



深圳市凯普深通讯科技有限公司
Shenzhen cape deep communication technology co., LTD

天线调试报告

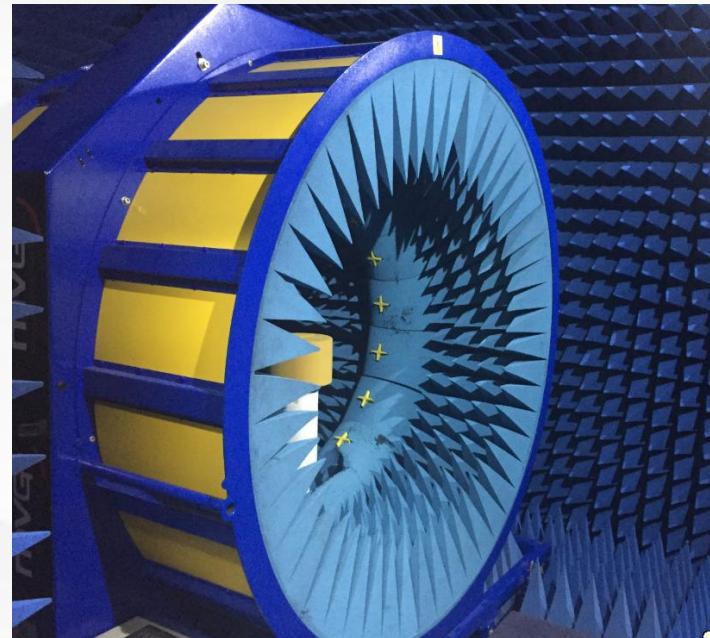
test report

客户: 图高
项目名: HT08
射频: 江长兴
日期: 2025.4.17



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实验室测试环境及设备



测试项目	测试设备
S11、S12、VSWR、LOSS	网络分析仪E5071B、E5062A
Efficiency、Gain 3D Radiation Pattern	Satimo SG16暗室、GP7*4*3暗室、E5071B
TRP、TIS	Satimo SG16暗室、GP7*4*3暗室、8960、 CMW500、MT8820C、E4438C、



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项目调试简介

整机类型	4G智能机		
		频段信息	天线形式
天线种类及频段信息	主天线	2G: 850/900/1800/1900 3G: W1/2/5/8 4G:B1/3/5/7/8/20/28/38/40/41//66 GPS/2.4W/5.8W	PIFA
	副天线	WIFI+BT+GPS	PIFA
	分集天线	700M-2710MHZ	PIFA
天线材质			



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变更记录说明

时间	版本说明
2025. 1. 3	DVT1数据
2025. 1. 14	DVT2没拆机原始数据
2025. 1. 17	试产机器优化低频灵敏度天线，斯里兰卡3台机器样机数据
2025. 2. 28	试产机器优化天线
2025. 3. 3	最终天线报告
2025. 3. 13	小PP量产 EMTC
2025. 4. 16	升级安卓15
2025. 4. 17	委内瑞拉版本测试



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下天线开关匹配电路及逻辑

HT08 下天线		
RF1		TRX:GSM900/1800/1900 WCDMA1/2/4/8 LTE1/2/8/25/39/ DRX:7/38/40/41
RF2		TRX:GSM850 WCDMA5 LTE5/18/19/20/26
RF3		TRX:LTE12/17/28ab
RF4		2G:1800 3G:W4 4G:LTE3/4/66



