

深圳市天联凌科技有限公司

天 线 测 试 报 告 Sky line test report

项目名称: L8M

料 号:

L8M.PRA.C081.45B.3

L8M.DIV.C081.45B.3

L8M.WIFI.C081.50B.3

负责人: 张昌华

版本: V2

日期:2022-09-13

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公司网址: <http://www.tll-skylink.com>

研发环境

Research and development environment

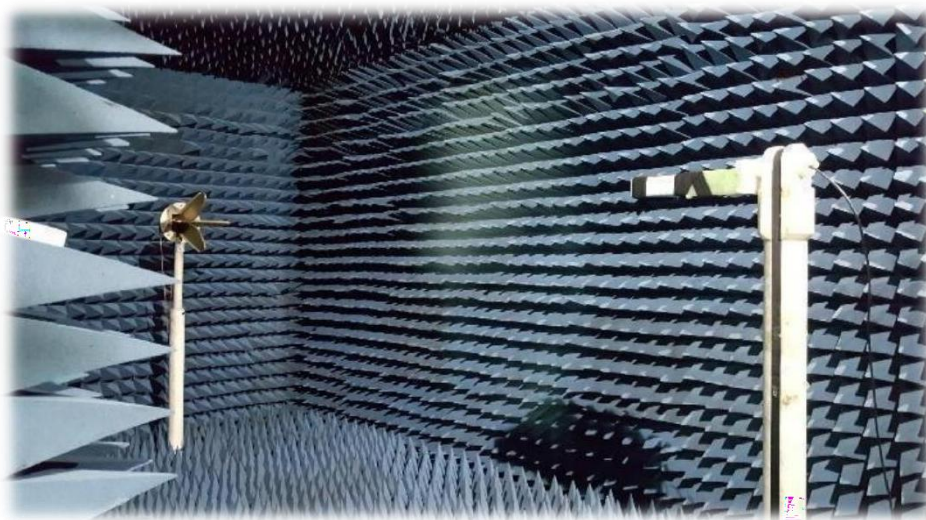
微波暗室

Microwave dark

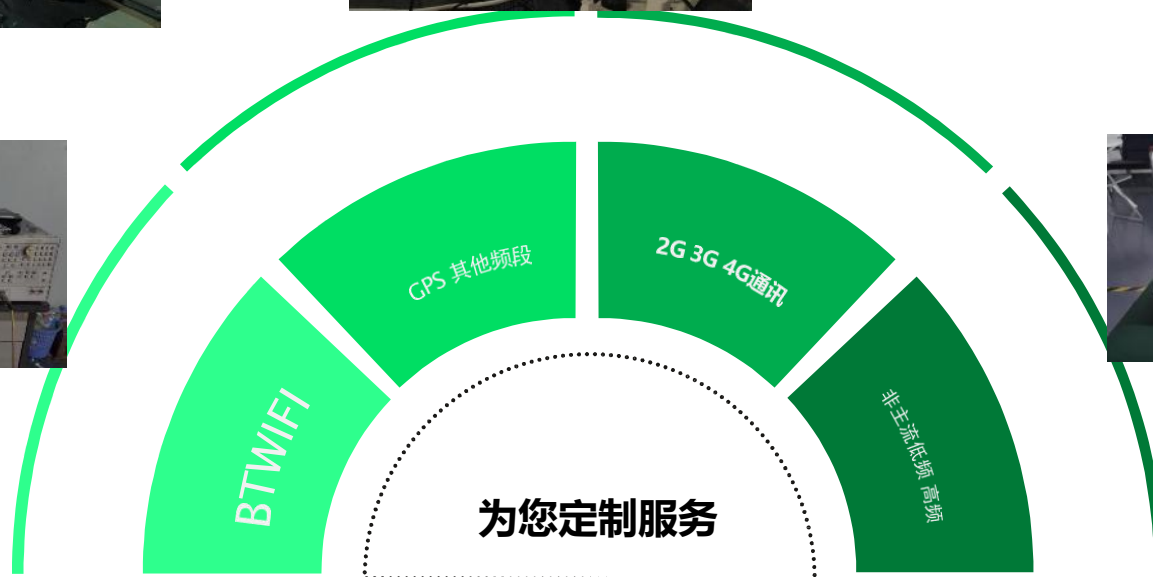
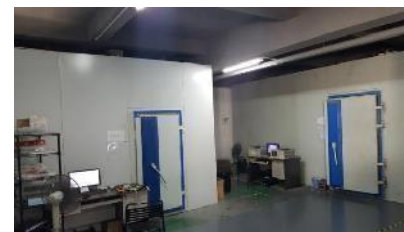
以及附属仪器设备

