

BB SCHEMETIC

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RF SCHEMETIC

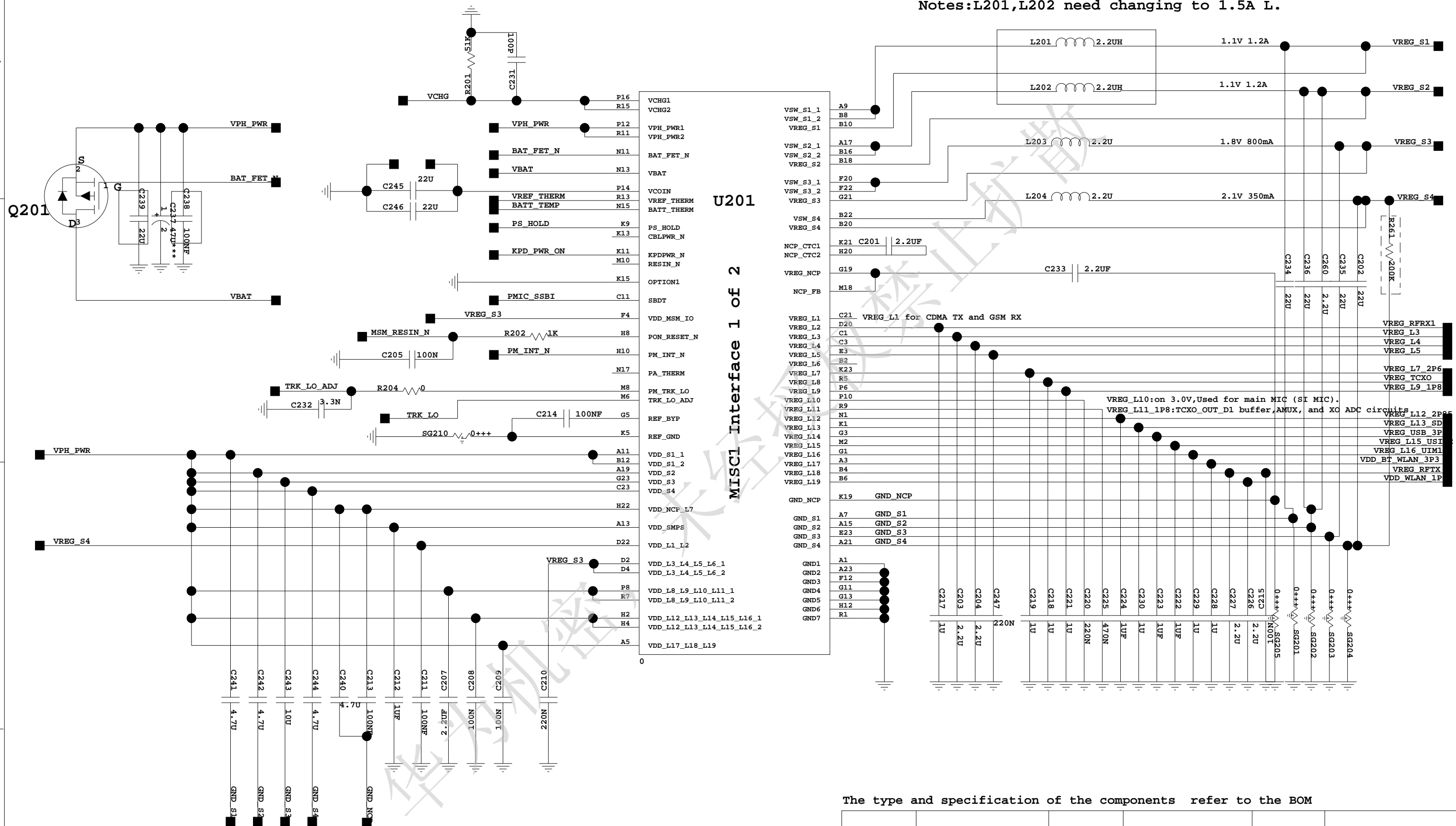
20. DCDC For RF PA
21. RF Input Output Ports
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23. Antenna Switchplexer
24. WCDMA IMT Power Amplifier
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32. WCDMA PCS Power Amplifier
33. NA
34. NFC
35. BT FM WCN2243
36. AR6005 BB
37. AR6005 RF

The type and specification of the components refer to the BOM

				NA	
				ECA NO	DATE
DESIGNED	TANGJIEHUA/00181886	HD2U8951M		00667074	
REVIEWED	CDMA ANDROID GROUP	VER	PART_NUMBER	SHEET 1 OF 37	
		A	03021PBV	HUAWEI TECH CO.,LTD.	

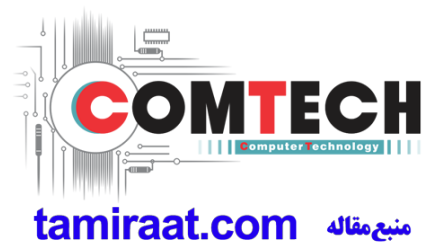
2. PM8029 POWER Circuit

Notes: L201, L202 need changing to 1.5A L.



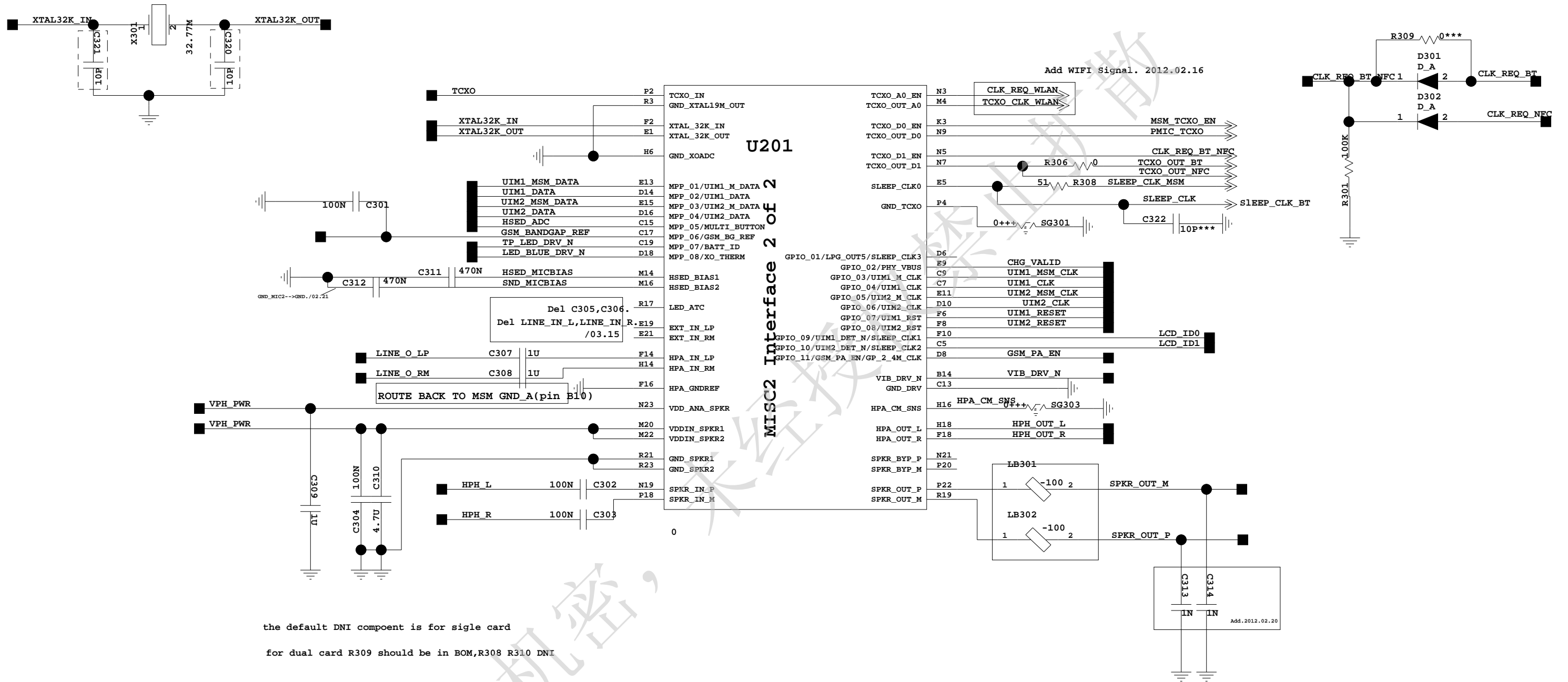
The type and specification of the components refer to the BOM

				NA
				ECA NO
				DATE
DESIGNED	TANGJIEHUA/00181886			00667074
REVIEWED	CDMA ANDROID GROUP	HD2U8951M		
		VER	PART_NUMBER	SHEET 2 OF 37
		A	03021PBV	HUAWEI TECH CO.,LTD.



تاميرات.com منبع مقاله

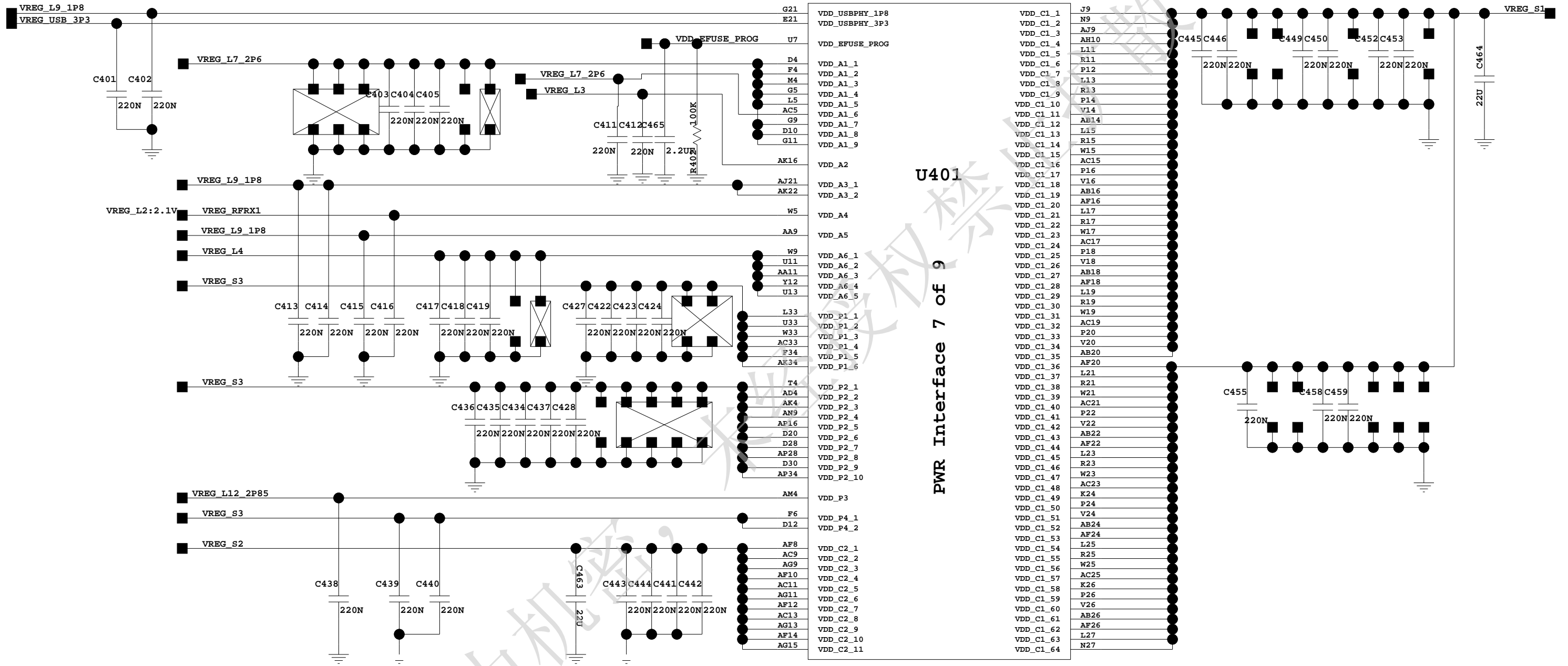
3. PM8029 Analog/CFG/CLOCK and RF Interface



The type and specification of the components refer to the BOM

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				ECA NO	DATE
DESIGNED	TANGJIEHUA/00181886				
		HD2U8951M		00667074	
REVIEWED	CDMA ANDROID GROUP				
		VER	PART_NUMBER	SHEET 3 OF 37	
		A	03021PBV		HUAWEI TECH CO.,LTD.

4. MSM8225 Power Filter

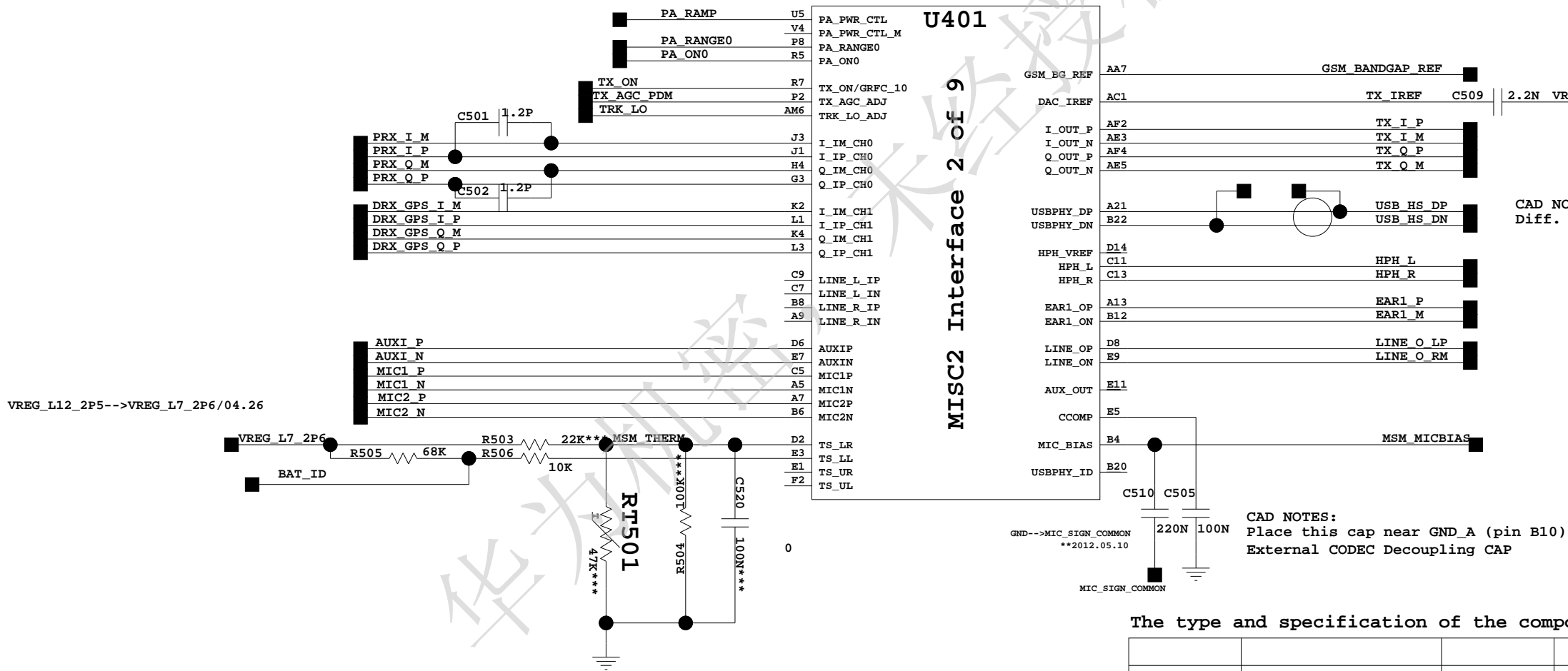
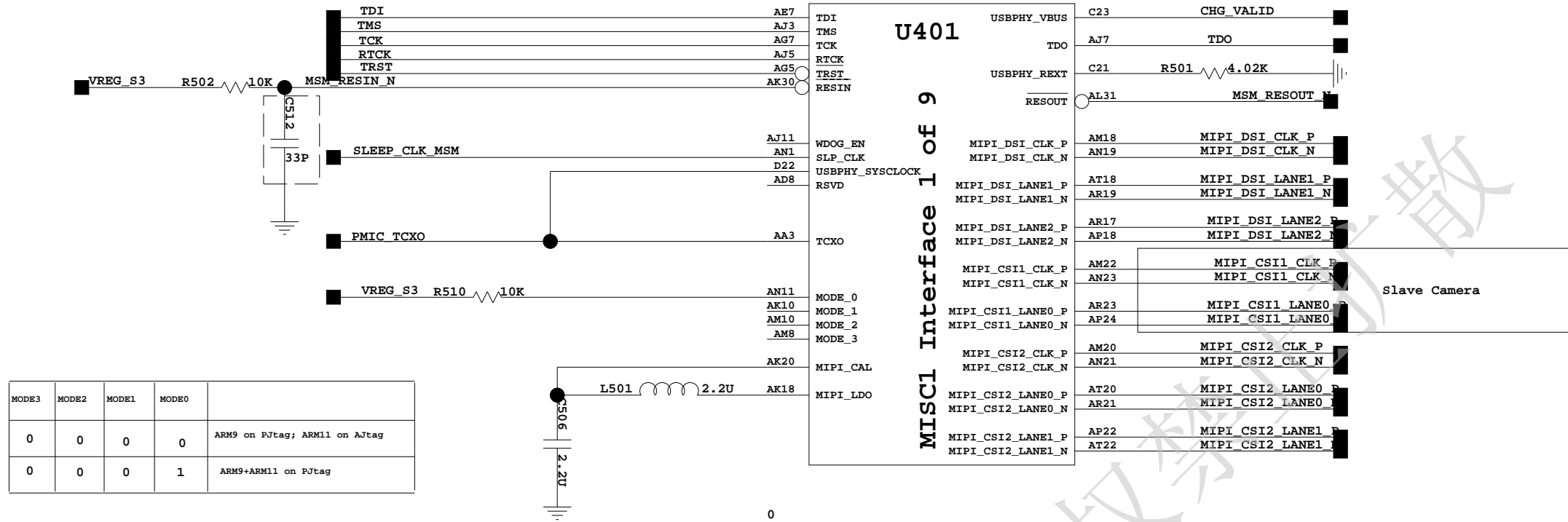


The type and specification of the components refer to the BOM

				NA	
				ECA NO	DATE
DESIGNED	TANGJIEHUA/00181886			00667074	
REVIEWED	YAODAYI 00167997			00667074	
		VER	PART_NUMBER	SHEET 4 OF 37	
		A	03021PBV	HUAWEI TECH CO.,LTD.	



5. MSM8225 Analog Circuit and RF interface



The type and specification of the components refer to the BOM

				NA
			ECA NO	DATE
DESIGNED	TANGJIEHUA/00181886		HD2U8951M	00667074
REVIEWED	YAODAYI 00167997		VER	PART_NUMBER
			A	03021PBV
				SHEET 5 OF 37
				HUAWEI TECH CO.,LTD.

