Antenna Test Report

SHENZHEN KURUIJIE

Customer:联合同创
Project:TC6797B美版

RF Engineer:邹修依
Testing Date:2024.10.25

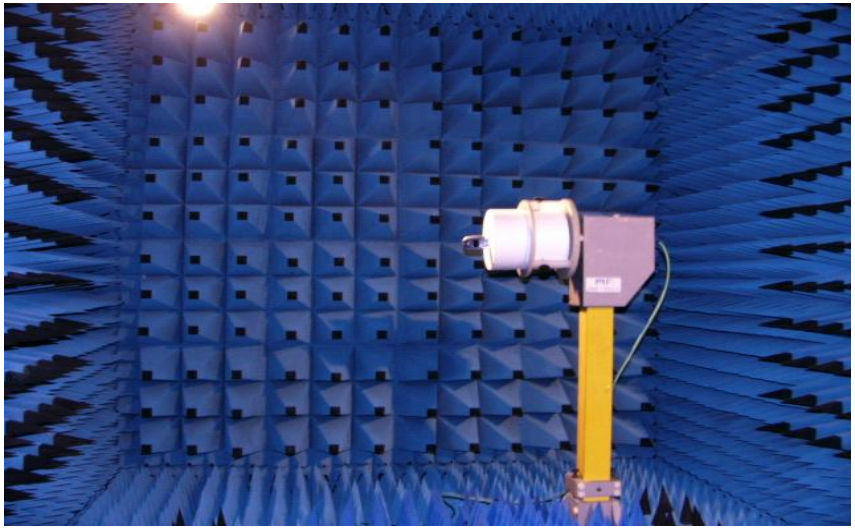
Shenzhen Kuruijie Communication Technologies Co.,Ltd

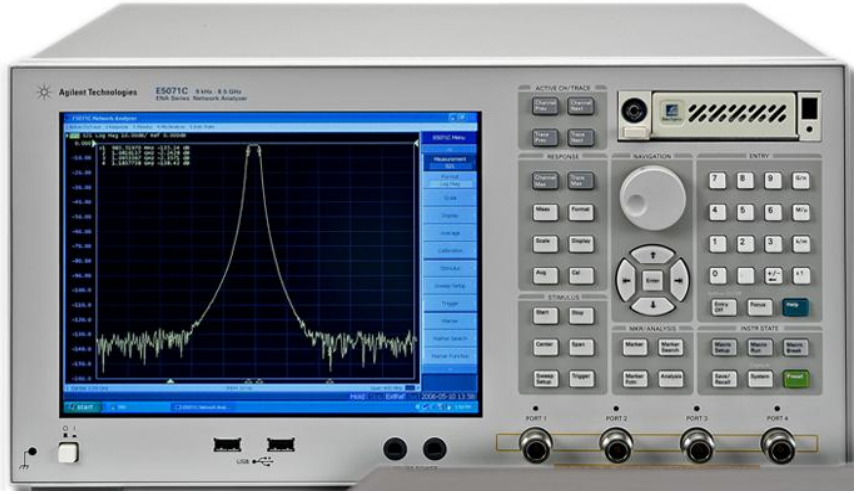
Index:

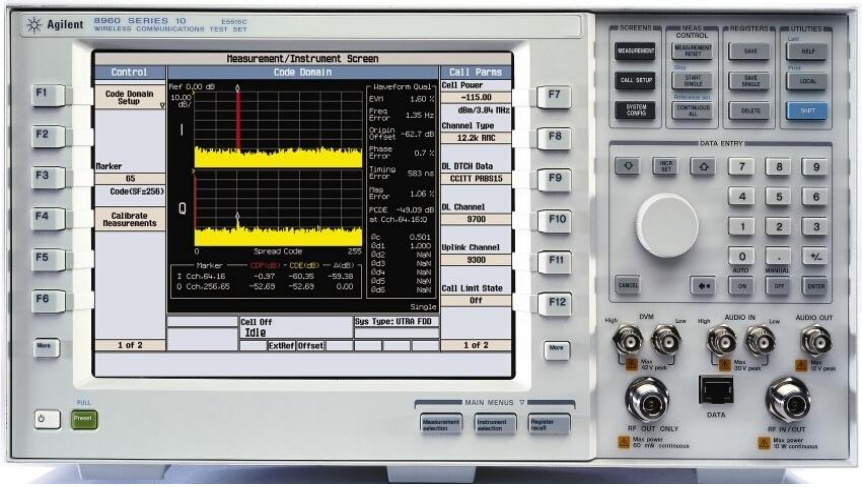
1. Testing Item & Equipments
2. Matching Circuits
3. Environmental Disposal
4. Test Data

