



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: 2025.5.27

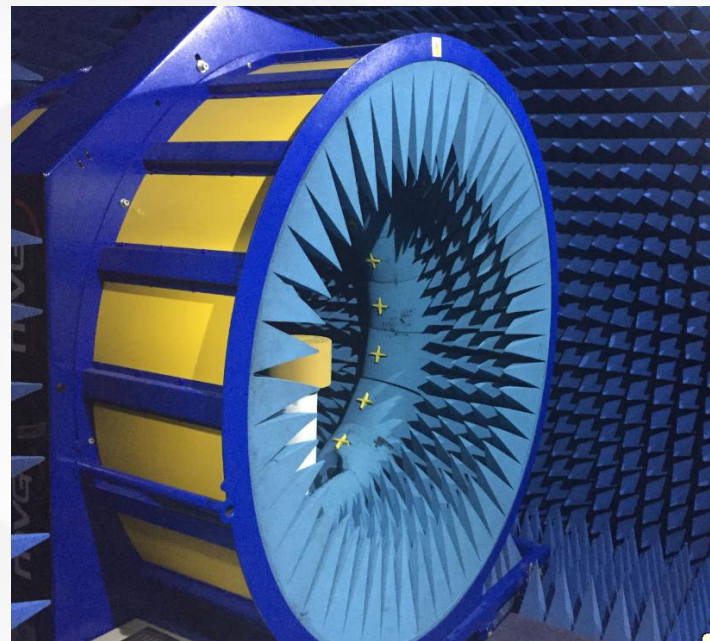
Address: 2nd Floor, Yulong Office Building, Longcheng Industrial Zone, No. 440, Longguan Avenue,
Dalang Street, Longhua District, Shenzhen

深圳市凯普深通讯科技有限公司
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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、



项目调试简介

整机类型	4G智能机 4G Smart Phone		
		Frequency Band 频段信息	天线形式
天线种类及频段信息	Main 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
	WiFi BT 副天线	WIFI+BT+GPS 5150-5845MHz, 2400-2500MHz, 1575.42MHz	PIFA
	DIV 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
2025. 5. 27	厄尔瓜多样机测试