And auxiliary instruments and equipment

1. 2G/3G通讯微波暗室
2. 4G微波暗室通讯产品
2. CMW500
3. 安捷伦网络分析仪
4. 惠普网络分析仪
5. GPS101等



研发设备



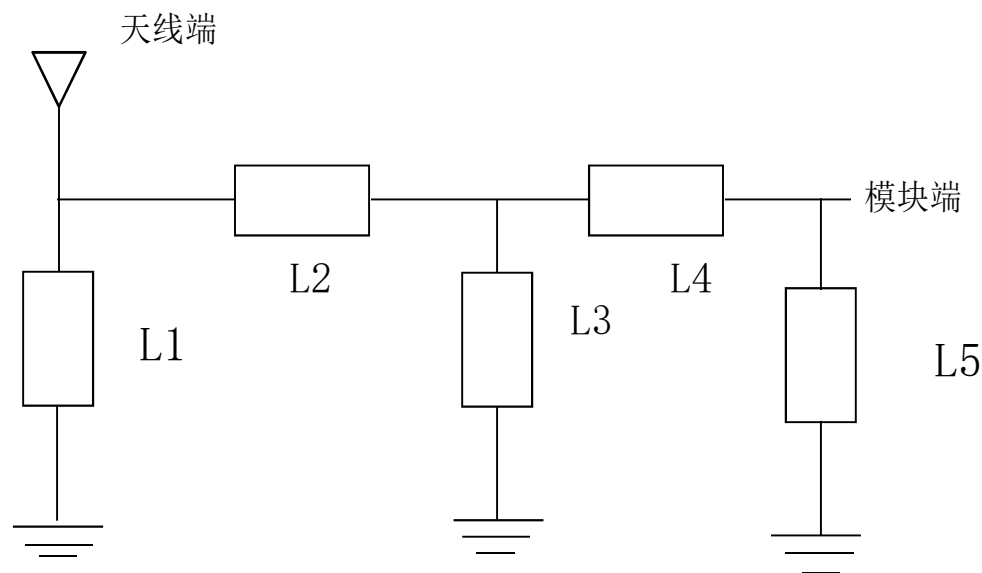
信息说明：

客户名称	机型	天线方式
锦圳	L8M	FPC
频率		
4G	B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B17 / B28 / B38 / B39 / B40 / B41	
WIFI	2400MHz~2500MHz 5150MHz~5250MHz	
GPS	1575.42MHz	

天线参数规格

电特性	
增益	2dbi
阻抗	50 欧姆
极化方式	线极化

天线匹配电路



原主板匹配不变

	值
L1 (0201)	/
L2 (0201)	/
L3 (0201)	/
L4 (0201)	/
L5 (0201)	/

天线匹配电路



LTE(OTA测试数据)

Test Result	LTE1 TRP	
	18050	18550
Frequency (MHz)	1925	1975
Txp Ave (dBm)	19. 71	18. 3

Test Result	LTE1 TIS	
	50	550
Frequency (MHz)	2115	2165
Sens Ave (dBm)	-92. 85	-92. 97

Test Result	LTE2 TRP	
	18650	19150
Frequency (MHz)	1855	1905
Txp Ave (dBm)	20. 64	19. 21

Test Result	LTE2 TIS	
	650	1150
Frequency (MHz)	1935	1985
Sens Ave (dBm)	-92. 59	-91. 09

Test Result	LTE3 TRP	
	19250	19900
Frequency (MHz)	1715	1780
Txp Ave (dBm)	17. 13	18. 14

Test Result	LTE3 TIS	
	1250	1900
Frequency (MHz)	1810	1875
Sens Ave (dBm)	-90. 09	-90. 88

Test Result	LTE4 TRP	
	20000	20350
Frequency (MHz)	1715	1750
Txp Ave (dBm)	17. 6	18. 35

Test Result	LTE4 TIS	
	2000	2350
Frequency (MHz)	2115	2150
Sens Ave (dBm)	-89. 35	-90. 43

LTE(OTA测试数据)

Test Result	LTE5 TRP	
	20450	20600
Frequency (MHz)	829	844
Txp Ave (dBm)	13. 93	13. 62

Test Result	LTE5 TIS	
	2450	2600
Frequency (MHz)	874	889
Sens Ave (dBm)	-87. 34	-85. 06