1. The Equipment of Active Test

1: Anechoic Chamber 7x4x3 m (3D)
2: Rohde & Schwarz CMW500
3: AGILENT 8960 5515C
4: Network Analyzer-AGILENT ENA5071B







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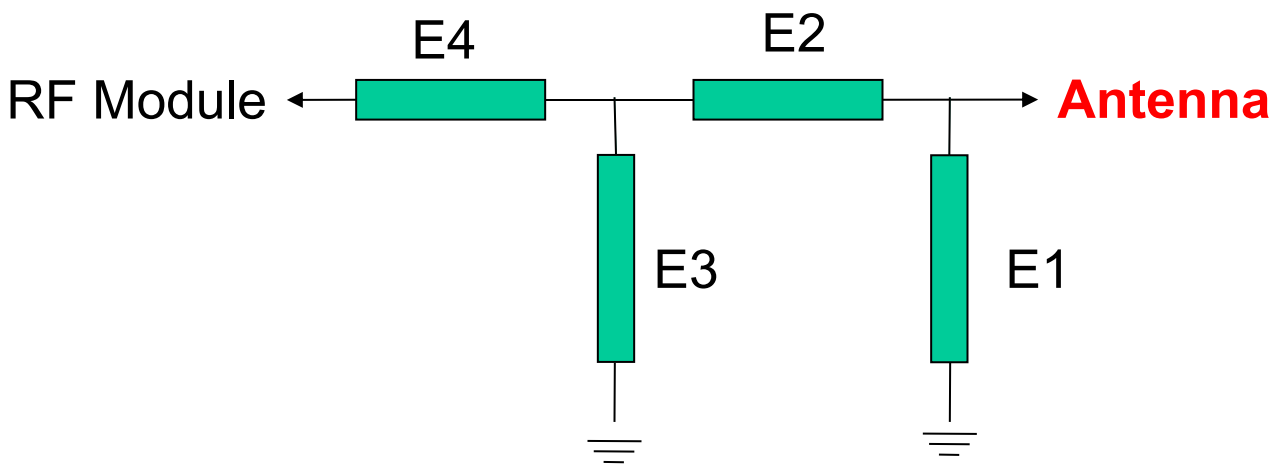
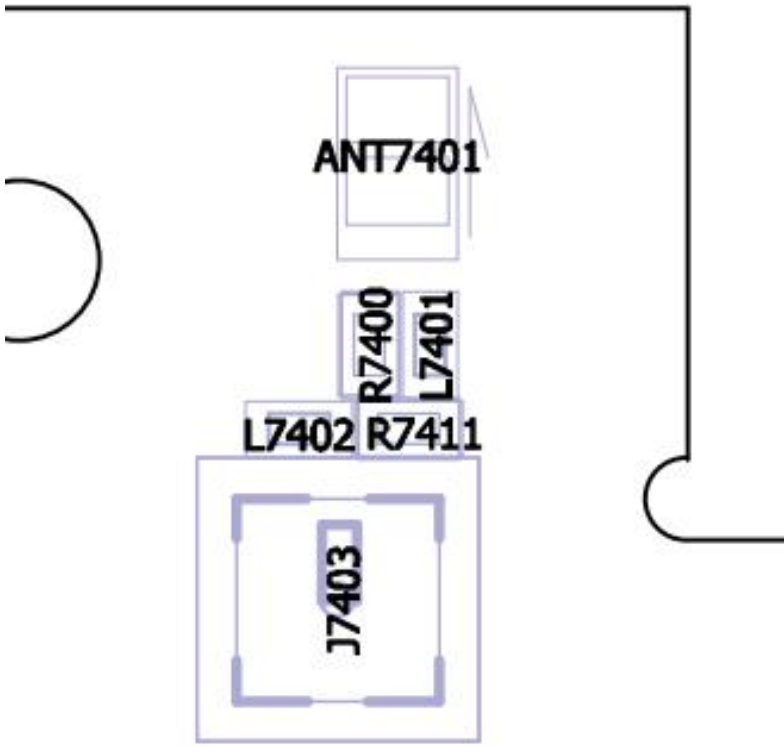
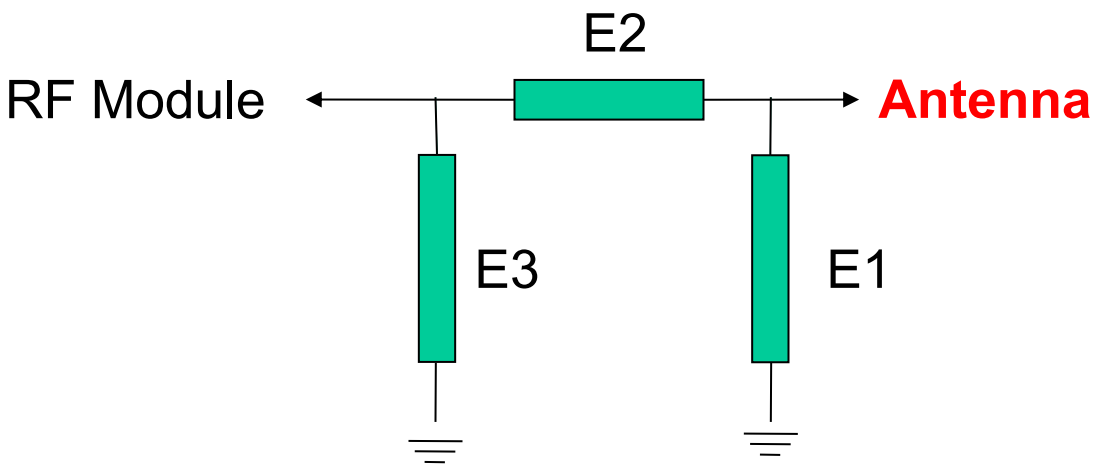
2. Matching Circuits-主天线