Note: Close to U401

6. MSM8225 Nand+DDR1 MCP Circuit

A

B

C

D

华为机密，未经授权禁止扩散

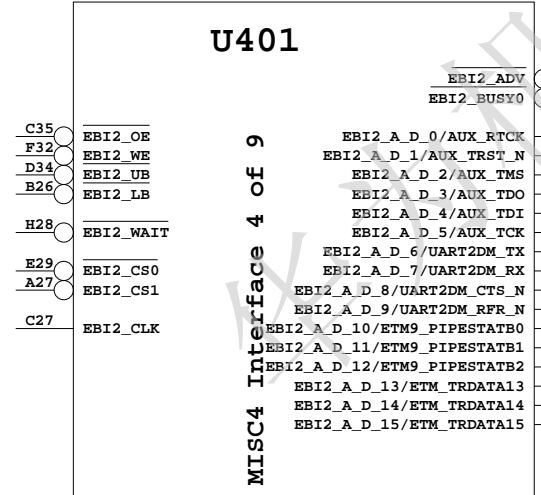
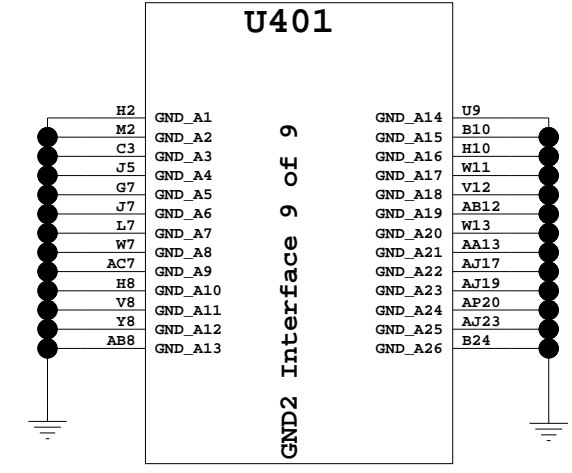
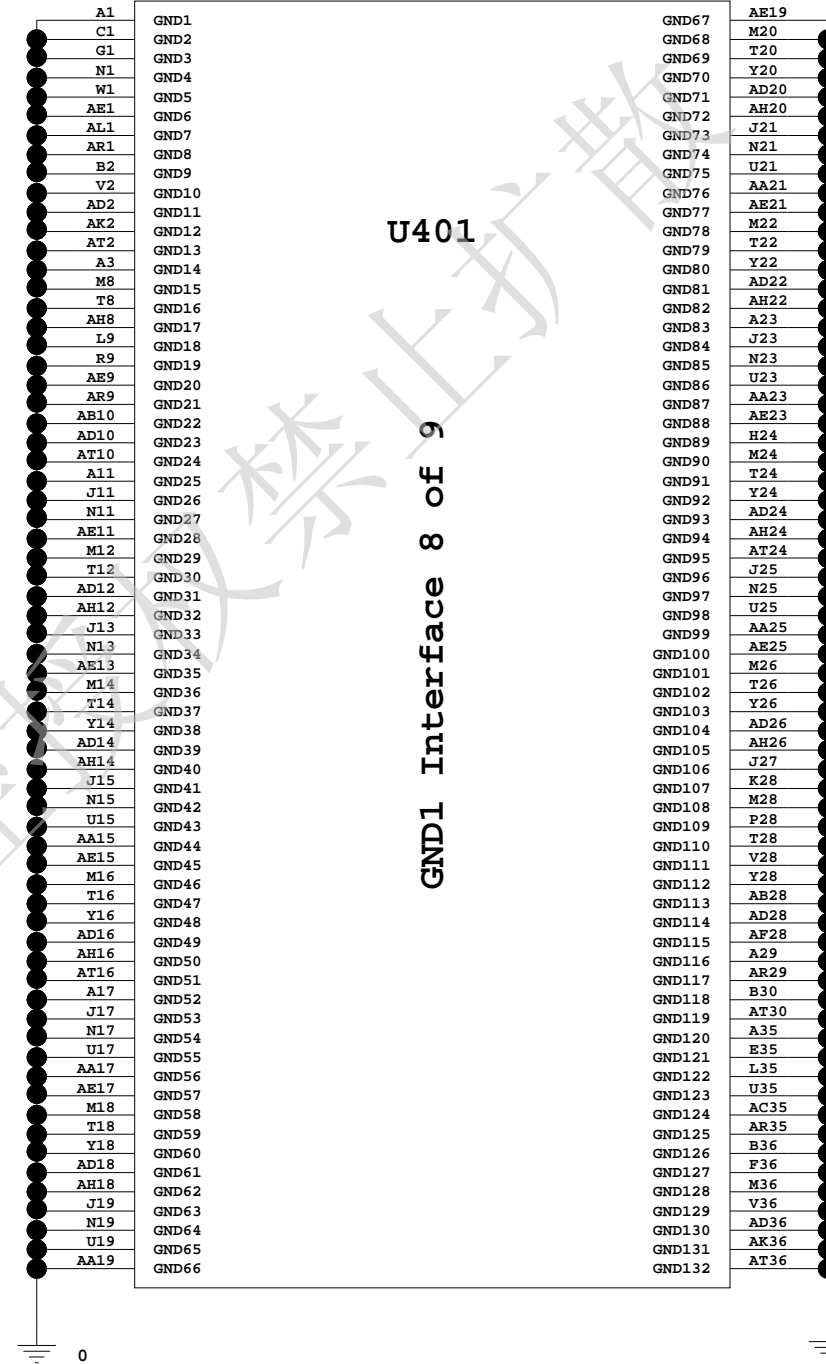
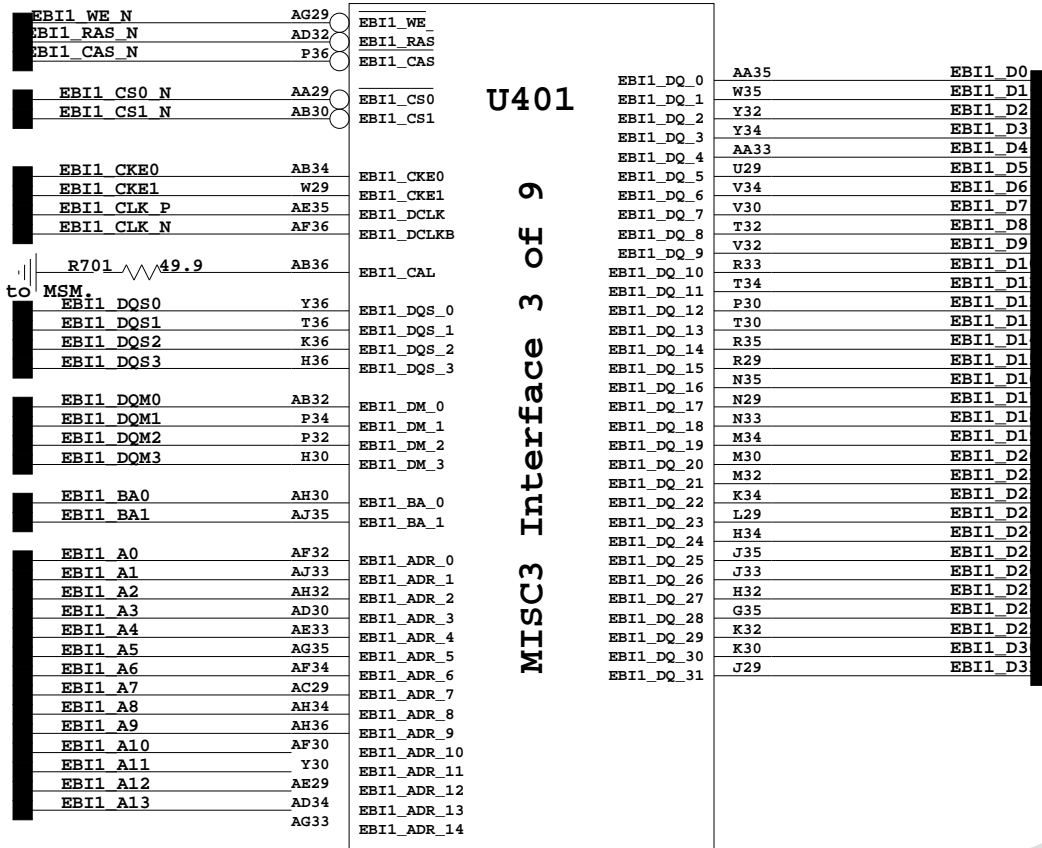
The type and specification of the components refer to the BOM

				NA	
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DESIGNED	TANGJIEHUA/00181886	HD2U8951M		00667074	
REVIEWED	CDMA ANDROID GROUP	VER	PART_NUMBER	SHEET 6 OF 39	
		A	03021PBV	HUAWEI TECH CO.,LTD.	



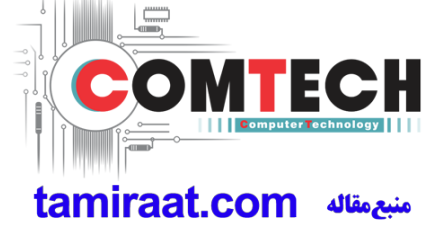
7. MSM8225 MCP interface & GND

CAD NOTES:
Place resistor close to



The type and specification of the components refer to the BOM

DESIGNED	TANGJIEHUA/00181886	HD2U8951M	00667074
REVIEWED	CDMA ANDROID GROUP	VER	SHEET 7 OF 37
		A	HUAWEI TECH CO.,LTD.
		PART_NUMBER	
		03021PBV	
		DATE	
		NA	
		ECA NO	



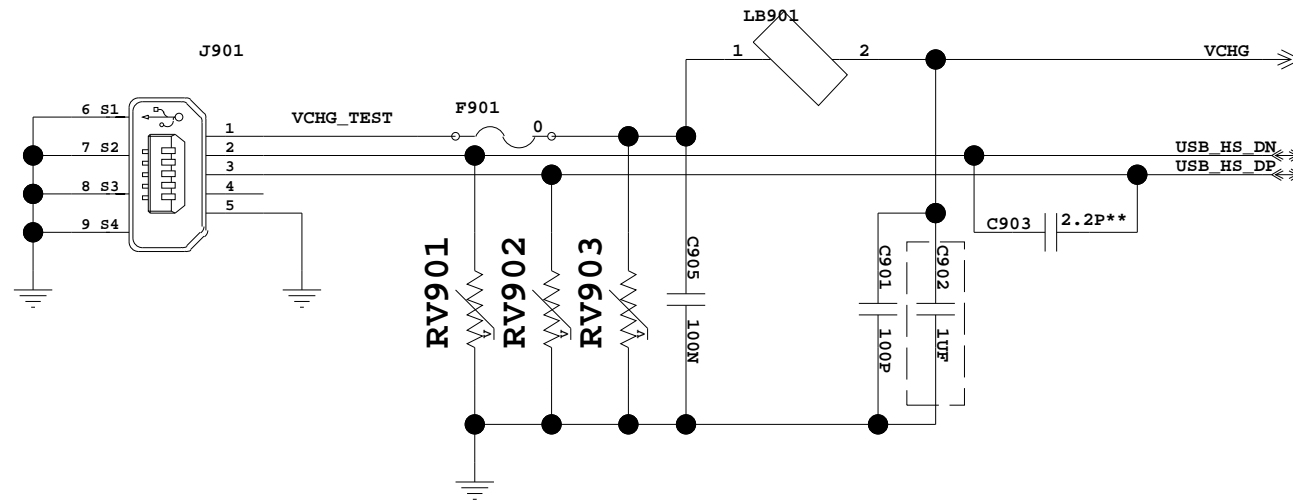
8. MSM8225 GPIO Data UI and Other Interface



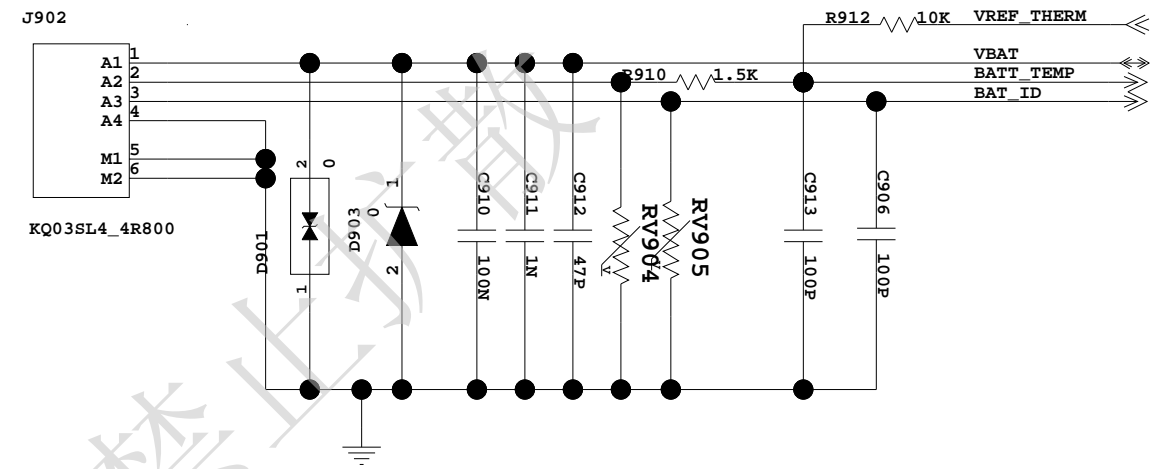
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REVIEWED	CDMA ANDROID GROUP	VER	PART_NUMBER
		A	03021PBV
			SHEET 8 OF 37
			HUAWEI TECH CO.,LTD.

9. USB/Charge management/Battery/Vabrator

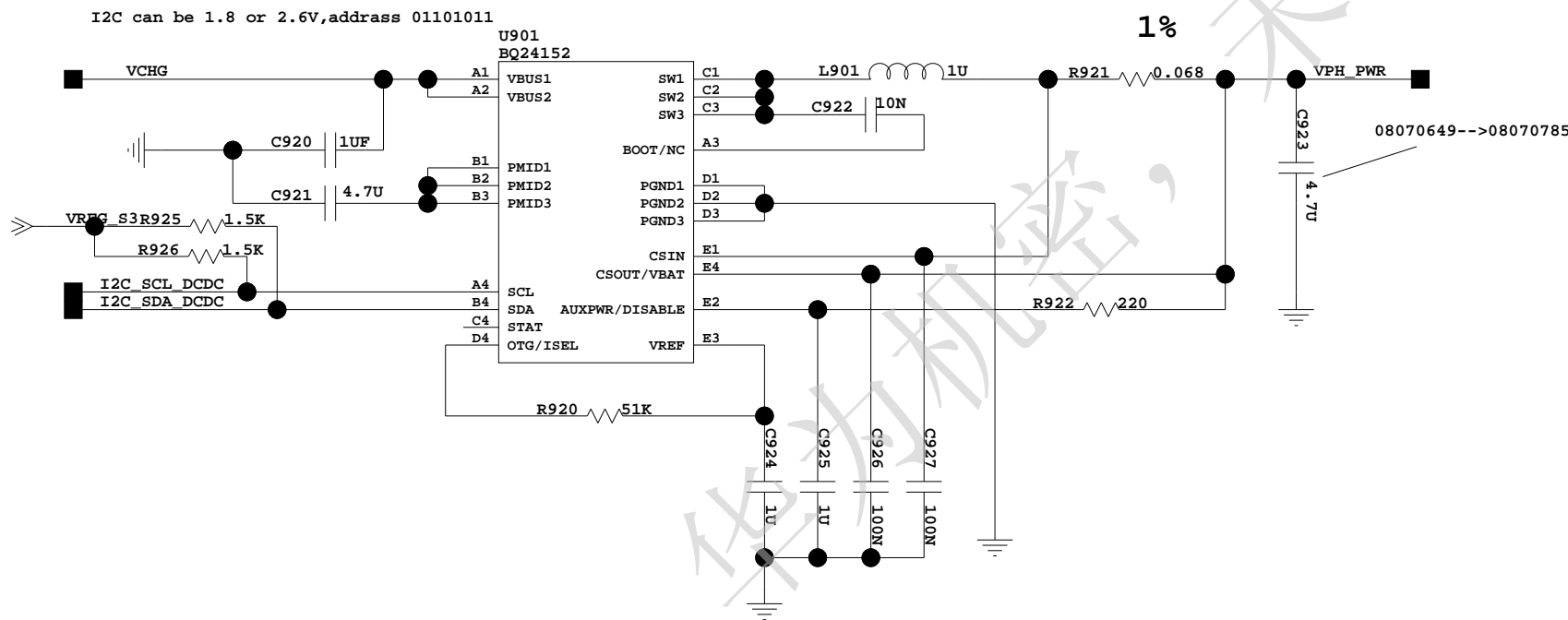
Micro USB Connector



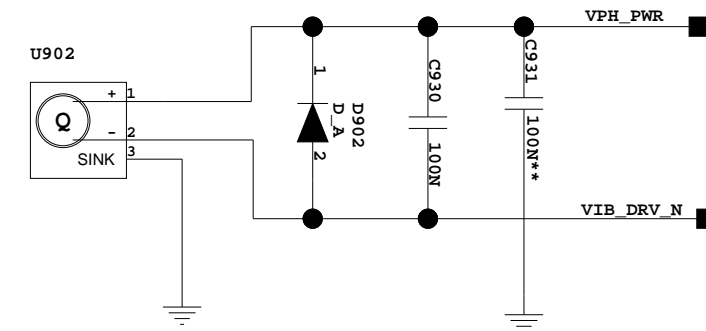
Battery Conector Battery 24020975



Charge management



Vabrator

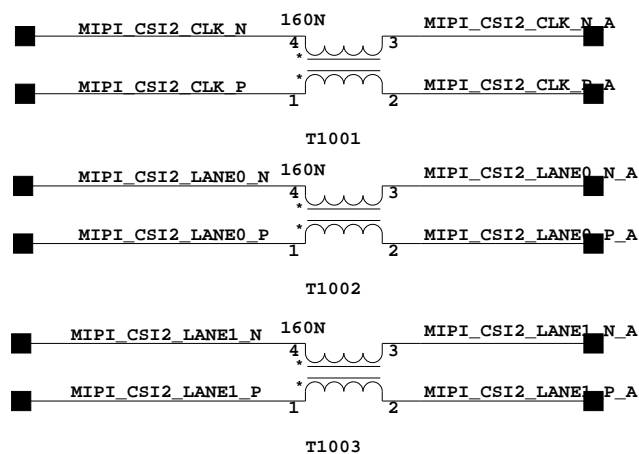
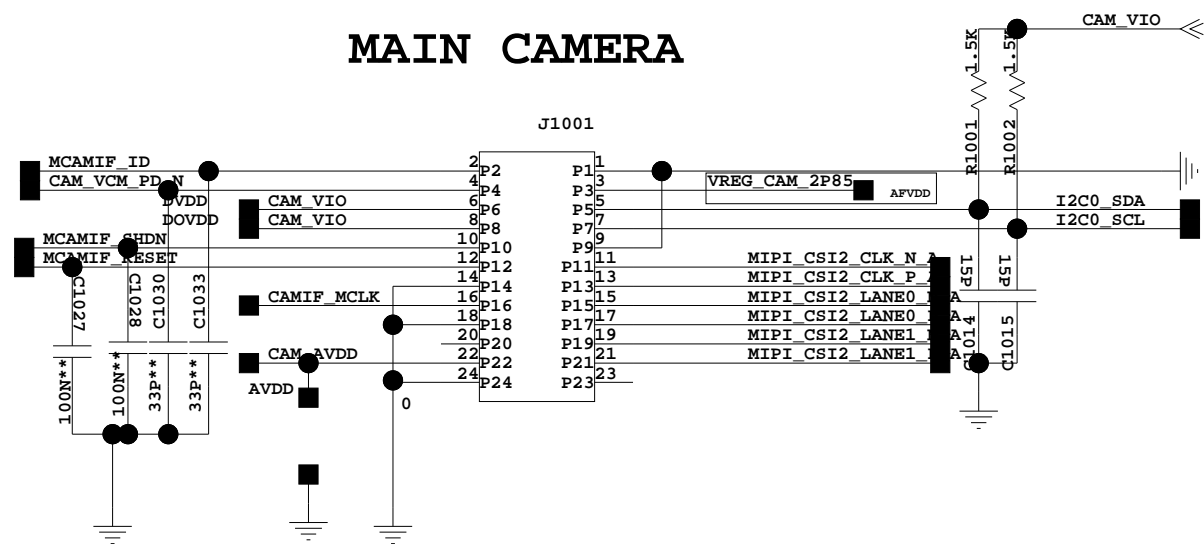


The type and specification of the components refer to the BOM

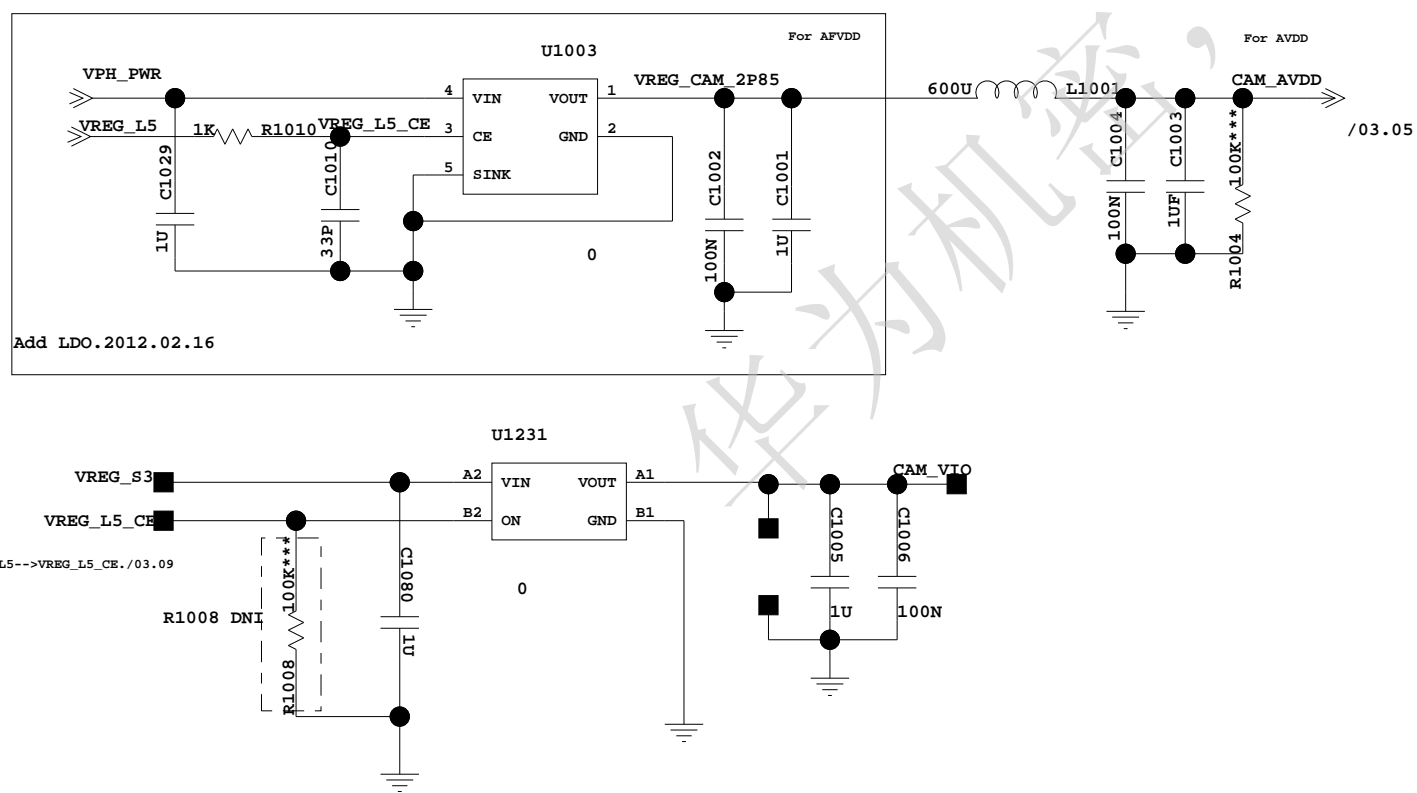
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DESIGNED	XIEFENG 00163838	HD2U8951M		00667074	
REVIEWED	CDMA ANDROID GROUP	VER	PART_NUMBER	SHEET 9 OF 37	
		A	03021PBV	HUAWEI TECH CO.,LTD.	

