

SPECIFICATION



ShenZhen TianDa Communication CO., LTD

BA530 antenna

Product Certification

Customers	Five grams	Frequency bands	2400-2500MHz
The name of the project	BA530	Edition	A
Item part number	WK-BA-53-WI-A	Color	Color
RF design	Wang Xinchuang	Structural design	Zhou Luhong
Date	2024.04.12		

The Client acknowledges that:

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

Shenzhen Tianda Communication Co.,
Ltd

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Shenzhen

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1. WIFI antenna

1. Specifications

This acknowledgment mainly provides the test status of the electrical and structural performance parameters of the WIFI antenna of the BA530 project. The picture below is a picture of the WIFI antenna designed by Tianda.



1.1、Electrical specifications

1.1.1. Electrical performance indicators

The working frequency band 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

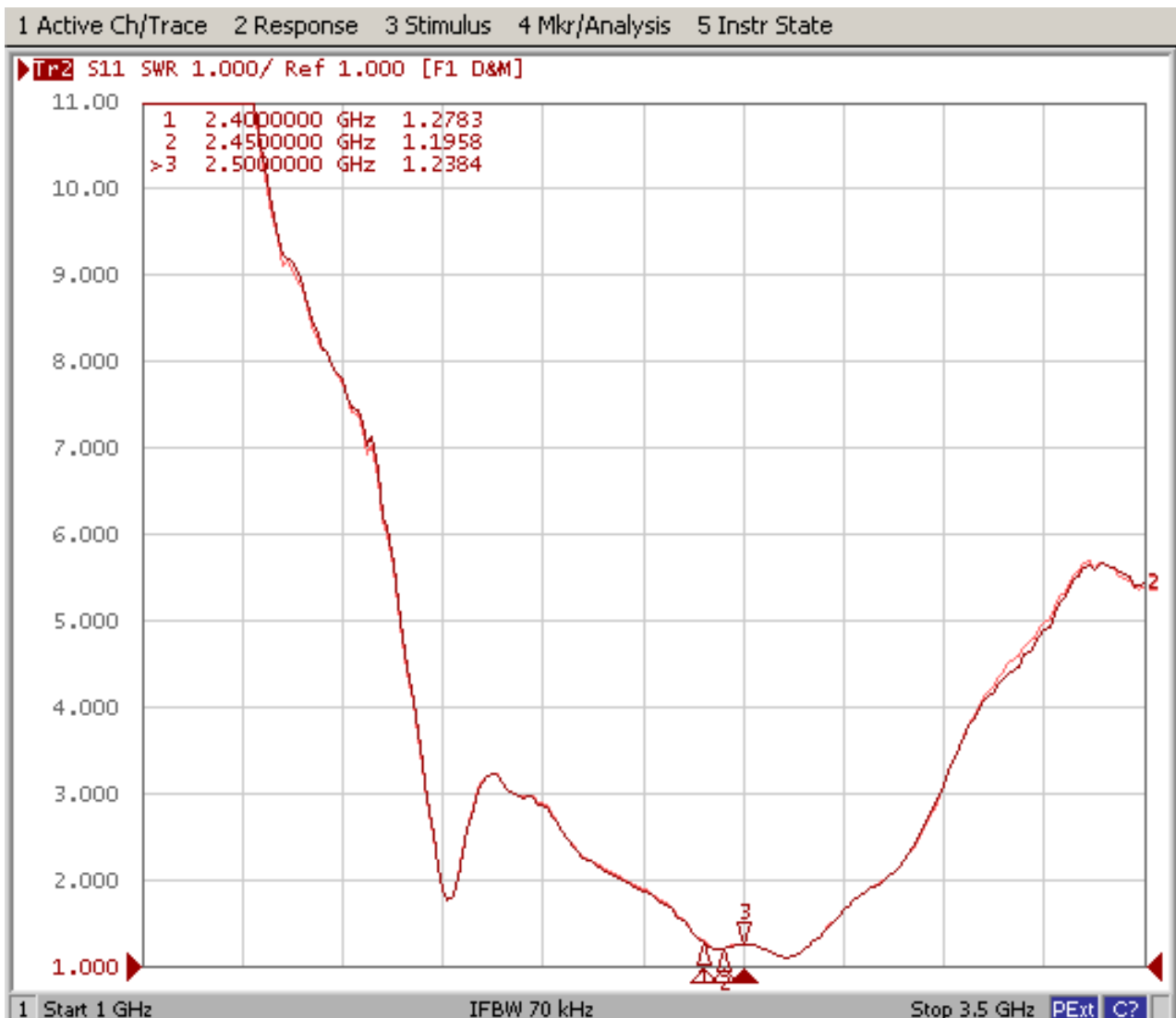


The matching circuit of the WIFI antenna has not changed.

