深圳市麒鑫通达科技有限公司
SHENZHEN QXTD Technology Co., Ltd

天线测试数据报告

Antenna test data report

LOGIC A5L

Test Details

		test items
1. S Parameter	1. S Parameter	1. (RL) 2. (VSWR)
2. coupled power test	2. coupled power test	1.Max TRP（power） 2.TIS(level)

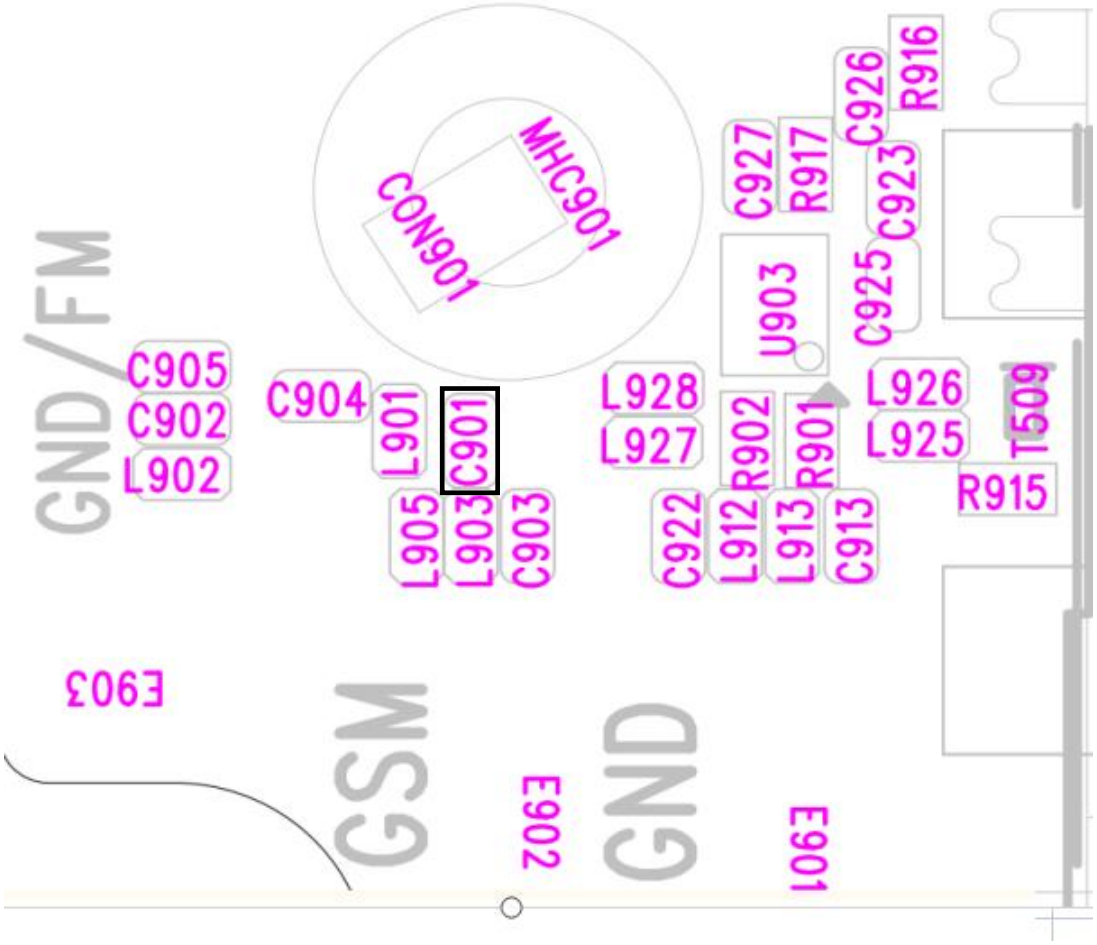
Debug version records

VER.	DATE	TEST DESCRIPTION
	2022-9-1	LATIN American version of the antenna
	2022-9-13	PCB match retest