10. Main Camera and Slave Camera

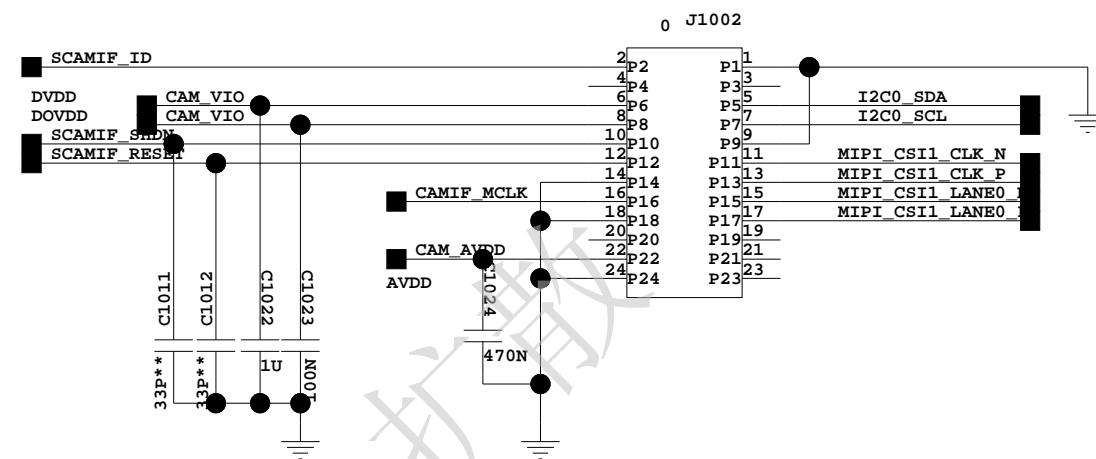
MAIN CAMERA



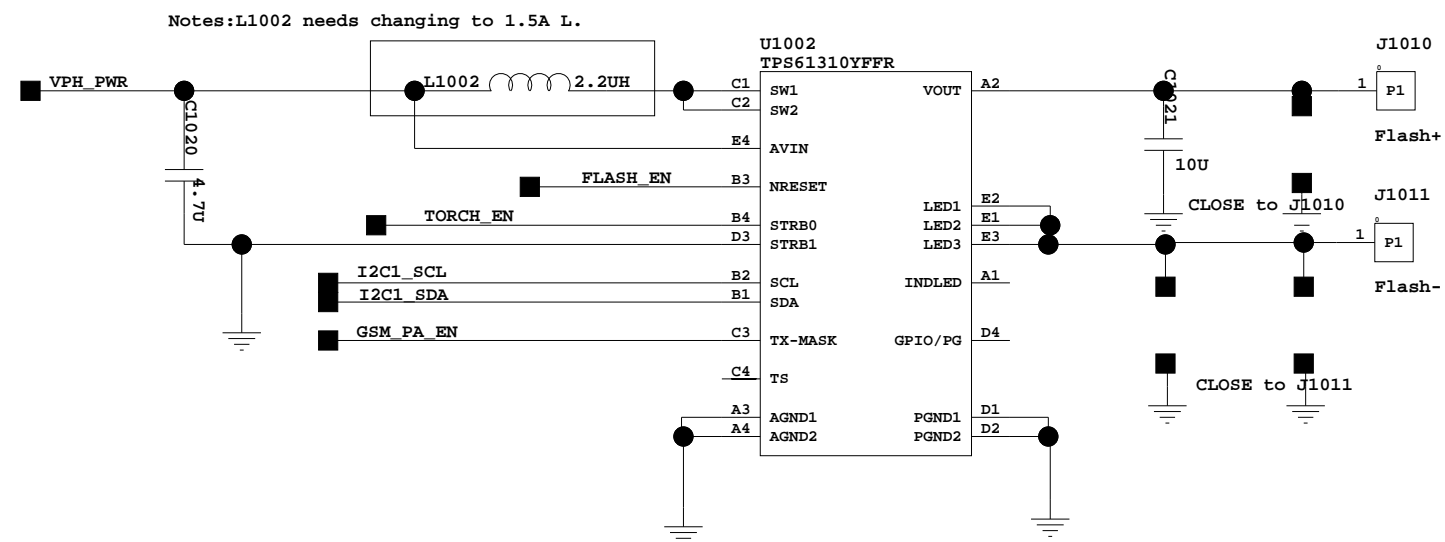
POWER CLOSE TO MAIN CAMERA



SLAVE CAMERA



CAMERA FLASH

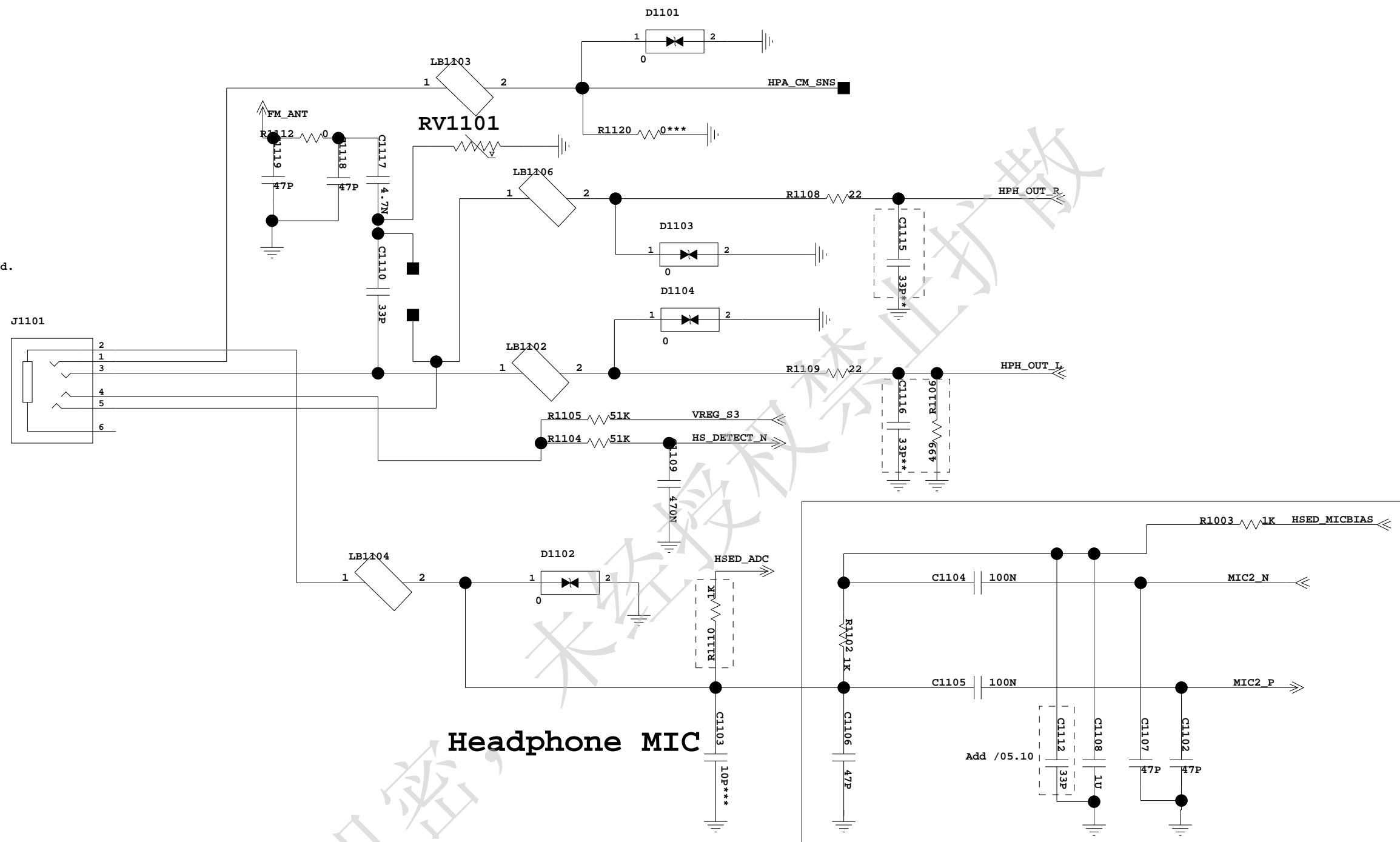


The type and specification of the components refer to the BOM

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			ECA NO	DATE
DESIGNED	XIEFENG 00163838	HD2U8951M		00667074
REVIEWED	CDMA ANDROID GROUP	VER	PART_NUMBER	SHEET 10 OF 37
		A	03021PBV	HUAWEI TECH CO.,LTD.

11. 3.5 Headphone port

HTC headset: MIC and GND changed.



Headphone MIC

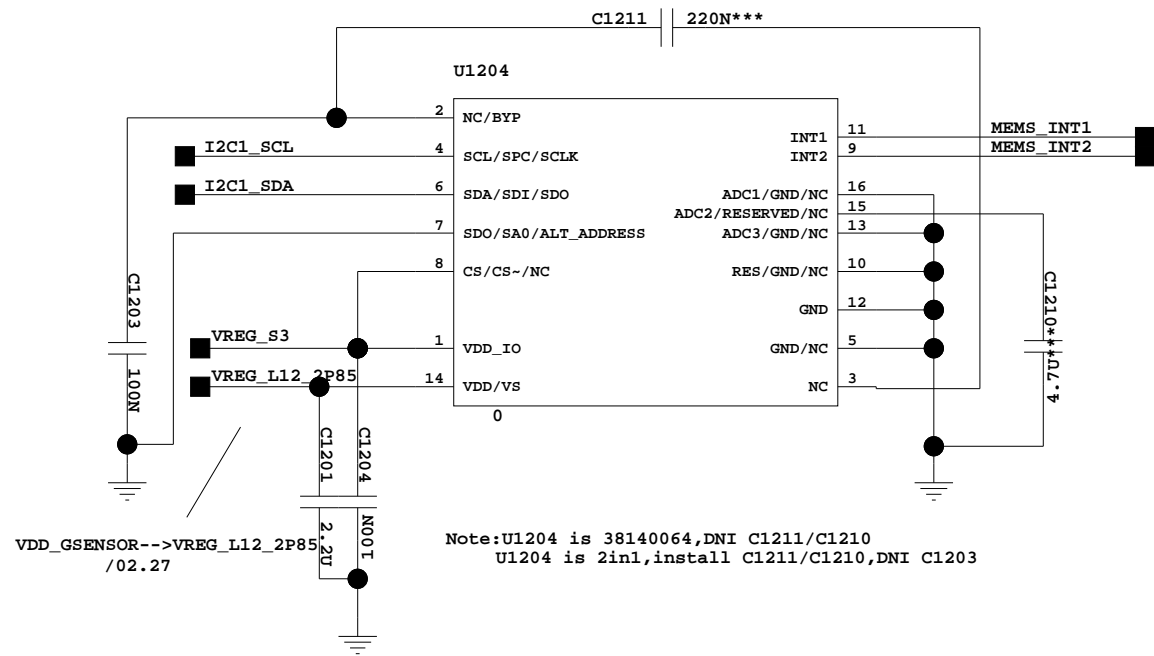
CLOSE to MSM7X27A

The type and specification of the components refer to the BOM

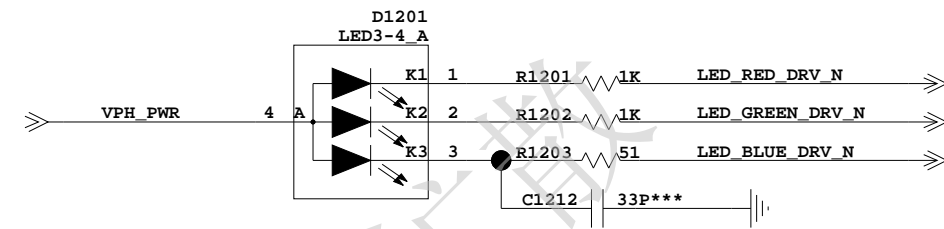
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DESIGNED	HUYIXIAN 00143037	HD2U8951M		00667074	
REVIEWED	YAODAYI 00167997	VER	PART_NUMBER	SHEET 11 OF 37	
		A	03021PBV	HUAWEI TECH CO.,LTD.	

12. Sensor/Status indicator

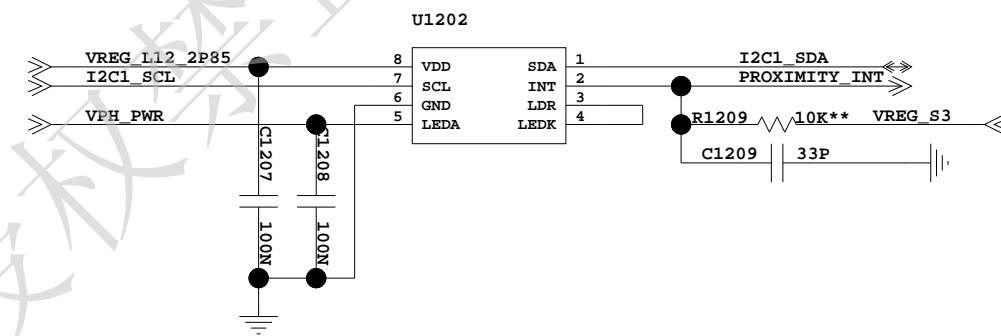
Accelerometer



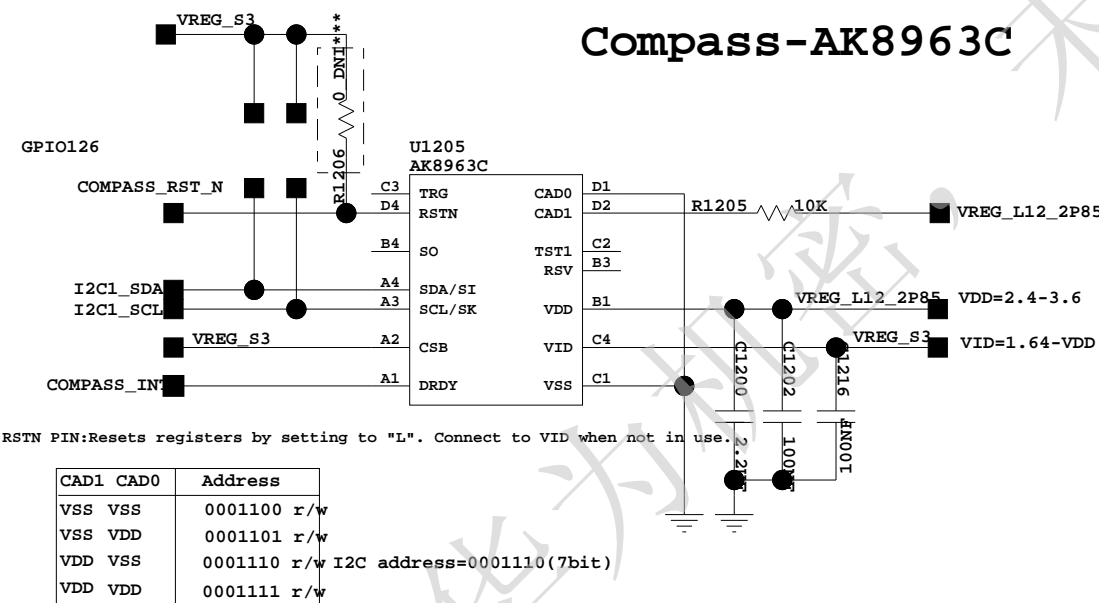
Ambient Light and Proximity



Status Indicator



Compass-AK8963C



U1205: 38140024-->38140069

Compass: 38140024-->38140069 / 03.06

The type and specification of the components refer to the BOM

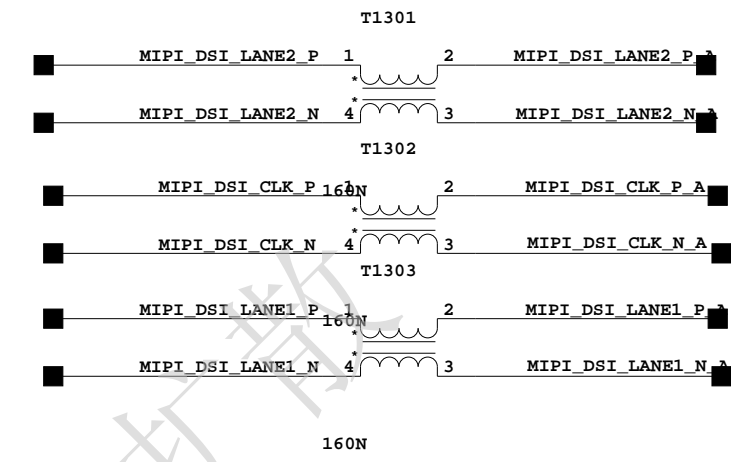
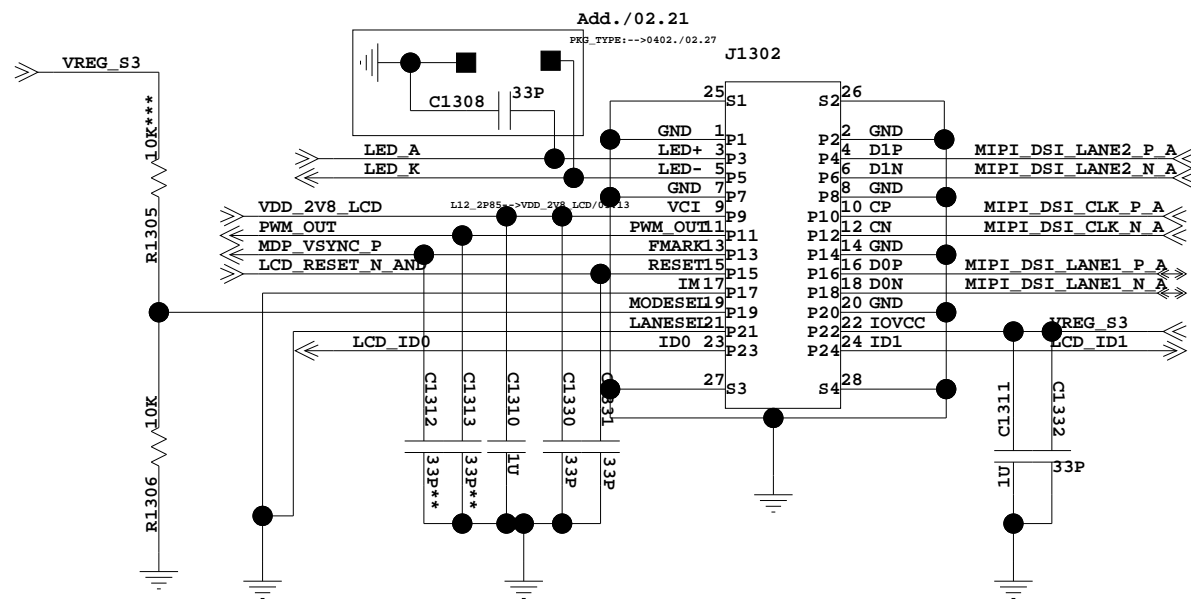
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		A	0302XXXX	HUAWAI TECH CO.,LTD.	