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



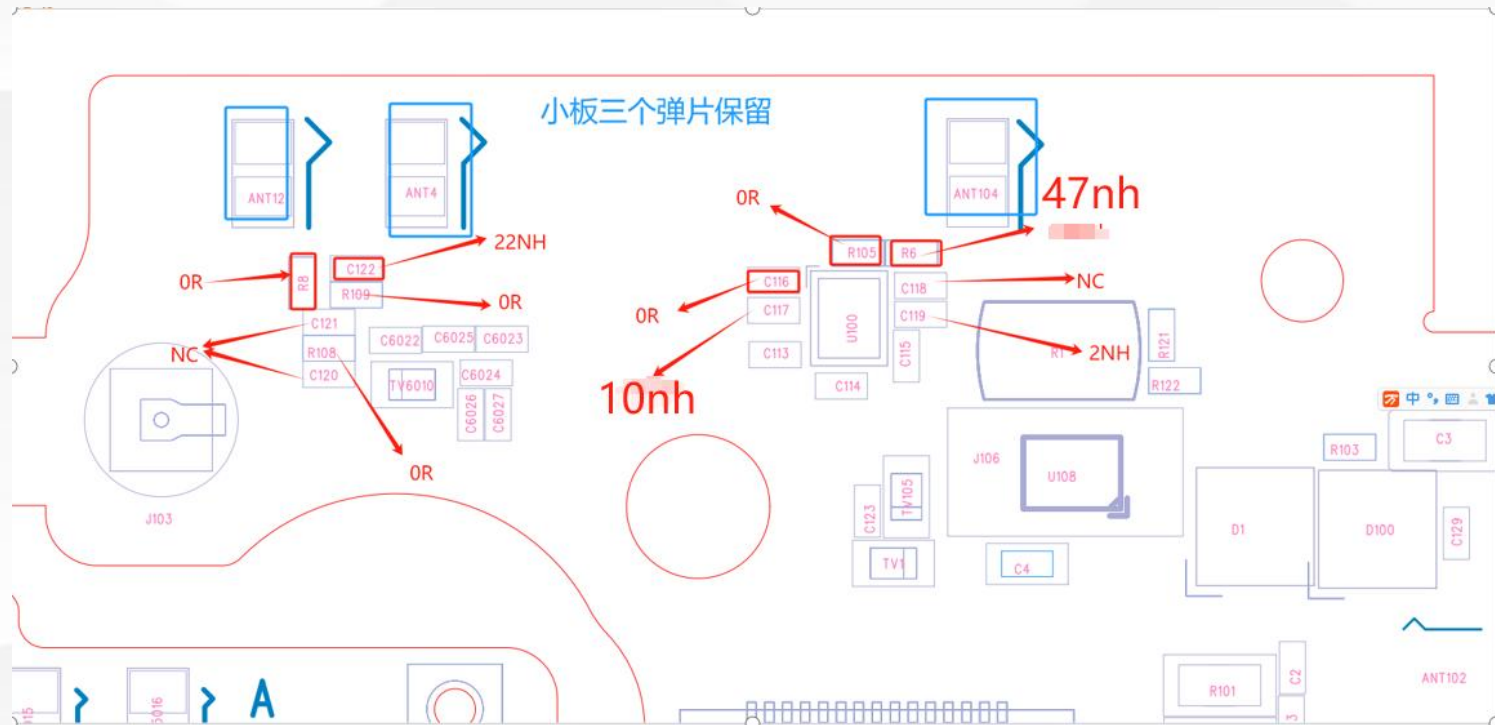
上天线 匹配电路及逻辑

HT08 上天线		
		DPDT:TRX:LTE7/38/40/41 DRX:LTE1/2/3/4/5/8/12/17/18/19/20/25/26/28/66/39

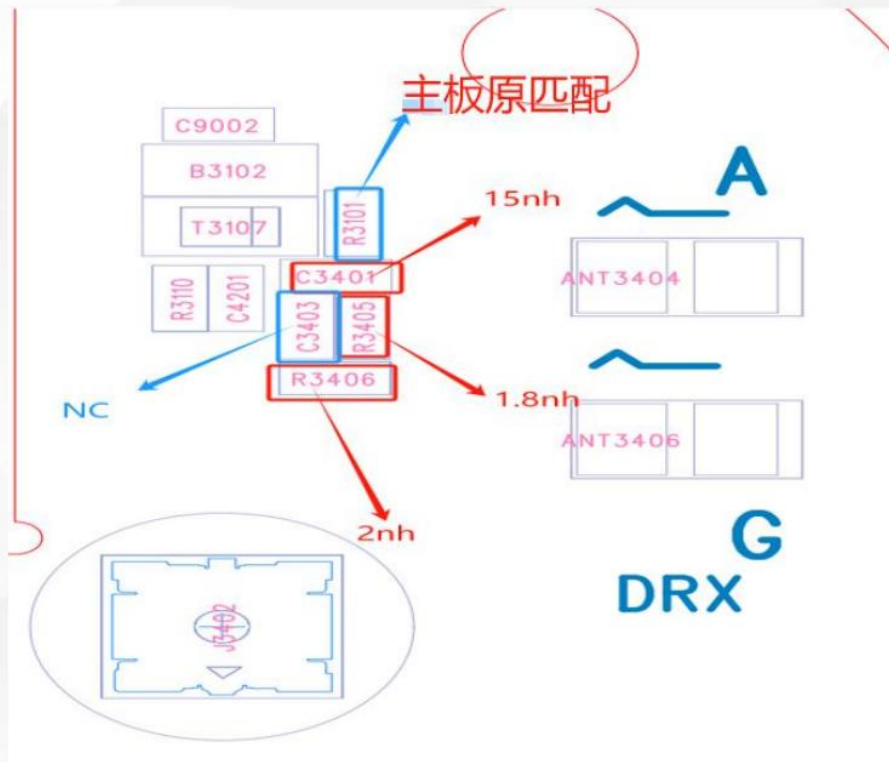


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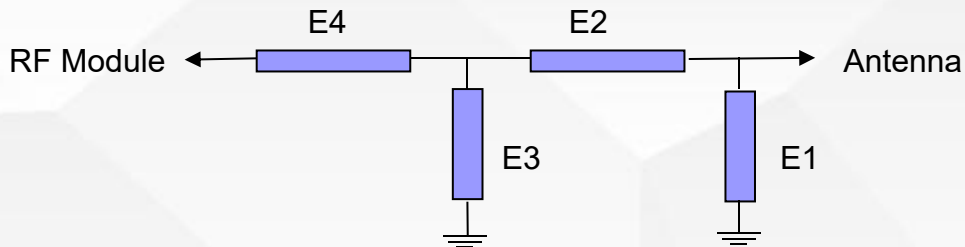
下天线开关匹配