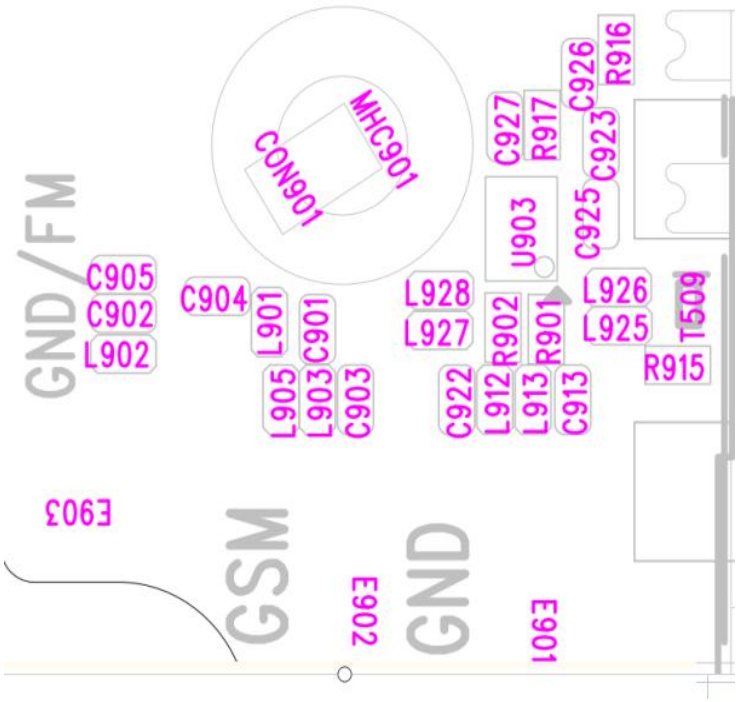
Handset and PCB Version

Match circuit diagram (main signal source)

Main signal source pin matching: the original 12nH of the digit number C901 is replaced with 15nH, and the match of other



Match the circuit diagram (tuning the elastic pin)



tuner logic	
Connector	Bands
RF1 (L925 **0R**)	GSM:B2/B3/8
	WCDMA:B1/B2/B8
	LTE: B1/B2/B3/B4/B8
RF2 (L926 **3.9nH**)	GSM：B5
	WCDMA：B5
	LTE：B5
RF3 (L927 **NC**)	LTE：B12/B28AB
RF4(L928 **NC**)	

Tuned pinfoot match:
1. Position number L927 original 3nH cancel patch, L927 position number blank patch.
2, L913 increases 68nH inductance, and C913 increases 39pf capacitance.
3. R901 adds 12nH inductance (tentative match here and may be adjusted later). The R902 uses the 0 Ω connection tuning switch.

Match circuit diagram (main signal source)

Model	Mark	2G&3G&4G								
A5L		GSM850			GSM900			DCS1800		
Channel		L	M	H	L	M	H	L	M	H
TRP(dBm)		27.2	27.3	27.6	28.5	28.6	28.2	24.5	24.3	24.2
TIS(dBm)		-102.9	-102.6	-102.3	-102.1	-102.0	-101.6	-104.6	-104.5	-104.3
A5L		PCS1900			WCDMA850			WCDMA900		
Channel		L	M	H	L	M	H	L	M	H
TRP(dBm)		25.2	25.6	25.6	18.8	19.2	19.3	19.1	19.2	18.1
TIS(dBm)		-103.8	-103.5	-103.3	-103.6	-103.3	-103.1	-103.0	-102.8	-102.1
A5L		WCDMA1900			WCDMA2100			FDD-B1		
Channel		L	M	H	L	M	H	L	M	H
TRP(dBm)		19.3	19.5	19.6	20.2	20.1	19.8	19.5	19.3	19.3
TIS(dBm)		-105.5	-105.3	-105.0	-104.2	-104.0	-103.8	-91.3	-91.0	-90.8
A5L		FDD-B2			FDD-B3			FDD-B4		
Channel		L	M	H	L	M	H	L	M	H
TRP(dBm)		18.6	19.0	19.2	16.8	17.0	17.5	17.1	17.2	17.2
TIS(dBm)		-92.8	-92.3	-92.1	-93.3	-93.1	-92.8	-91.0	-90.6	-90.5
A5L		FDD-B5			FDD-B8			FDD-B12		
Channel		L	M	H	L	M	H	L	M	H
TRP(dBm)		18.8	18.9	19.0	19.0	19.1	18.6	15.1	15.3	16.1
TIS(dBm)		-91.1	-90.9	-90.6	-90.8	-90.6	-90.3	-89.6	-89.8	-89.9