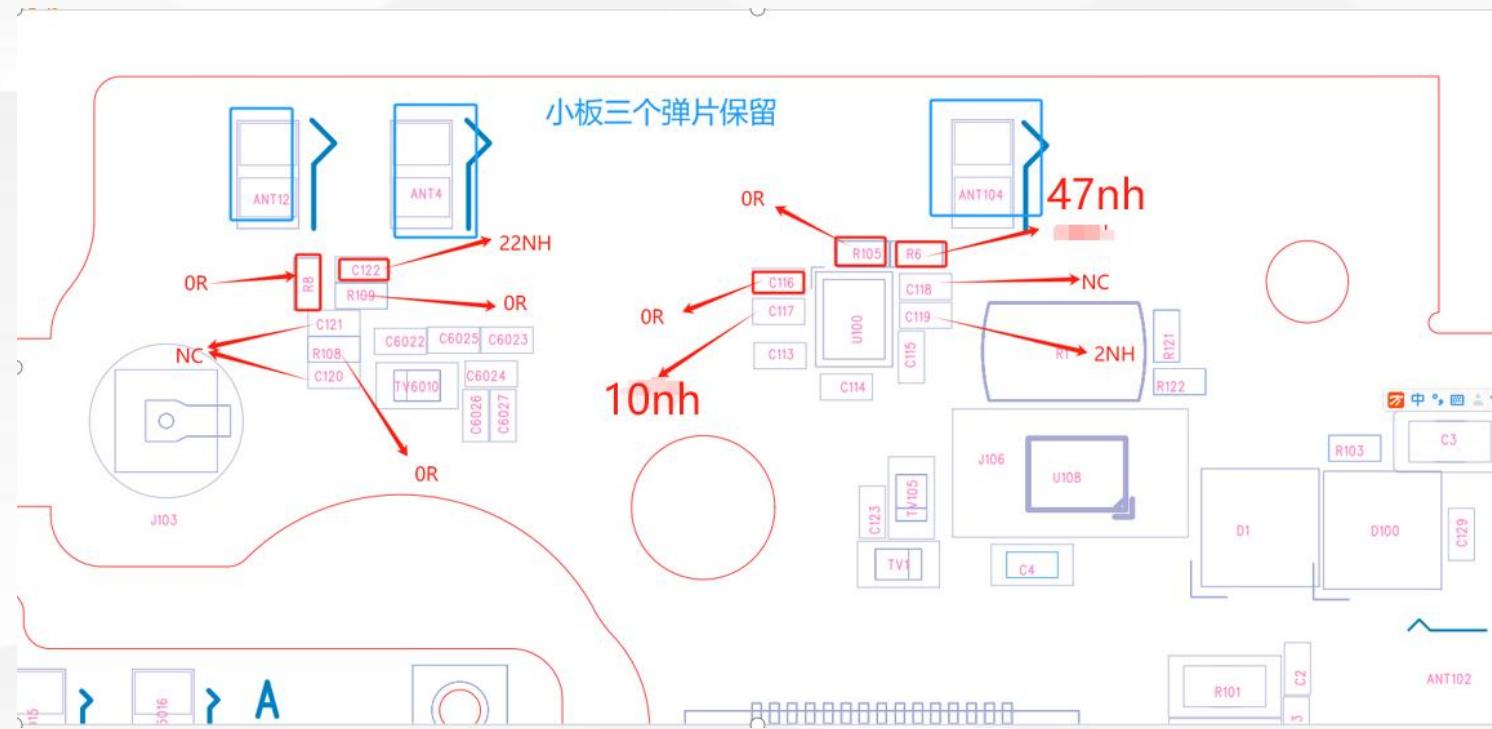
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上天线 匹配电路及逻辑

