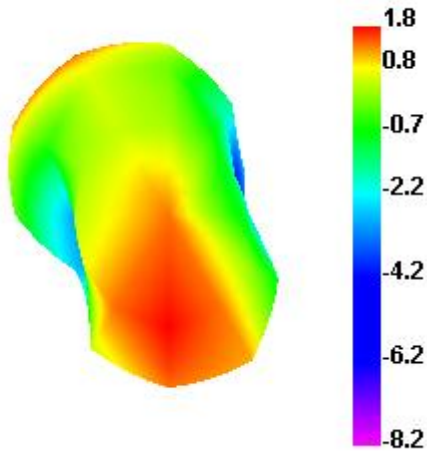
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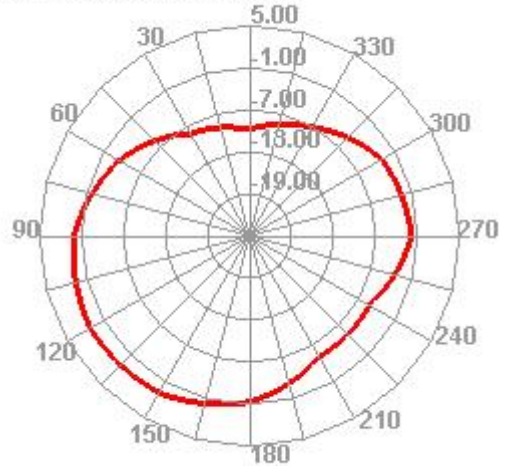
1.2.1.3、 Antenna pattern

Radiation Pattern For WiFi Antenna(2400MHz)

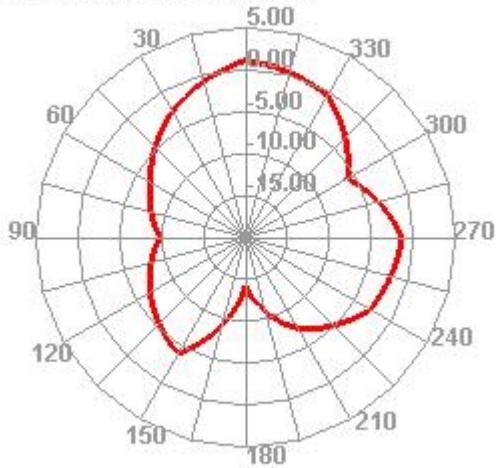
2400.000MHz



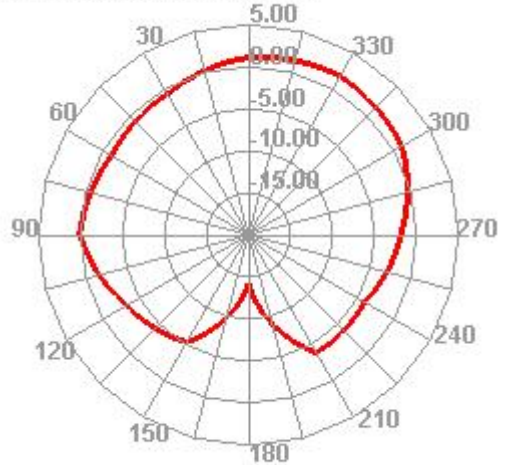
2400.000MHz H



2400.000MHz E1



2400.000MHz E2

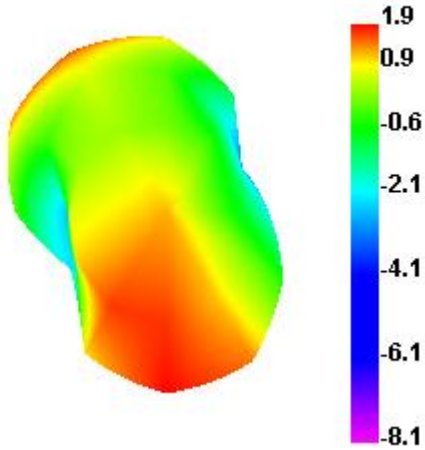


Security is required

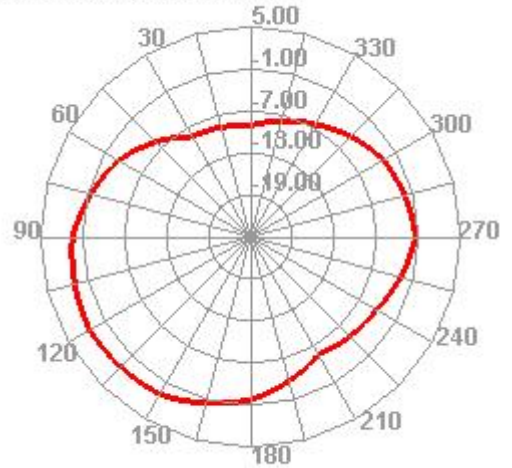
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Radiation Pattern For WiFi Antenna(2450MHz)