上天线 匹配



三合一天线匹配电路



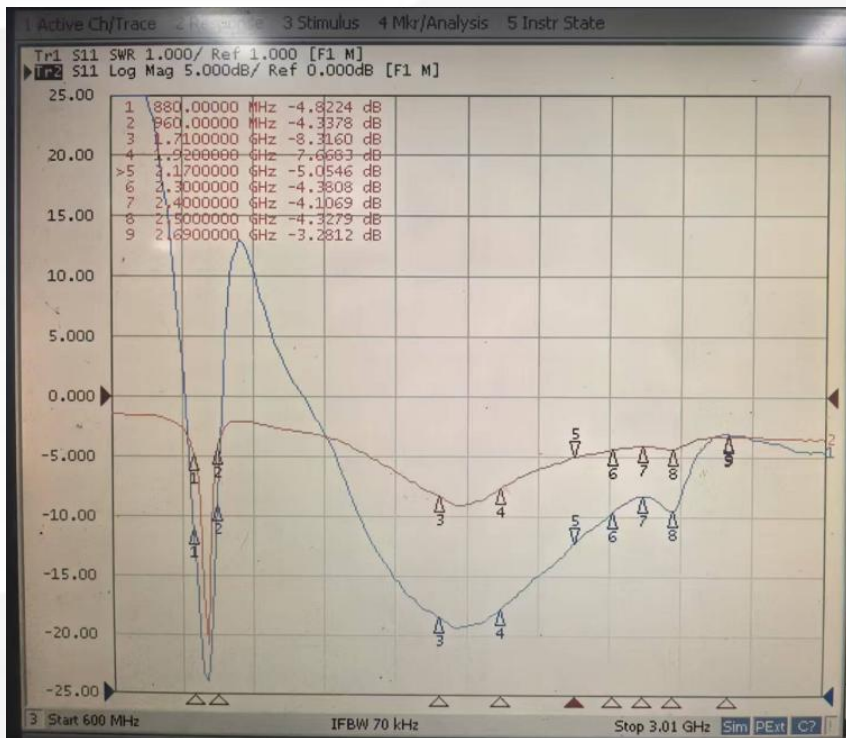
Element	Value
E1(0201)	
E2(0201)	主板原匹配
E3(0201)	
E4(0201)	