Match circuit diagram (main signal source)

Model		Mark	4G							
A5L		FDD-B28A			FDD-B28B					
Channel		L	M	H	L	M	H			
TRP(dBm)		14.5	15.5	16.1	16.1	16.4	16.8			
TIS(dBm)		-90.1	-90.2	-90.5	-90.6	-90.5	-90.3			

Antenna passive gain efficiency test

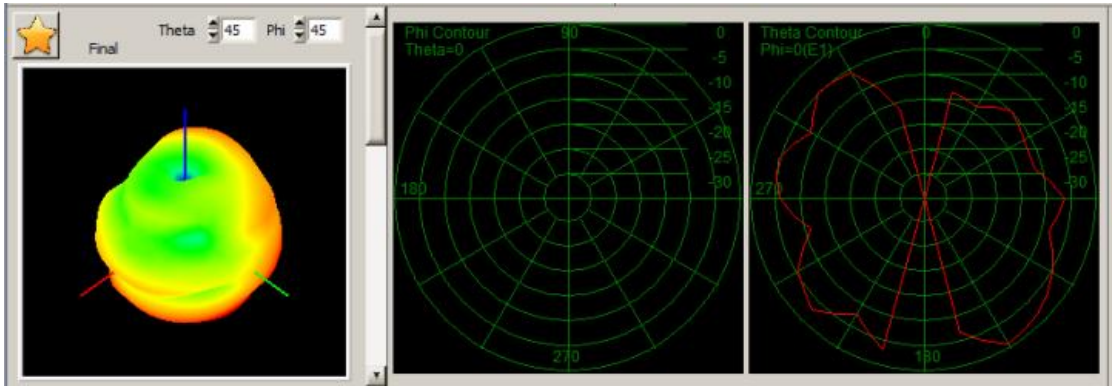
Band	Max Gain	Efficiency
GSM850	-0.13	33%
GSM900	-0.05	34%
DCS1800	0.03	36%
PCS1900	0.06	37%
WCDMA2100	0.52	39%
WCDMA1900	0.06	37%
WCDMA850	-0.13	33%
WCDMA900	-0.05	34%
BAND 1	0.52	39%
BAND 2	0.06	37%
BAND 3	0.03	36%
BAND 4	0.03	36%
BAND 5	-0.13	33%
BAND 8	-0.05	34%
BAND 12	-0.31	27%
BAND 28A	-0.31	27%
BAND 28B	-0.26	28%
BT	0.02	35%

