

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

302 Building A, JinGang science and Technology Park, Qiaotou community, Fuhai Street, Bao'an District, Shenzhen

Confidential Information

Table of contents

1. WIFI Antenna.....3

1. Specifications.....3

1.1Electrical specifications.....3

1.1.1 Electrical performance indicators.....3

1.1.2Matching circuit diagram.....3

1.2 Testing.....4

1.2.1 Passive test data.....4

1.2.1.1 Antenna Standing Wave Diagram.....4

1.2.1.2 Antenna gain and efficiency.....4

1.2.2 Antenna Pattern.....5

1.2.3Complete machine active test data.....5

2. Structural specifications.....5

2.1Antenna composition.....5

2. 2 Engineering drawings.....6

Confidentiality requirements

Shenzhen Tianda Communication Co., Ltd. has the information provided by the proprietary technology. These proprietary information should be kept strictly confidential and will not be used without the prior written consent of Shenzhen Tianda Communication Co., Ltd.

It is not allowed to disclose to any person or company without face-to-face consent.

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.



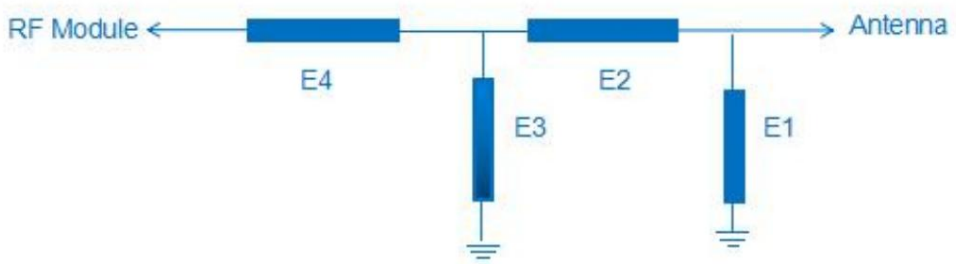
1.1 Electrical specifications

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.

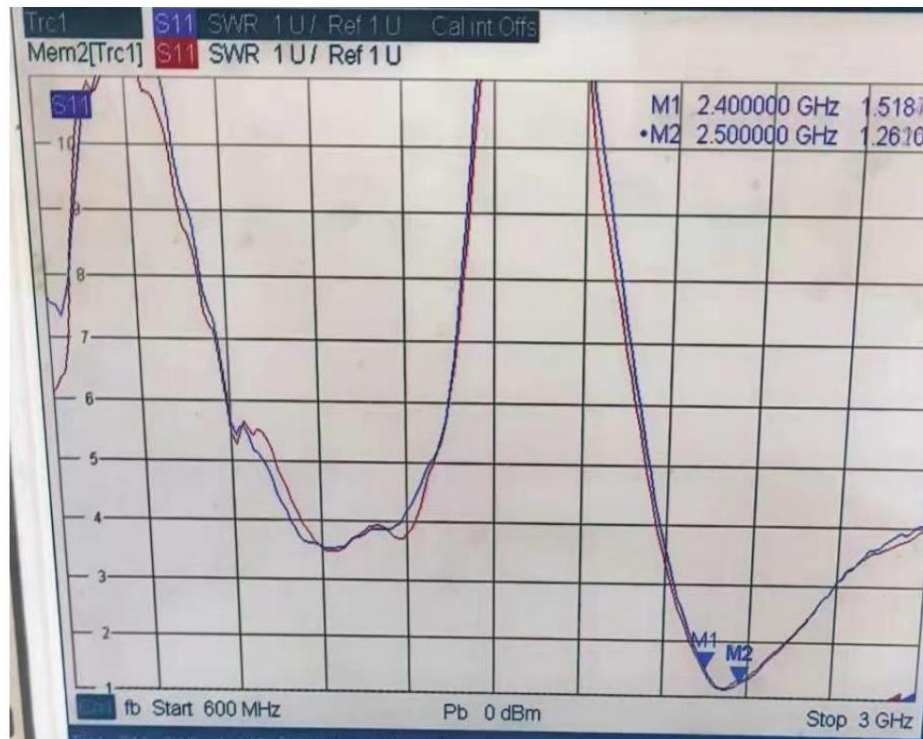
Confidentiality requirements

Shenzhen Tianda Communication Co., Ltd. has the information provided by the proprietary technology. These proprietary information should be kept strictly confidential and will not be used without the prior written consent of Shenzhen Tianda Communication Co., Ltd.
It is not allowed to disclose to any person or company without face-to-face consent.

