

Antenna Test Report

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Customer: 要友

Project: Y55

RF Engineer: 李鑫

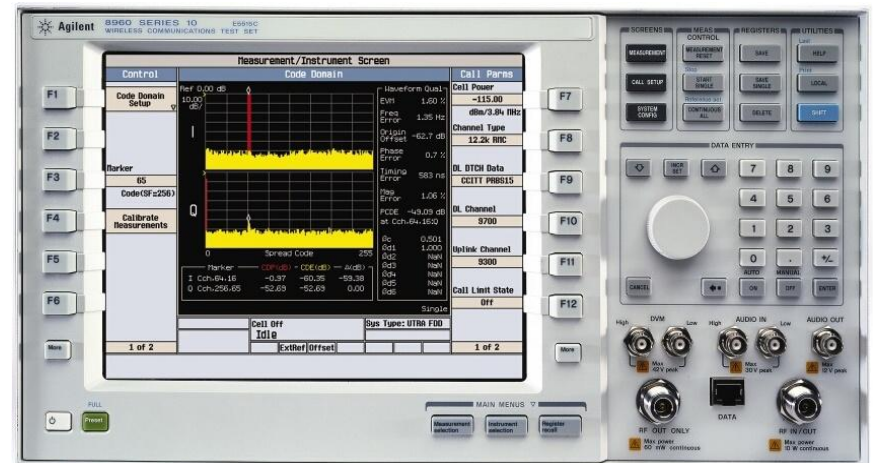
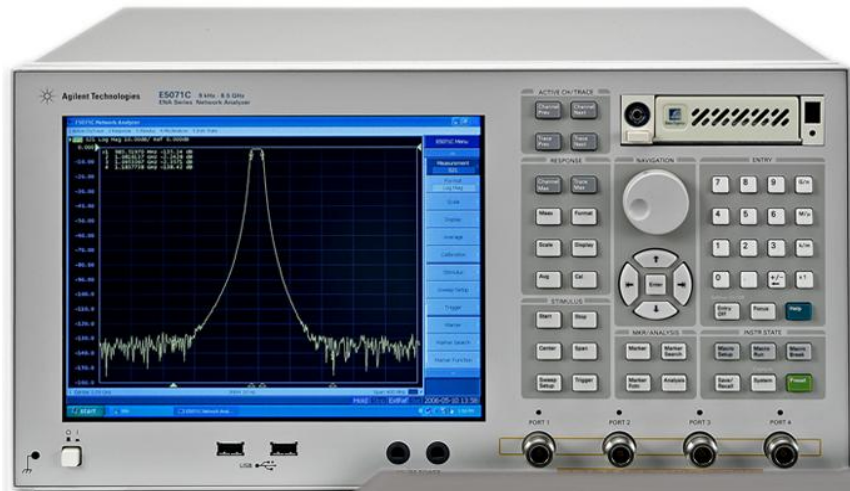
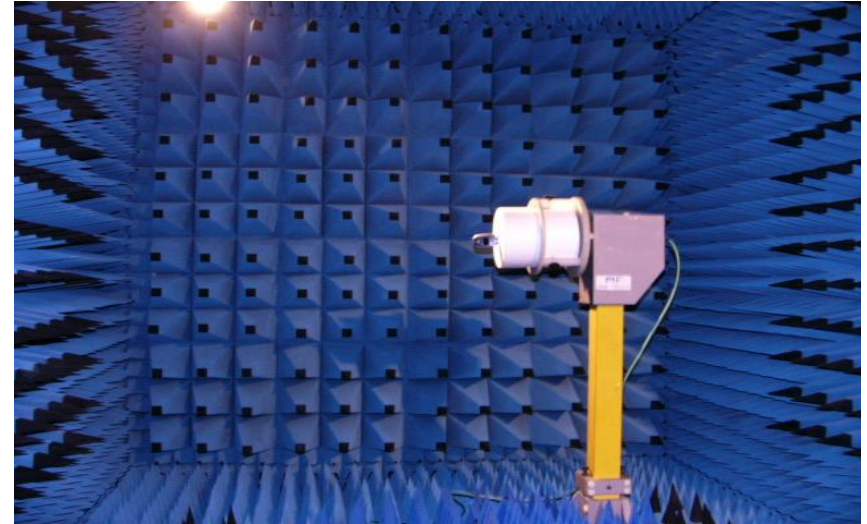
Testing Date: 2025.04.25

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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