Antenna passive field intensity map

GSM850

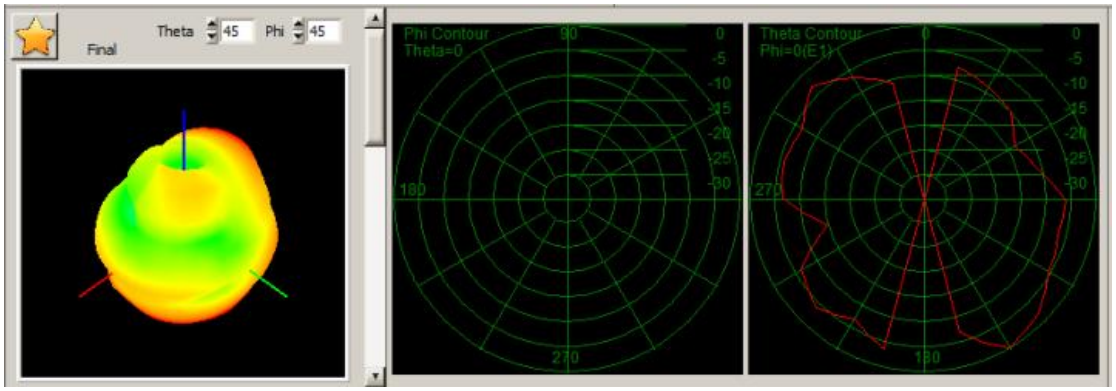
GSM900

DCS1800



Antenna passive field intensity map

PCS1900

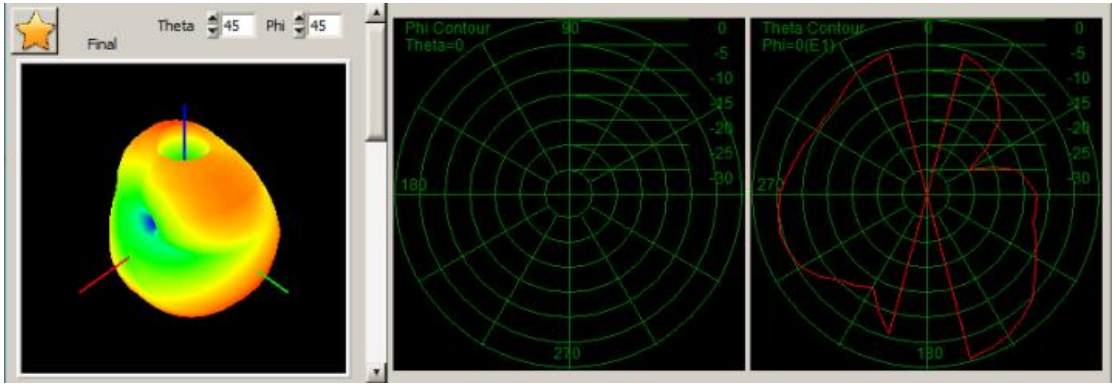


WCDMA 2100

WCDMA 1900

Antenna passive field intensity map

WCDMA 850



WCDMA 900

FDD-B1

Antenna passive field intensity map

FDD-B2

FDD-B3

FDD-B4

Antenna passive field intensity map