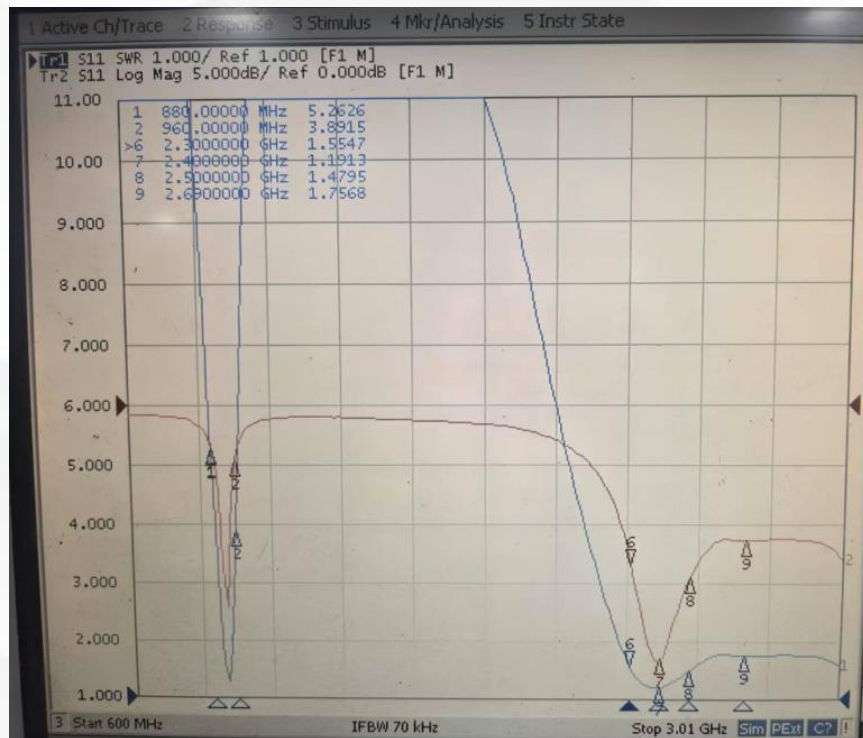
凯普深

GSM天线无源参数

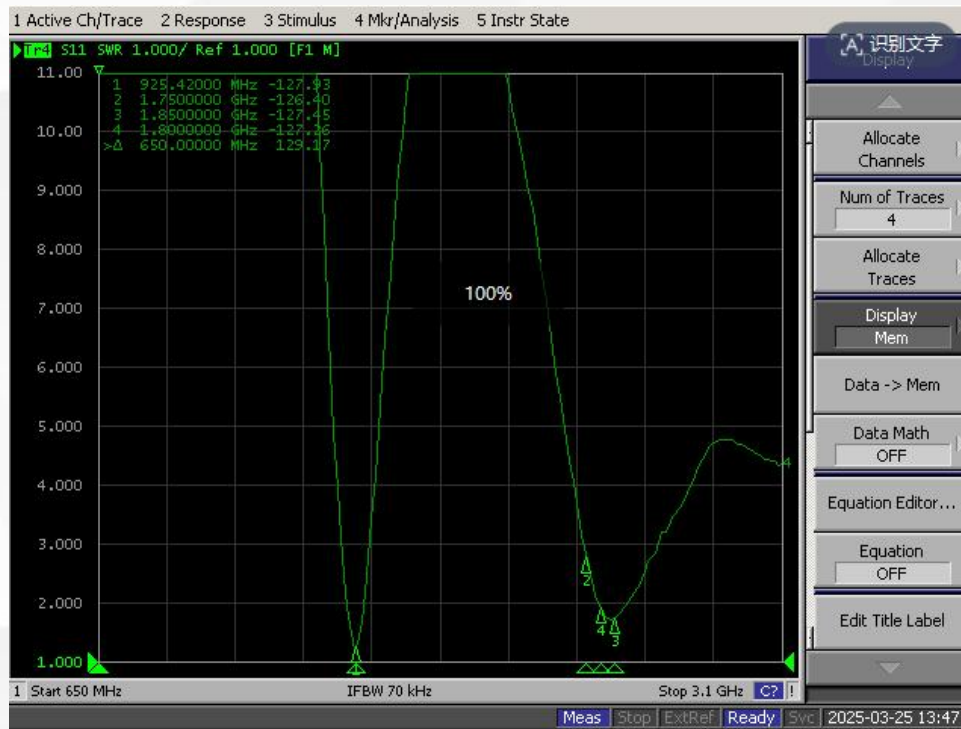
主集天线驻波比及回波损耗



分集天线驻波比及回波损耗



GPS天线无源参数





增益

7. 天线增益

GAIN

	GAIN(dBi)		GAIN(dBi)		GAIN (dBi)	
B1	-1.89	W1	-1.8	5.8G WIFI	-0.38	
B2	-1.56	W2	-1.56			
B3	-2.04	W4	-2.13			
B4	-2.13	W5	-3.47			
B5	-3.47	W8	-3.77			
B7	-1.52	GSM850	-3.47			
B12	-3.65	EGSM900	-3.77			
B17	-3.58	DCS1800	-2.04			
B28	-3.63	PCS1900	-1.56			
B66	-3.65	gps	-1.35			
B40	-1.67	WiFi	-0.33			
		bt	-0.33			

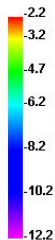
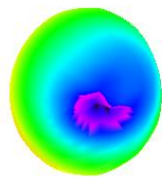


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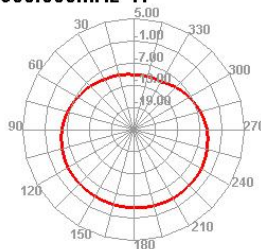
GSM天线3D方向图

低频

900.000MHz

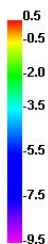
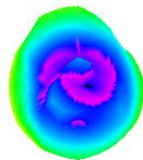


900.000MHz H

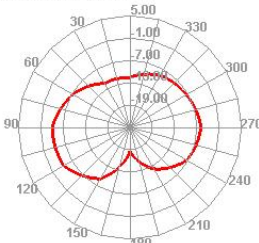


中频

1900.000MHz

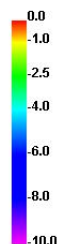
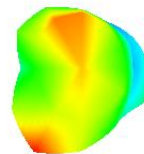