Test Result	LTE7 TRP	
	20800	21400
Frequency (MHz)	2505	2565
Txp Ave (dBm)	19. 39	19. 72

Test Result	LTE7 TIS	
	2800	3400
Frequency (MHz)	2625	2685
Sens Ave (dBm)	-89. 44	-86. 05

Test Result	LTE8 TRP	
	21500	21750
Frequency (MHz)	885	910
Txp Ave (dBm)	13. 08	12. 75

Test Result	LTE8 TIS	
	3500	3750
Frequency (MHz)	930	955
Sens Ave (dBm)	-81. 88	-80. 46

Test Result	LTE28 TRP	
	27260	27460
Frequency (MHz)	708	728
Txp Ave (dBm)	14. 06	13. 38

Test Result	LTE28 TIS	
	9260	9460
Frequency (MHz)	763	783
Sens Ave (dBm)	-82. 58	-83. 78

LTE(OTA测试数据)

Test Result	LTE5 TRP	
	20450	20600
Frequency (MHz)	829	844
Txp Ave (dBm)	13.93	13.62

Test Result	LTE5 TIS	
	2450	2600
Frequency (MHz)	874	889
Sens Ave (dBm)	-87.34	-85.06

Test Result	LTE7 TRP	
	20800	21400
Frequency (MHz)	2505	2565
Txp Ave (dBm)	19.39	19.72

Test Result	LTE7 TIS	
	2800	3400
Frequency (MHz)	2625	2685
Sens Ave (dBm)	-89.44	-86.05

Test Result	LTE8 TRP	
	21500	21750
Frequency (MHz)	885	910
Txp Ave (dBm)	13.08	12.75

Test Result	LTE8 TIS	
	3500	3750
Frequency (MHz)	930	955
Sens Ave (dBm)	-81.88	-80.46

Test Result	LTE28 TRP	
	27260	27460
Frequency (MHz)	708	728
Txp Ave (dBm)	14.06	13.38

Test Result	LTE28 TIS	
	9260	9460
Frequency (MHz)	763	783
Sens Ave (dBm)	-82.58	-83.78

LTE(OTA测试数据)

Test Result	LTE38 TRP	
	37850	38150
Frequency (MHz)	2580	2610
Txp Ave (dBm)	18.22	18.03

Test Result	LTE38 TIS	
	37850	38150
Frequency (MHz)	2580	2610
Sens Ave (dBm)	-89.95	-89.52

Test Result	LTE39 TRP	
	38350	38550
Frequency (MHz)	1890	1910
Txp Ave (dBm)	18.57	17.42

Test Result	LTE39 TIS	
	38350	38550
Frequency (MHz)	1890	1910
Sens Ave (dBm)	-92.93	-92.49

Test Result	LTE40 TRP	
	38750	39550
Frequency (MHz)	2310	2390
Txp Ave (dBm)	20.97	19.55

Test Result	LTE40 TIS	
	38750	39550
Frequency (MHz)	2310	2390
Sens Ave (dBm)	-92.44	-91.16

Test Result	LTE41 TRP	
	40340	41140
Frequency (MHz)	2565	2645
Txp Ave (dBm)	19.07	19.05

Test Result	LTE41 TIS	
	40340	41140
Frequency (MHz)	2565	2645
Sens Ave (dBm)	-90.98	-89.38

LTE(OTA测试数据)

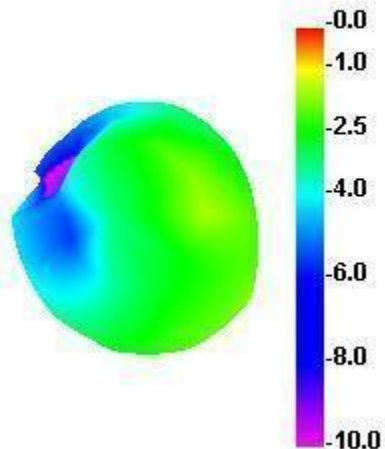
新增频段

Test Result	LTE12 TRP		Test Result	LTE12 TIS	
	23060	23130		5060	5130
Frequency (MHz)	703	710	Frequency (MHz)	733	740
Txp Ave (dBm)	14. 51	13. 65	Sens Ave (dBm)	-79. 19	-80. 08