Element	Value
L7401(0201)	NC
R7400(0201)	0Ω
L7402(0201)	22nH
R7411(0201)	0Ω



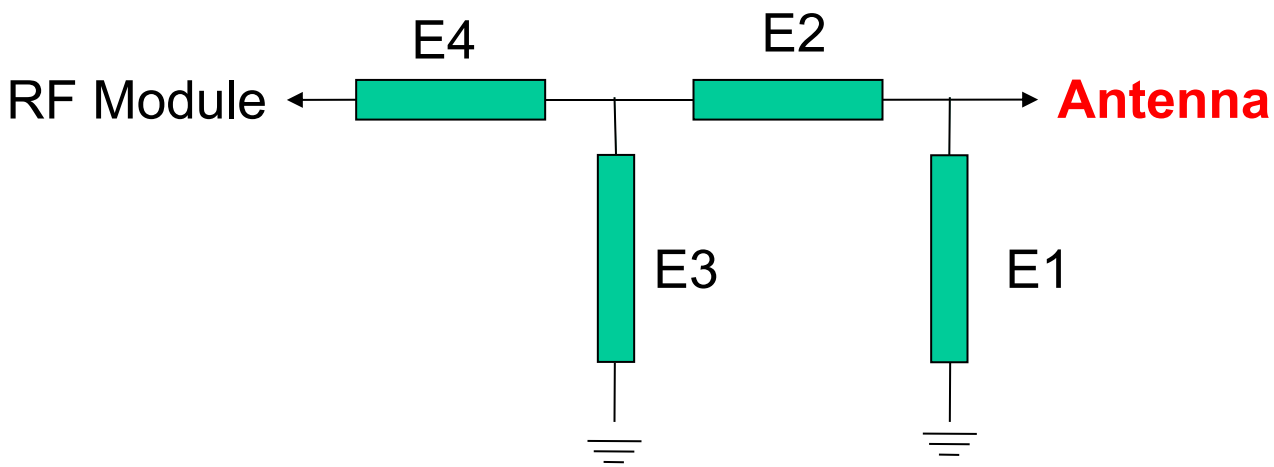
Matching Circuits-GPS/WIFI/BT天线



Element	Value
E1(0201)	
E2(0201)	
E3(0201)	