1.2、Test

1.2.1. Passive testing

1.2.1.1. Antenna Standing Wave Test (VSWR).



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1.2.1.2. Antenna gain and efficiency

Passive Test For WiFi Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	64.29	-1.92	4.3
2410	62.48	-2.04	4.33
2420	65.93	-1.81	4.19
2430	70.74	-1.5	4.11
2440	64.17	-1.93	4.28
2450	68.78	-1.63	4.12
2460	67.22	-1.73	4.25
2470	63.53	-1.97	4.37
2480	68.96	-1.61	4.18
2490	68.71	-1.63	4.47
2500	68.33	-1.65	4.26

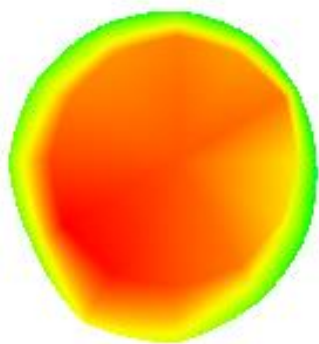
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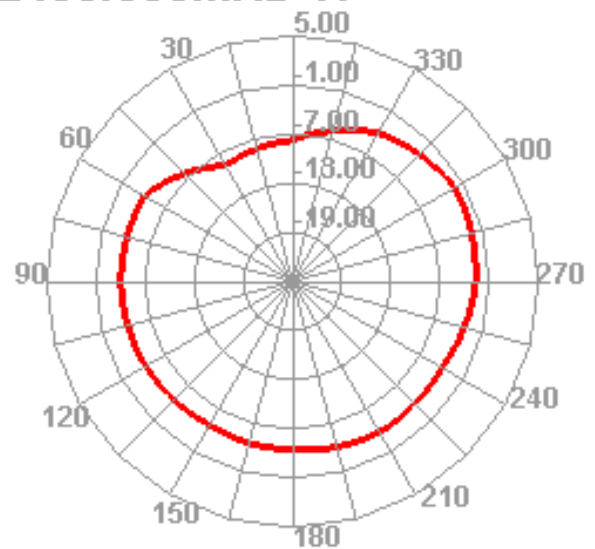
1.2.1.3. Antenna pattern

Radiation Pattern For WiFi Antenna(2400MHz)

