

SPECIFICATION



ShenZhen TianDa Communication Co,LTD

B52-ANT2 Antenna

Product Specification

Customer	Xmitech Electronic	Frequency band	2400-2500MHz
Project name	B52	Edition	A
Item number	XM-BS-01-W2-A	Colour	Green
R Fdesign	Wangxinchuang	Structural design	Zhouluhong
Date	2024.10.30		

Customer confirmation:

Whether the assembly meets your requirements: ☐OK ☐NG

ShenZhen TianDa Communication CO., LTD.

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

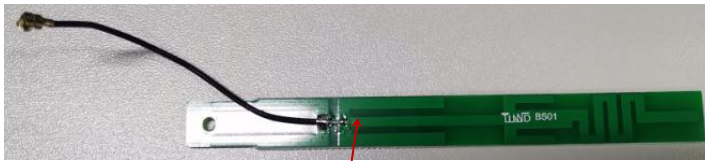
Catalog

Antenna2.....	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、VSWR of antenna	4
1.2.1.2、Antenna gain efficiency.....	4
1.2.1.3、Antenna pattern.....	5
1.2.1.4、Antenna Isolation.....	5
1.2.2、OTA test data.....	6
2、Structural specifications.....	6
2.1、Antenna composition.....	6
2.2、Drawings.....	6
2.3、Dimension Measurement.....	7
3、Conclusion.....	7
4、Packaging.....	7

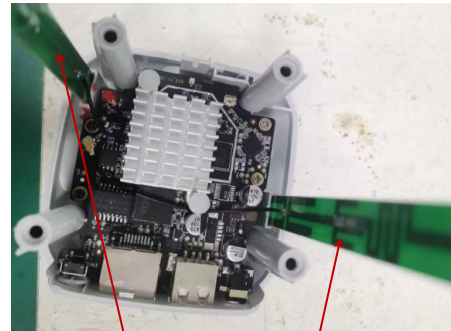
Antenna2

1、Specifications

The specification mainly provides the test status of electrical and structural performance parameters of WIFI antenna in B52 project。 The picture below shows the antenna2 designed by Tianda.



ANT2



ANT1

ANT2

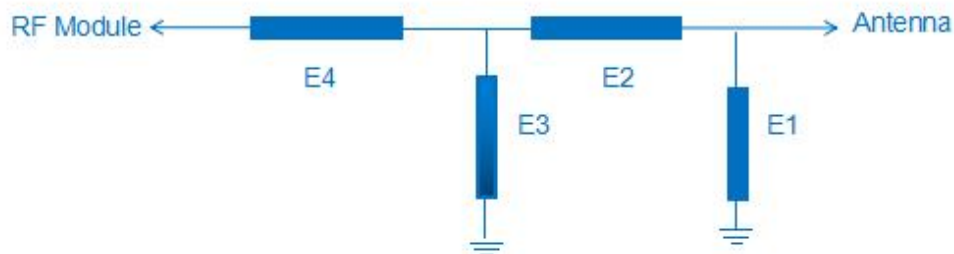
1.1、Electrical specifications

1.1.1、Electrical performance index

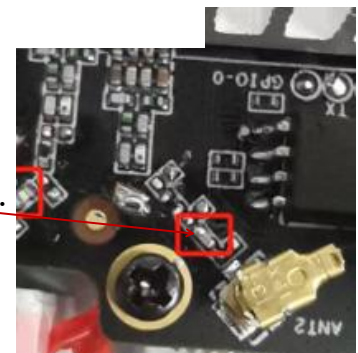
The operating frequency band of the antenna 2400MHz—2500MHz, The following is the electrical performance index of the antenna designed and produced by Tianda.

Ant2		
Frequency band	Frequency (MHz)	VSWR
2.4G	2400~2500	≤ 2.0

1.1.2、Matching circuit diagram



The matching circuit of ANT2 is a series 5.6pF Capacitance.