1900.000MHz H

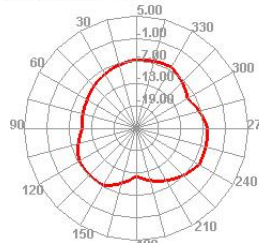


高频

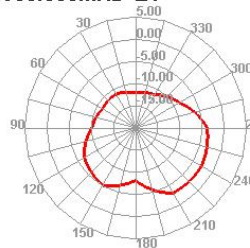
2500.000MHz



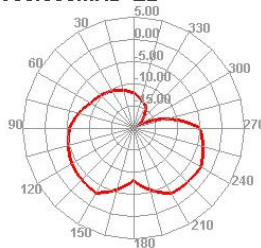
2500.000MHz H



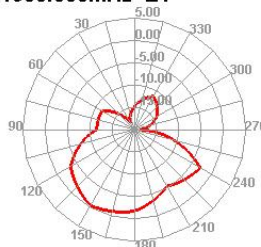
900.000MHz E1



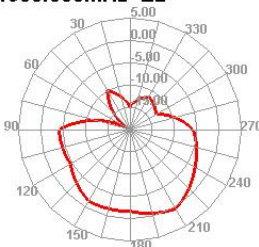
900.000MHz E2



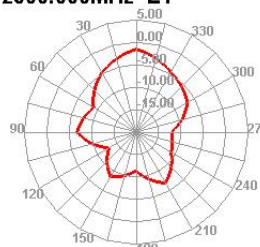
1900.000MHz E1



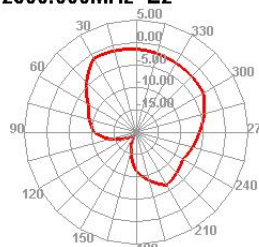
1900.000MHz E2



2500.000MHz E1



2500.000MHz E2



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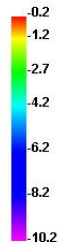
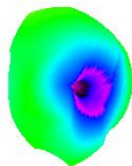


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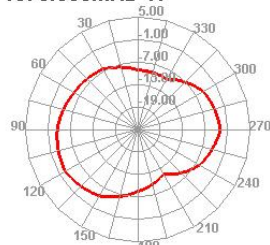
三合一天线3D方向图

GPS

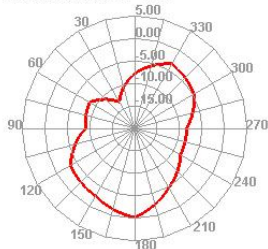
1575.000MHz



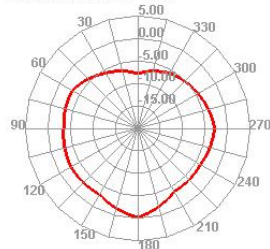
1575.000MHz H



1575.000MHz E1

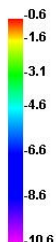
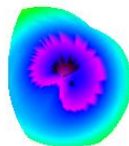


1575.000MHz E2

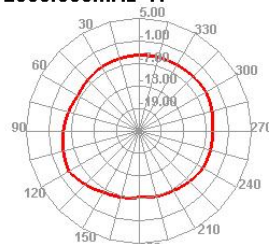


2.4G-WIFI

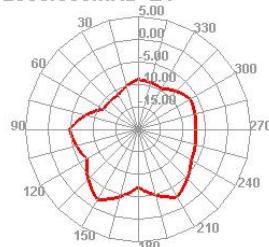
2500.000MHz



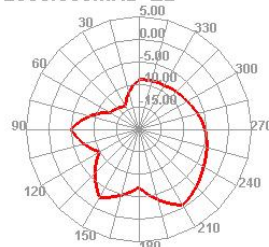
2500.000MHz H



2500.000MHz E1

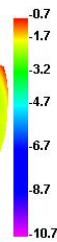
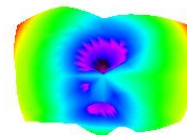


2500.000MHz E2

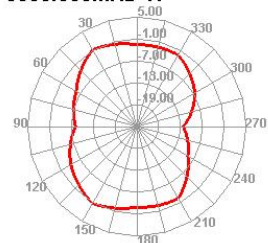


5G-WIFI

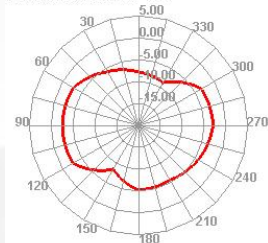
5500.000MHz



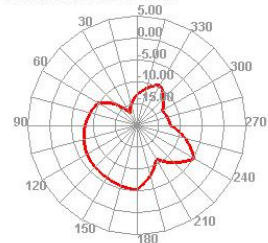
5500.000MHz H



5500.000MHz E1



5500.000MHz E2



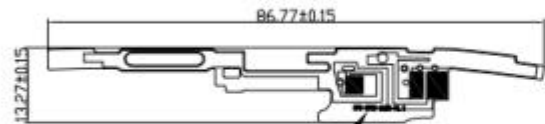
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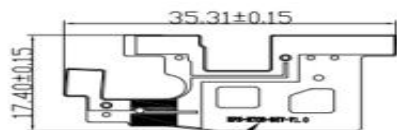
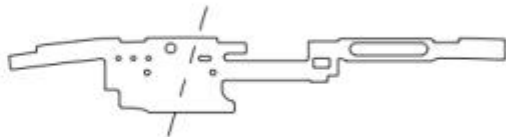