2400.000MHz

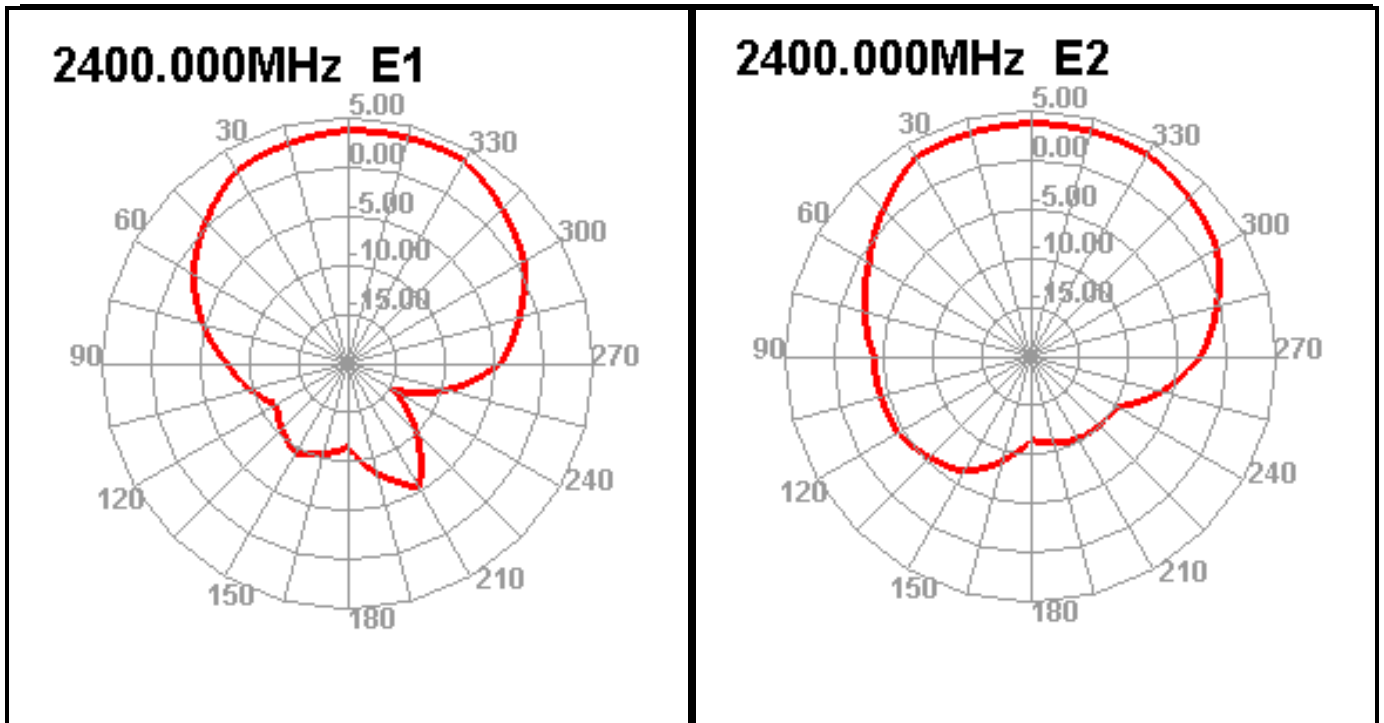


2400.000MHz H

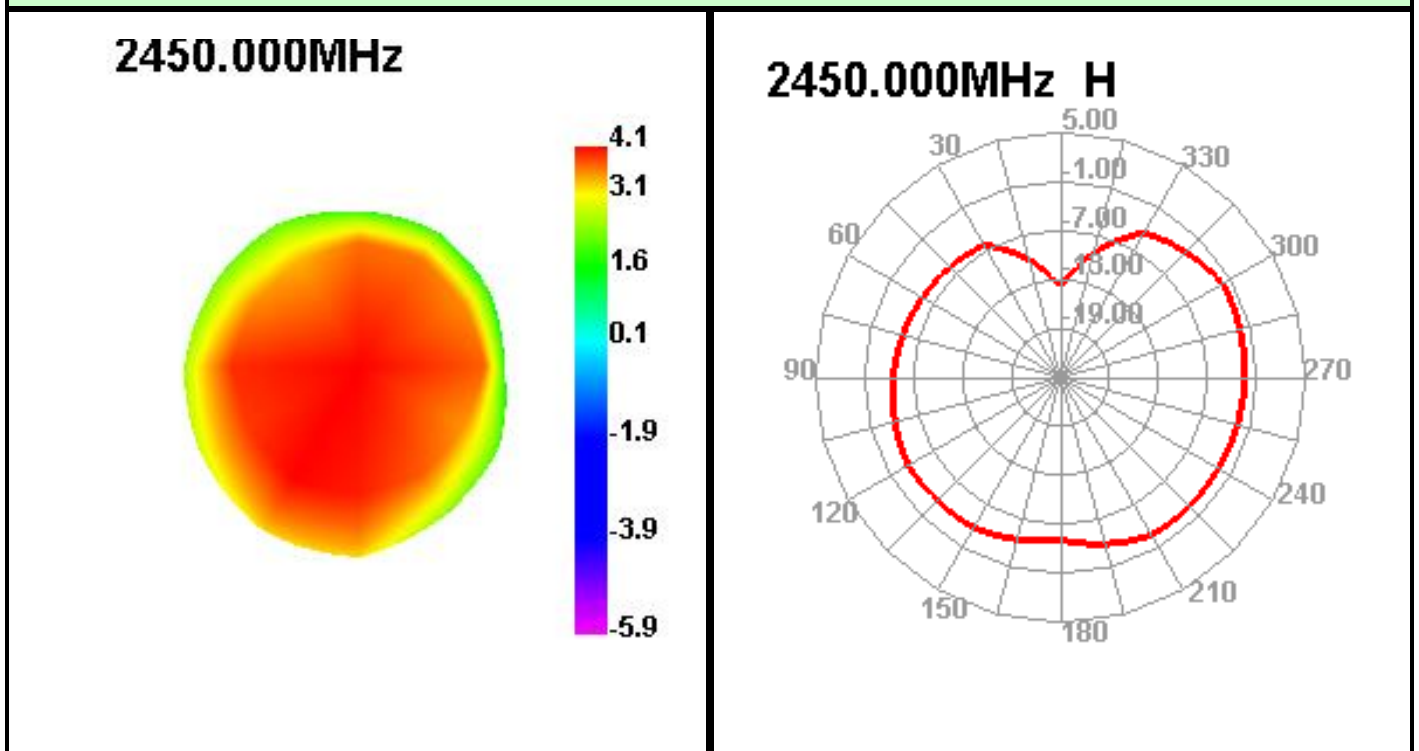