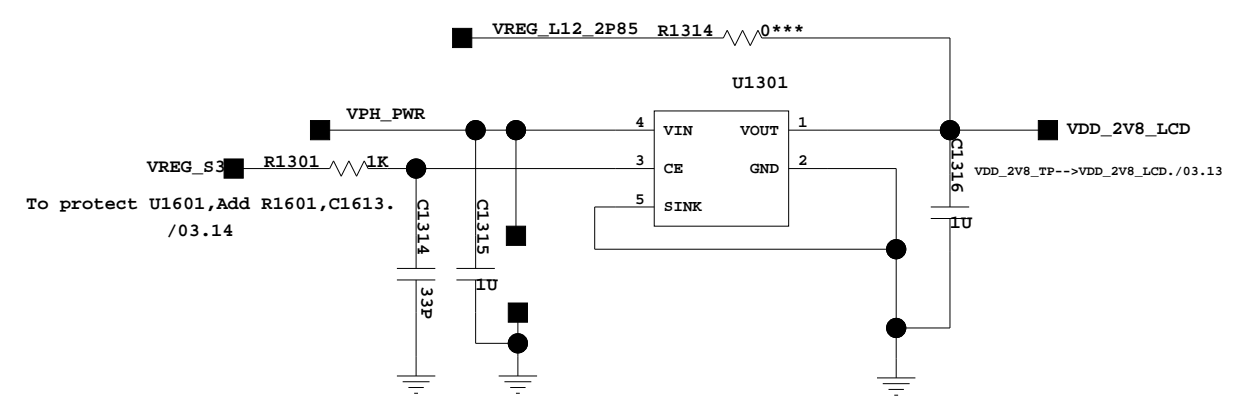
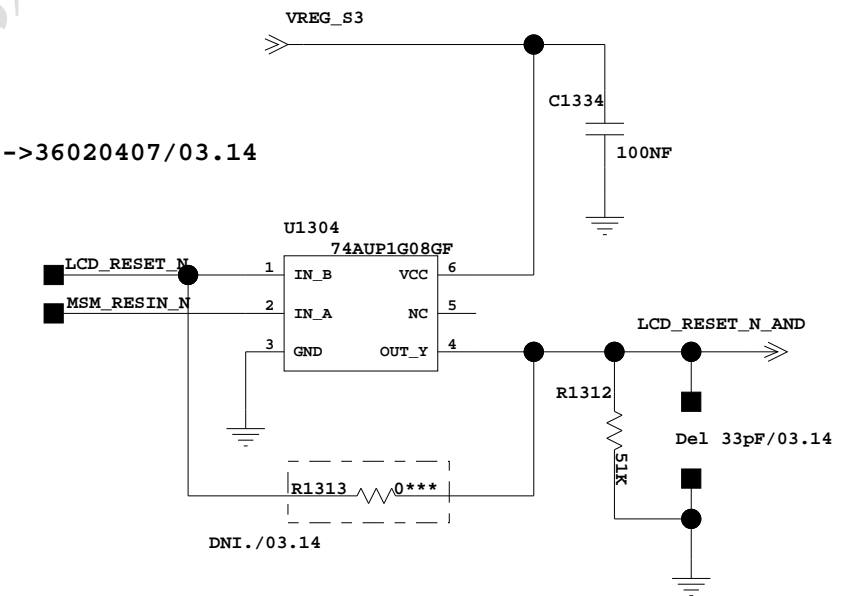
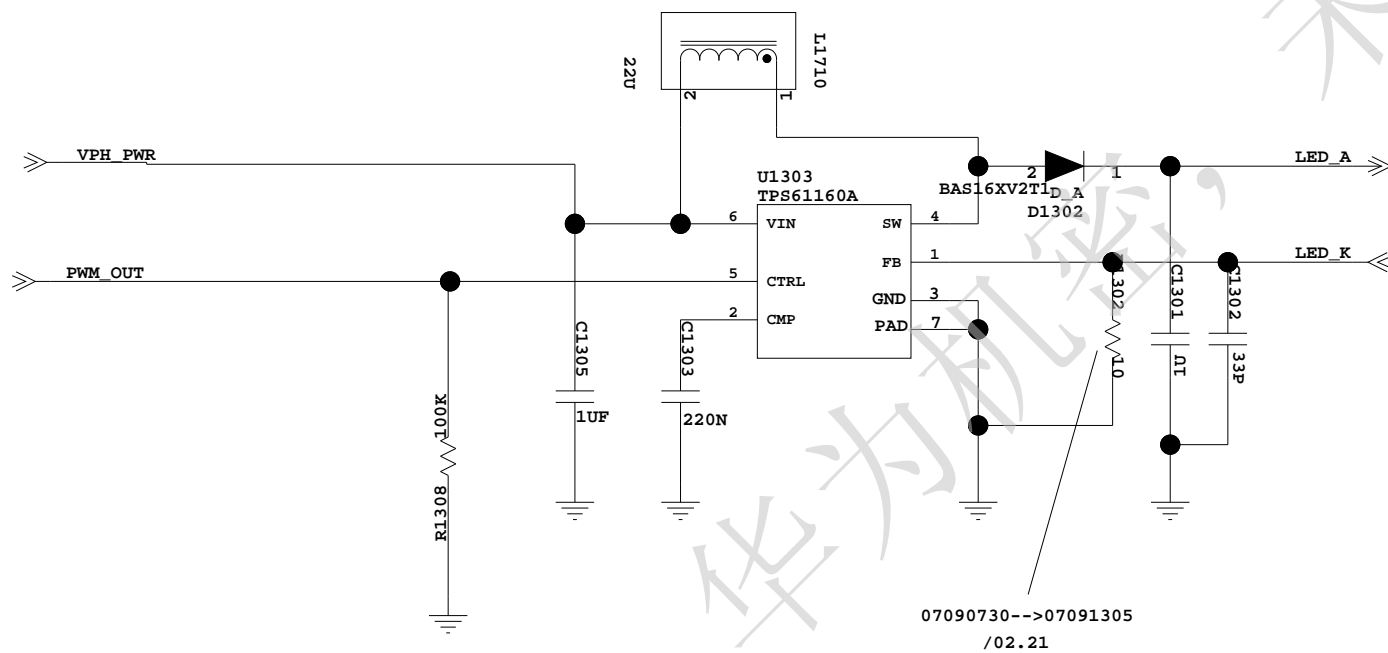
13. LCD interface & LCD backlight driver

LCD 24pinBTB(4.0' MIPI 2 LANE)

select 2 data lane for LANESEL=0

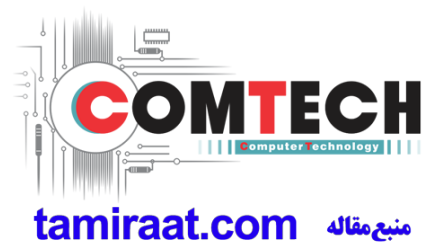


LCM backlight driver



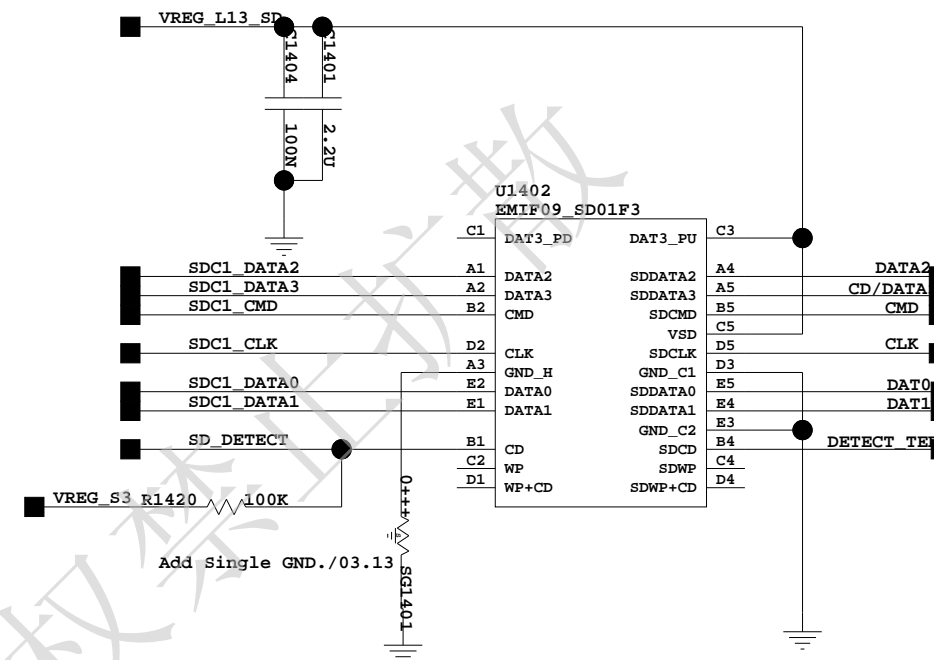
The type and specification of the components refer to the BOM

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DESIGNED	GAORUI	HD2U8951M	00627113	
REVIEWED	ZHUJIANWEI			
		VER	PART_NUMBER	SHEET 13 OF 37
		A	03020MAR	HUAWEI TECH CO.,LTD.



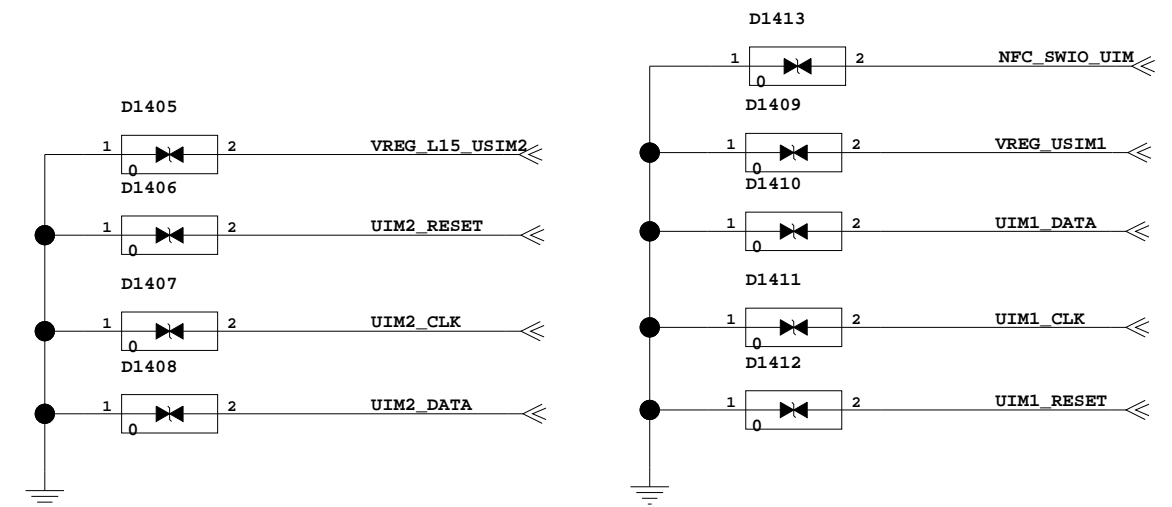
14. SIM/TF card

TF Card



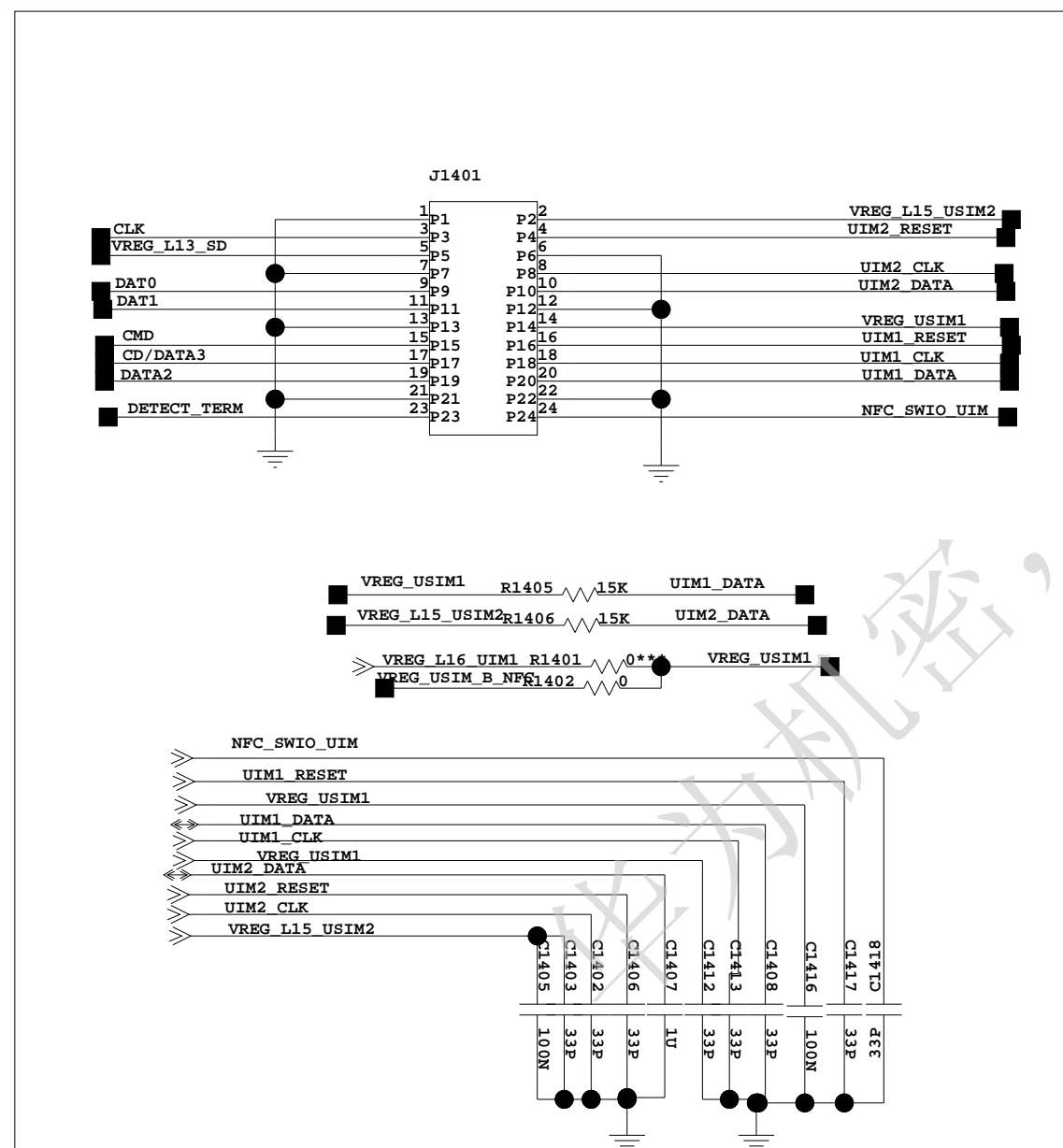
if SD_DETECT presents, PIN C3 should pull up
else PIN C1 should pull down

SIM Card ESD Protect



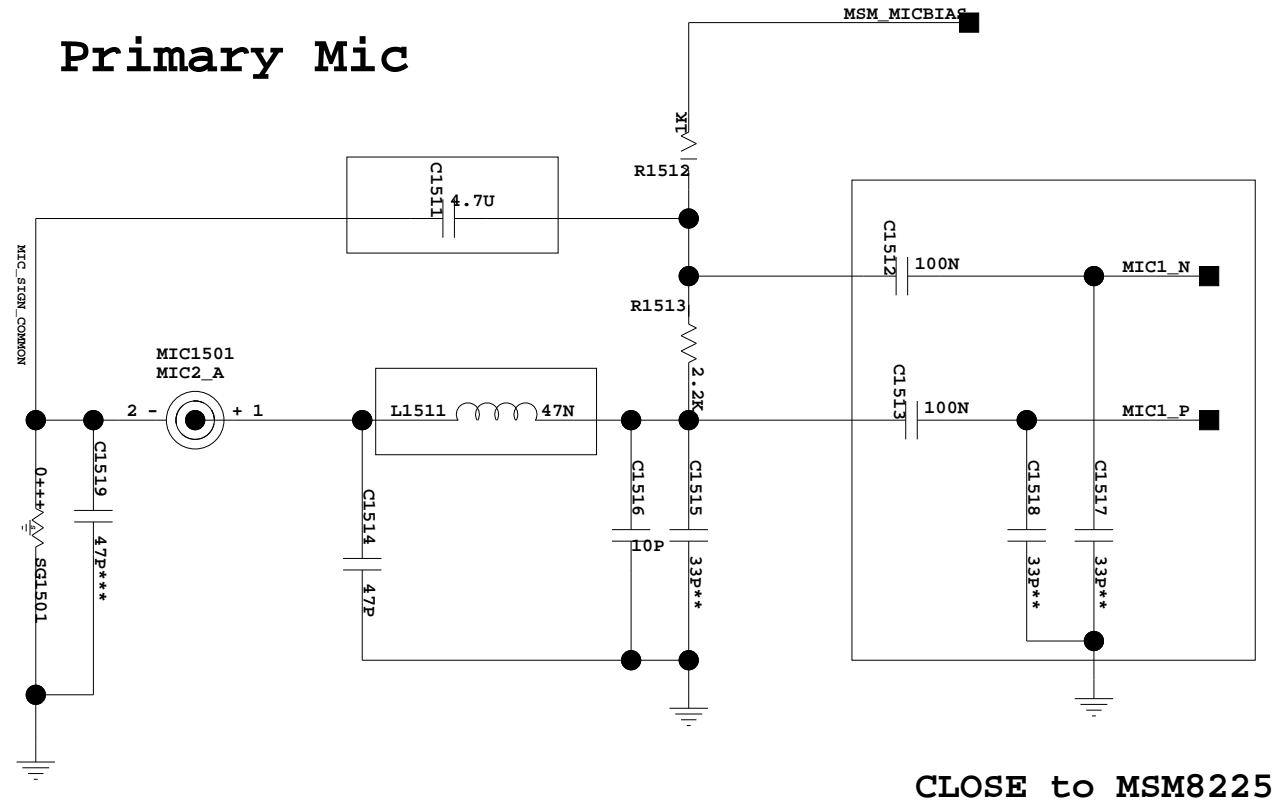
The type and specification of the components refer to the BOM

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DESIGNED	XIEFENG 00163838	HD2U8951M		00667074	
REVIEWED	CDMA ANDROID GROUP	VER	PART_NUMBER	SHEET 14 OF 37	
		A	03021PBV	HUAWAI TECH CO.,LTD.	