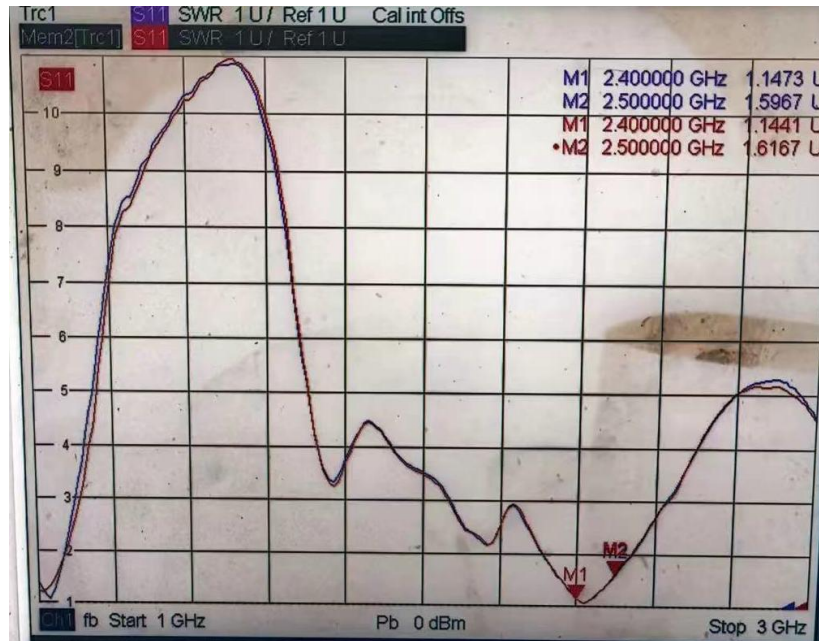


1.2、Testing

1.2.1、Passive test data

1.2.1.1、VSWR

ANT2

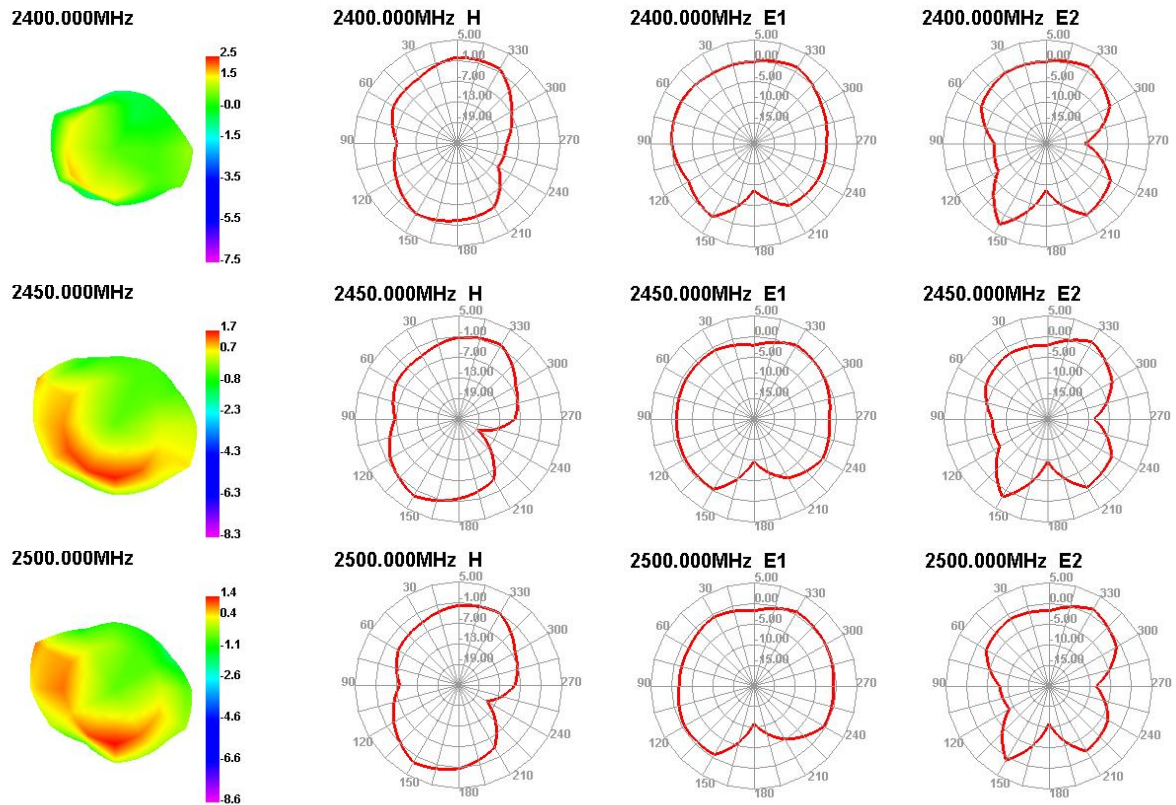


1.2.1.2、Antenna Gain and Efficiency

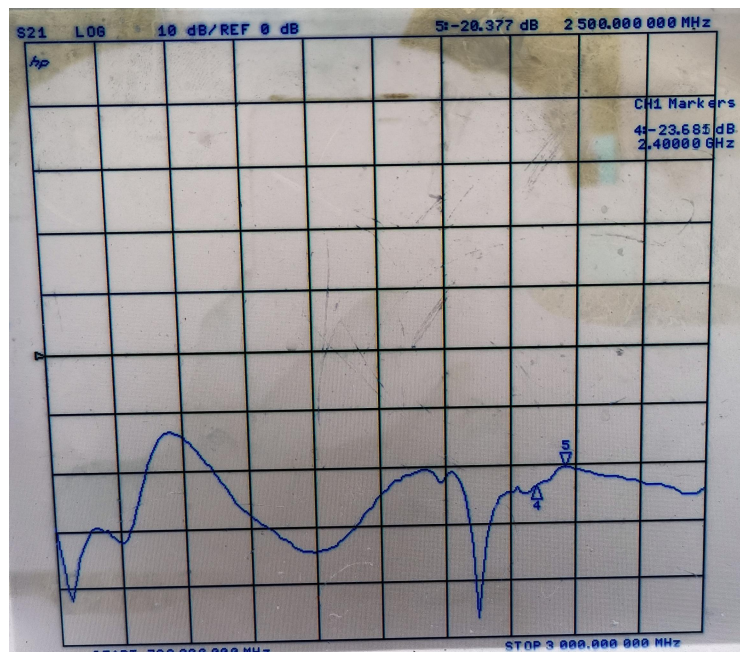
ANT2

Passive Test For 2.4G-2.5G							
Freq (MHz)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	AttH (dB)	AttV (dB)
2400	69.73	2.5	0.35	36.951	32.781	46.87	46.81
2410	71.28	2.63	0.48	37.532	33.752	47.08	47.17
2420	69.7	2.46	0.31	36.244	33.456	47.06	47.12
2430	68.85	2.26	0.11	35.336	33.511	47	47.09
2440	71.57	2.23	0.08	36.6	34.97	47.5	47.69
2450	69.29	1.74	-0.41	35.487	33.805	47.48	47.63
2460	71.65	1.82	-0.33	37.128	34.527	47.73	47.89
2470	73.4	1.99	-0.16	38.405	34.992	47.81	48.06
2480	68.11	1.65	-0.5	35.995	32.116	47.79	47.96
2490	71.14	2.04	-0.11	37.991	33.147	48.2	48.46
2500	64.43	1.43	-0.72	34.661	29.767	47.83	48.01

1.2.1.3、 Antenna pattern



1.2.1.4、 Antenna Isolation



The isolation between antennas is - 20.3dB ~-23.6dB.

1.2.2、OTA test data

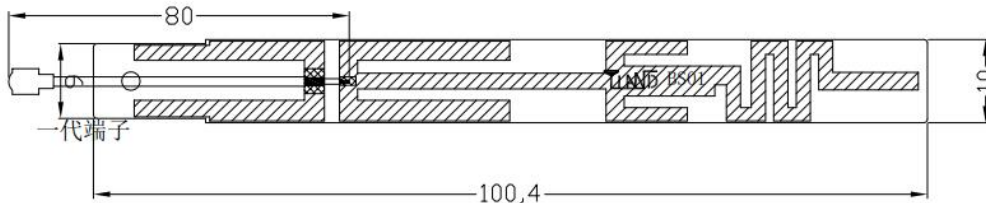
b (11M)	暗室 ■ 三角锥 □ 屏蔽箱 □		
Band	2.4G		
Channel	1	7	13
TRP	17.9	19.0	19.8
TIS	-90.8	-90.0	-90.3

2、Structural specifications

2.1、Antenna composition

Antenna2 is mainly composed of PCB+ Cable lines.