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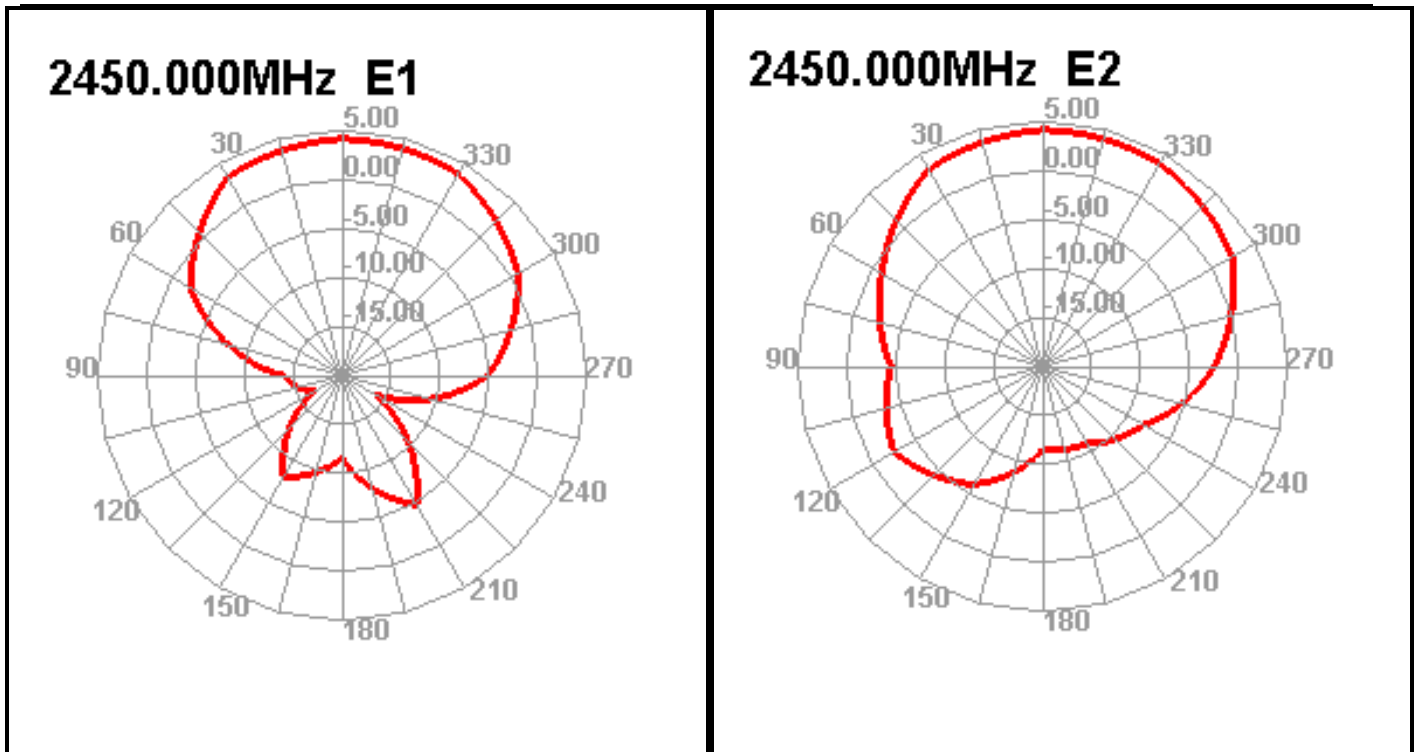


Radiation Pattern For WiFi Antenna(2450MHz)