HT08 上天线		
		DPDT:TRX:LTE7/38/40/41 DRX:LTE1/2/3/4/5/8/12/17/18/19/20/2 5/26/28/66/39



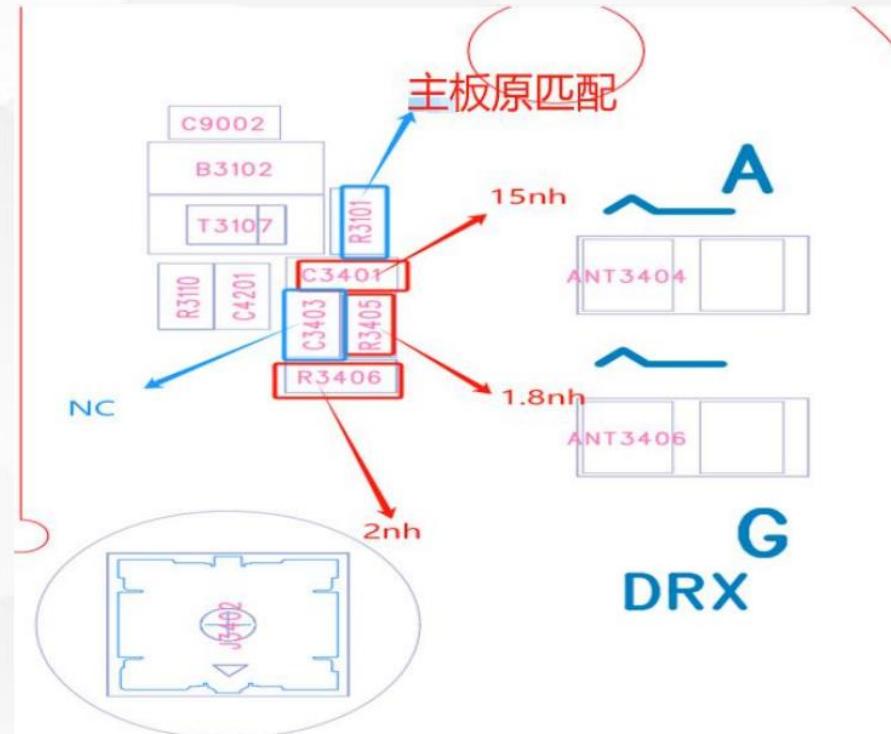
下天线开关匹配





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上天线匹配

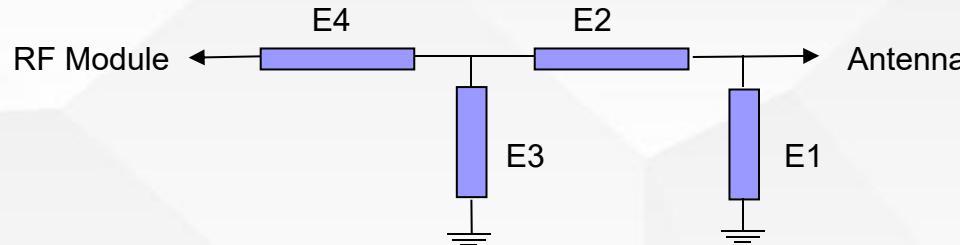


G
DRX



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三合一天线匹配电路



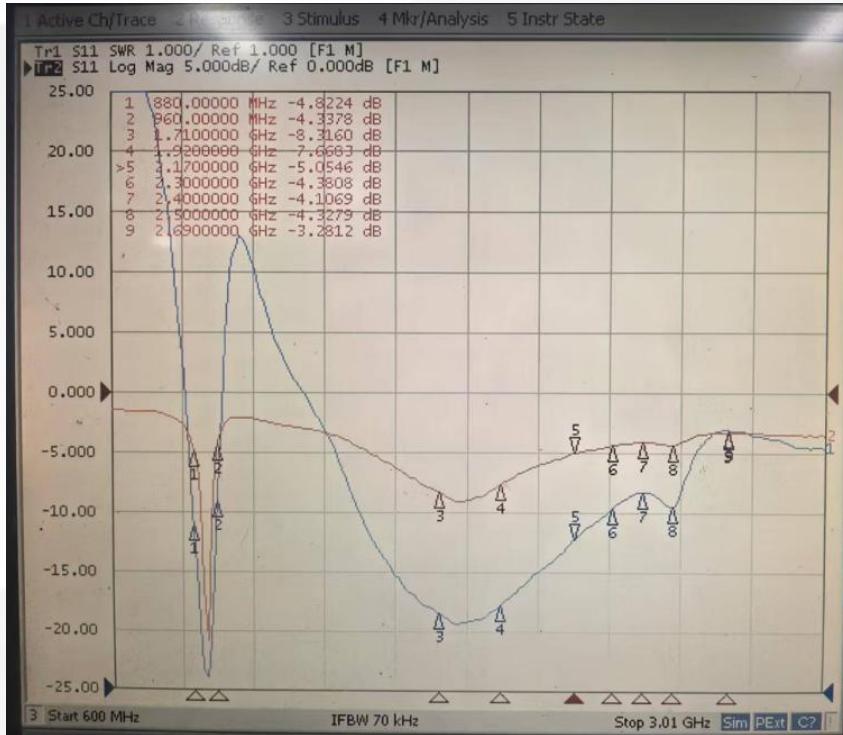
Element	Value
E1(0201)	
E2(0201)	主板原匹配
E3(0201)	
E4(0201)	



