

SPECIFICATION



Shenzhen Tianda Communication Co., Ltd.

ShenZhen TianDa Communication CO., LTD

KB01 Antenna

Product Specifications

Client Costa		Frequency band	2400-2500MHz
Project Name	KB01Version A		
Item Number	KS -KB-01-WF - A	Color	Natural
RF Design	Wang	Structural Design:	Zhou Luhong
Xinchuang Date 2024.08.26			

Customer confirms:

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

Shenzhen TianDa Communication CO ., LTD.

Room 302, Building A, Jingang Technology Park, Qiaotou Community, Fuhai Street, Baoan District, Shenzhen

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Confidential Information

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1. WIFI Antenna

1. Specifications

This letter of accreditation mainly provides the test conditions of the electrical and structural performance parameters of the KB01 project WIFI antenna.

Picture of a WIFI antenna.



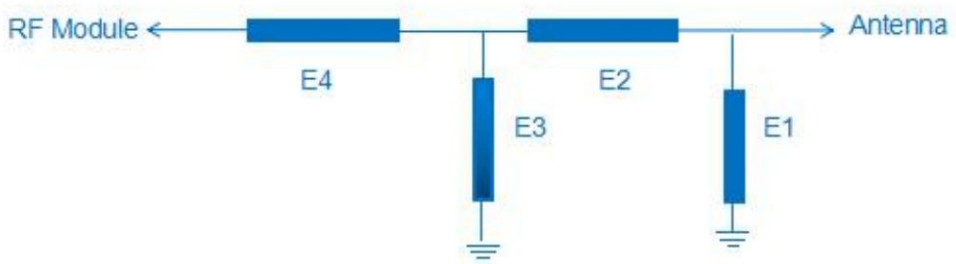
1.1 Electrical specifications

1.1.1 Electrical performance indicators

The antenna operating frequency band of this project is 2400-2500MHz. The following are the electrical performance indicators of the antenna designed and trial-produced by Tianda.

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

1.1.2 Matching circuit diagram



WIFI ANTENNA	
Element	Value
E1	0.02
E2	0.02
E3	0.02
E4	0.02

The WIFI antenna matching circuit is the original matching circuit of the mainboard.

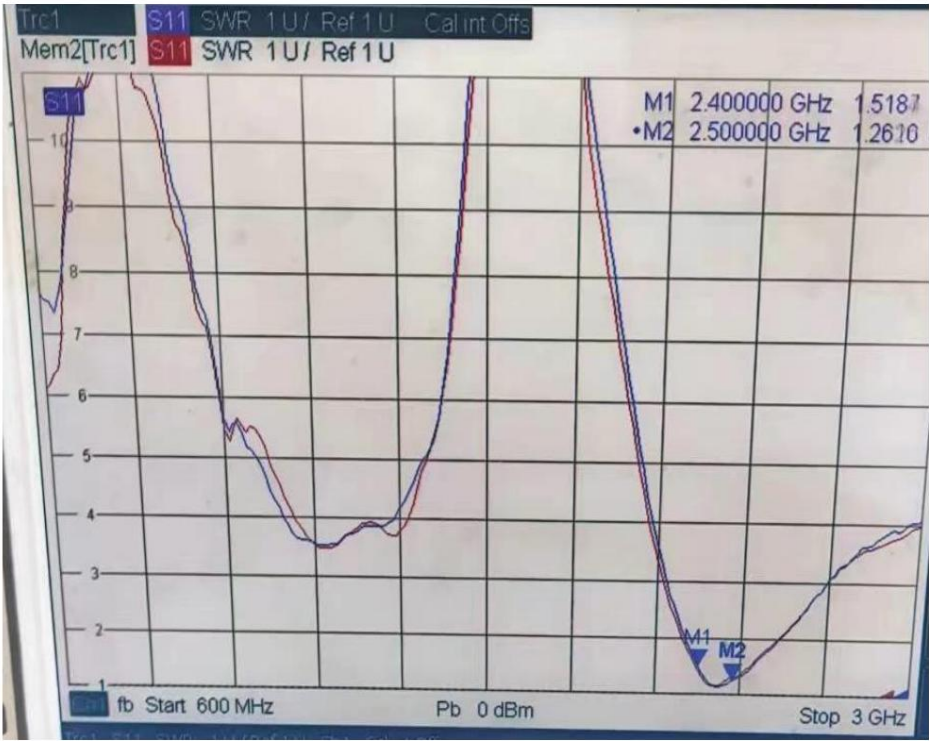
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1.2 Testing