原匹配电路没有修改

Matching Circuits-分集天线



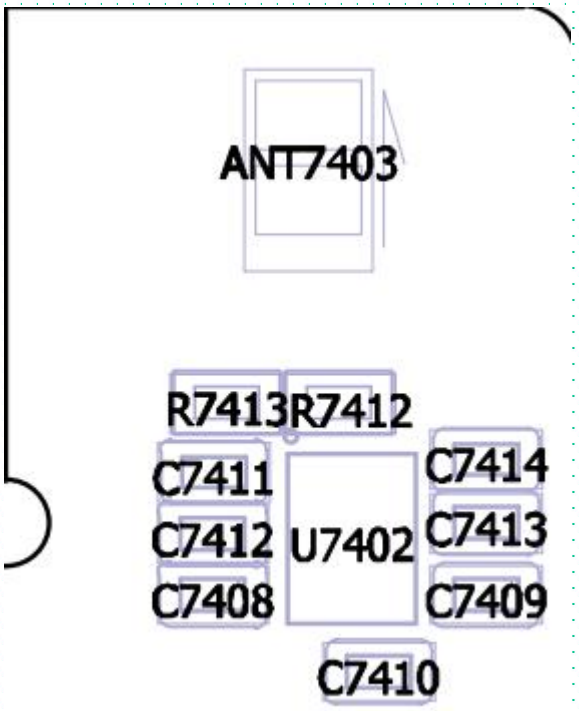
Element	Value
E1(0201)	
E2(0201)	
E3(0201)	
E4(0201)	