FDD-B5

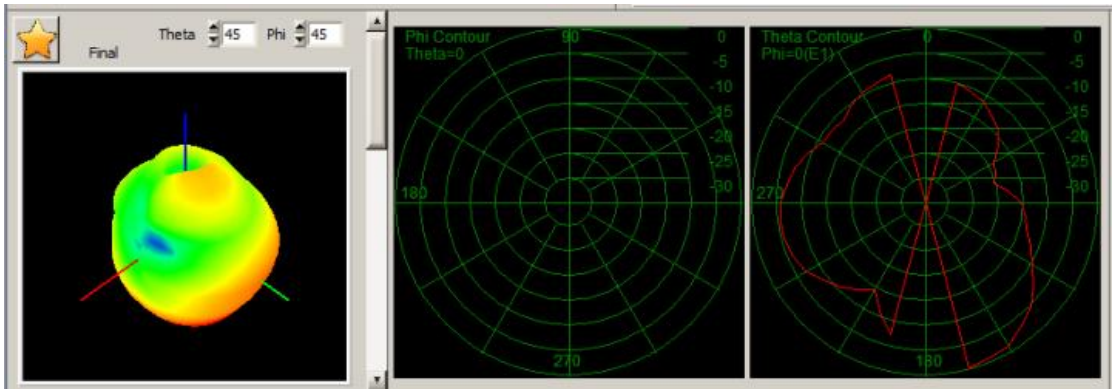
FDD-B8

FDD-B12

Antenna passive field intensity map

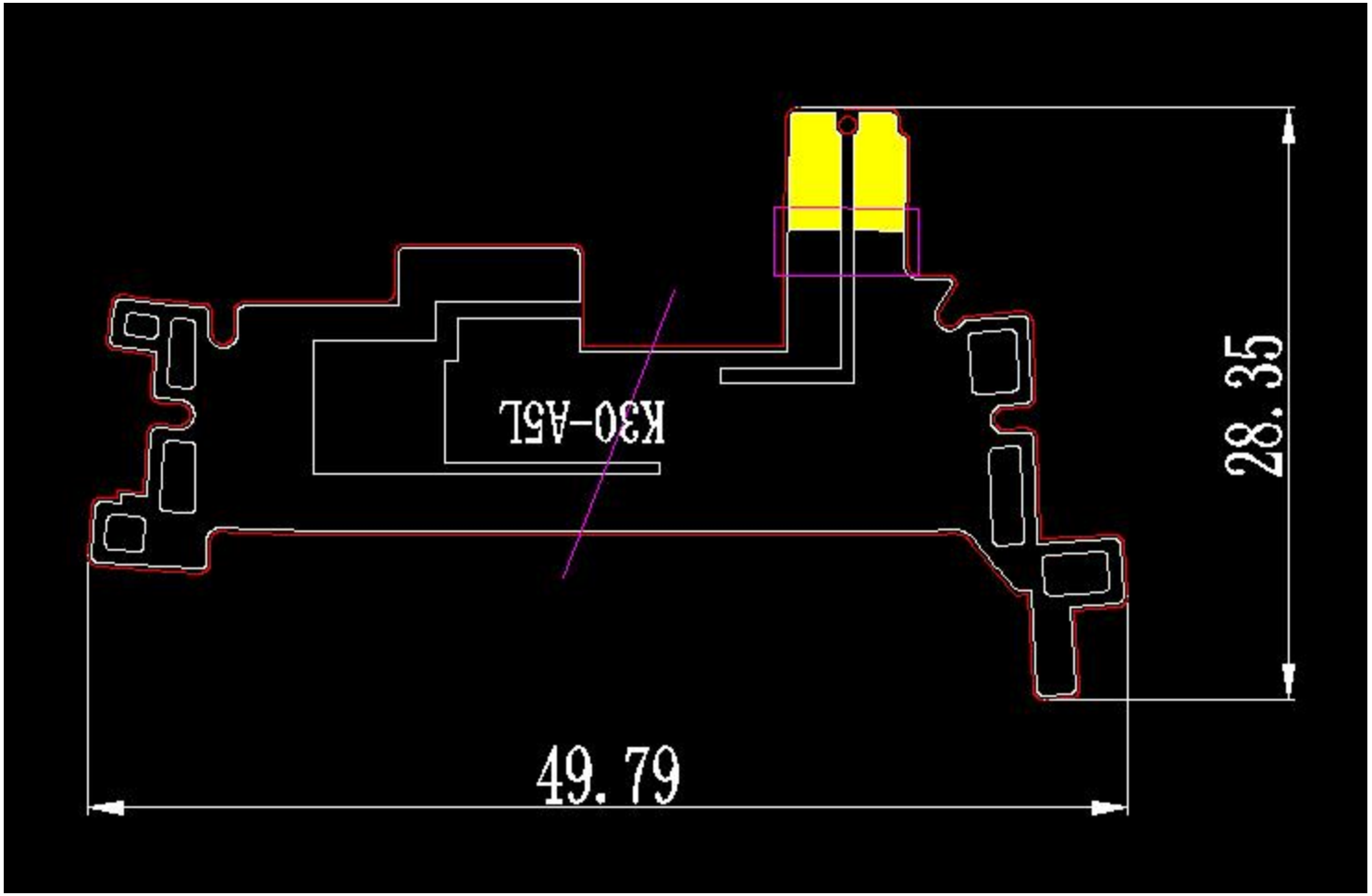
FDD-B28A

FDD-B28B

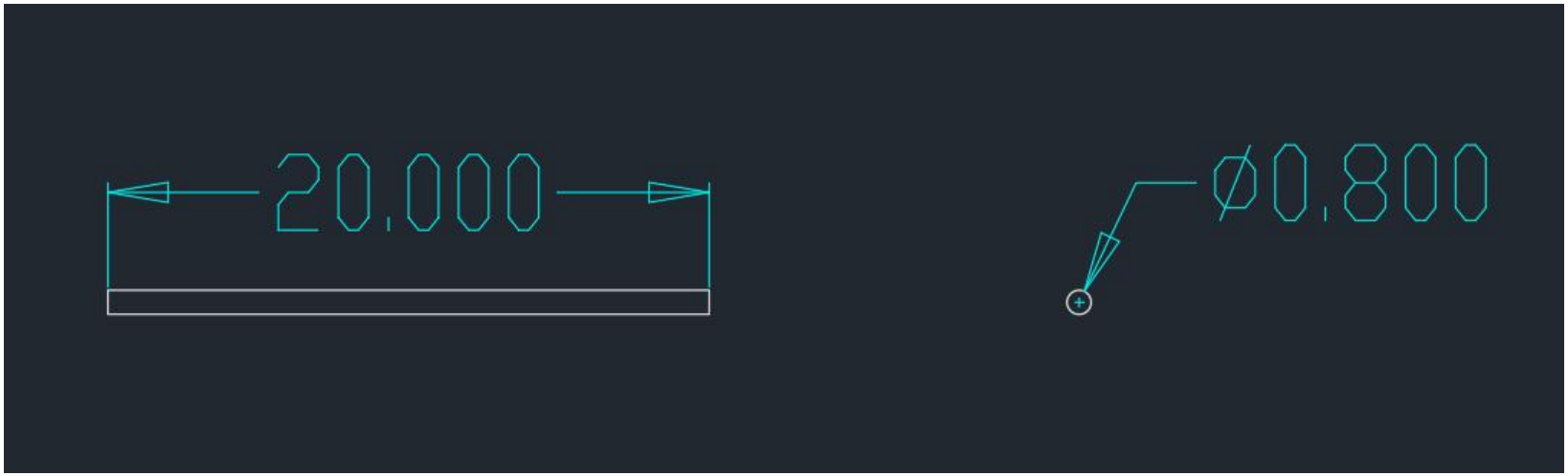


BT

Antenna appearance



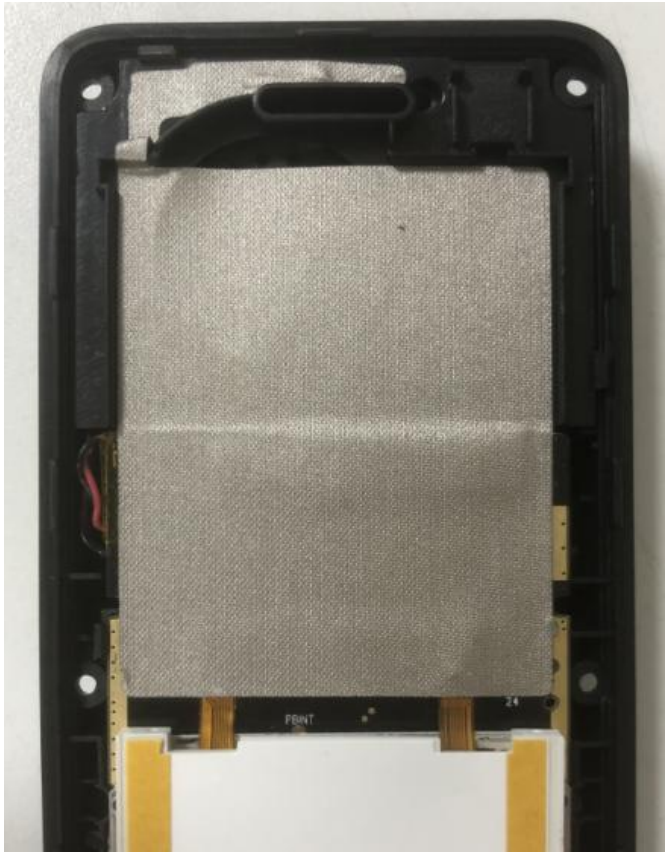
BT Antenna



BT/FM TEST

FM Measured environment	Total search number	With good quality sound Channel No.
Indoor	3	1
Outdoor	18	13

Environmental treatment



1. As shown in the picture, a large conductive cloth is attached on the upper end of the main board.
Note: The top of the conductive cloth should be extended, and the screen wiring should be screened.
2. Put a small conductive fabric on the bottom to connect with the copper exposed area of the main board.