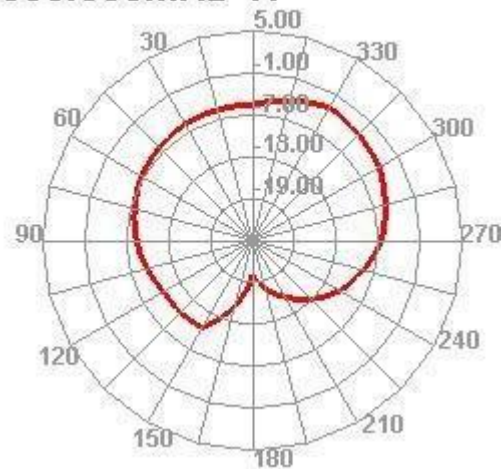
Test Result	LTE17 TRP		Test Result	LTE17 TIS	
	23780	23800		5780	5800
Frequency (MHz)	709	711	Frequency (MHz)	739	741
Txp Ave (dBm)	14. 04	12. 91	Sens Ave (dBm)	-79. 31	-78. 03

LTE(3D方向图)

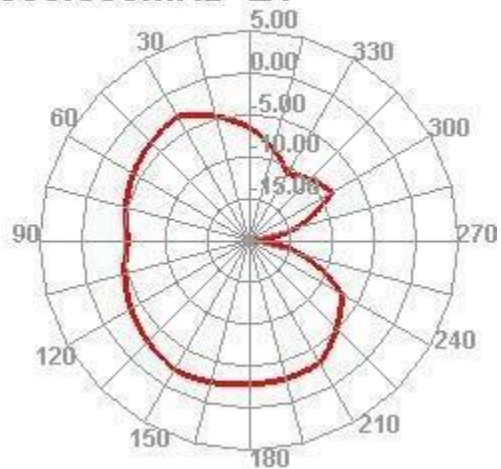
850.000MHz



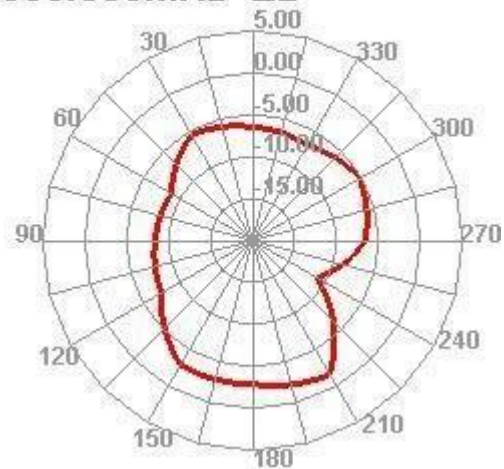
850.000MHz H



850.000MHz E1

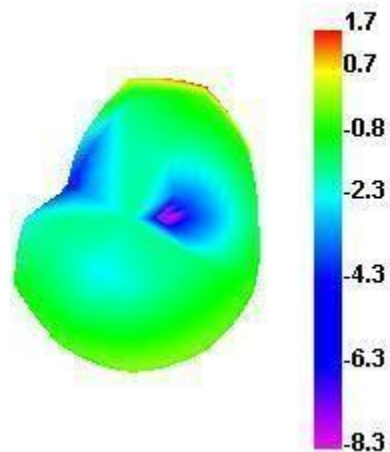


850.000MHz E2

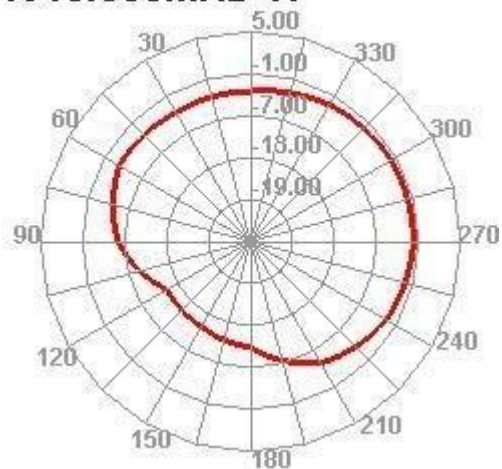


LTE(3D方向图)

