

GPS WIFI BT Antenna Test Report



Customer	桑格尔
Project	A10L2
Antenna Revision	A2
Product Description	FPC+ CABLE
Product No	M2125A

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Checked by : Grant_Dou

2017.3.6

Purpose

This report is to measure the performance of *Surbaner* FPC GPS WIFI BT antenna for 桑格尔-A10L2 .All test date are showed as below.

Content

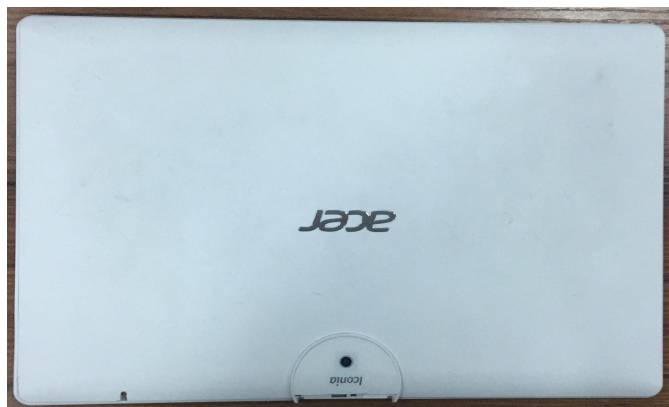
- 1: Product Overview & Dimension
- 2: Test Result
 - 2.1 VSWR
 - 2.2 Antenna Matching Network
 - 2.3 Gain & Efficiency
 - 2.4 3D Date
 - 2.5 Boot measured
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- 4 : Antenna Assembly Method