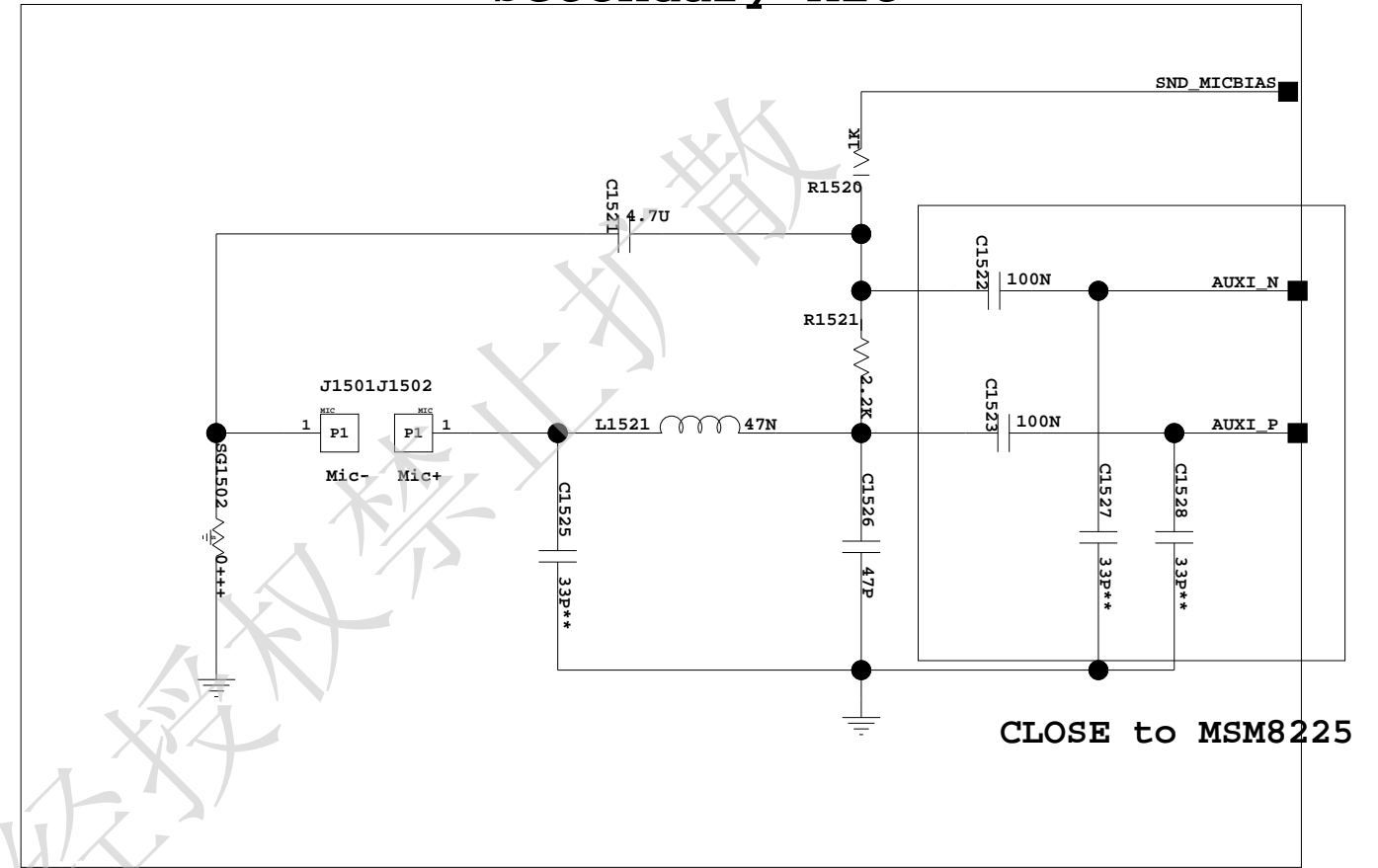


15. AUDIO/MIC

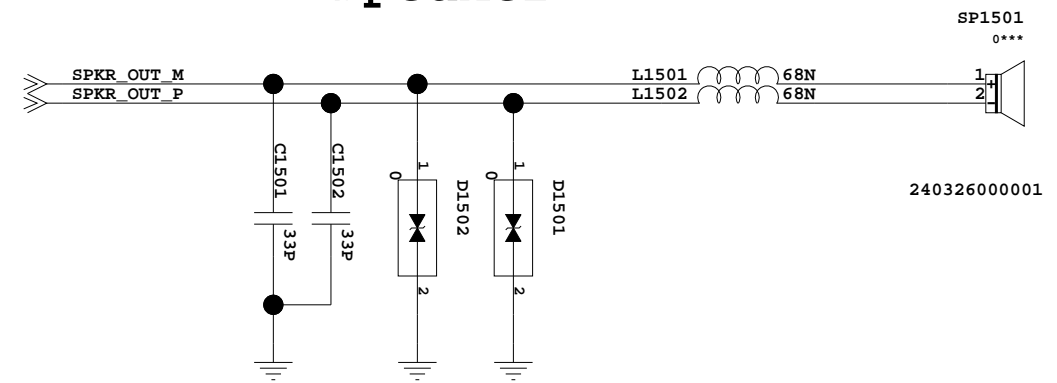
Primary Mic



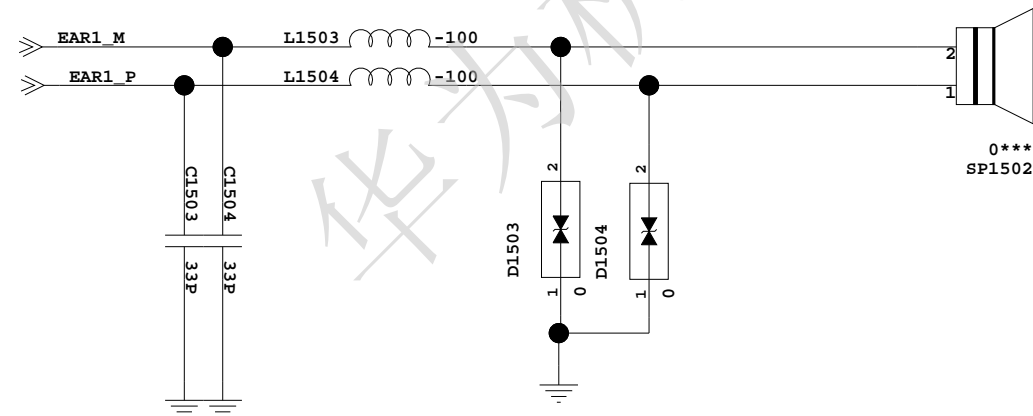
Secondary Mic



Speaker



For different vendor different wire direction

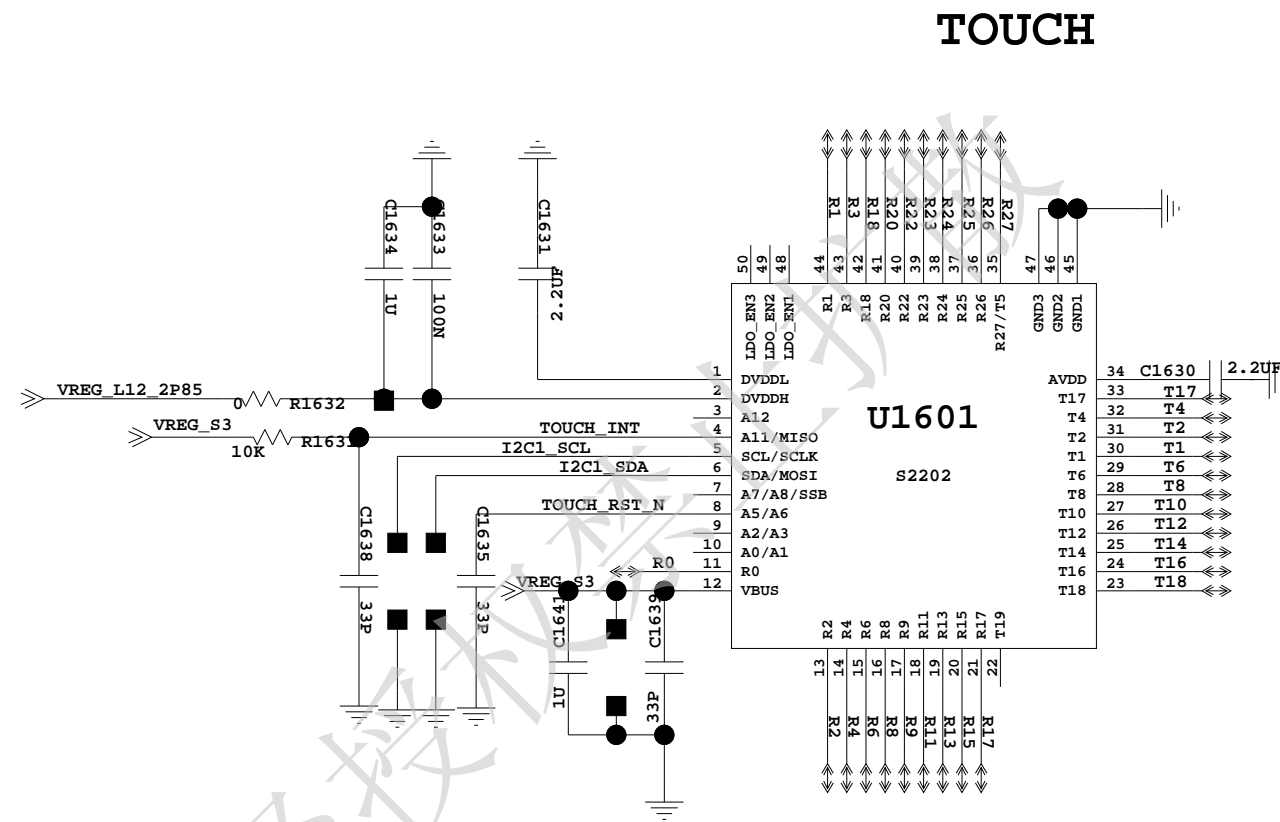
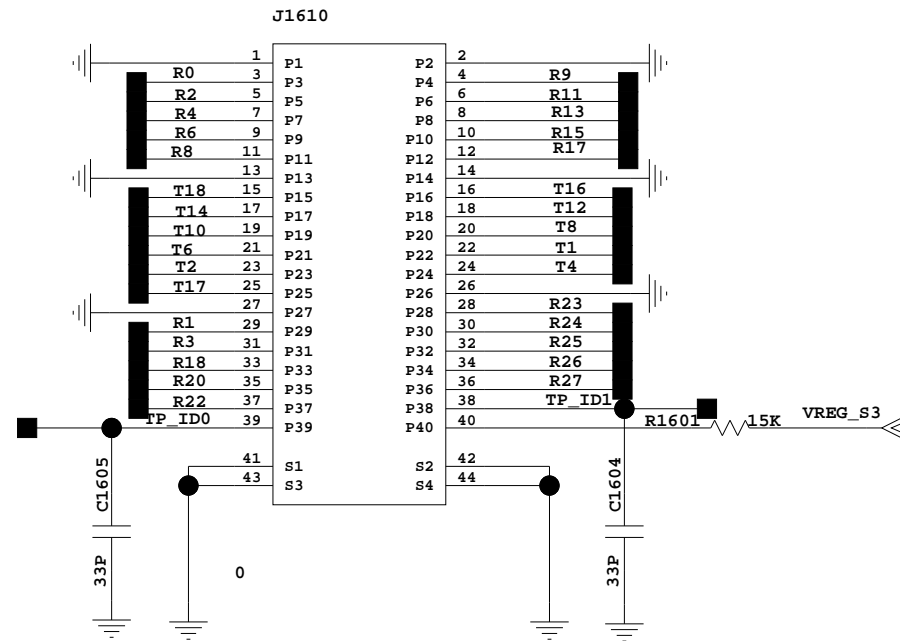


The type and specification of the components refer to the BOM

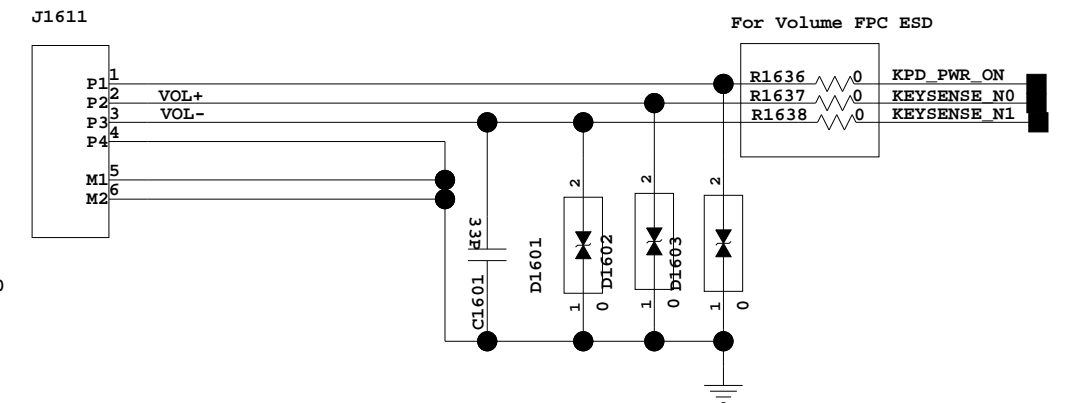
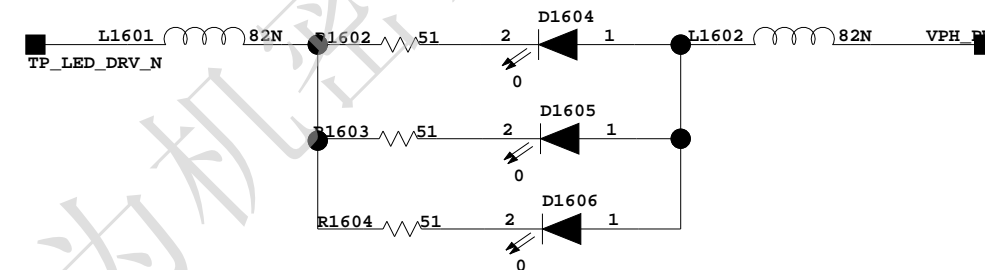
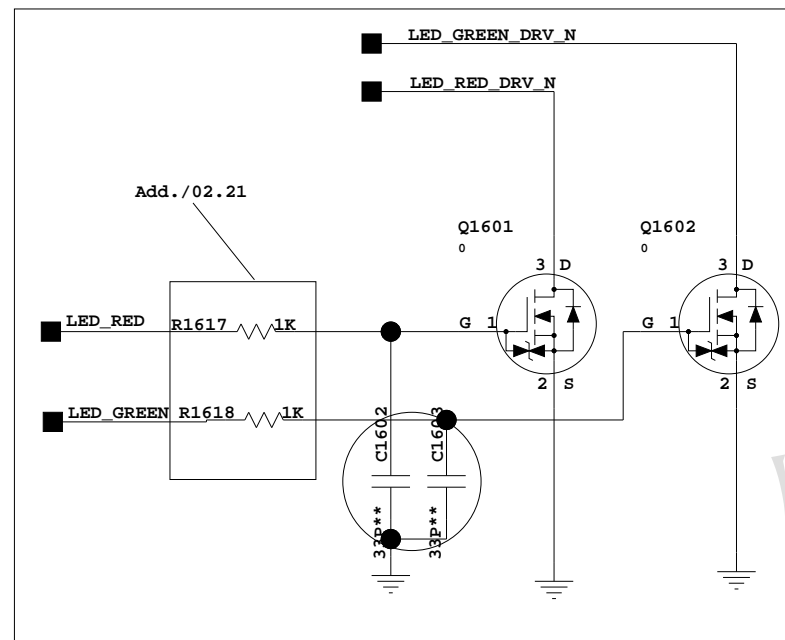
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DESIGNED	HUYIXIAN 00143037	HD2U8951M		00667074
REVIEWED	YAODAYI 00167997	VER	PART_NUMBER	SHEET 15 OF 37
		A	03021PBV	HUAWEI TECH CO.,LTD.

16. Keypad/Touch/indicator

TP Connector circuit should be carefully reviewed for every project



Volume&Power Key



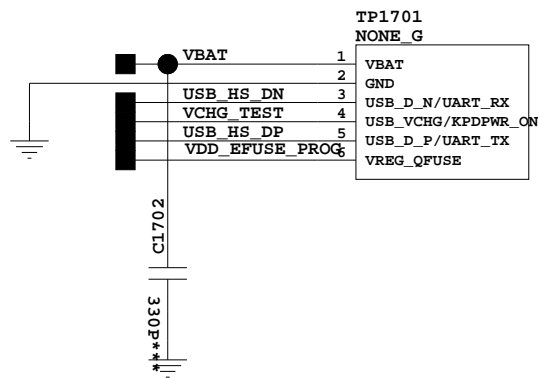
Dual SIM card, status indicator
For signal SIM card, R1617, R1618, R1605, R1606, Q1601, Q1602 DNI

The type and specification of the components refer to the BOM

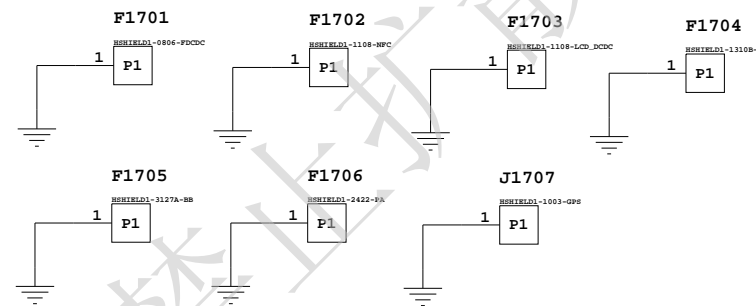
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DESIGNED	XIEFENG 00163838				
		HD2U8951M			00667074
REVIEWED	CDMA ANDROID GROUP				
		VER	PART_NUMBER	SHEET 16 OF 37	
		A	03021PBV	HUAWEI TECH CO.,LTD.	

17. Test Points/JTAG/Shields

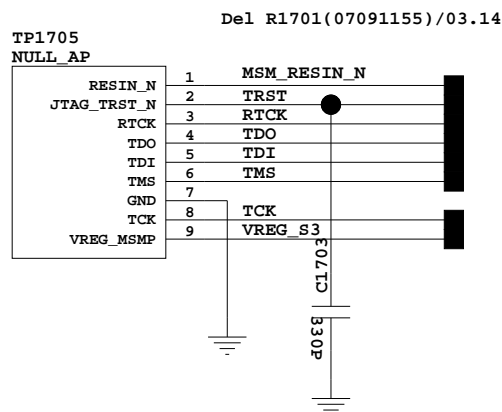
TEST POINT for CT and BT



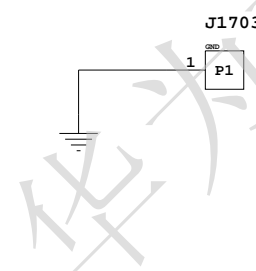
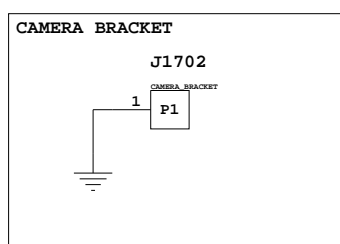
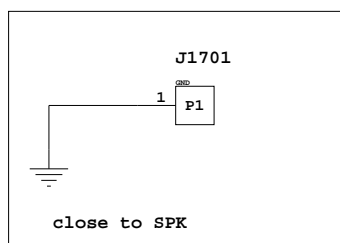
Shielding