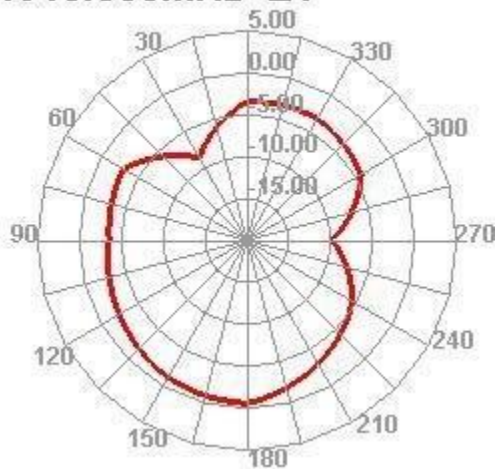
1910.000MHz



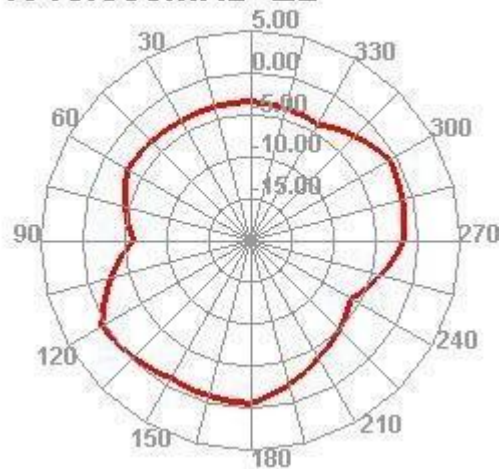
1910.000MHz H



1910.000MHz E1

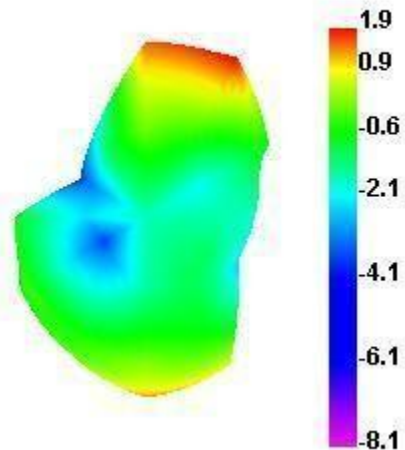


1910.000MHz E2

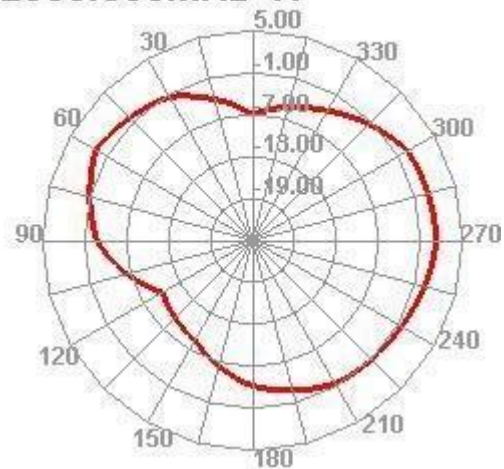


LTE(3D方向图)

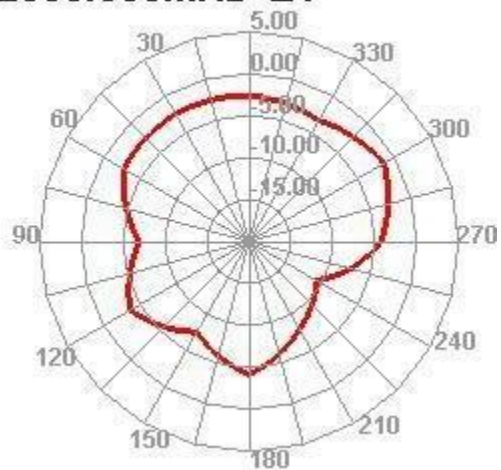
2500.000MHz



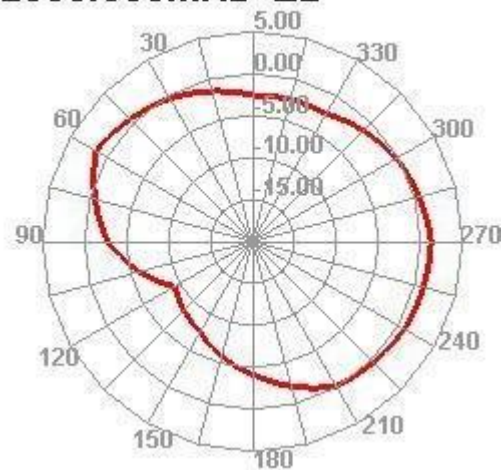
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



WIFI

802.11b : 11Mbps			
Test	Wifi 2G TRP		
Result	1	6	11
Frequency (MHz)	2412	2437	2462
Txp Ave (dBm)	12.35	12.58	12.42