1. Product Overview & Dimension

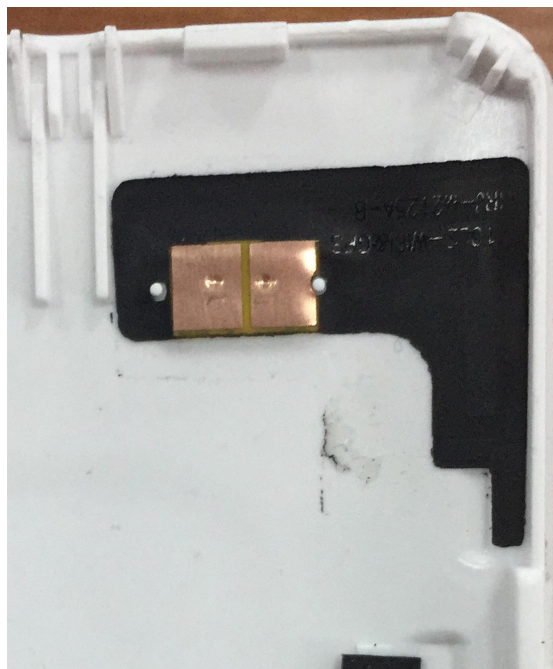
Front



Back

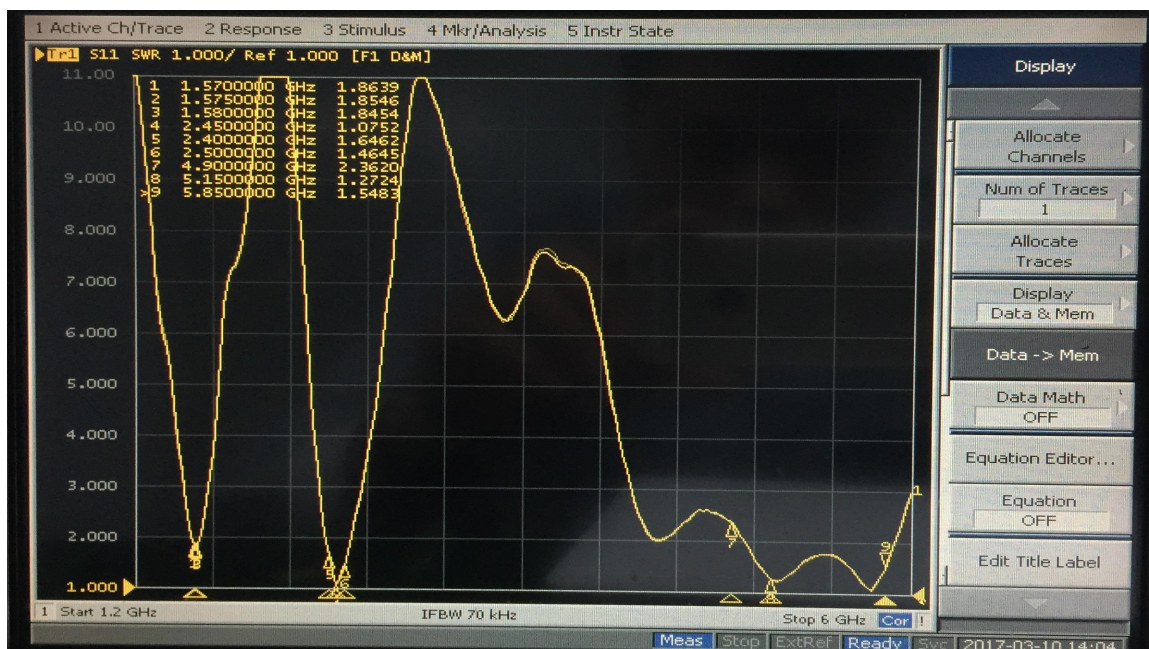


Antenna



2. Test Result

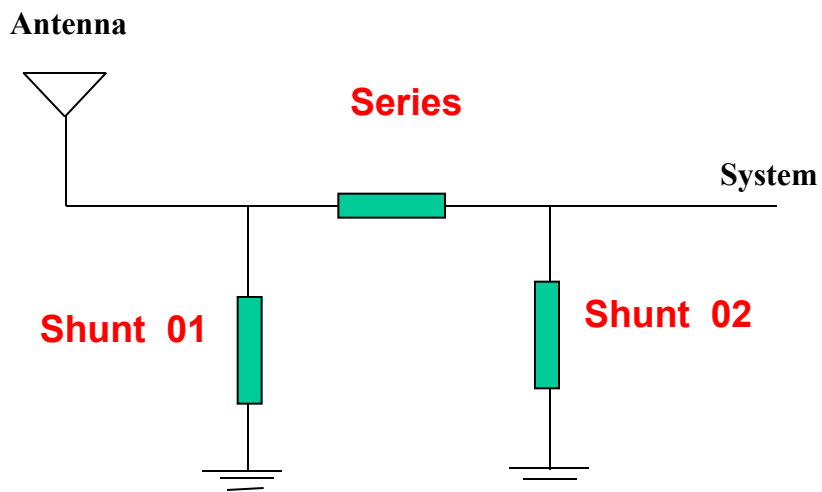
2.1 WIFI VSWR



Frequency (MHz)	1.570	1.575	15800	2400	2450	2500	4900	5700	5850
VSWR	1.86	1.85	1.84	1.07	1.64	1.46	2.36	1.27	1.54