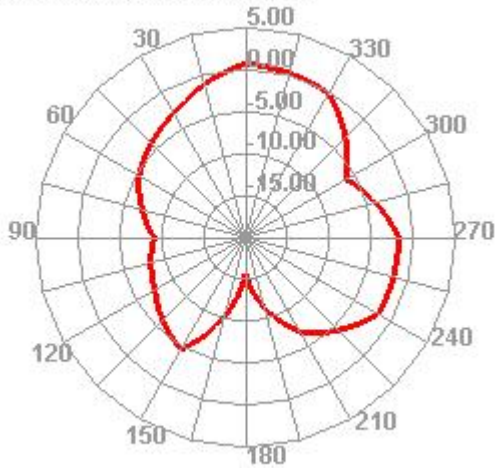
2450.000MHz



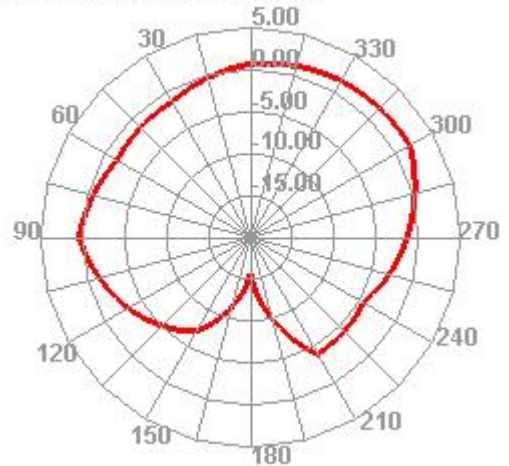
2450.000MHz H



2450.000MHz E1



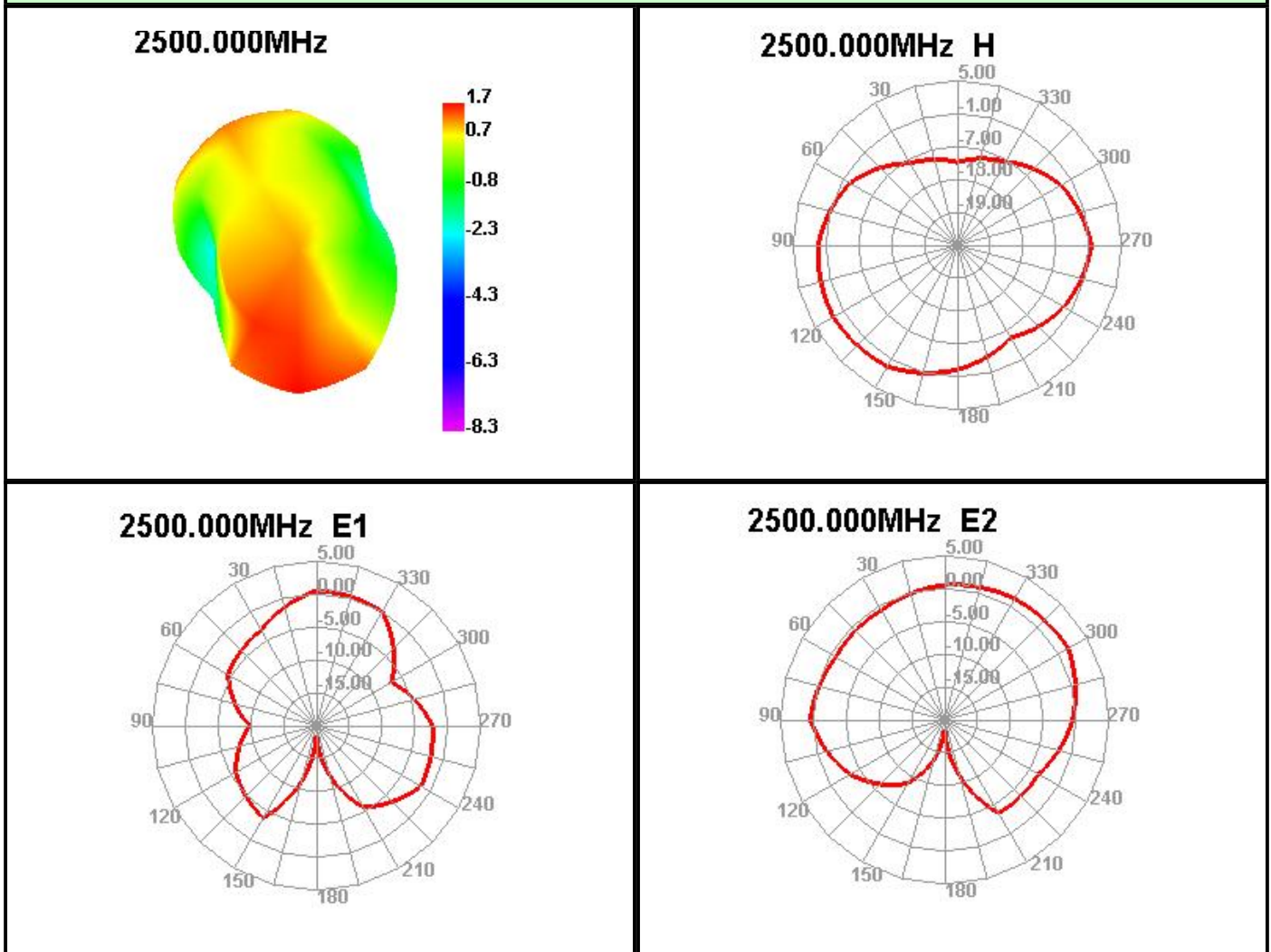
2450.000MHz E2



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Radiation Pattern For WiFi Antenna(2500MHz)