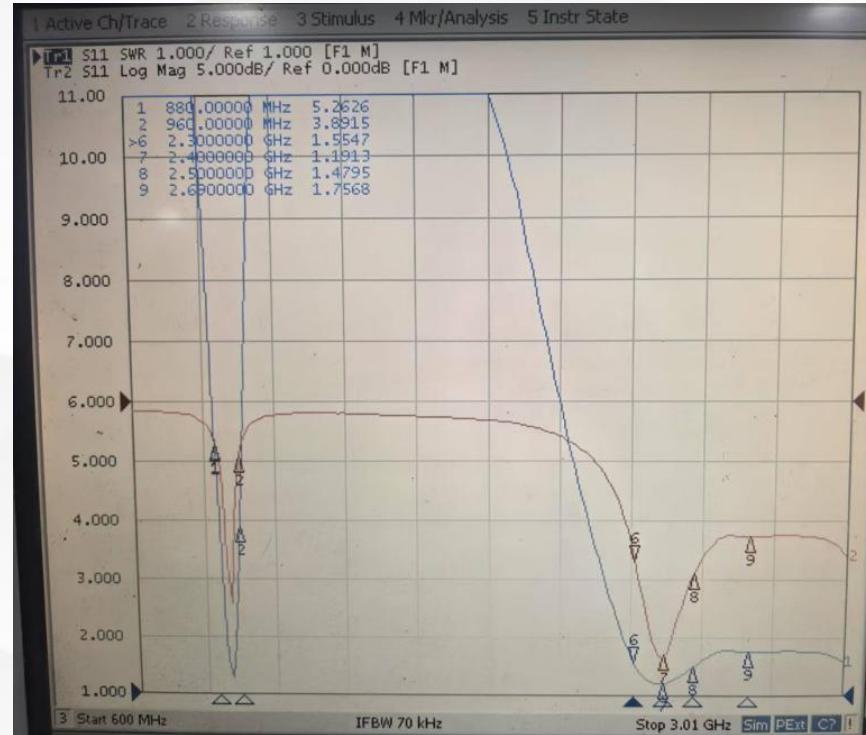
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GSM天线无源参数

主集天线驻波比及回波损耗



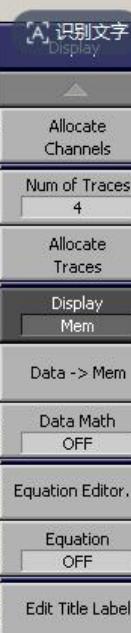
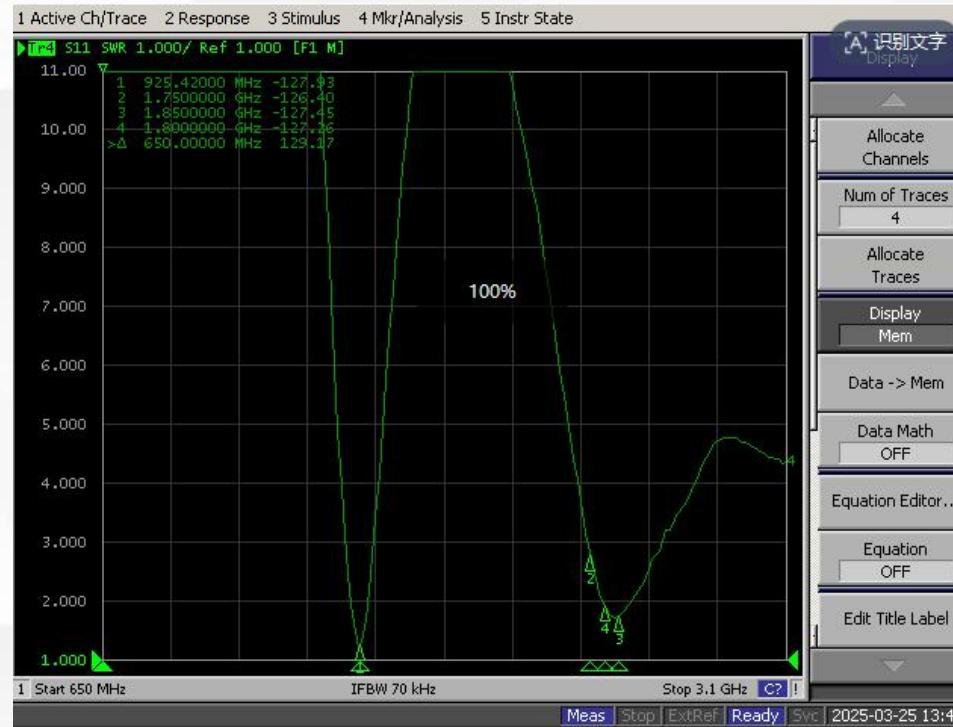
分集天线驻波比及回波损耗