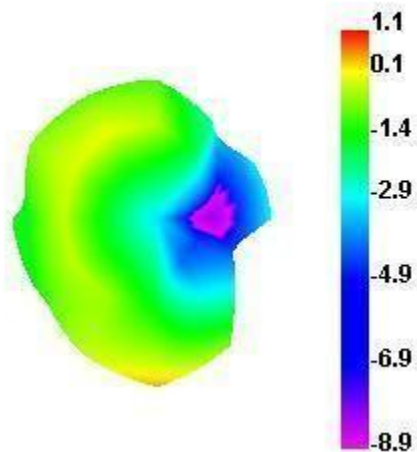
Test	Wifi 2G TIS		
Result	1	6	11
Frequency (MHz)	2412	2437	2462
Sens Ave (dBm)	-82.25	-81.91	-82.84

802.11a : 54Mbps			
Test	Wifi 5G TRP		
Result	36	149	161
Frequency (MHz)	5180	5200	5250
Txp Ave (dBm)	11.11	10.64	9.78

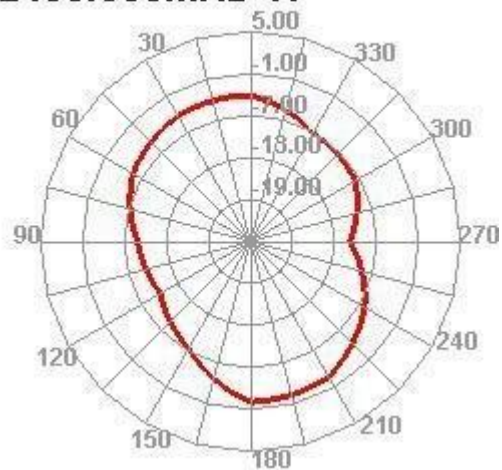
Test	Wifi 5G TIS		
Result	36	149	161
Frequency (MHz)	5180	5200	5250
Sens Ave (dBm)	-70.59	-69.94	-73.49

WIFI(3D方向图)