原匹配电路没有修改

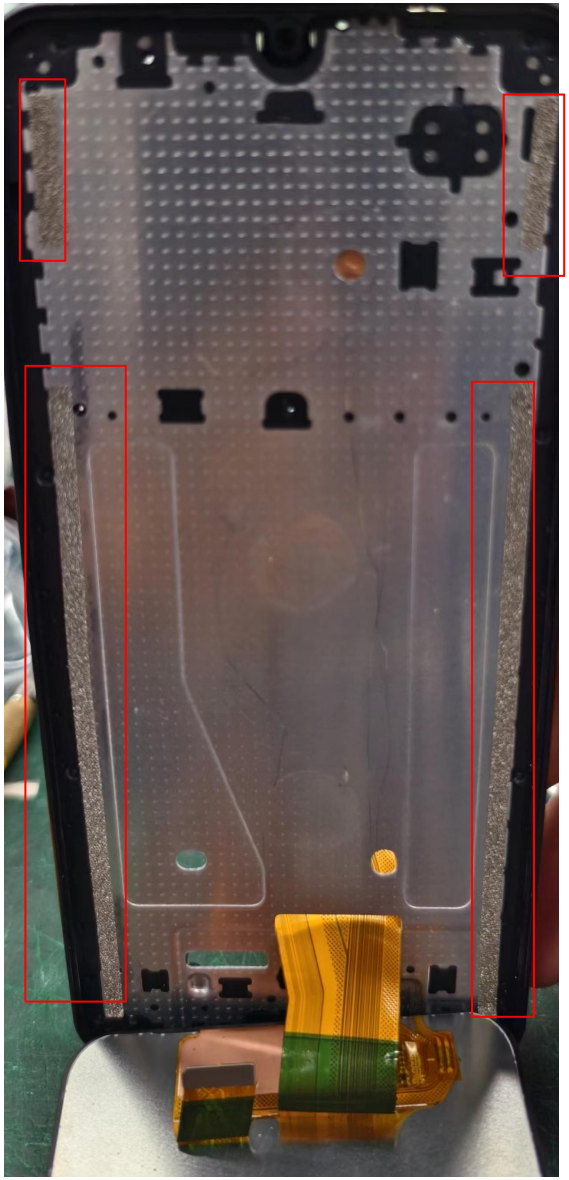
3.Switching Logic

TC6797B美版

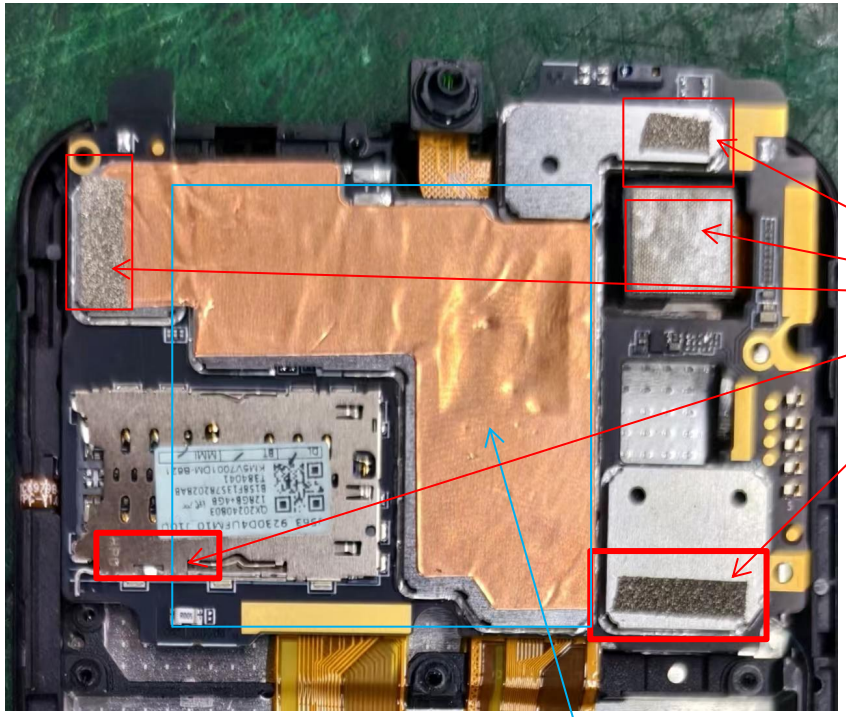
开关匹配逻辑	开关路径	匹配值	2G频率	3G频率	4G频率
	RF1 (C7411)	0欧	2G=900/1800/1900	3G=B2/B4	4G=B2/B3/B4/B7/B66
	RF2(C7412)	2.7nH	2G=850	3G=B5	4G=B5
	RF3(C7414)	12nH			4G=B12/B17/B28
	RF4(C7413)	18nH			4G=B71