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GPS天线无源参数





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增益

7. 天线增益 GAIN

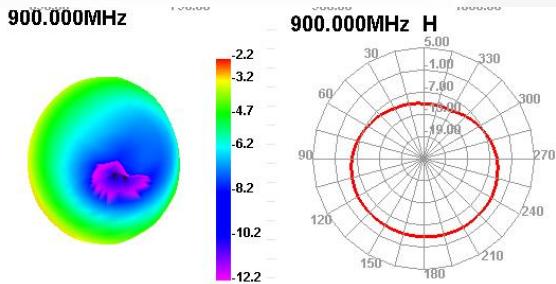
	GAIN(dBi)
B2	-1.89
B3	-1.56
B4	-2.04
B5	-3.63
B7	-1.7
W2	-1.89
W5	-3.63
W8	-3.89
GSM850	-3.63
EFSM900	-3.89
gps	-1.35
WiFi	-0.33
bt	-0.33
5.8G WIFI	-0.38



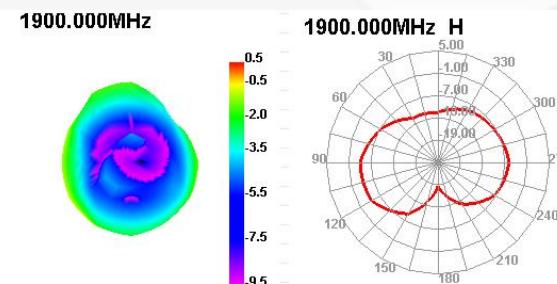
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GSM天线3D方向图

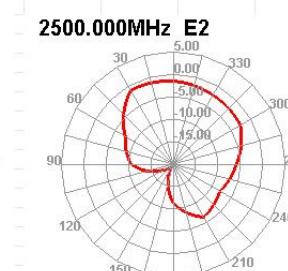
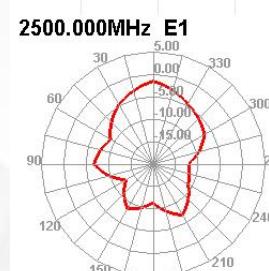
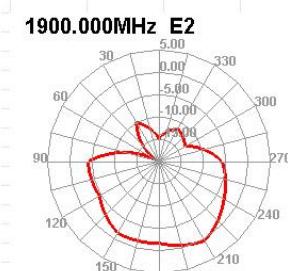
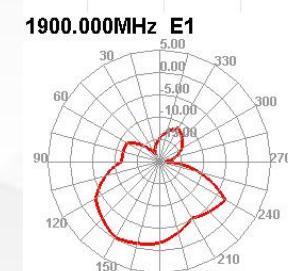
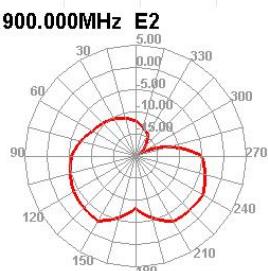
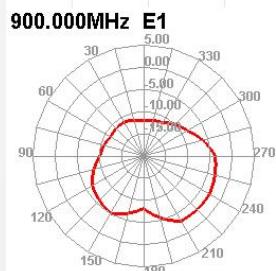
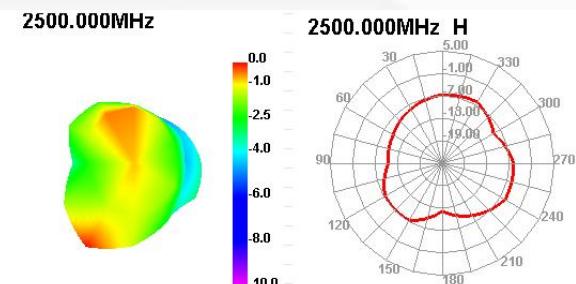
低频



中频



高频





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GPS

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1550	30.2	-5.20	0.3
1555	30.35	-5.18	0.17
1560	31.72	-4.99	0.12
1565	32.29	-4.91	0.16
1570	33.81	-4.71	-0.03
1575	34.64	-4.60	-0.18
1580	35.19	-4.54	-0.18
1585	35.09	-4.55	-0.01
1590	34.35	-4.64	0.05
1595	33.61	-4.74	-0.07
1600	34.16	-4.66	-0.07

2.4G-WIFI

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	25.21	-5.98	-1.3
2410	25.7	-5.90	-1.14
2420	27.22	-5.65	-0.89
2430	27.22	-5.65	-1.11
2440	28.41	-5.47	-0.94
2450	28.88	-5.39	-0.74
2460	28.4	-5.47	-0.82
2470	29.68	-5.28	-0.48
2480	29.4	-5.32	-0.34
2490	33.1	-4.80	-0.4
2500	32.31	-4.91	-0.55