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

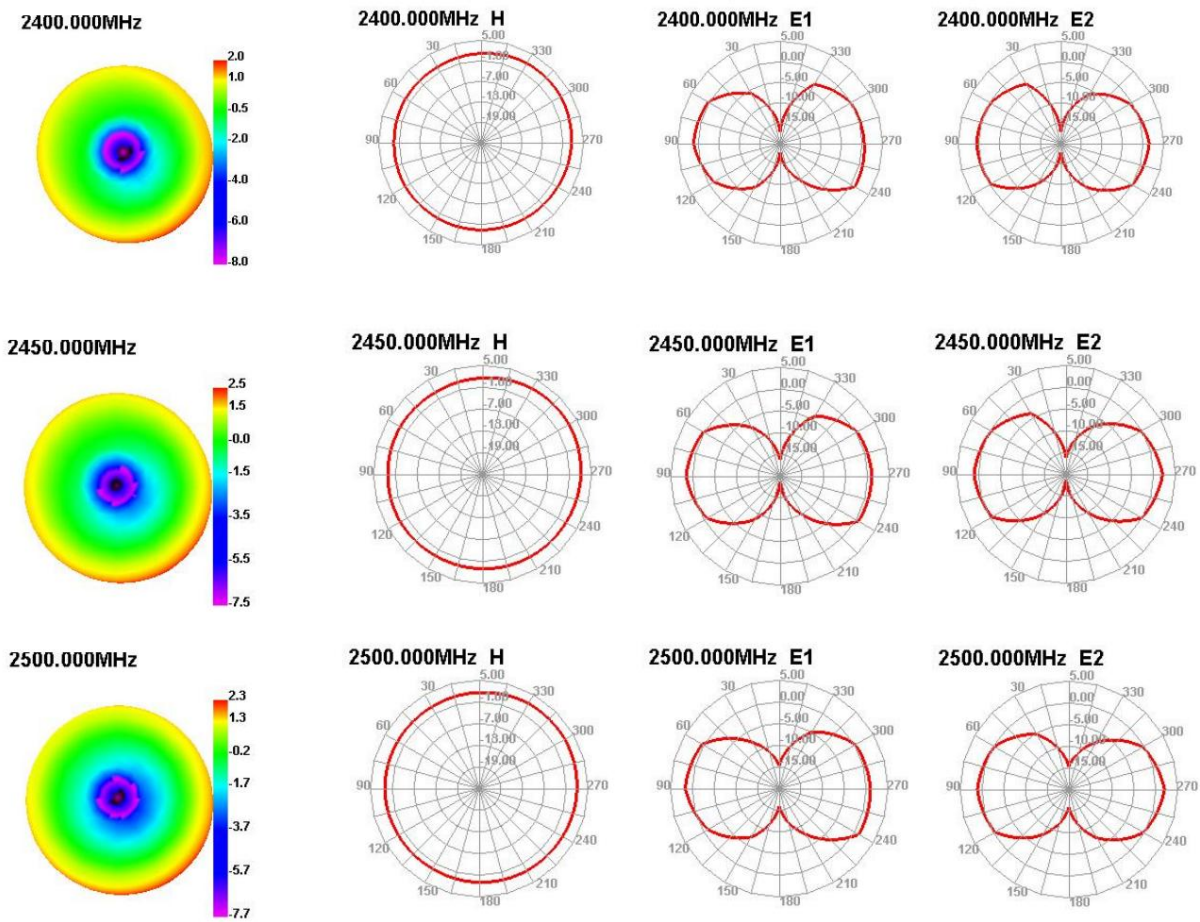
Passive Test For 2.4G-2.5G							
Freq (MHz)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	AttH (dB)	AttV (dB)
2400	72.1	1.31	-0.84	37.595	34.503	46.87	46.81
2410	71.98	1.16	-0.99	37.344	34.637	47.08	47.17
2420	74.69	1.36	-0.79	38.625	36.064	47.06	47.12
2430	68.18	1.05	-1.1	35.308	32.875	47	47.09
2440	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

Confidentiality requirements

Shenzhen Tianda Communication Co., Ltd. has the information provided by the proprietary technology. These proprietary information should be kept strictly confidential and will not be used without the prior written consent of Shenzhen Tianda Communication Co., Ltd.