4. Environmental Disposal

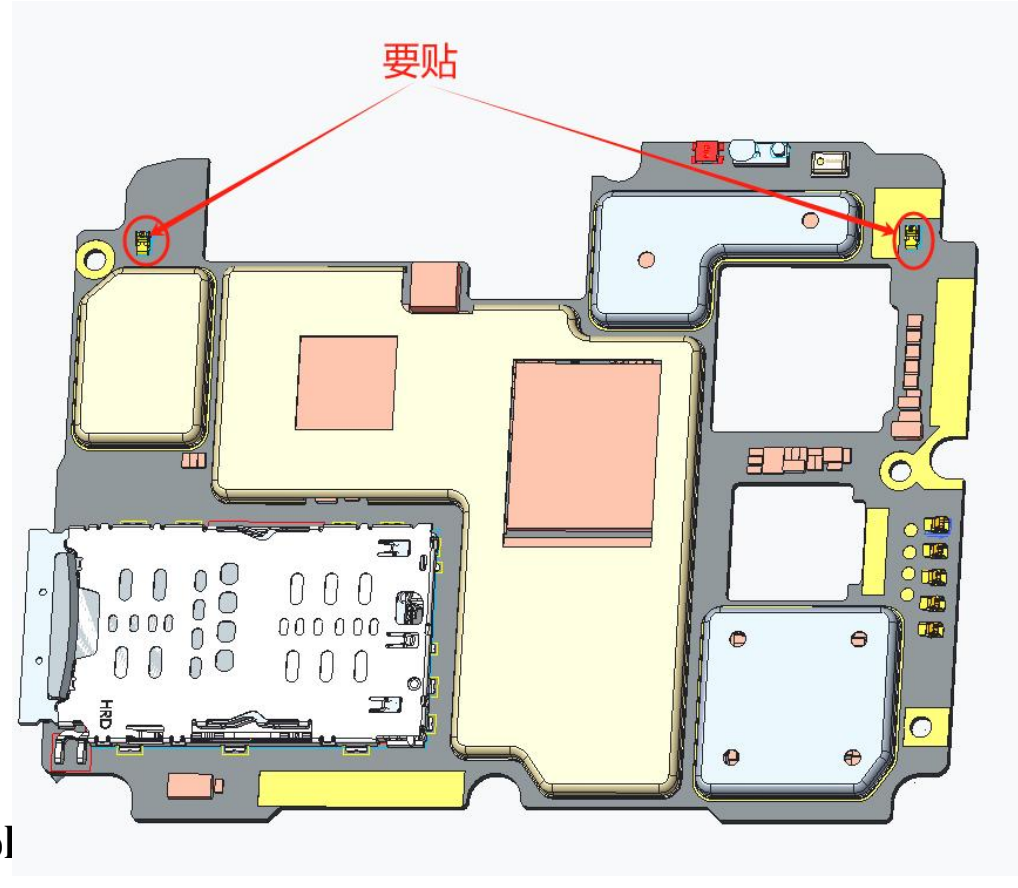


金属中框两侧贴导电海绵与屏幕接地

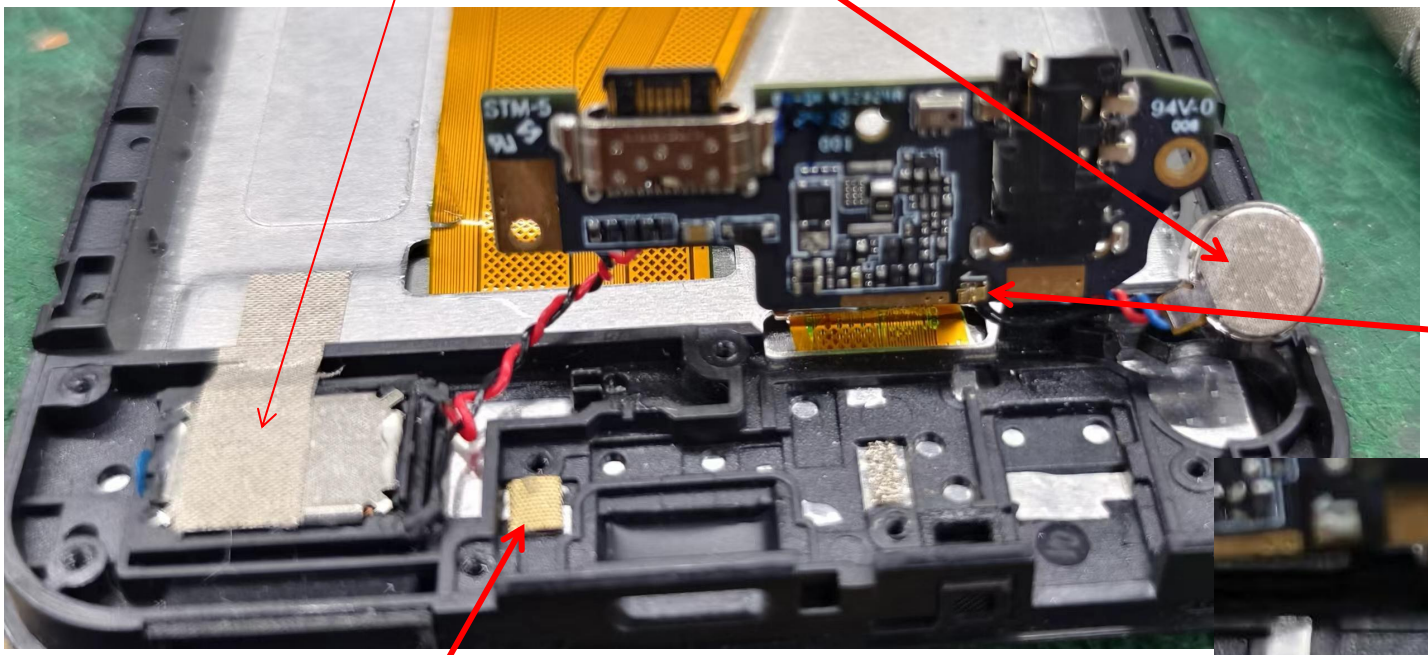


摄像头及红框处贴导电海绵与金属中框接地

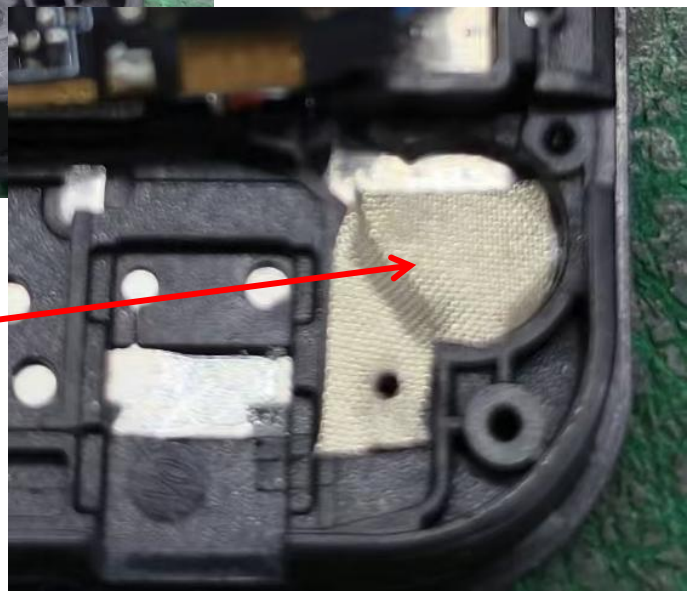
主板屏蔽罩贴铜箔



喇叭和马达做拧线好接地处理



弹片接地



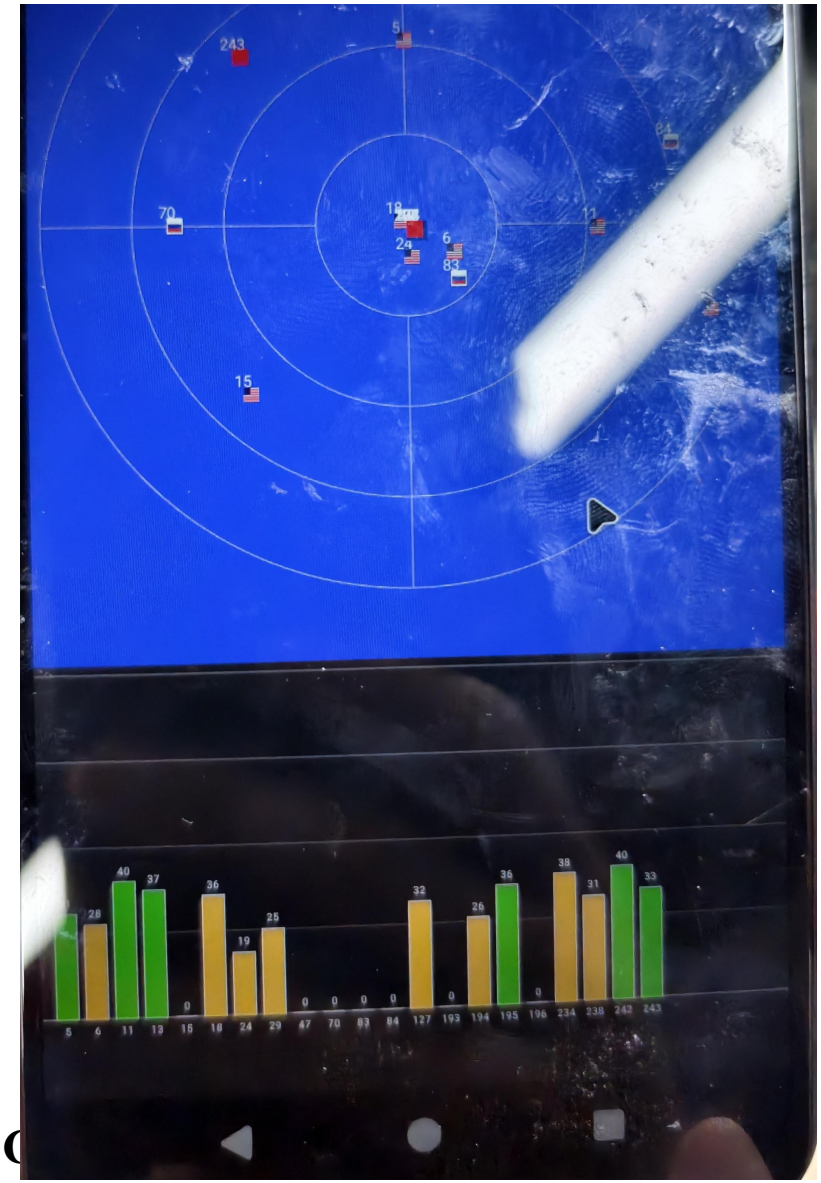
此处用导电泡棉接地必须良好，
对天线性能影响很大

Band	LTE2		LTE3		LTE4		LTE5	
Chan	18650	19150	19250	19900	20000	20350	20450	20600
Trp	17.39	18.08	18.39	17.99	18.36	18.17	17.17	17.78
Tis		-92.85		-92.12		-93.05		-91.02
Band	LTE7		LTE12		LTE17		LTE28	
Chan	20800	21400	23060	23130	23780	23800	27260	27410
Trp	18.38	18.85	17.23	16.9	16.88	16.63	17.62	18.45