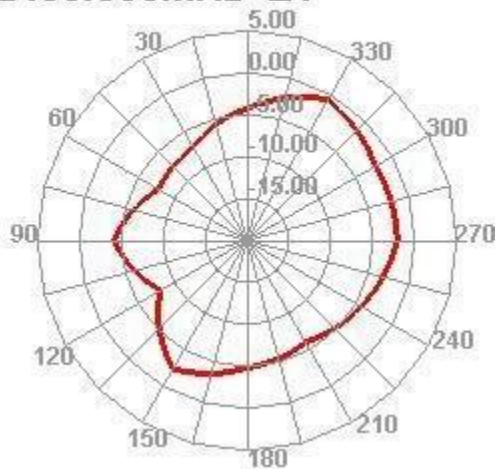
2450.000MHz



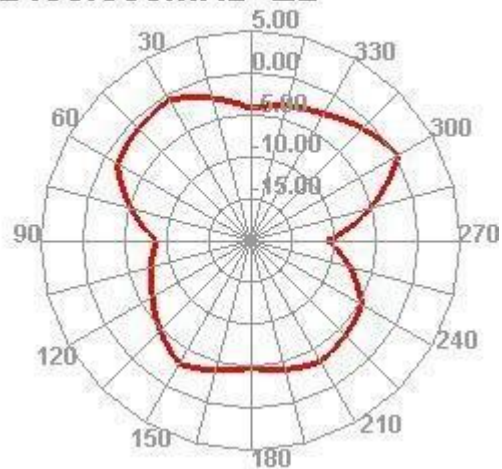
2450.000MHz H



2450.000MHz E1

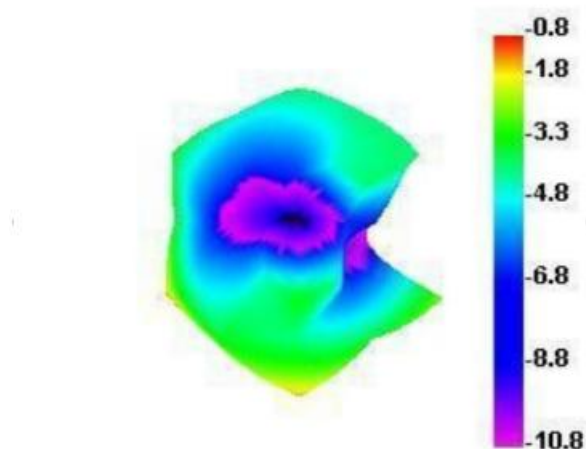


2450.000MHz E2

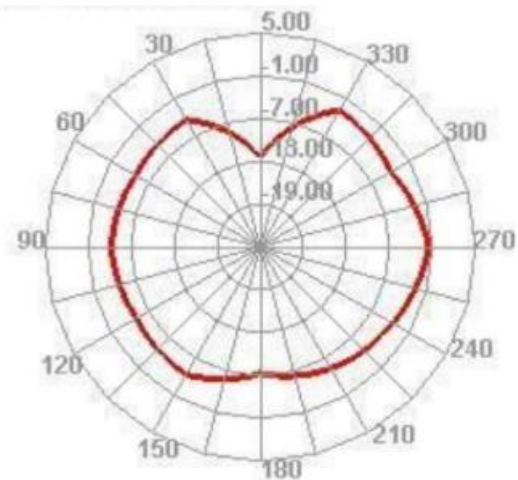


WIFI(3D方向图)