1.2.2、Active test data of the whole machine

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	16.57	17.05	17.4
TIS	-87.33	-87.73	-87.64

Above is the WIFI antenna active test data of the whole machine.

Security is required

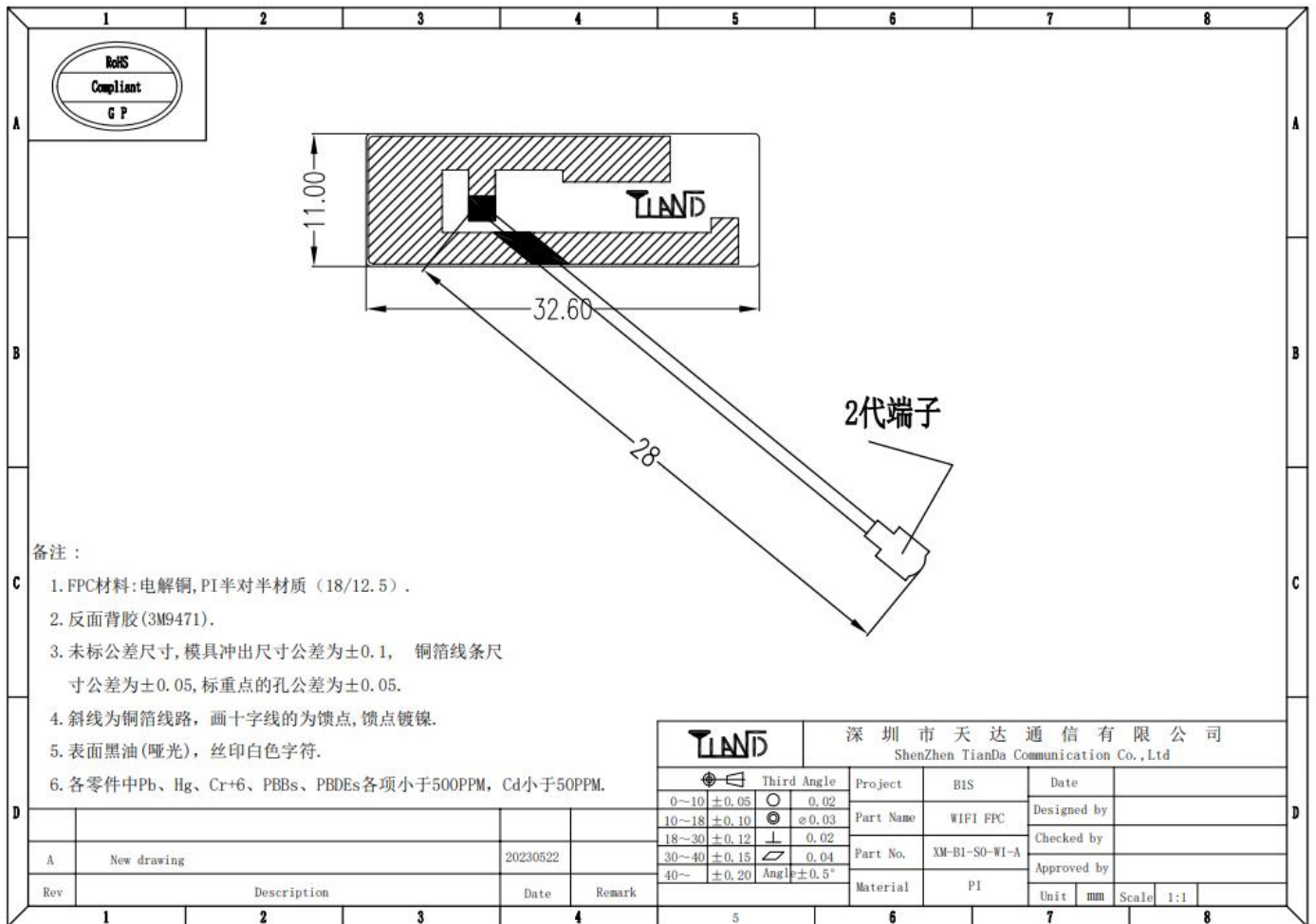
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二、 Structural specification

2.1、 Antenna composition

The WIFI antenna is mainly composed of Cable+FPC.

2.2、 Engineering drawing



三、 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!

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