JTAG



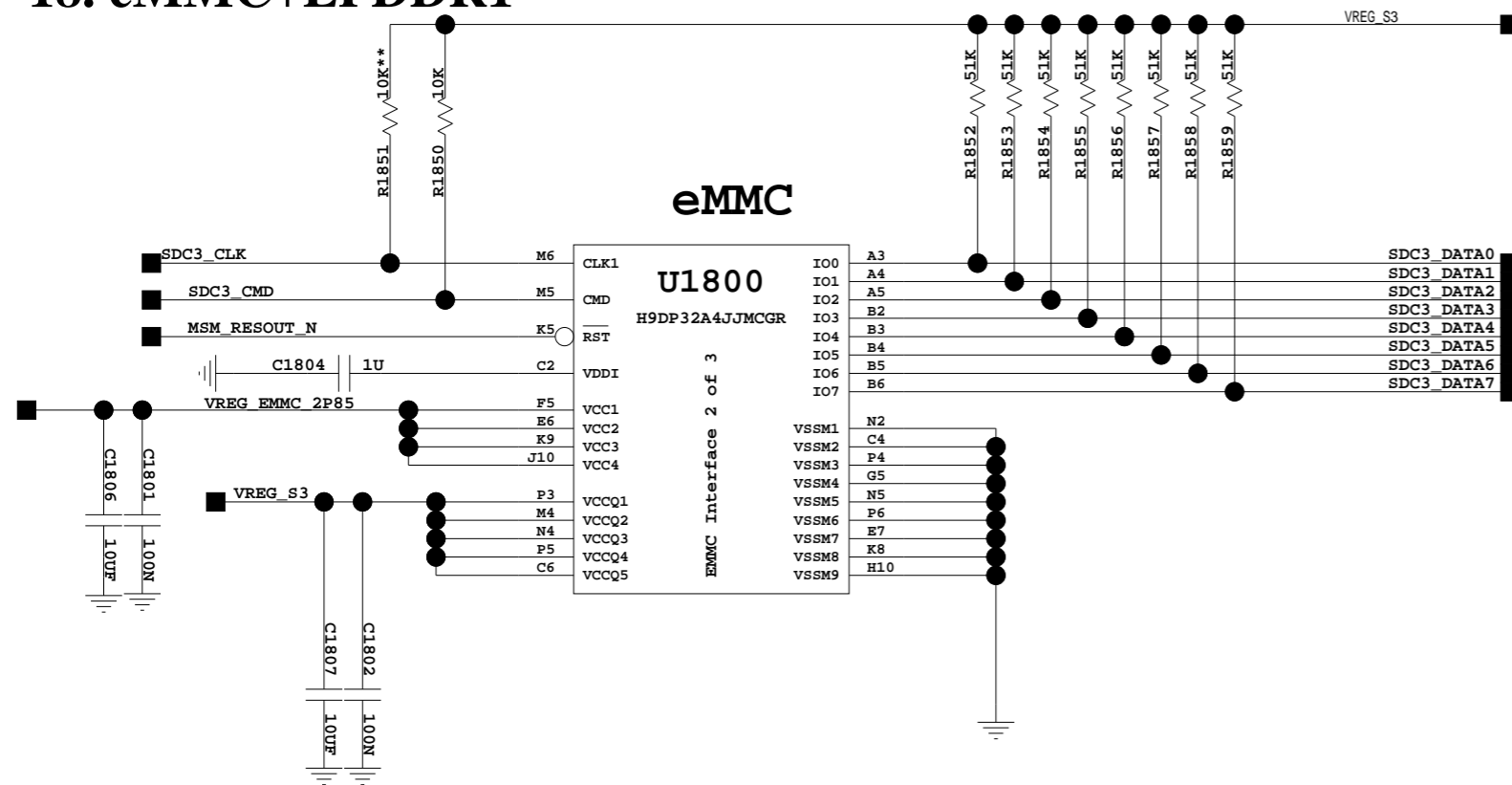
NOTES: place PS_HOLD near JTAG



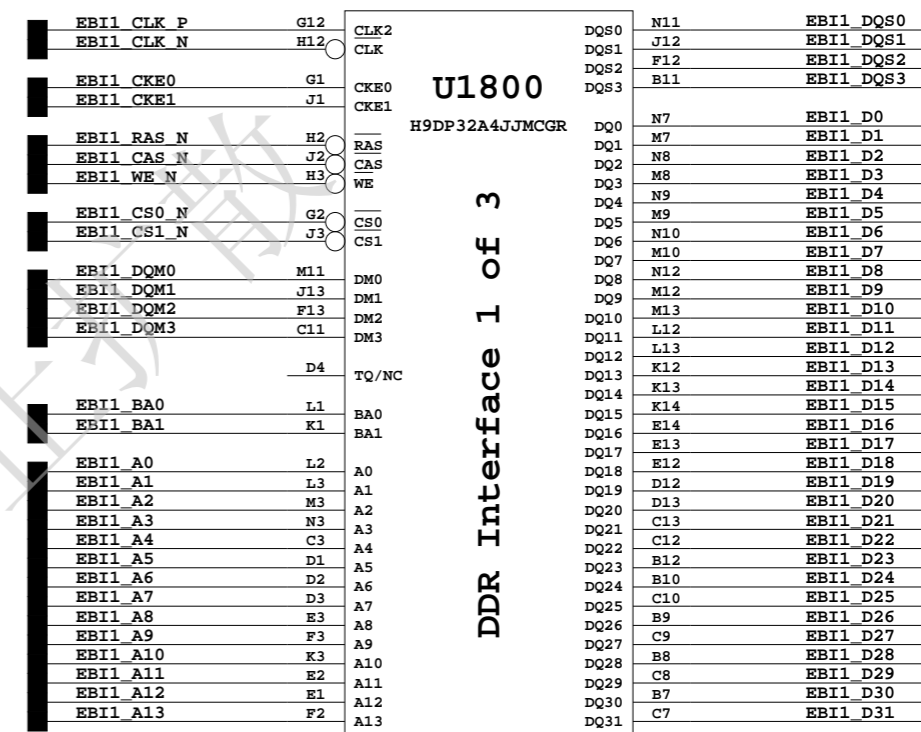
The type and specification of the components refer to the BOM

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DESIGNED	XIEFENG 00163838	HD2U8951M		00667074	
REVIEWED	CDMA ANDROID GROUP	VER	PART_NUMBER	SHEET 17 OF 37	
		A	03021PBV	HUAWEI TECH CO.,LTD.	

18. eMMC+LPDDR1



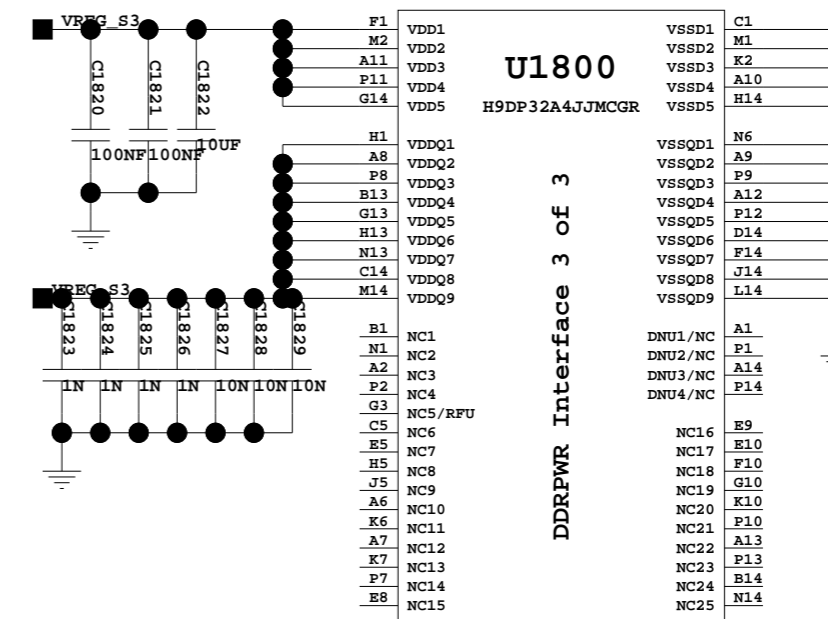
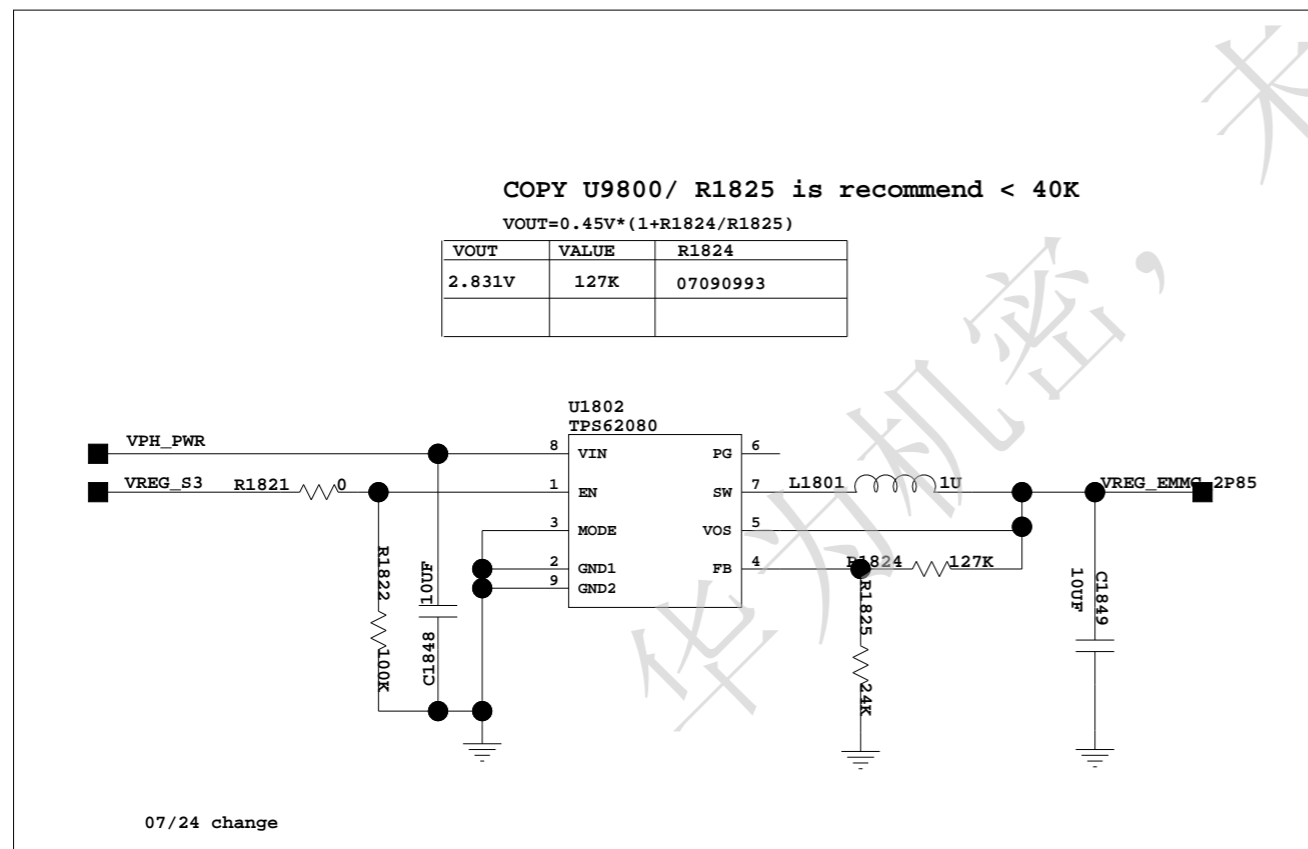
LPDDR1



COPY U9800/ R1825 is recommend < 40K

$$VOUT = 0.45V * (1 + R1824 / R1825)$$

VOUT	VALUE	R1824
2.831V	127K	07090993

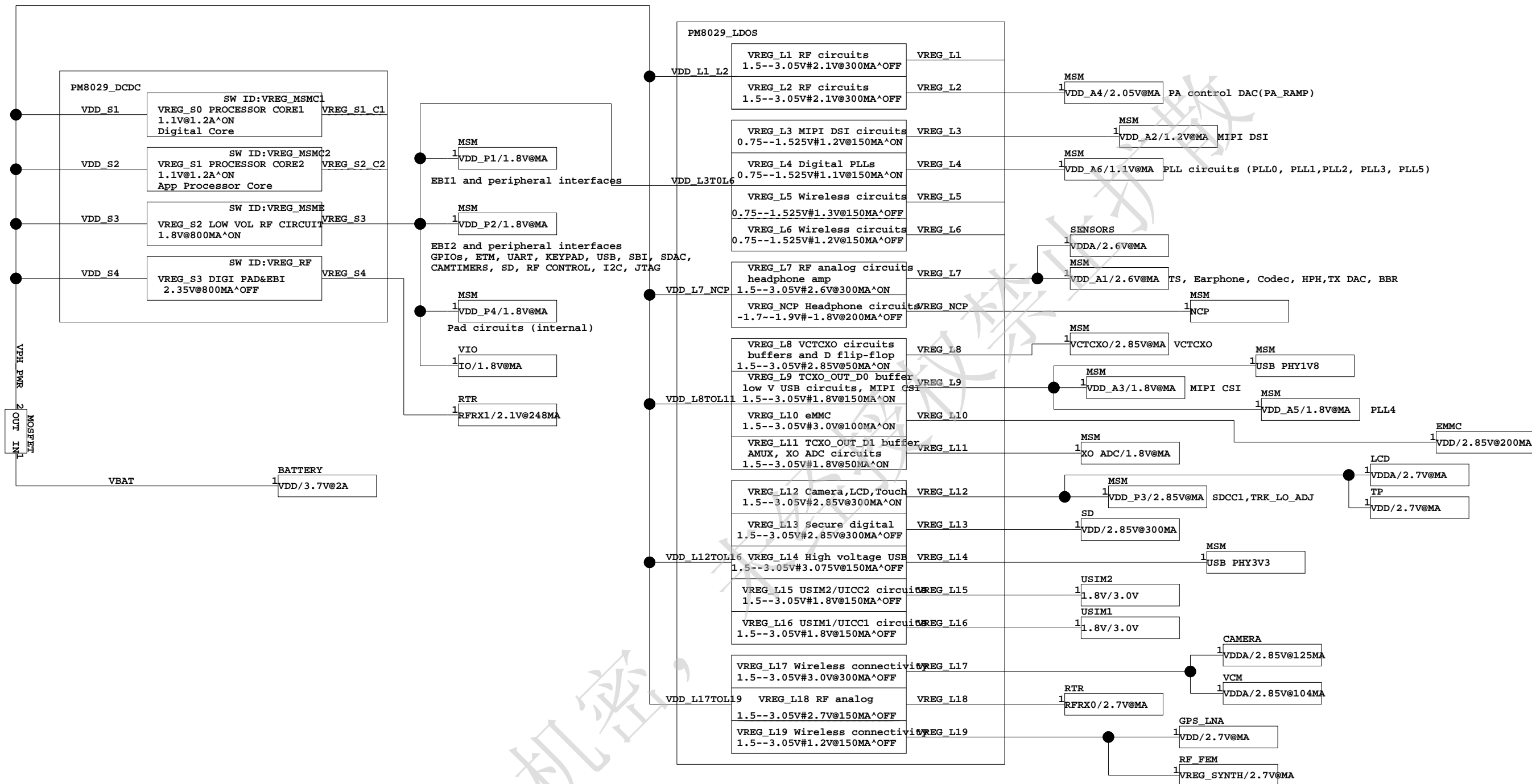


The type and specification of the components refer to the BOM

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				ECA NO	DATE
DESIGNED	LIYOU/54531	HD2U8951M		00595681	
REVIEWED	LIYOU/54531	VER	PART_NUMBER	SHEET 18 OF 37	
		D	03020XKD	HUAWEI TECH CO.,LTD.	

07/24 change

19. Power Map

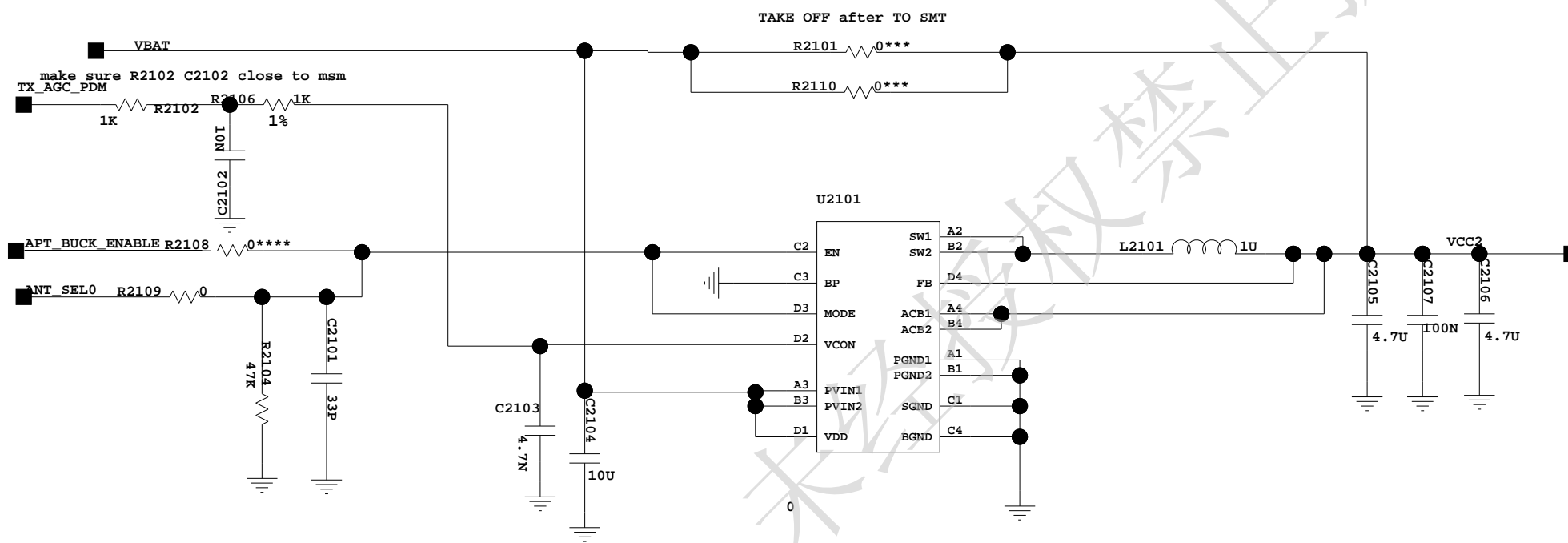


华为机密

The type and specification of the components refer to the BOM

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				ECA NO	DATE
DESIGNED	XIEFENG 00163838	HD2U8951M		00604032	
REVIEWED	CDMA ANDROID GROUP	VER	PART_NUMBER	SHEET 19 OF 35	
		B	03020WGA	HUAWEI TECH CO.,LTD.	

21. DCDC FOR RF PA



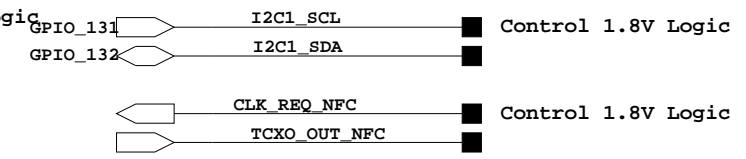
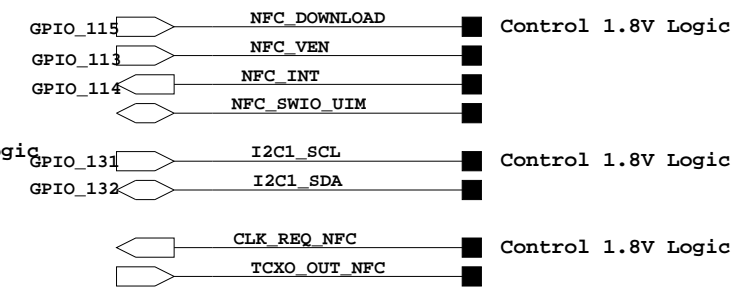
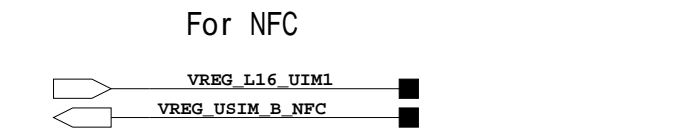
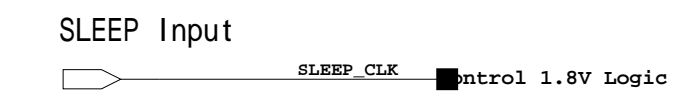
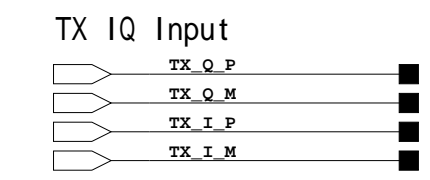
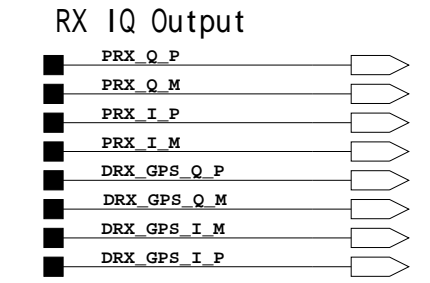
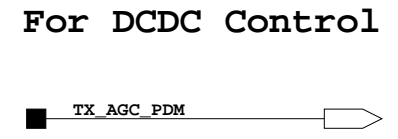
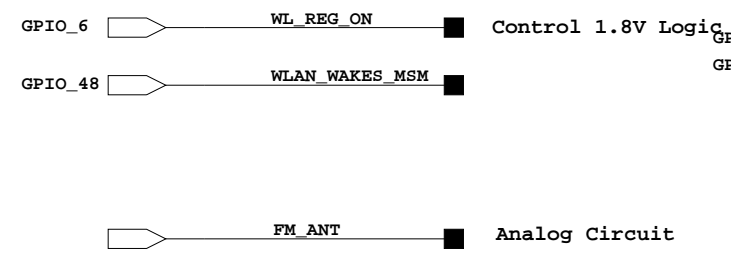
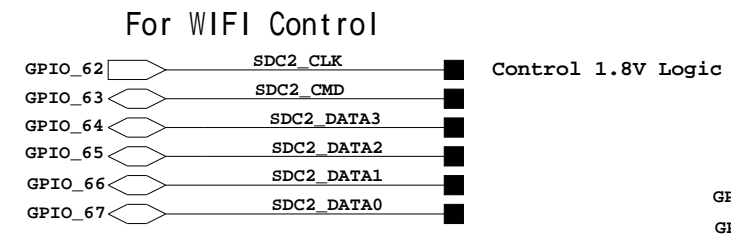
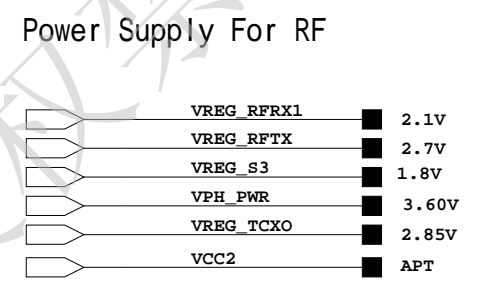
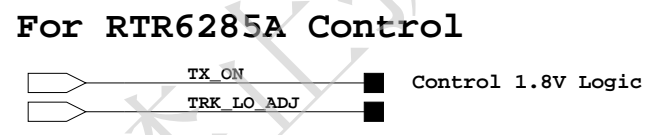
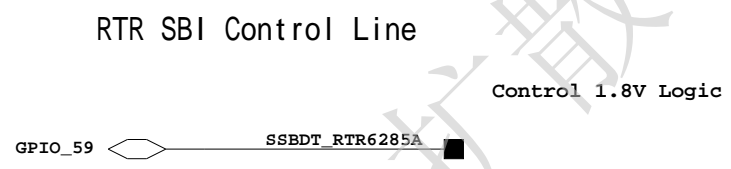
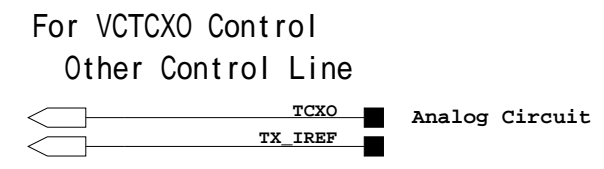
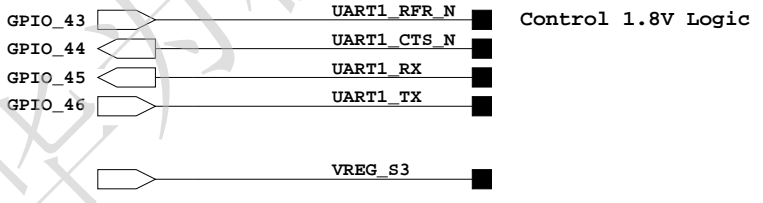
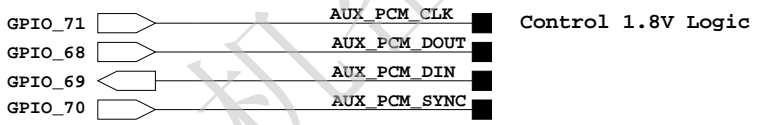
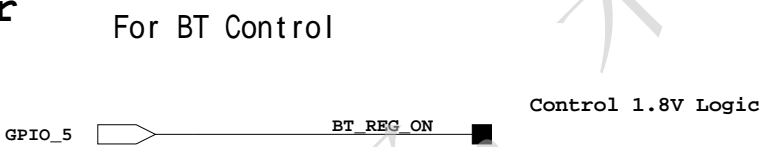
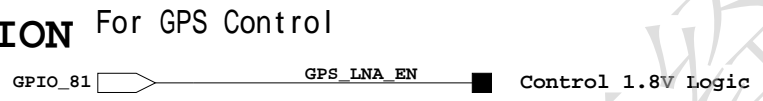
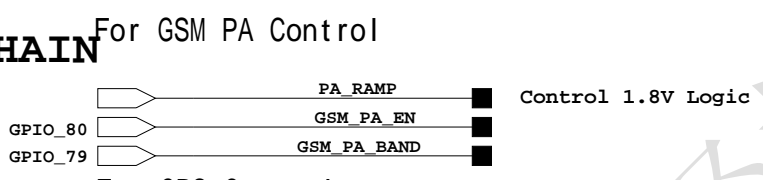
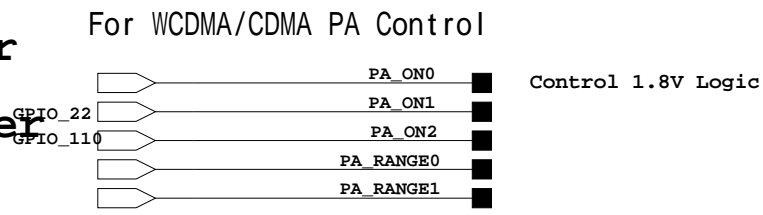
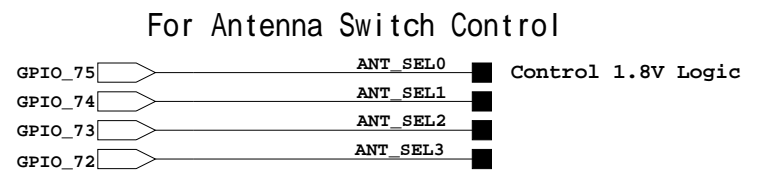
The type and specification of the components refer to the BOM