1.2.1 Passive test

1.2.1.1 Antenna Standing Wave Test (VSWR)

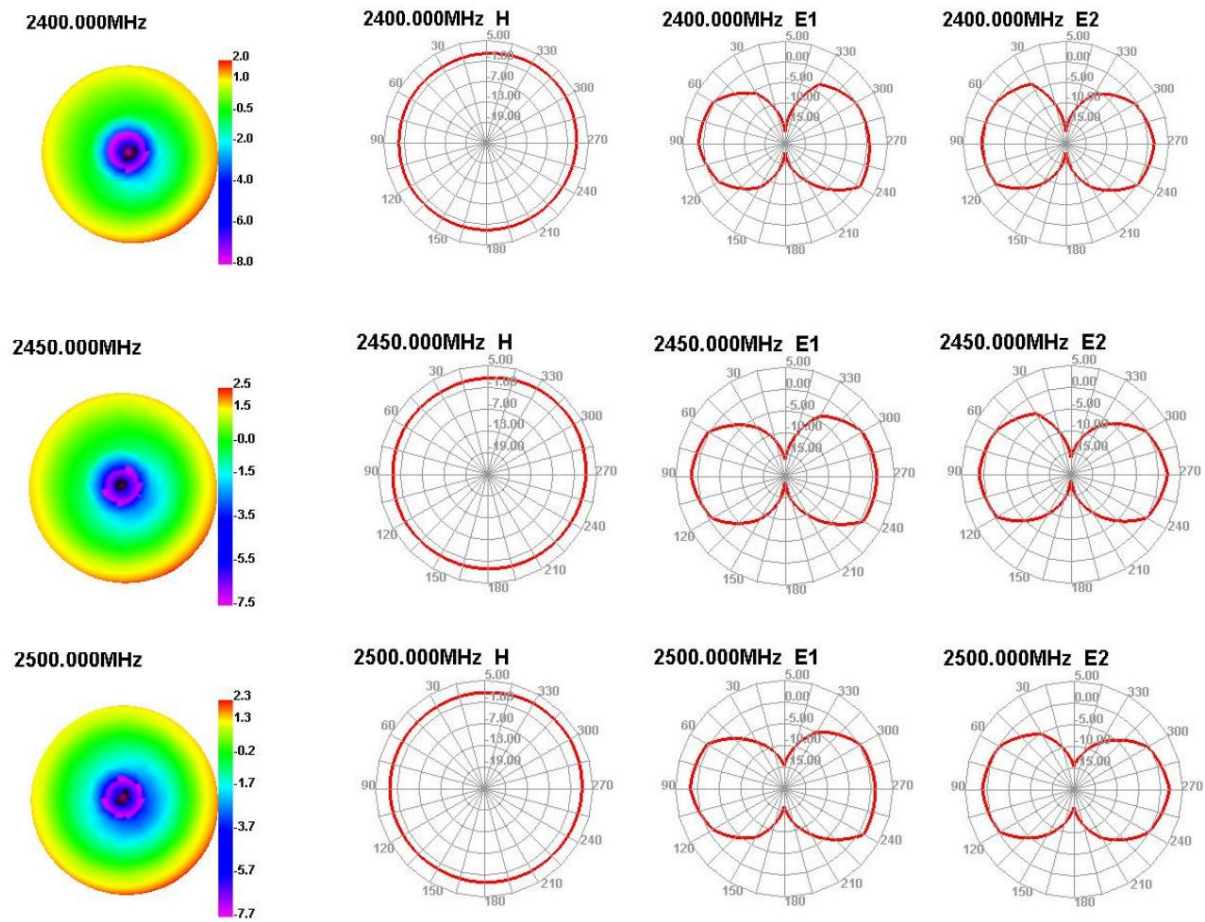


1.2.1.2 Antenna gain and efficiency

Passive Test For 2.4G-2.5G							
Freq (MHz)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	AttH (dB)	AttV (dB)
2400	72.1	1.31	-0.84	37.595	34.503	46.87	46.81
2410	71.98	1.16	-0.99	37.344	34.637	47.08	47.17
2420	74.69	1.36	-0.79	38.625	36.064	47.06	47.12
2430	68.18	1.05	-1.1	35.308	32.875	47	47.09
2440	76.35	1.73	-0.42	39.173	37.179	47.5	47.69
2450	75.61	1.9	-0.25	38.477	37.134	47.48	47.63
2460	74.63	1.94	-0.21	37.464	37.17	47.73	47.89
2470	80.29	2.19	0.04	39.788	40.5	47.81	48.06
2480	72.84	1.68	-0.47	35.7	37.141	47.79	47.96
2490	77.07	2.25	0.1	37.481	39.593	48.2	48.46
2500	75.31	2.38	0.23	36.396	38.918	47.83	48.01

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1.2.2 Antenna Pattern



1.2.3 Complete machine active test data

b模式 (11M)	暗室 ☒ 三角锥 ☐ 屏蔽箱 ☐			
Band	2.4G			
Channel	1	2	7	13
TRP	16.8	17.0	17.0	17.7
TIS	-77.7	-83.1	-86.8	-86.0

The above is the whole machine data tested in our darkroom on the customer-supplied prototype machine.

2. Structural specifications

2.1 Antenna composition

The WIFI antenna is mainly composed of cable + copper tube.

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