2.2、Drawings

1	2	3	4	5	6	7	8																												
					<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>PCB</td><td>FR4</td><td>绿色</td><td></td><td>1</td><td></td></tr> <tr> <td>2</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>3</td><td>第一代端子</td><td>磷铜</td><td>金色</td><td>镀金</td><td>1</td><td></td></tr> </tbody> </table>			No.	Name	Material	Color	Treatment	Amount	Remark	1	PCB	FR4	绿色		1		2	同轴线	1.13单银线	黑色		1		3	第一代端子	磷铜	金色	镀金	1	
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备注: 1. 打“*”号的为重点尺寸. 2. 各零件中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					Project: BS01-2 Designed by: 贺森林																														
Part Name: WIFI天线2组图					Date: 20210120																														
Part No: XM-BS-01-W2-A					Checked by: 王新闯																														
Material:					Approved by:																														
Unit: mm					Scale: 1:1																														
1	2	3	4	5	6	7	8																												

2.3、Dimension Measurement

Quantity Key size	1	2	3	4
100.40 ± 0.1	100.40	100.41	100.42	100.40
10.00 ± 0.1	10.01	9.98	10.02	10.00
80.00 ± 2.0	80.01	80.20	79.97	80.00

3、Conclusion

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

4、Packaging

Pack with PE bag.