2. Test Result

2.2 Antenna Matching Network



匹配电路未改动

Location	capacitor	Inductor
Shunt 01	N/A	N/A
Series	N/A	N/A
Shunt 02	N/A	N/A

2. Test Result

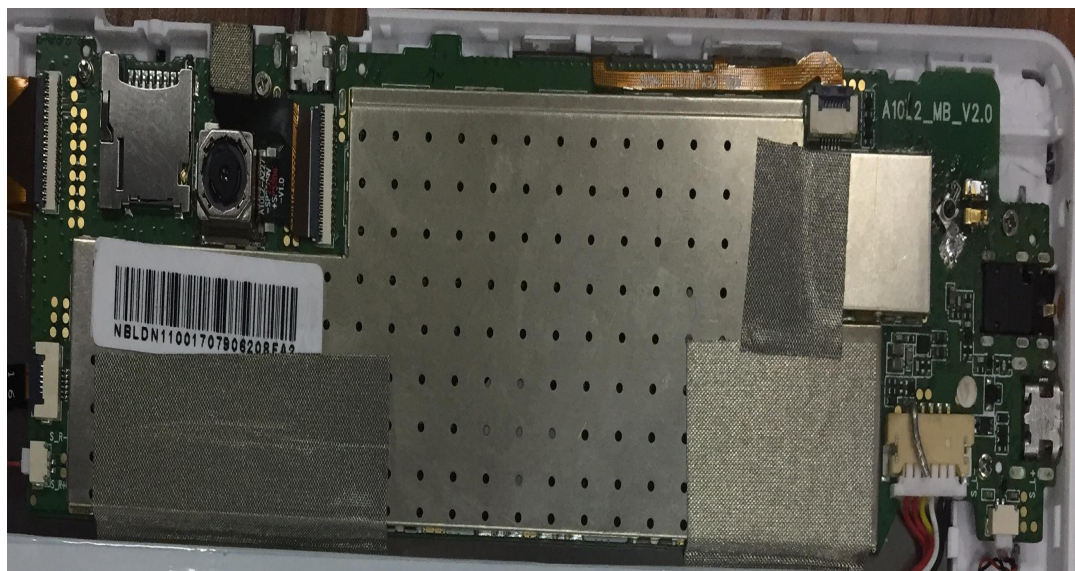
2.3 GAIN & Efficiency

Frequency(MHz)	Efficiency (%)	Peak GAIN (dBi)
1570	36.23	2.75
1575	36.64	2.93
1580	35.48	2.72
2400	36.12	2.95
2450	38.14	3.20
2500	37.12	2.59
4900	40.29	3.40
5700	47.52	3.57
5800	46.34	3.34