Tis		-92.38		-89.93		-90.09		-91.21
Band	LTE66		LTE71					
Chan	132022	132622	133172	133422				
Trp	17.73	16.26	16.15	16.64				
Tis		-92.99		-89.76				
Band	GSM850		EGSM		DCS		PCS	
Chan	128	251	1	124	512	885	512	810
Trp	24.68	27.64	27.14	27.6	25.06	24.92	25.53	25.71
Tis		-103.85		-101.1		-104.57		-102.29
Band	WCDMA_II		WCDMA_IV		WCDMA_V			
Chan	9262	9538	1312	1513	4132	4233		
Trp	18.04	18.05	18.32	18.84	16.93	17.14		
Tis		-104.42		-103.42		-104.19		

Test	Wifi 2G			Wifi 5G	
Result	1	7	13	36	165
TRP	12.73	12.68	12.68	6.22	12.63
TIS	-80.61	-81.51	-80.62	-67.27	-73.14

GPS实测报告

位 置	测试结果
华强创意产业园5C室外	冷启动70秒定位，最大CN值41，可使用星数5颗以上.



TC67G7B美版天线增益 (Antenna Gain)		
Band	频率段	增益值（dBi）
LTE-B2	1850-1990MHZ	0.5
LTE-B3	1710-1880MHZ	0.5
LTE-B4	1710-2170MHZ	0.5
LTE-B5	880-960MHZ	-0.1
LTE-B7	2500-2690MHZ	0.5
LTE-B12	698-745MHZ	-0.2
LTE-B17	704-746MHZ	-0.2
LTE-B28	703-803MHZ	-0.2
LTE-B66	1710-2180MHZ	0.5
LTE-B71	622-963MHZ	-0.3
WCDMA-B2	1850-1990MHZ	0.5
WCDMA-B4	1710-2170MHZ	0.5
WCDMA-B5	880-960MHZ	-0.1
GSM850	824-894MHZ	-0.1
EGSM900	880-960MHZ	-0.1
DCS1800	1710-1880MHZ	0.5
PCS1900	1850-1990MHZ	0.5
BT/WIFI	2400-2500MHZ	0.3
GPS	1575MHZ	0.1