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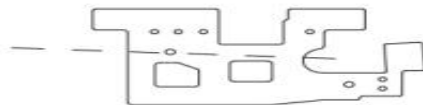
天线尺寸



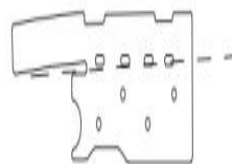
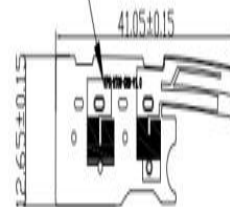
KPS-HT08-MAIN-V1.0



KPS-HT08-DIV-V1.0



KPS-HT08-GWB-V1.0





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天线测试数据

1#

FS	Channel	TRP	TIS灭	TIS亮		Channel	TRP	TIS灭	TIS亮
LTE-1	L	18.0			LTE-7	L	20		
	M	17.1				M	19		
	H	16.2	-91			H	18.6	-88.4	
LTE-2	L	19.2			LTE-12	L	16.2		
	M	19.7				M	16.4		
	H	19.7	-91.8			H	16.4	-89.7	
LTE-3	L	16.4			LTE-17	L	16.7		
	M	16.2				M	18.2		
	H	17.6	-92			H	17.5	-89.5	
LTE-4	L	16.1			LTE-28	L	16.6		
	M	16.2				M	17.5		
	H	16.5	-90			H	17.8	-88	
LTE-5	L	16.2			LTE-66	L	16.1		
	M	16.3				M	17.3		
	H	16.2	-92.4			H	17.6	-91	



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天线测试数据

FS	Channel	TRP	TIS灭	TIS亮	FS	Channel	TRP	TIS灭	TIS亮
LTE-40	L	17.6			W-8	L	16.3		
	M	17.7				M	17.2		
	H	17.7	-89.2			H	17.5	-104.9	
W-1	L	18.8			GSM850	L	24		
	M	18.2				M	24.2		
	H	18.3	-105			H	24.2	-101	
W-2	L	19.2			EGSM900	L	25.2		
	M	19.5				M	26.1		
	H	19.5	-102.5			H	26.9	-103.1	
W-4	L	17.5			DCS1800	L	24.1		
	M	17.3				M	23.4		
	H	17.6	-104.2			H	24.1	-102.1	
W-5	L	17			PCS1900	L	25.6		
	M	17.2				M	25.5		
	H	16.9	-104.2			H	25.2	-104.3	

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天线测试数据

2#

FS	Channel	TRP	TIS灭	TIS亮		Channel	TRP	TIS灭	TIS亮
LTE-1	L	18.1			LTE-7	L	18.5		
	M	17.5				M	17.6		
	H	16.5	-91.2			H	17.7	-89.1	
LTE-2	L	19.6			LTE-12	L	16.2		
	M	20.2				M	16.2		
	H	20.1	-91.6			H	16.8	-89.8	
LTE-3	L	16.2			LTE-17	L	17.1		
	M	16.2				M	18.5		
	H	17.9	-92.1			H	17.8	-89.7	
LTE-4	L	16.2			LTE-28	L	17		
	M	16.4				M	17.6		
	H	16.6	-90.6			H	18	-89.3	
LTE-5	L	16.0			LTE-66	L	16.5		
	M	16.2				M	17.8		
	H	16.5	-92.7			H	18.5	-91.4	



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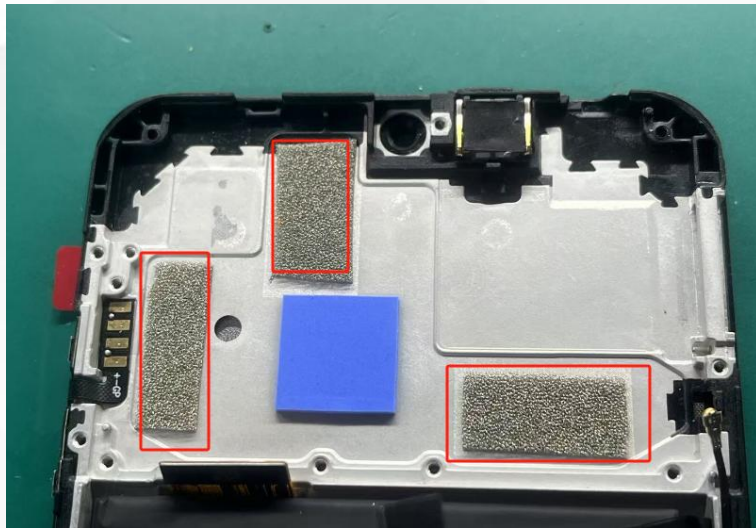
天线测试数据