2. Test Result

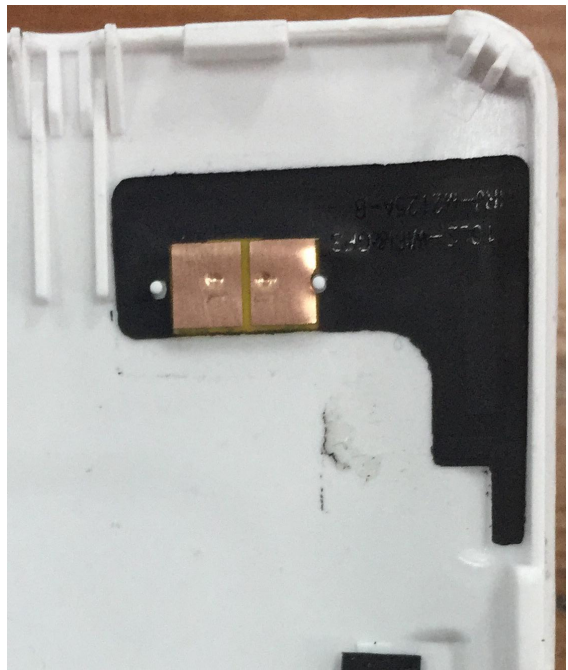
2.2 Antenna Matching Network

PCB板端匹配电路未改动

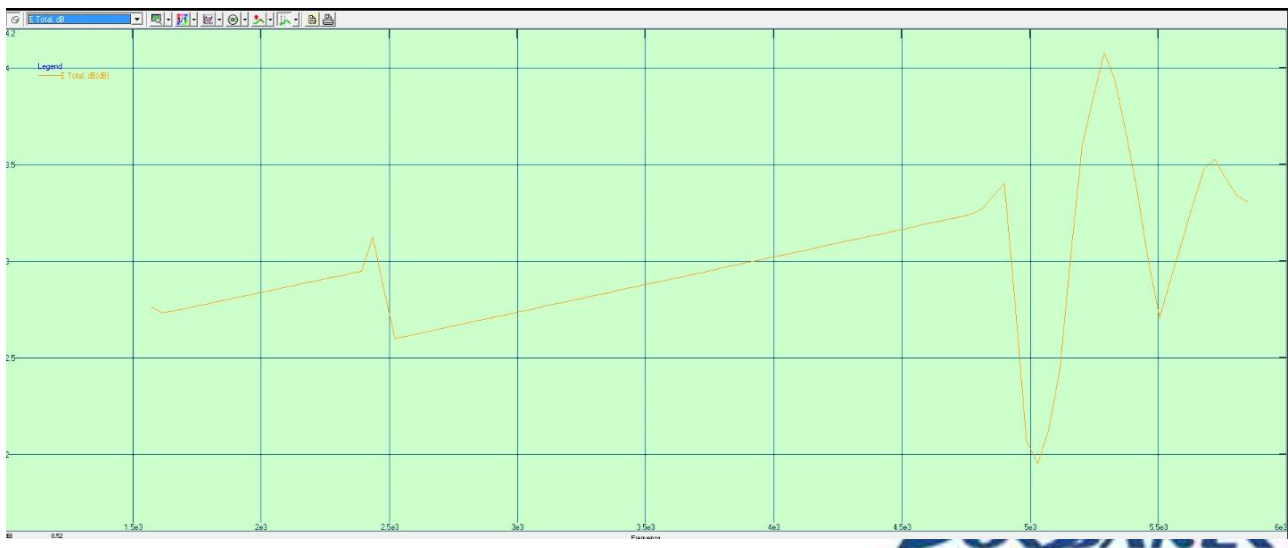
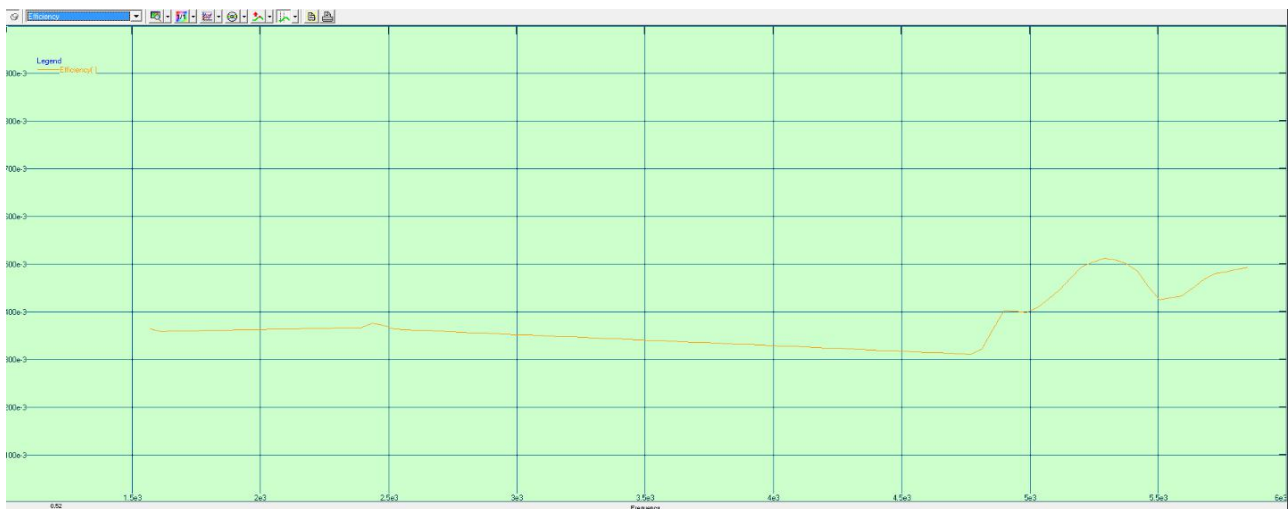


2. Test Result

2.4 WIFI 3D DATA



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2. Test Result

2.5 传导 Active Test Value

Item	B 11M			G 54M		
Chan nel	1	7	13	1	7	13
TRP (dBm)	17.91	18.12	18.19	16.13	16.14	16.5
TIS (dBm)	-82	-86	-86	-73	-74	-74
Item	N 65M			A 54M		
Chan nel	1	7	13	36	60	149
TRP (dBm)	14.13	14.39	14.64	15.46	15.86	14.59
TIS (dBm)	-67	-68	-70	-75	-75	-73