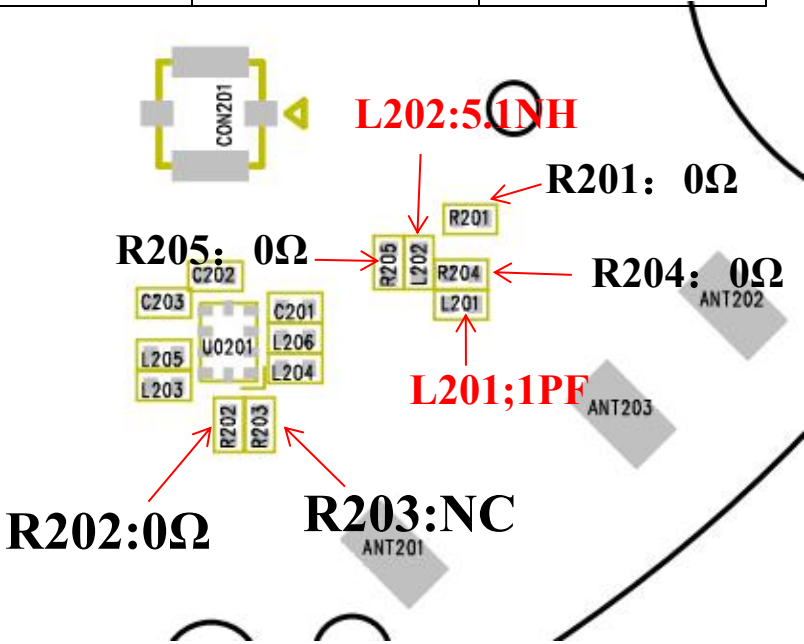


2. Matching Circuits- 逻辑软件版本: QP1A.190711.020 release-keys

天线开关匹配逻辑

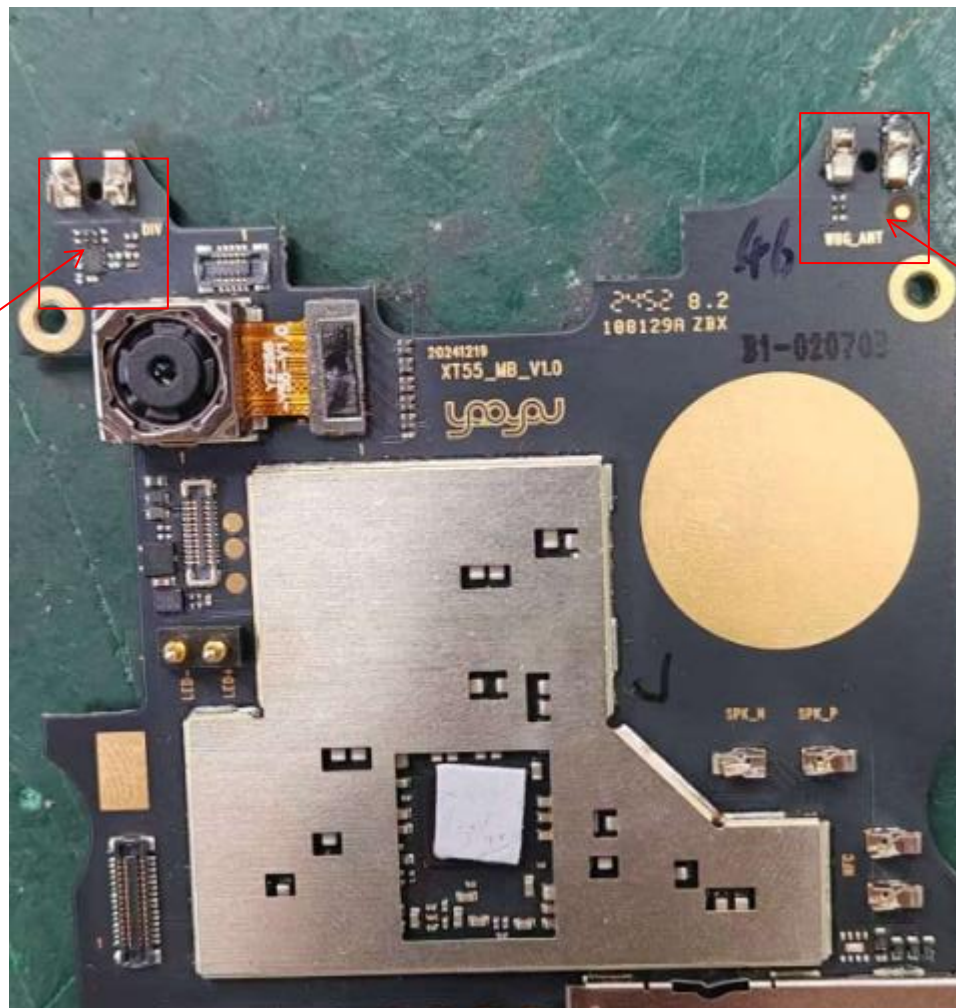
开关路径	位号	匹配值	2G	3G	4G
RF1	L204	0Ω	900/1800/1900	W1/2/4/8	B1/2/3/7/8/25/ 34/38/39/40/41
RF2	L206	4.7NH	850	W5	B5/20/26
RF3	L203	22NH			B12/13/17/28A B
RF4	L205	NC			