5G-WIFI

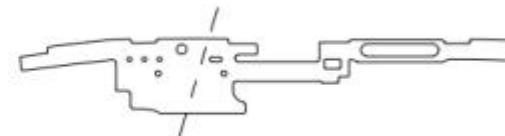
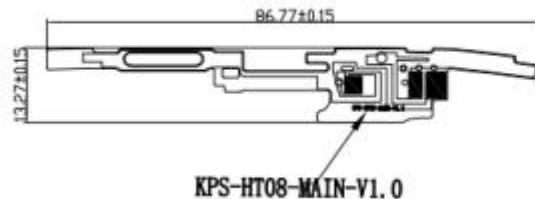
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5000	26.66	-5.74	-0.01
5050	28.52	-5.45	0.01
5100	29.3	-5.33	0.11
5150	27.46	-5.61	-0.37
5200	28.74	-5.41	-0.34
5250	30.89	-5.1	0.22
5300	28.43	-5.46	-0.43
5350	30.06	-5.22	-0.48
5400	28.35	-5.47	-0.68
5450	29.02	-5.37	-0.55
5500	29.25	-5.34	-0.54
5550	29.74	-5.27	-0.66
5600	29.56	-5.29	-0.67
5650	30.75	-5.12	-0.49
5700	31.09	-5.07	-0.43
5750	30.58	-5.15	-0.46
5800	31.38	-5.03	-0.43
5850	31.85	-4.97	-0.16
5900	30.73	-5.12	-0.39
5950	31.24	-5.05	-0.25
6000	29.27	-5.34	-0.6

公司

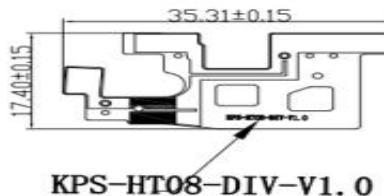
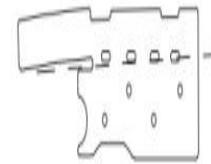
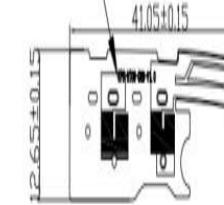


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天线尺寸



KPS-HT08-GWB-V1.0





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天线测试数据

1#

FS	Channel	TRP	TIS灭		Channel	TRP	TIS灭
LTE-2	L	19		W-2	L	18.9	
	M	18.9			M	19.2	
	H	19.4	-90.8		H	19.2	-102.5
LTE-3	L	16.0		W-5	L	16.2	
	M	16.3			M	16.4	
	H	17.9	-91.7		H	17.1	-102
LTE-4	L	16.1		W-8	L	16.2	
	M	16.3			M	16.9	
	H	16.4	-89.6		H	17.5	-103.1
LTE-5	L	16.2		GSM850	L	24.2	
	M	16.2			M	24.3	
	H	16.2	-91.4		H	24.4	-100.1
LTE-7	L	19.2		GSM900	L	25.8	
	M	19.1			M	27.2	
	H	19.6	-89.3		H	26.7	-100.5