2. Test Result

2.5 OTA Active Test Value

Item	B 11M			G 54M		
Chan nel	1	7	13	1	7	13
TRP (dBm)	13.10	13.07	13.02	11.12	11.09	11.27
TIS (dBm)	-79.14	-78.23	-78.35	-67.25	-68.8	-68.37
Item	N 65M			A 54M		
Chan nel	1	7	13	36	60	149
TRP (dBm)	9.68	9.28	10.12	12.37	12.97	11.9
TIS (dBm)	-67.23	-67.28	-68.65	-69.45	-69.72	-69.58

2. Test Result

2.5 Open Sky C/N Value Test

Time:2017.3.6

weather: Sunny

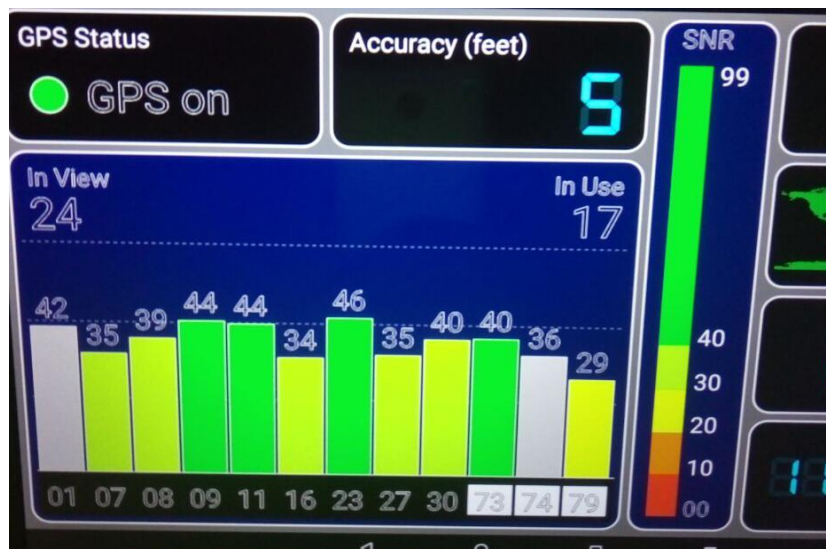
Location: on the B25 building, Hengfeng Industrial City, Xixiang town, Baoan district
Shenzhen, China

Test description:



2. Test Result

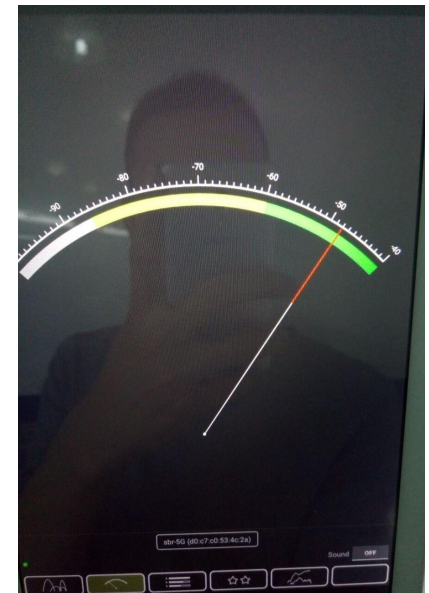
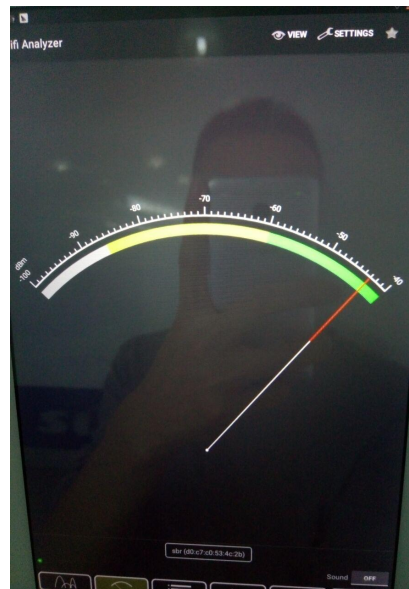
2.5 Open Sky C/N Value Test



2. Test Result

2.6 Boot measured

Test Environment: The effective distance between the AP and the test machine is 15M.