位号	匹配值
R205	0Ω
L202	5.1NH
R204	0Ω
L201	1PF
R201	0Ω
R202	0Ω
R203	NC



三合一/分集

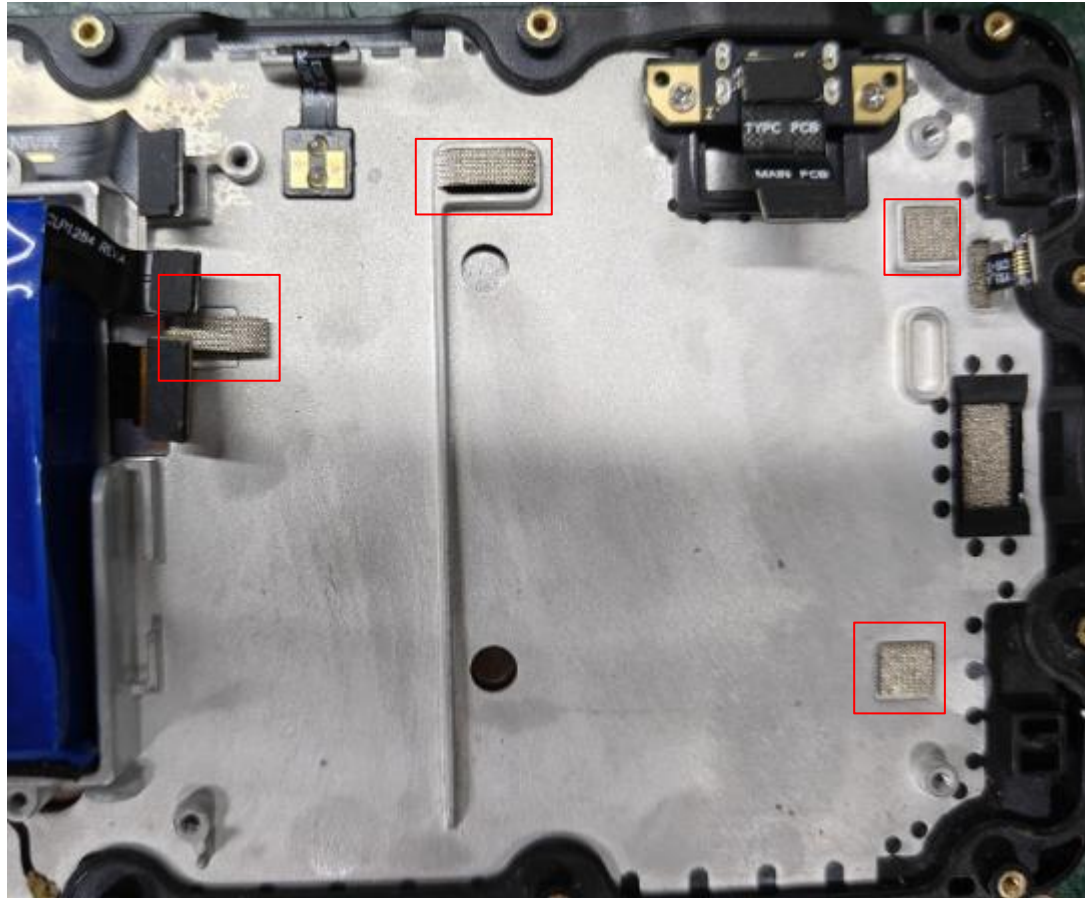
三合一天线匹配
原主板匹配无修
改



WIFI天线匹配
原主板匹配无修
改

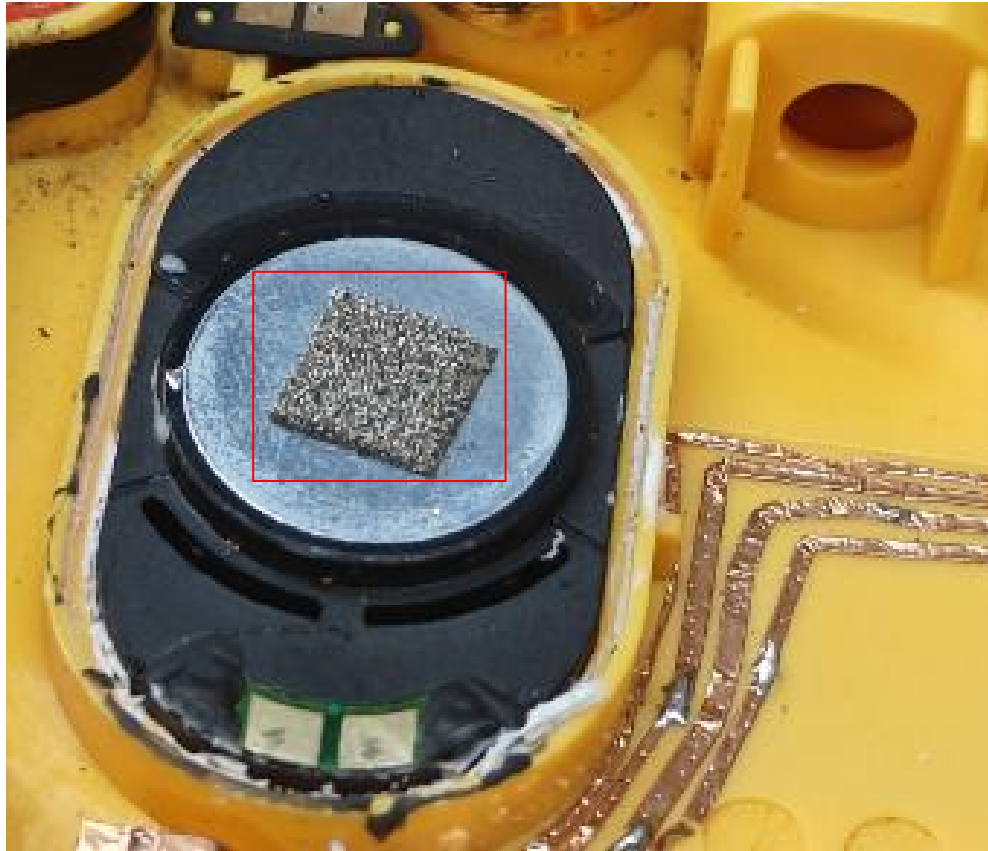
主板匹配未改动

3. Environmental Disposal



主板接地

3. Environmental Disposal



喇叭贴导电泡棉与主板连接

天线增益

频段	频率点	最大增益	平均增益
Band 1/2/3/25/39 G网1800/1900/ W1/2/4	1710-2170MHz	1.6dBi	0.8dBi
Band5/8/20/26 G网850/900 W5/8	790-960MHz	0.68dBi	-1.8dBi
Band12/13/17/28	699-803MHz	-1.3dBi	-2.1dBi
Band 34	2010-2025MHz	0.8dBi	0.2dBi
Band 7	2500-2690MHz	1.2dBi	0.8dBi
Band 40	2300-2400MHz	1.2dBi	0.8dBi
Band 38/41	2496-2696MHz	1.2dBi	0.8dBi
WIFI 2.4G/BT	2400-2500MHz	1.3dBi	0.8dBi
WIFI 5.8G	5100-5800MHz	1.3dBi	0.8dBi
GPS	1575MHz	1dBi	0.5dBi

4. Test Data

Test		LTE1 TRP		LTE2 TRP		LTE3 TRP		LTE5 TRP		LTE7 TRP		LTE8 TRP	
Result		18050	18550	18650	19150	19250	19900	20450	20600	20800	21400	21500	21750
Txp Ave (dBm)		16.0	16.1	16.2	16.1	17.0	18.0	16.6	16.3	18.4	18.1	17.1	17.1
			-90.4		-90.3		-90.6		-90.5		-90.2		-90.5