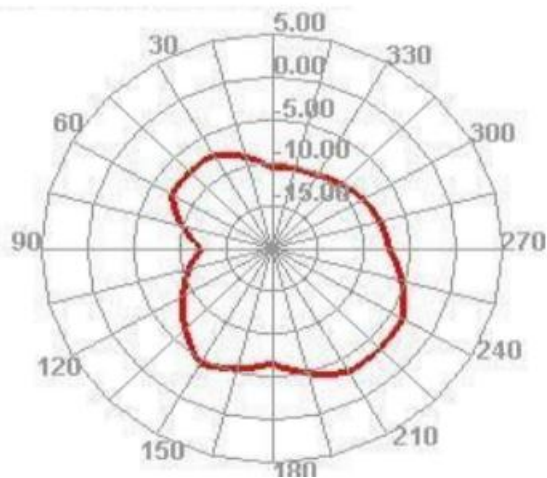
5250.000MHz



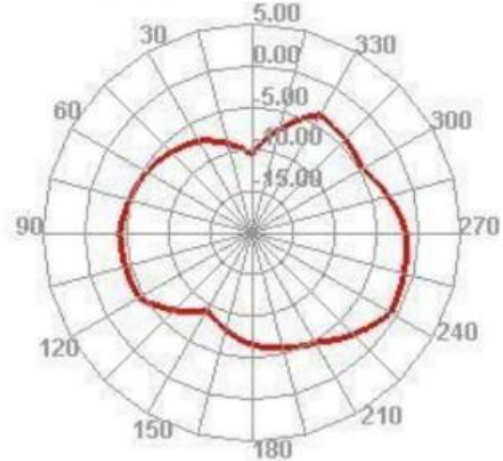
5250.000MHz H



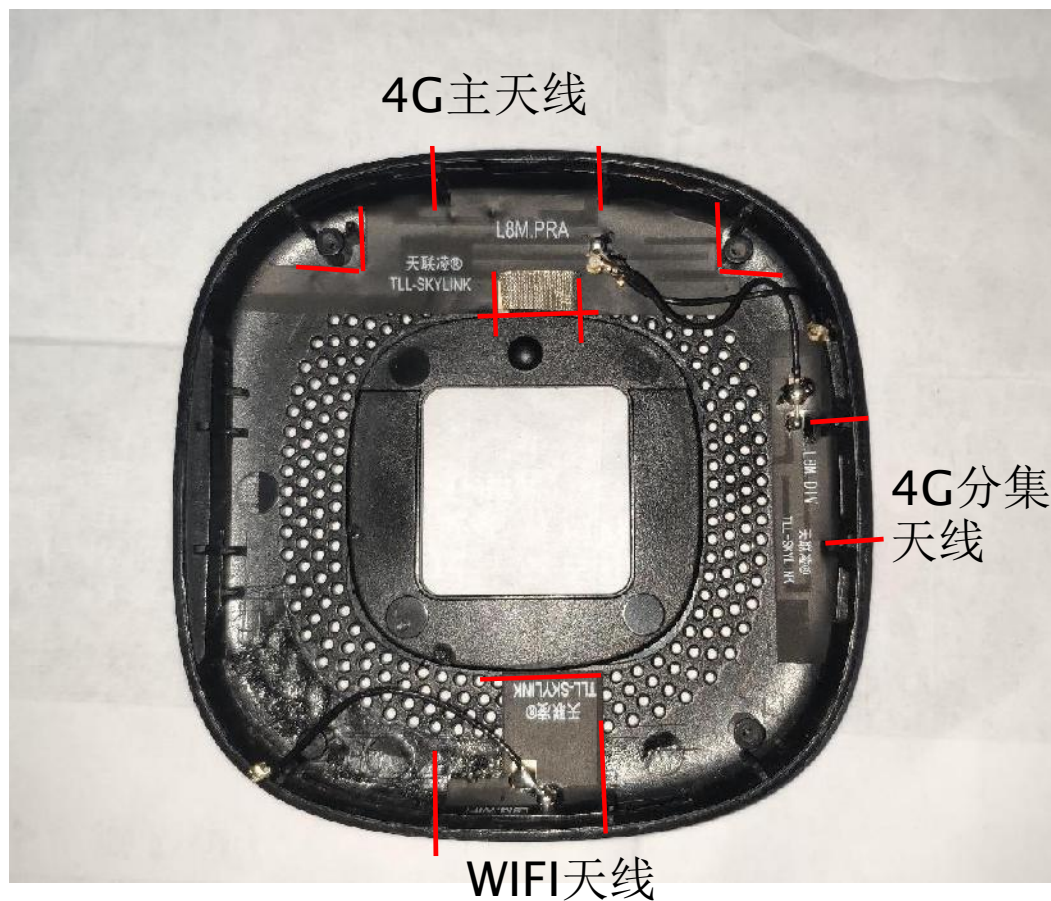
5250.000MHz



5250.000MHz E2



天线定位图

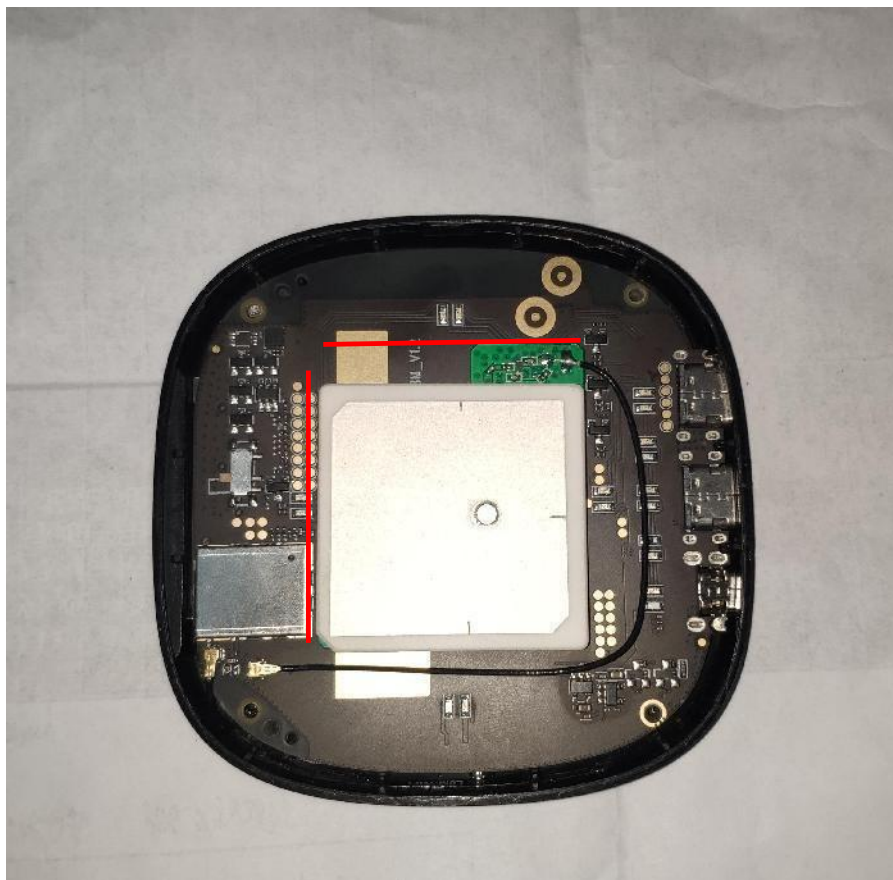


4G主天线左右直角缺口对齐两边螺丝柱粘贴，分集天线缺口对齐骨位粘贴

4G主天线加导电棉接主板屏蔽罩，导电泡棉不要贴出预留位置

WIFI天线对齐骨位粘贴

天线定位图



GPS天线对齐
红线标示粘贴

天线测试结论

天线测试结果基本满足设备在要求的各个地区正常的数据流量通讯使用。

天线在安装时，注意粘贴的参考点，对照定位图位置安装。

此设备分集天线离主板比较近，天线容易与主板短路，要在天线的馈点焊接位置贴高温胶布或美纹胶纸防止短路。



THANK
YOU