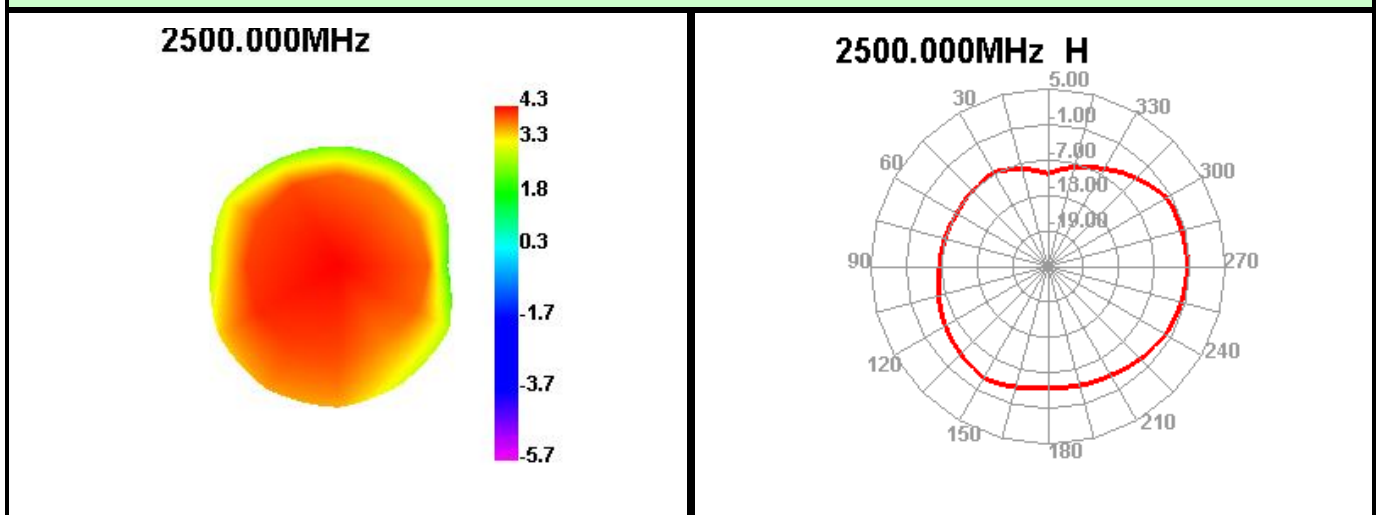


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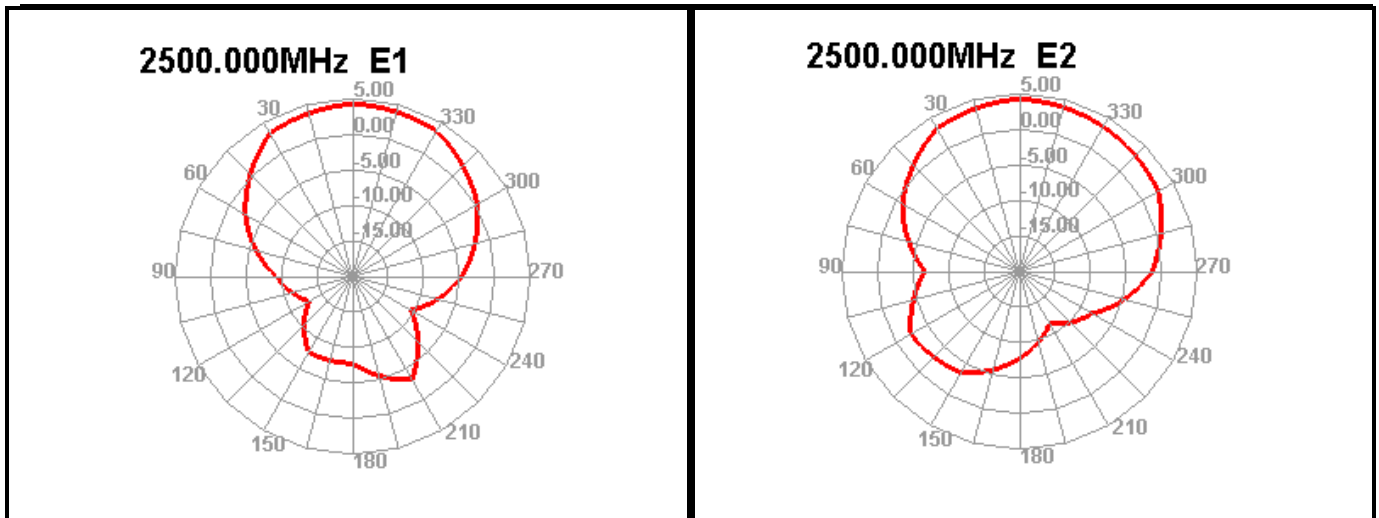


Radiation Pattern For WiFi Antenna(2500MHz)



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1.2.2. Active test data of the whole machine