Test		LTE12 TRP		LTE13 TRP	LTE17 TRP		LTE20 TRP		LTE25 TRP		LTE26 TRP	
Result		23060	23130	23230	23780	23800	24200	24400	26090	26640	26740	26990
Txp Ave (dBm)		16.1	16.0	16.2	16.1	16.0	16.8	16.2	16.4	16.0	16.2	16.1
			-90.7	-90.1		-90.4		-90.5		-90.7		-90.4

Test		LTE28 TRP			
Result		27260	27410	27460	27610
Txp Ave (dBm)		16.4	16.4	16.5	16.6
			-89.2		-90.1

Test		LTE38 TRP		LTE39 TRP		LTE40 TRP		LTE41 TRP		LTE34 TRP	
Result		37850	38150	38350	38550	38750	39550	40240	41140	36250	36300
Txp Ave (dBm)		18.0	17.8	16.0	16.0	16.0	16.3	17.6	16.2	16.0	16.2
			-90.1		-90.0		-90.1		-88.5		-91.0

Test		WCDMA_I TRP		WCDMA_II TRP		WCDMA_IV TRP		WCDMA_V TRP		WCDMA_VIII TRP	
Result		9612	9888	9262	9538	1312	1513	4132	4233	2712	2863
Txp Ave (dBm)		16.4	16.5	17.7	16.4	18.3	18.4	15.5	15.7	17.1	17.3
			-103.4		-103.3		-103.8		-103.5		-103.1

Test		GSM850 TRP		EGSM TRP		DCS TRP		PCS TRP	
Result		128	251	1	124	512	885	512	810
Txp Ave (dBm)		25.1	25.3	26.3	26.2	24.4	25.1	24.8	23.7
			-103.2		-101.4		-103.8		-103.6

GPS / WIFI

GPS实测报告

位 置	测试结果
我司二楼平台	冷启动60秒定位, 最大CN值42.6可使用星数5颗以上.