It is not allowed to disclose to any person or company without face-to-face consent.

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.

Confidentiality requirements

Shenzhen Tianda Communication Co., Ltd. has the information provided by the proprietary technology. These proprietary information should be kept strictly confidential and will not be used without the prior written consent of Shenzhen Tianda Communication Co., Ltd.
It is not allowed to disclose to any person or company without face-to-face consent.

1	2	3	4	5	6	7	8																												
RoHS Compliant G P					<table border="1"> <thead> <tr> <th>No.</th> <th>Name</th> <th>Material</th> <th>Color</th> <th>Treatment</th> <th>Amount</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>同轴线</td> <td>1. 13单银线</td> <td>黑色</td> <td></td> <td>1</td> <td></td> </tr> <tr> <td>2</td> <td>1代端子</td> <td>铜</td> <td>金色</td> <td></td> <td>1</td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> </tr> </tbody> </table>	No.	Name	Material	Color	Treatment	Amount	Remark	1	同轴线	1. 13单银线	黑色		1		2	1代端子	铜	金色		1		3					1			
No.	Name	Material	Color	Treatment	Amount	Remark																													
1	同轴线	1. 13单银线	黑色		1																														
2	1代端子	铜	金色		1																														
3					1																														
一代端子																																			
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。																																			
<table border="1"> <thead> <tr> <th colspan="4"> Third Angle </th> <th colspan="4"> 深圳市天达通信有限公司 ShenZhen TianDa Communication Co.,Ltd </th> </tr> </thead> <tbody> <tr> <td colspan="2"> 0~10 ±0.05 10~18 ±0.10 18~30 ±0.12 30~40 ±0.15 40~ ±0.20 </td> <td colspan="2"> Project Part Name Part No. Material </td> <td colspan="2"> KB01 WIFI天线 KS-KB-01-WF-A </td> <td colspan="2"> Date Designed by Checked by Approved by </td> </tr> <tr> <td colspan="2"> Location </td> <td colspan="2"> Date </td> <td colspan="2"> Remark </td> <td colspan="2"> Unit mm Scale 1:1 </td> </tr> </tbody> </table>								Third Angle				深圳市天达通信有限公司 ShenZhen TianDa Communication Co.,Ltd				0~10 ±0.05 10~18 ±0.10 18~30 ±0.12 30~40 ±0.15 40~ ±0.20		Project Part Name Part No. Material		KB01 WIFI天线 KS-KB-01-WF-A		Date Designed by Checked by Approved by		Location		Date		Remark		Unit mm Scale 1:1					
Third Angle				深圳市天达通信有限公司 ShenZhen TianDa Communication Co.,Ltd																															
0~10 ±0.05 10~18 ±0.10 18~30 ±0.12 30~40 ±0.15 40~ ±0.20		Project Part Name Part No. Material		KB01 WIFI天线 KS-KB-01-WF-A		Date Designed by Checked by Approved by																													
Location		Date		Remark		Unit mm Scale 1:1																													
<table border="1"> <thead> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>AO</td> <td>New drawing</td> <td></td> <td>20240705</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Rev</td> <td>Description</td> <td></td> <td>Date</td> <td>Remark</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								1	2	3	4	5	6	7	8	AO	New drawing		20240705					Rev	Description		Date	Remark							
1	2	3	4	5	6	7	8																												
AO	New drawing		20240705																																
Rev	Description		Date	Remark																															

Shenzhen Tianda Communication Co., Ltd. has the information provided by the proprietary technology. These proprietary information should be kept strictly confidential and will not be used without the prior written consent of Shenzhen Tianda Communication Co., Ltd.

Page 6