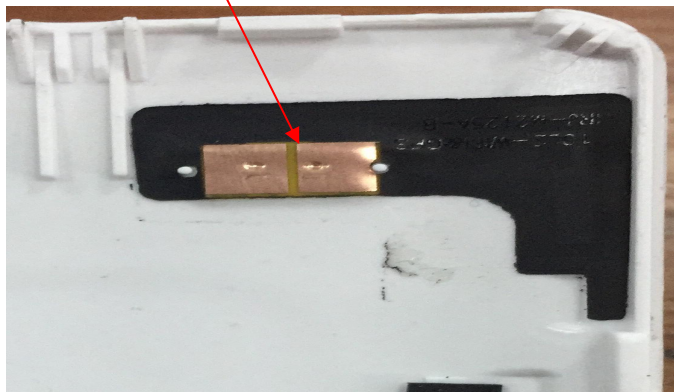


3. Conclusion

PCB板端匹配电路未改动，天线无源驻波OK，在15M WIFI-45dB左右，在30M空旷环境可以流畅播放视频、BT在15M空旷环境下、可以流畅播放本地音乐。如有问题电话联系，谢谢.....

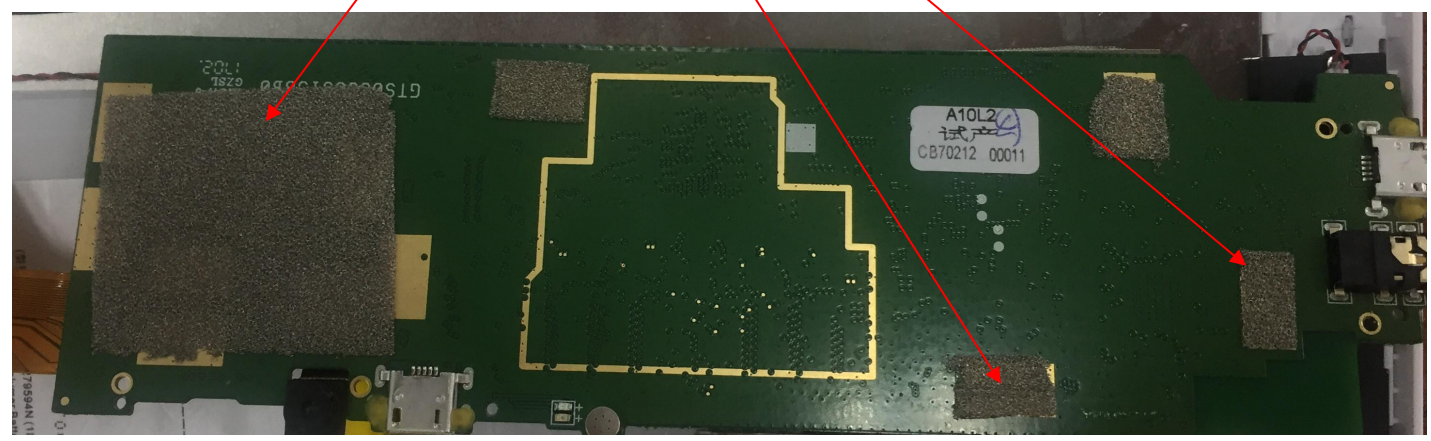
4. Antenna Assembly Method

天线安装位置请参考下图



环境处理一

主板接地处理



环境处理二

平排线要用导电布做屏蔽不做会影响3-5dB的灵敏度

屏蔽盖要用导电布与屏接地、模块要与屏蔽罩连接。