	WIFI2.4G(b/11m)		
	1	6	11
TRP	13.6	15.2	14.3
TIS	-80.4	-80.7	-80.3

	WIFI5.8G(a/54m)		
	36		165
TRP	7.5		7.0
TIS	-70.2		-68.6

WiFi传导

36	165
12.5	12.8

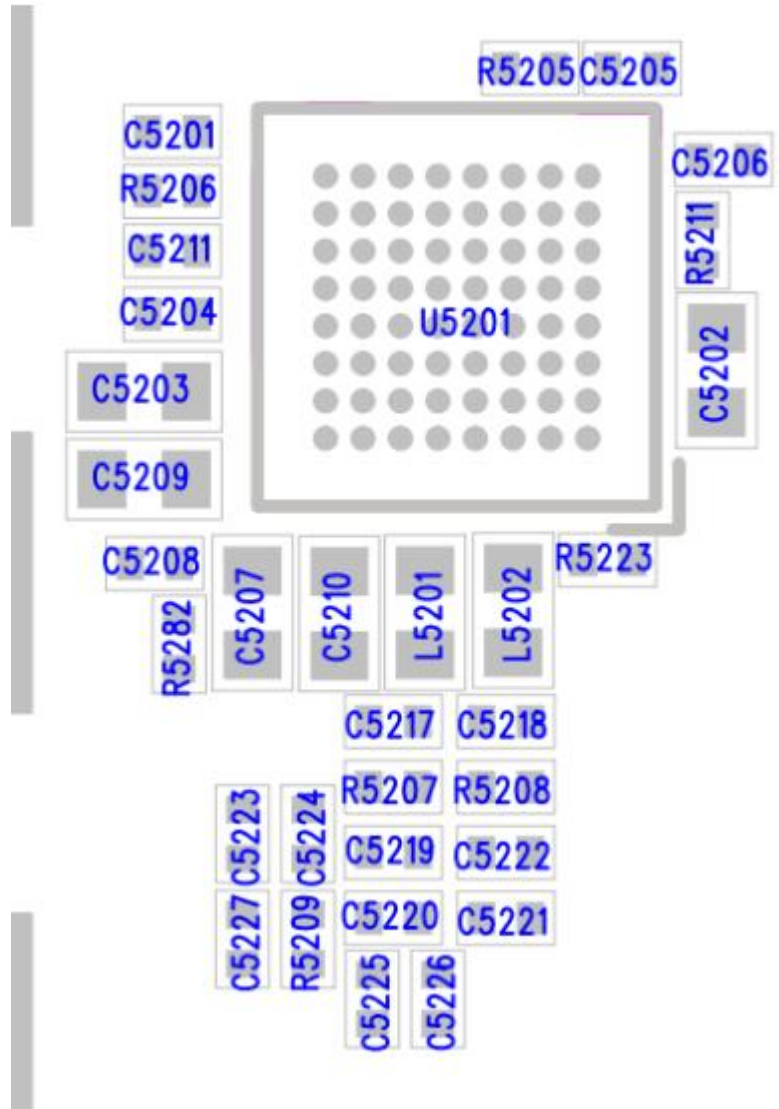


BT

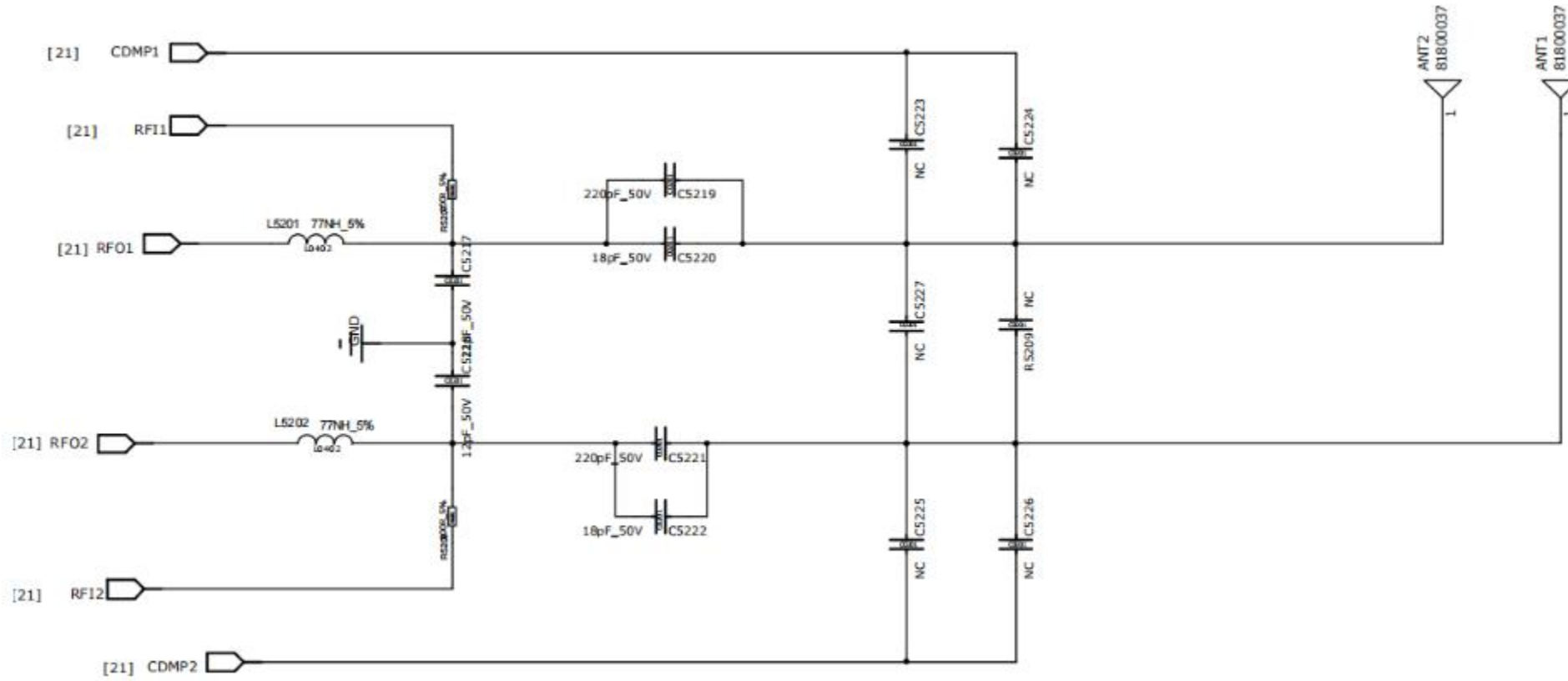


我司楼道可正常传输文件，直线距离 $\geq 15 \leq 18$ 米

NFC



NFC



NFC

匹配电路没有修改

测试结果



IOS 15693
50mm

卡30
25mm

卡2
30mm

卡4
15mm

B卡/身份证
15mm



测试主板