FS	Channel	TRP	TIS灭	TIS亮	FS	Channel	TRP	TIS灭	TIS亮
LTE-40	L	17.5			W-8	L	16.8		
	M	17.1				M	17.7		
	H	17.3	-89.6			H	17.9	-104.4	
W-1	L	19.8			GSM850	L	24.1		
	M	19.6				M	24.2		
	H	18.7	-105.2			H	24.5	-101.2	
W-2	L	20.2			EGSM900	L	25.2		
	M	20.2				M	25.6		
	H	19.8	-102.7			H	27.2	-102.9	
W-4	L	17.1			DCS1800	L	24.4		
	M	17.3				M	23.8		
	H	18.1	-104.3			H	24.8	-101.8	
W-5	L	16.3			PCS1900	L	25.6		
	M	16.2				M	25.5		
	H	16.5	-104.4			H	25.2	-104.4	

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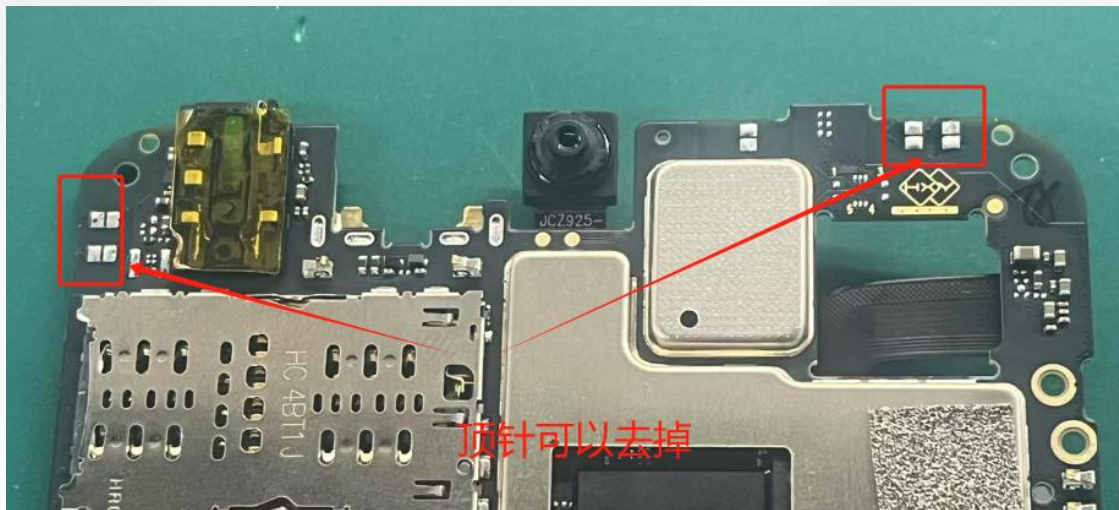
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环境处理