				NA	2010-7-30
				ECA NO	DATE
DESIGNED	LIYOU/54531	HD2U8951M		00604032	
REVIEWED	LIYOU/54531	VER	PART_NUMBER	SHEET 20 OF 37	
		B	03020WGA	HUAWEI TECH CO.,LTD.	

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23. RF INPUT OUTPUT PORTS

- 20. DCDC For RF PA
- 21. RF Input Output Ports
- 22. 19.2MHz VCTCXO
- 23. Antenna Switchplexer
- 24. WCDMA IMT Power Amplifier
- 25. WCDMA CELL Power Amplifier
- 26. GSM Quad_band_PA
- 27. RX MATCHING CIRCUIT
- 28. UMTS IMT RX INTERSTAGE CHAIN
- 29. RTR6285A CIRCUIT
- 30. RTR6285A POWER DISTRIBUTION
- 31. GPS
- 32. WCDMA PCS Power Amplifier
- 33. NA
- 34. NFC
- 35. BT FM WCN2243
- 36. AR6005 BB
- 37. AR6005 RF

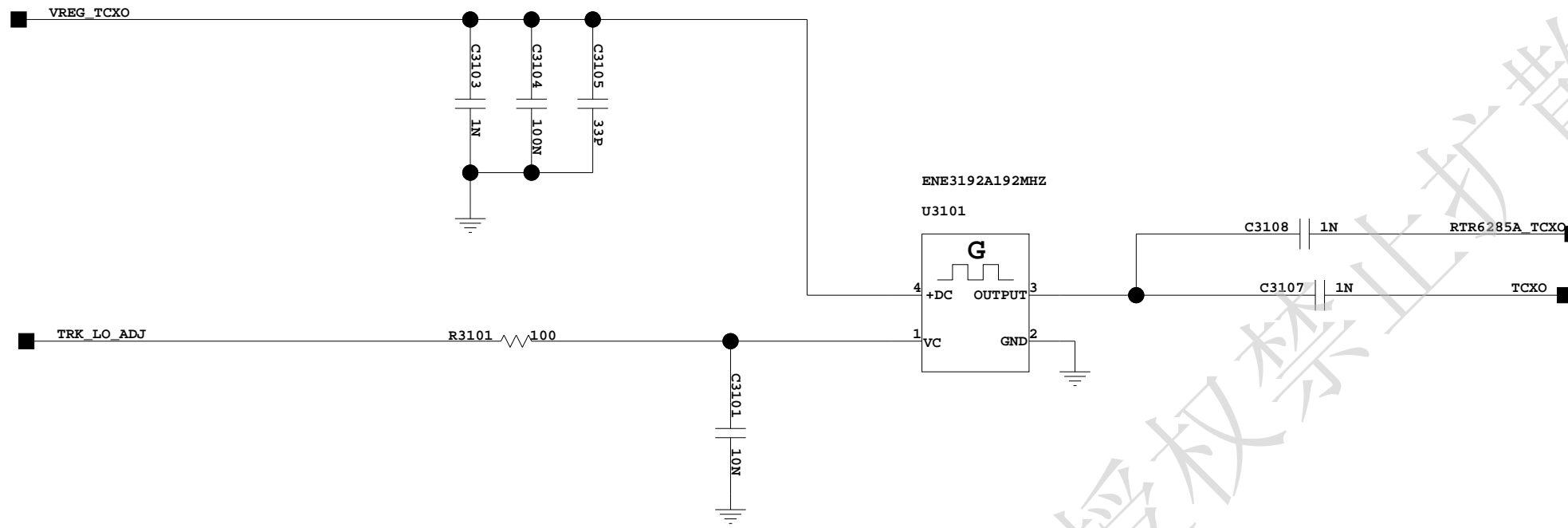


The type and specification of the components refer to the BOM

				NA	2007-12-28
				ECA NO	DATE
DESIGNED	ZHANGWENFU 00135043	HD2U8951M	00586863		
REVIEWED					
	RF TMG	VER	PART_NUMBER	SHEET 21 OF 37	
		A	03020WKU	HUAWAI TECH CO.,LTD.	



23. 19.2MHz VCTCXO/APT DCDC



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The type and specification of the components refer to the BOM

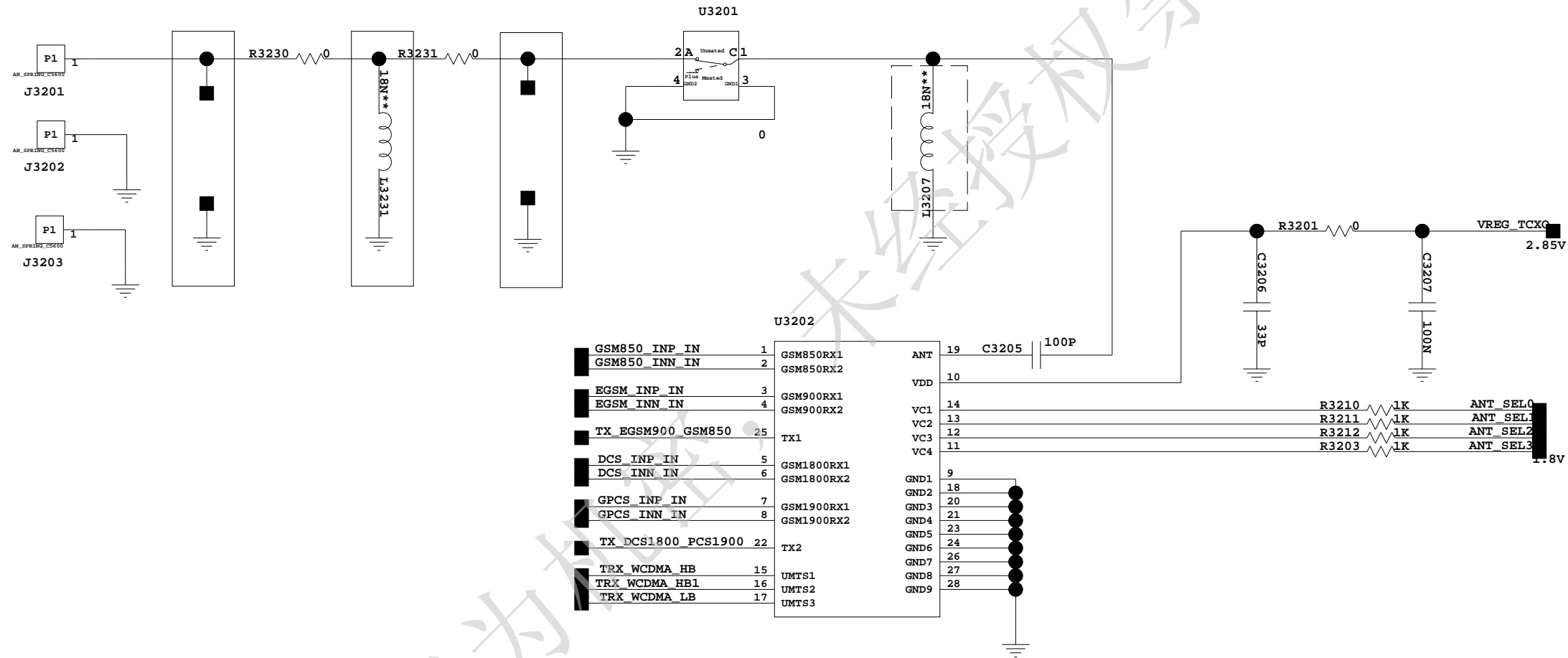
				NA	
				ECA NO	DATE
DESIGNED	FANLEI 00132967	HD2U8951M		6711221_SCH4ZH	
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 22 OF 39	
		A	03021GTT	HUAWEI TECH CO.,LTD.	

32. Antenna Switchplexer

MODE	TX FREQ	RX FREQ	PWR CLASS	PWR
GSM850	824-849	869-894	4	33
GSM900	880-915	925-960	4	33
GSML800	1710-1785	1805-1880	1	30
GSML900	1850-1910	1930-1990	1	30
WCDMA IMT	1920-1980	2110-2170	3	24
WCDMA PCS	1850-1910	1930-1990	3	24
WCDMA CELL	824-849	869-894	3	24

		ANT_SEL0	ANT_SEL1	ANT_SEL2	ANT_SEL3
GCELL/EGSM_TX	GSM850/900 TX	1	1	0	0
DCS/PCS_TX	GSM1800/1900 TX	1	0	0	0
DCS_RX	GSM1800 RX	0	0	1	0
PCS_RX	GSM1900 RX	0	0	0	0
EGSM_RX	GSM900 RX	0	1	0	0
GCELL_RX/CUT	GSM850 RX	0	1	1	0
UMTS1		1	0	1	0
UMTS2		1	0	1	1
UMTS3		1	1	1	0

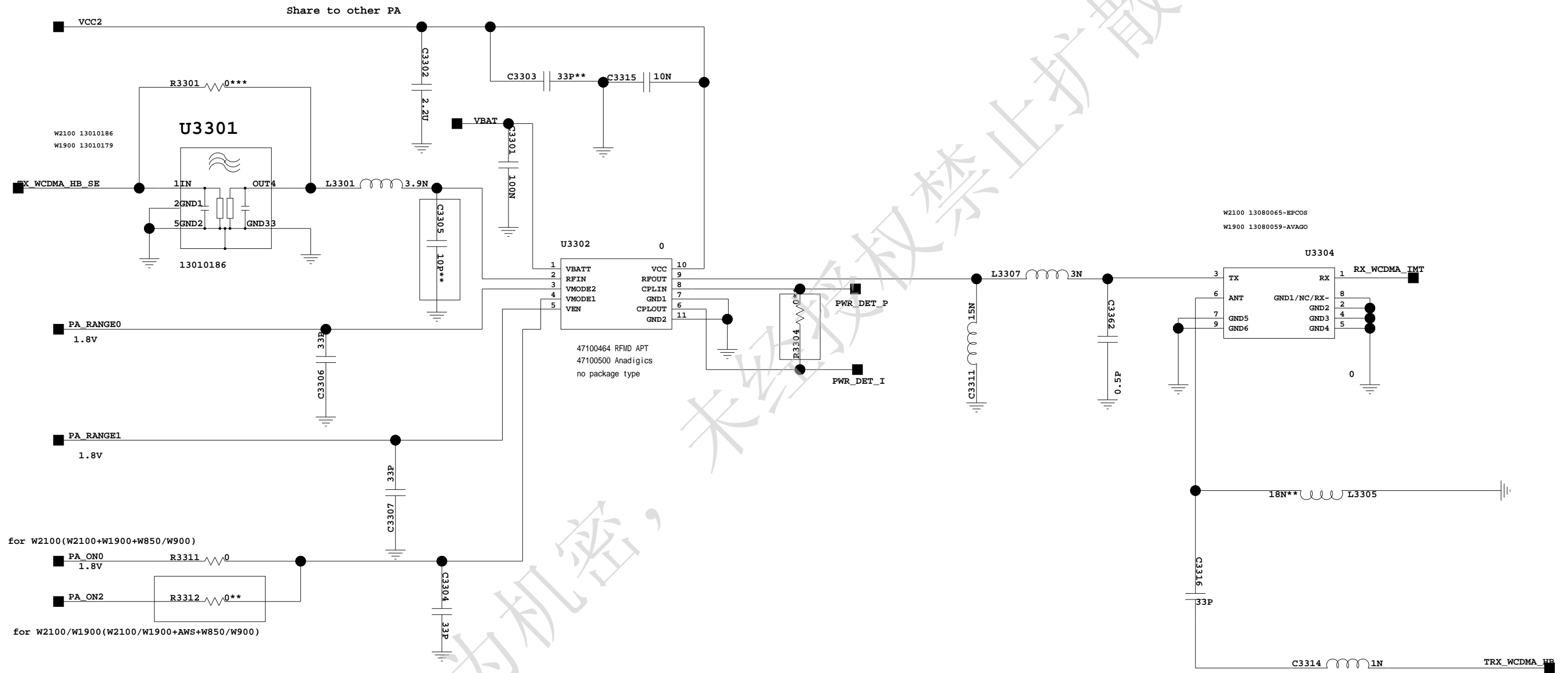
ant spring:51621024, need Pi+L match
coaxial connector:14240060



The type and specification of the components refer to the BOM

		NA	
		ECA NO	DATE
DESIGNED	ZHANGWENFU 00135043	HD2U8951M	00586863
REVIEWED			
	RF TMG	VER	PART_NUMBER
		A	03020WKU
		SHEET 23 OF 37	
		HUAWEI TECH CO.,LTD.	

26. WCDMA IMT Power Amplifier



The type and specification of the components refer to the BOM

WCDMA_PA_ON0/ON1	PA STATE
H	ON
L	OFF

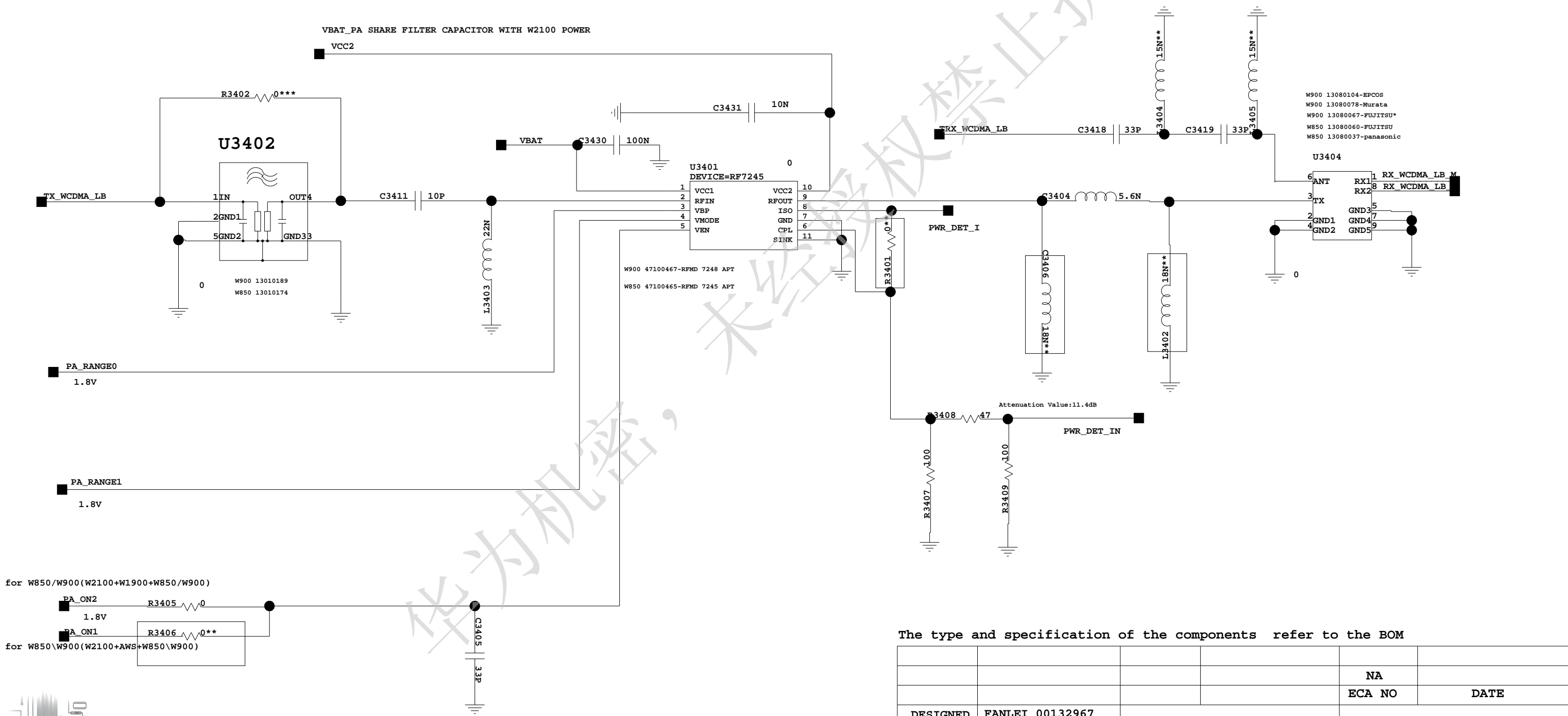
PA_VMODE0	PA_VMODE1	MODE
L	L	High Power
L	H	Middle Power
H	H	Low Power

WCDMA_PA_ON0	W2100
WCDMA_PA_ON1	W1900
WCDMA_PA_ON2	W850/900

DESIGNED	FANLEI 00132967	HD2U8951M	6711221_SCH4ZH
REVIEWED	RF TMG	VER	PART_NUMBER
		A	03021GTT
			SHEET 24 OF 37
			HUAWEI TECH CO.,LTD.