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天线测试数据

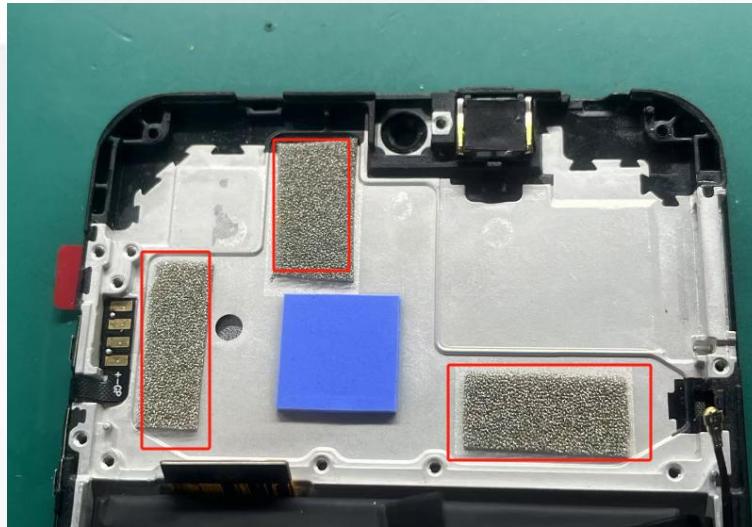
2#

FS	Channel	TRP	TIS灭		Channel	TRP	TIS灭
LTE-2	L	19.5		W-2	L	19.5	
	M	19.6			M	19.2	
	H	19.2	-91.1		H	19.3	-102.7
LTE-3	L	16.3		W-5	L	16.2	
	M	16.3			M	16.2	
	H	18.2	-92.1		H	16.7	-102.9
LTE-4	L	16.1		W-8	L	16.1	
	M	16.7			M	16.4	
	H	16.8	-89.5		H	17.2	-102.8
LTE-5	L	16.2		GSM850	L	24.2	
	M	16.2			M	24.0	
	H	16.4	-91.6		H	24.3	-100.5
LTE-7	L	19.7		GSM900	L	25.1	
	M	19.8			M	26.1	
	H	19.1	-89.7		H	26.7	-103.



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环境处理

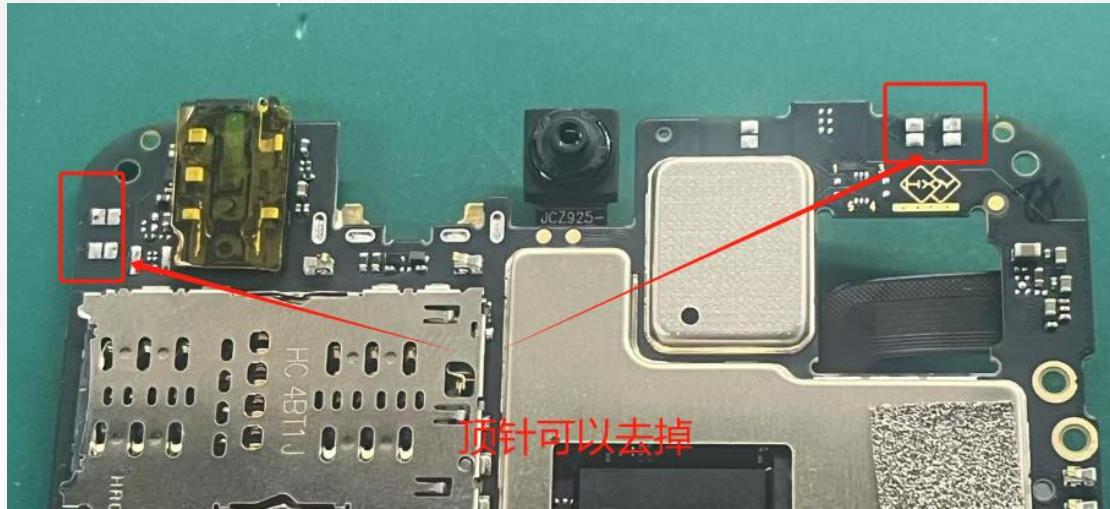


红色框位置贴导电海绵



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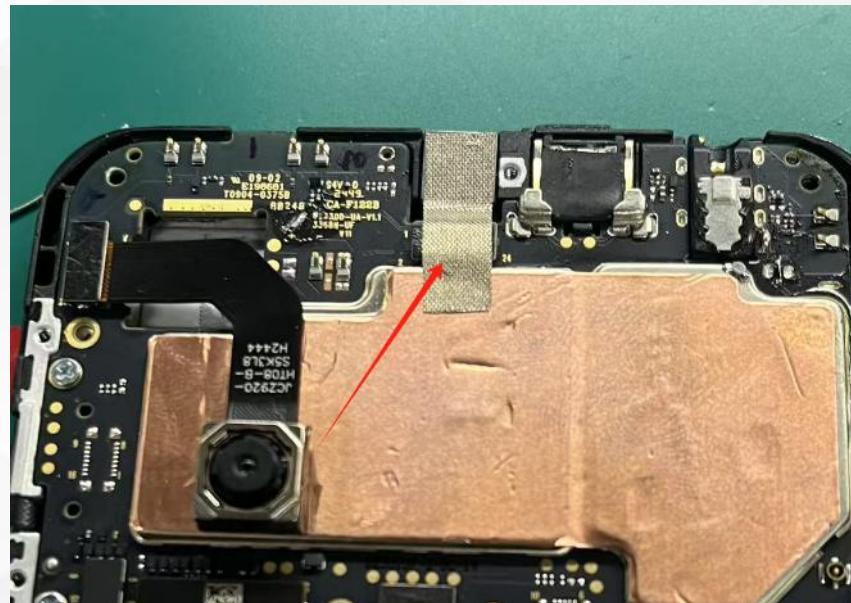
环境处理