	Darkroom ■ triangular pyramid □ shielding box □		
Test	Wifi 2.4G b 模式 (11M)		
Result	1	7	13
Frequency (MHz)	2412	2442	2472
TRP(dBm)	17.93	18.12	18.49
TIS(dBm)	-81.55	-82.03	-80.01

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

2. Structural specifications

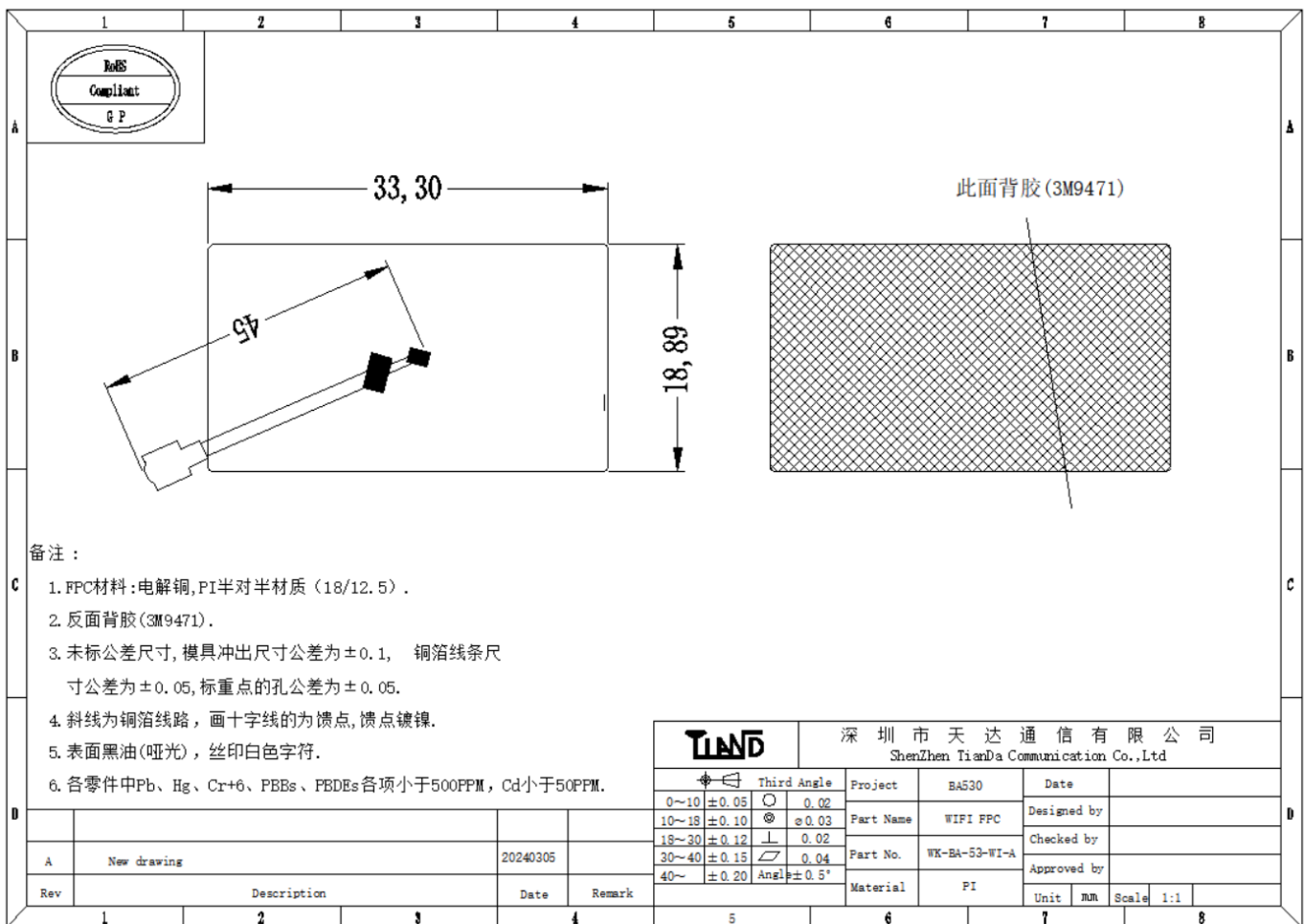
2.1. Antenna composition

The WIFI antenna is mainly composed of Cable + FPC.

2.2. Engineering drawings

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III. Conclusion

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

Fourth, packaging

Packed in plastic bags.

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