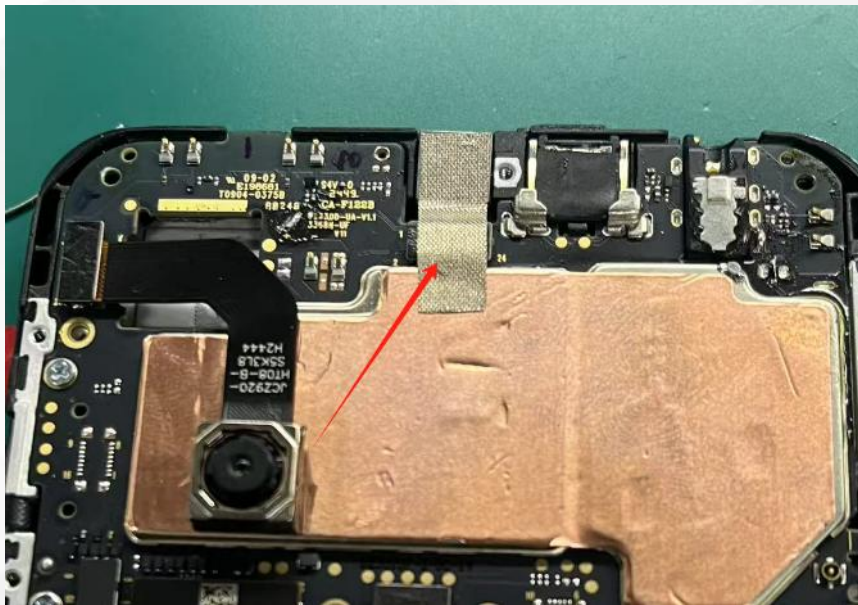


红色框位置贴导电海绵

环境处理



环境处理

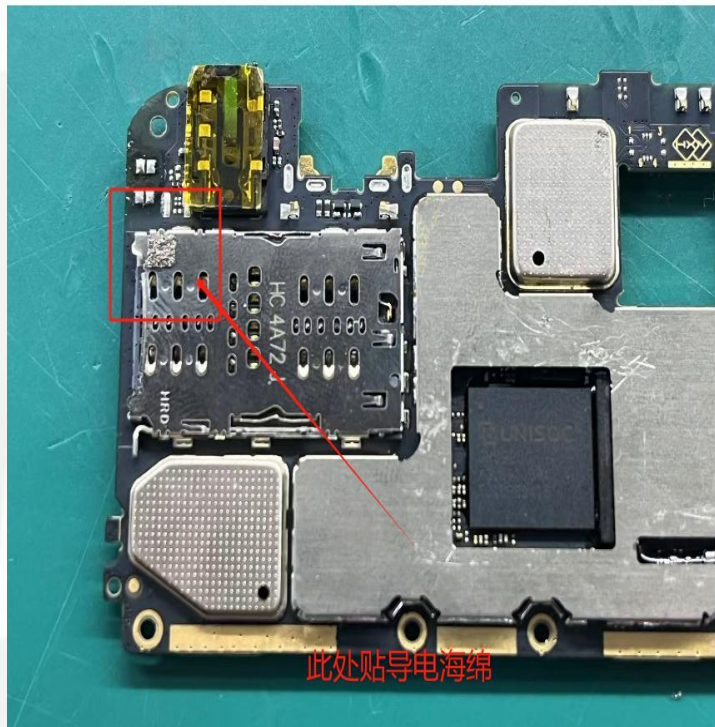


摄像头贴导电布

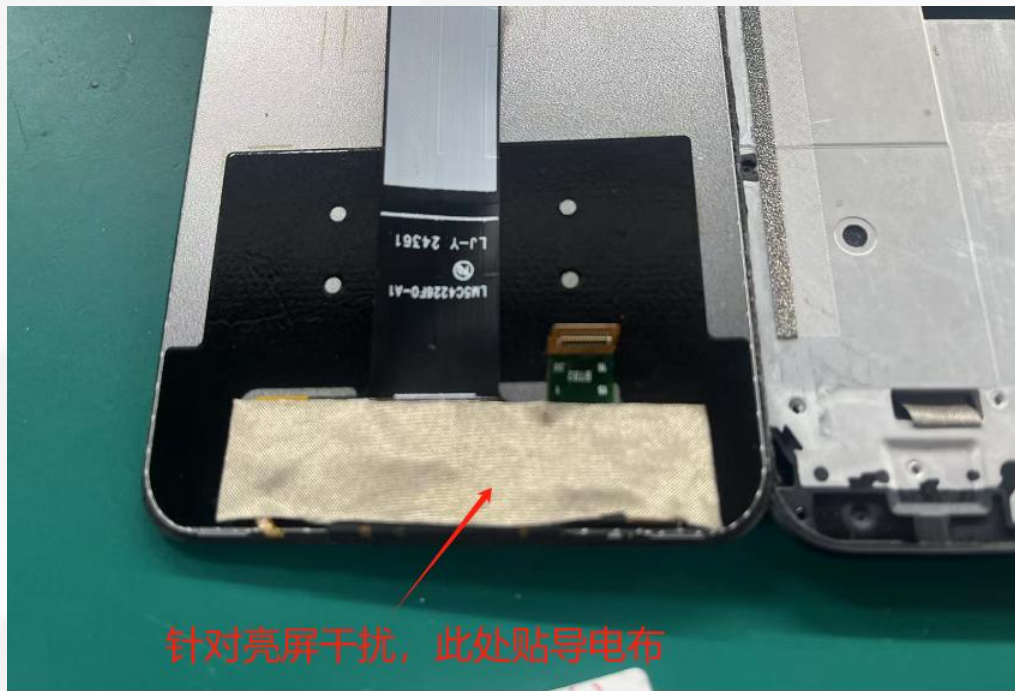


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环境处理



此处贴导电海绵



针对亮屏干扰，此处贴导电布



环境处理

其他按照T2试产机器原环境处理



联系方式

联系方式:

射频：江工

电话：15014104367

邮箱：kpsyanfa1@szkpstx.com

地址：龙华区龙观大道440号龙城工业区御龙办公楼二楼



THE END

感谢您的宝贵意见！