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环境处理



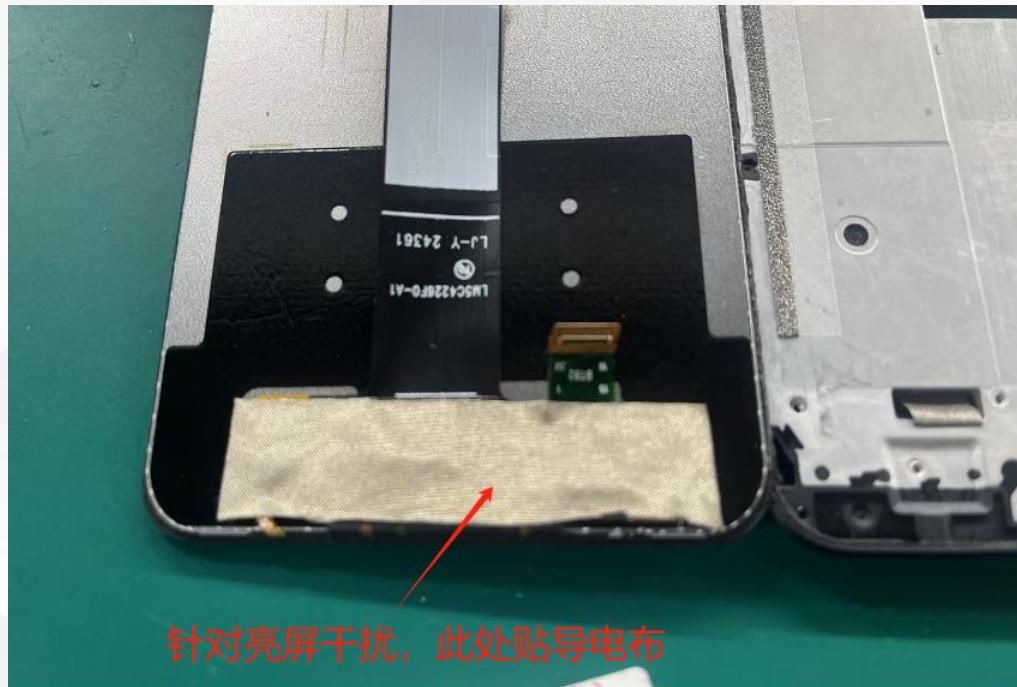
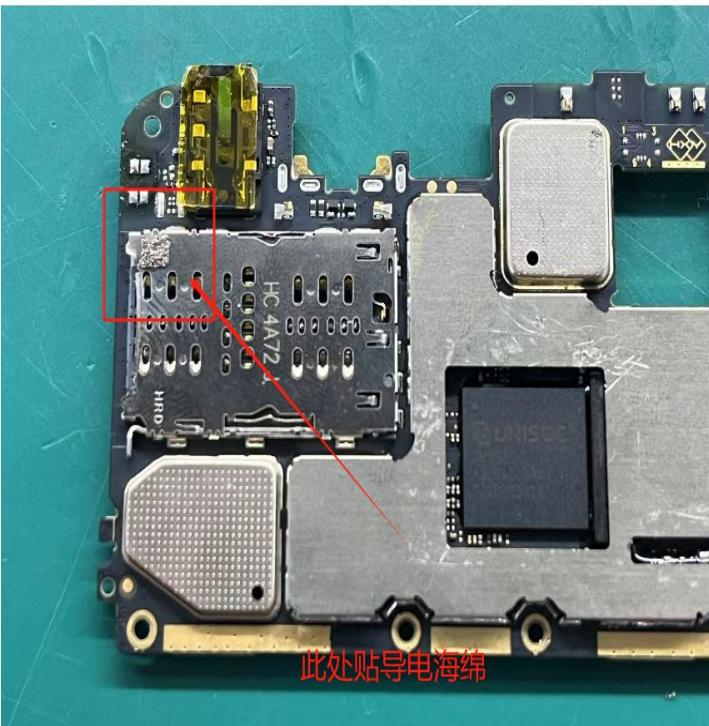
摄像头贴导电布

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环境处理





凯普深

环境处理

其他按照T2试产机器原环境处理



凯普深

联系方式

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THE END

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