27. WCDMA CELL Power Amplifier

	W850		W900	
	Part number	CODE	Part number	CODE
U3401	ACPM_7311_TR1	47100231	ACPM_7371_TR1	47100187
U3402	B9425	13010174	SAFEB897MAL0F00R14	13010154
U3404	B7640	13080035	B7681	13080029



The type and specification of the components refer to the BOM

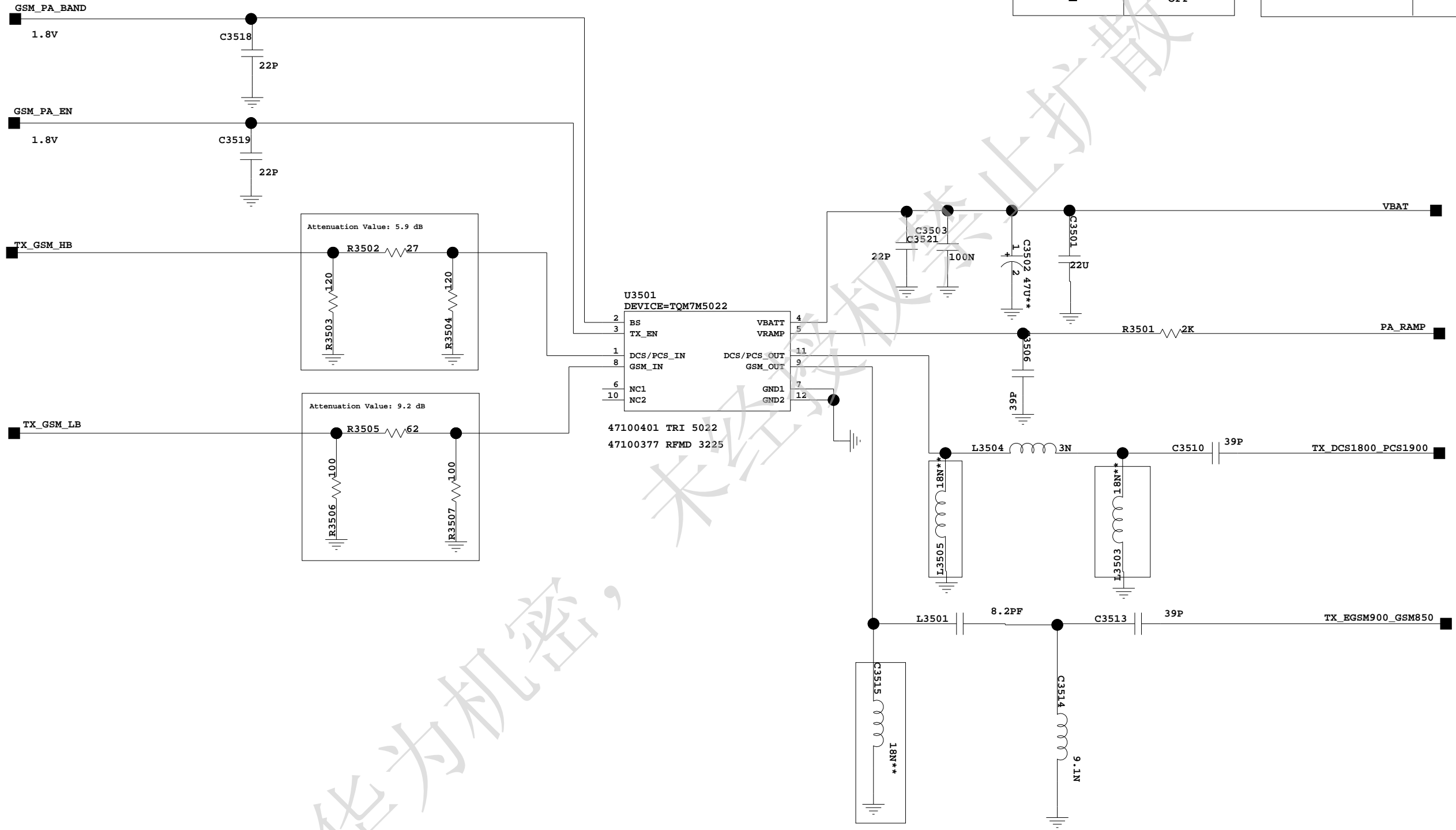
				NA
				ECA NO
				DATE
DESIGNED	FANLEI 00132967	HD2U8951M		6711221_SCH4ZH
REVIEWED	RF TMG	VER	PART_NUMBER	SHEET 25 OF 37
		A	03021GTT	HUAWEI TECH CO.,LTD.



28. GSM Quad_band_PA

GSM_PA_EN	PA
H	ON
L	OFF

GSM_PA_BAND	MODE
L	LOW BAND
H	HIGH BAND



The type and specification of the components refer to the BOM

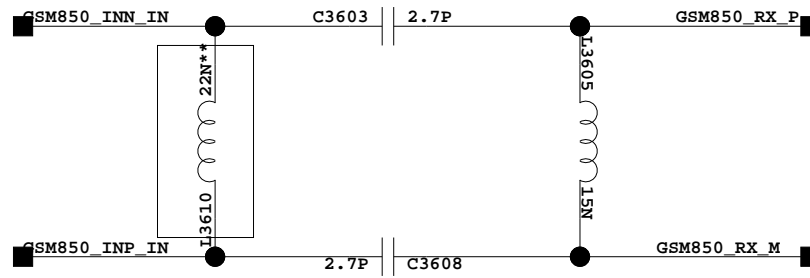
				NA	
				ECA NO	DATE
DESIGNED	FANLEI 00132967	HD2U8951M		6711221_SCH4ZH	
REVIEWED	RF TMG	VER	PART_NUMBER	SHEET	26 OF 37
		A	03021GTT	HUAWAI TECH CO.,LTD.	



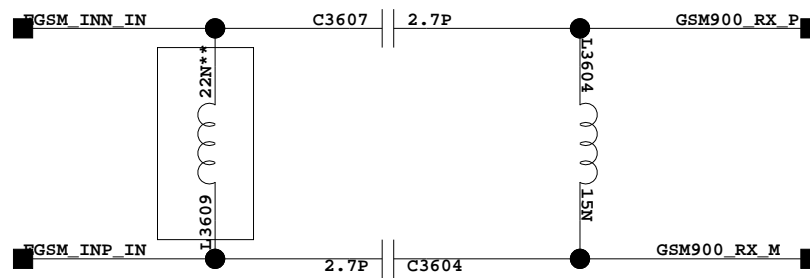
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29. RX MATCHING CIRCUIT

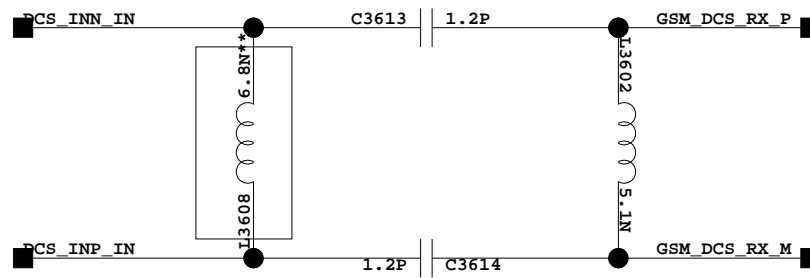
GSM850 RX MATCHING



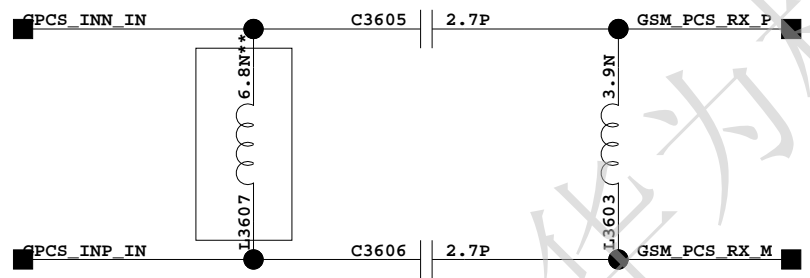
GSM900 RX MATCHING



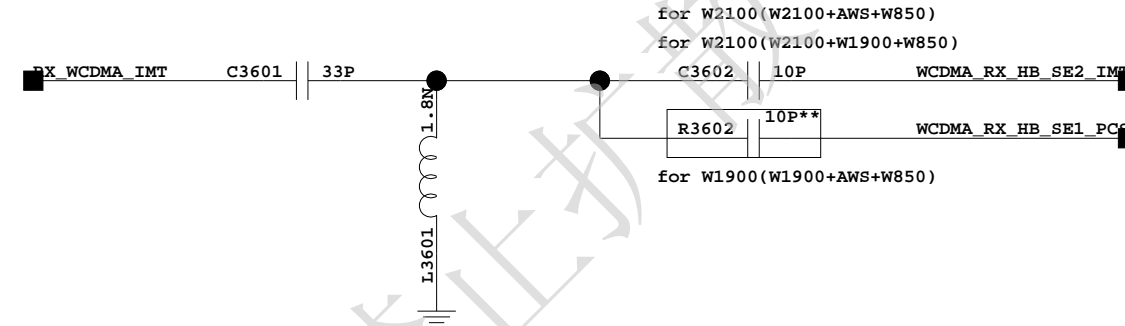
GSM1800 RX MATCHING



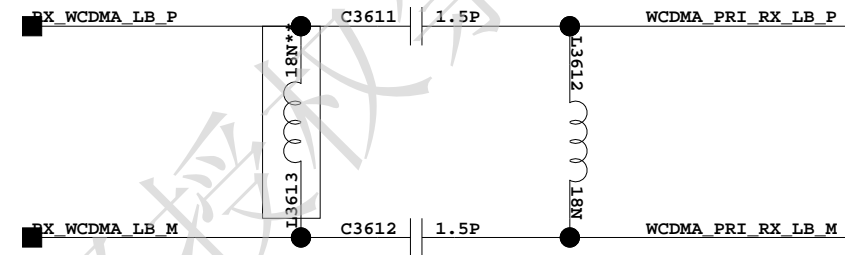
PCS1900 RX MATCHING



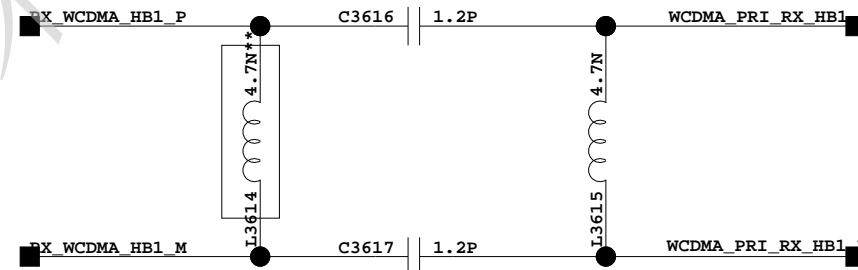
W2100 PRIMARY RX MATCHING



W850/900 PRIMARY RX MATCHING



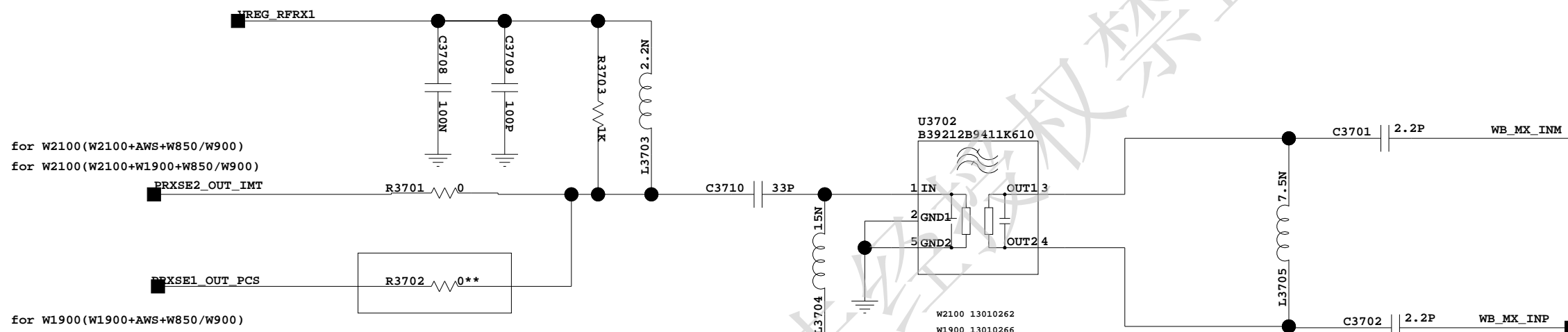
PCS PRIMARY RX MATCHING



The type and specification of the components refer to the BOM

				NA	
				ECA NO	DATE
DESIGNED	FANLEI 00132967	HD2U8951M		6711221_SCH4ZH	
REVIEWED	RF TMG	VER	PART_NUMBER	SHEET 27 OF 37	
		A	03021GTT	HUAWAI TECH CO.,LTD.	

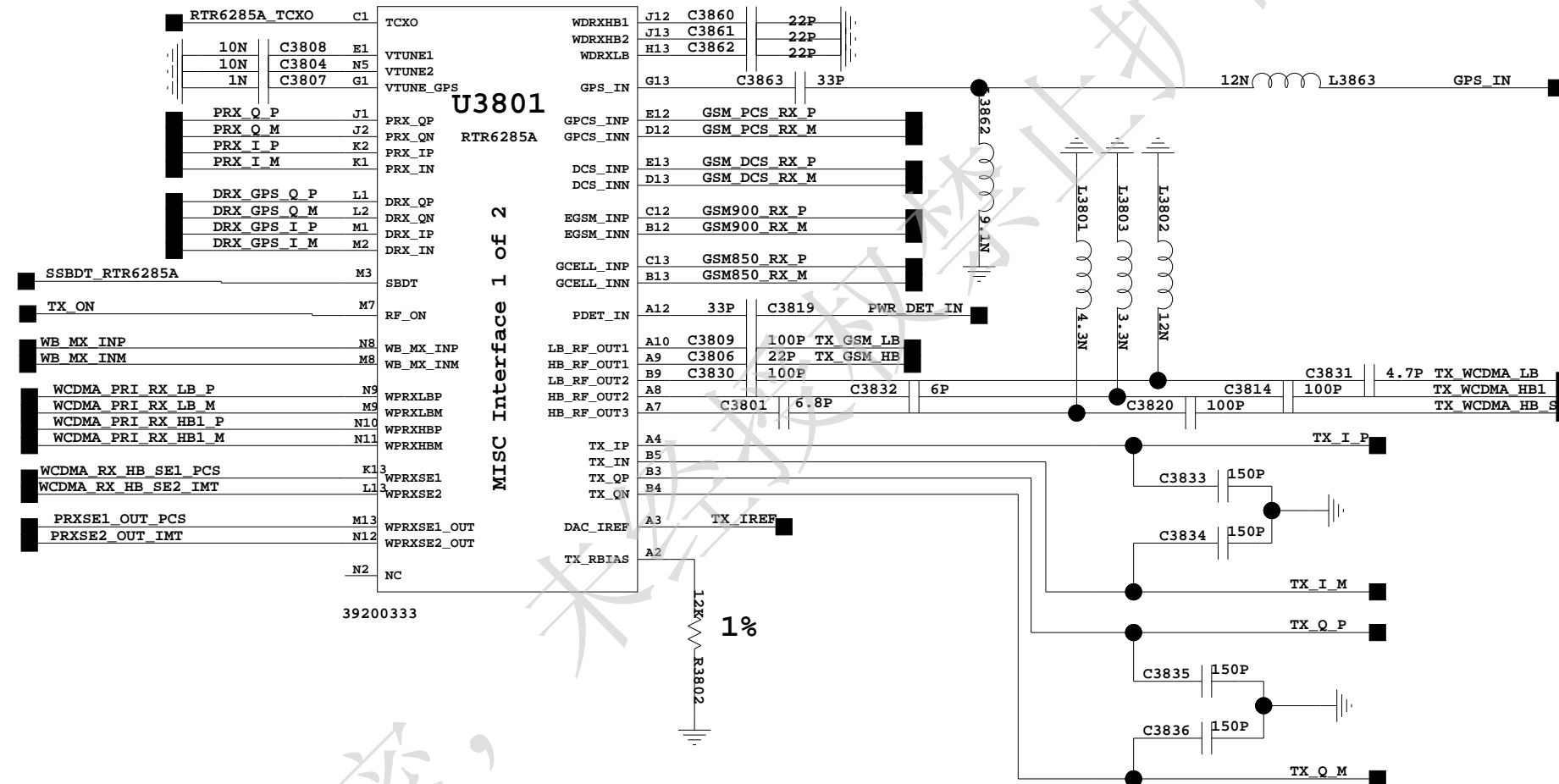
30. UMTS IMT RX INTERSTAGE CHAIN



The type and specification of the components refer to the BOM

				NA	
				ECA NO	DATE
DESIGNED	FANLEI 00132967	HD2U8951M		6711221_SCH4ZH	
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 28 OF 37	
		A	03021GTT	HUAWEI TECH CO.,LTD.	

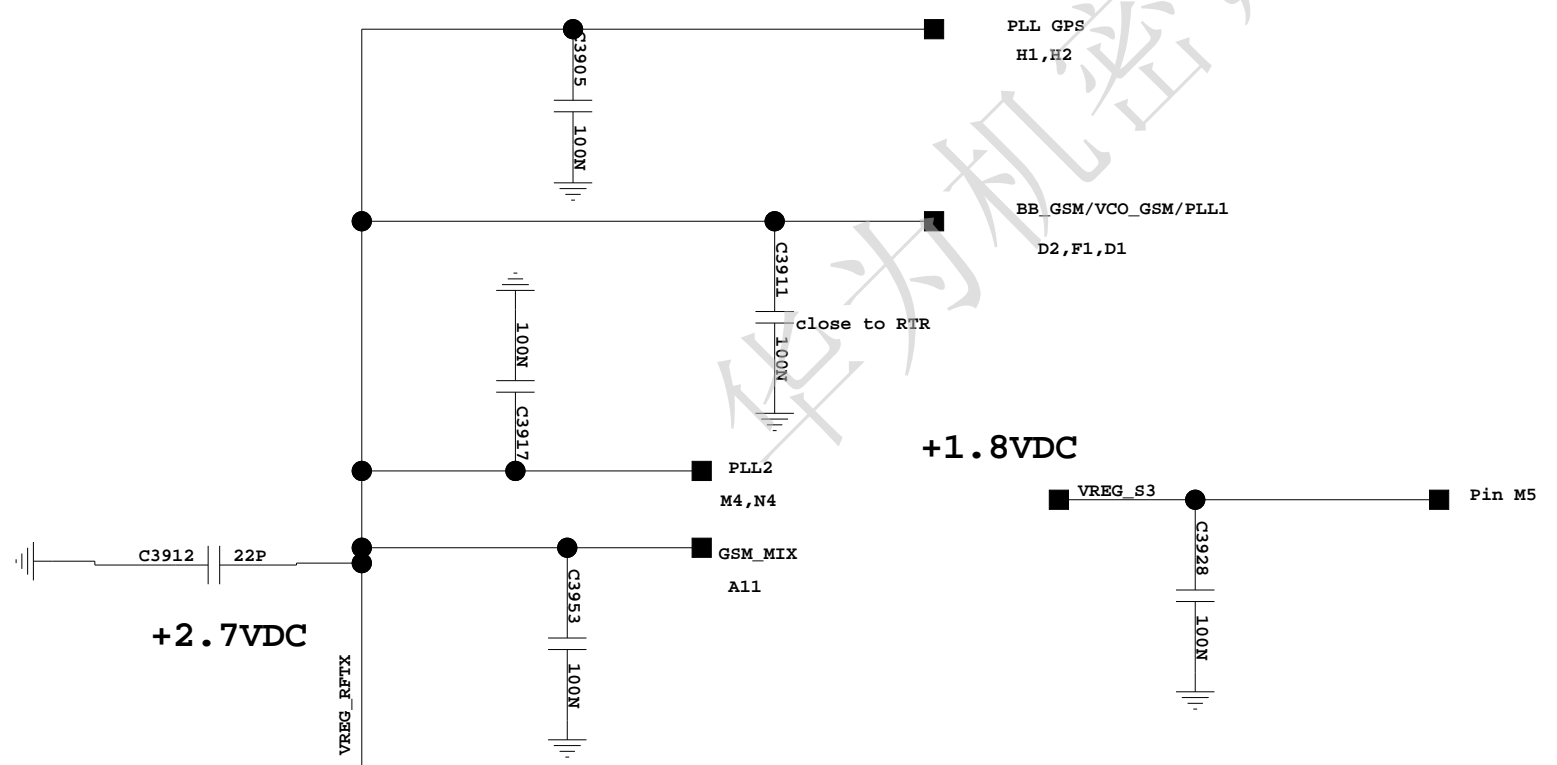
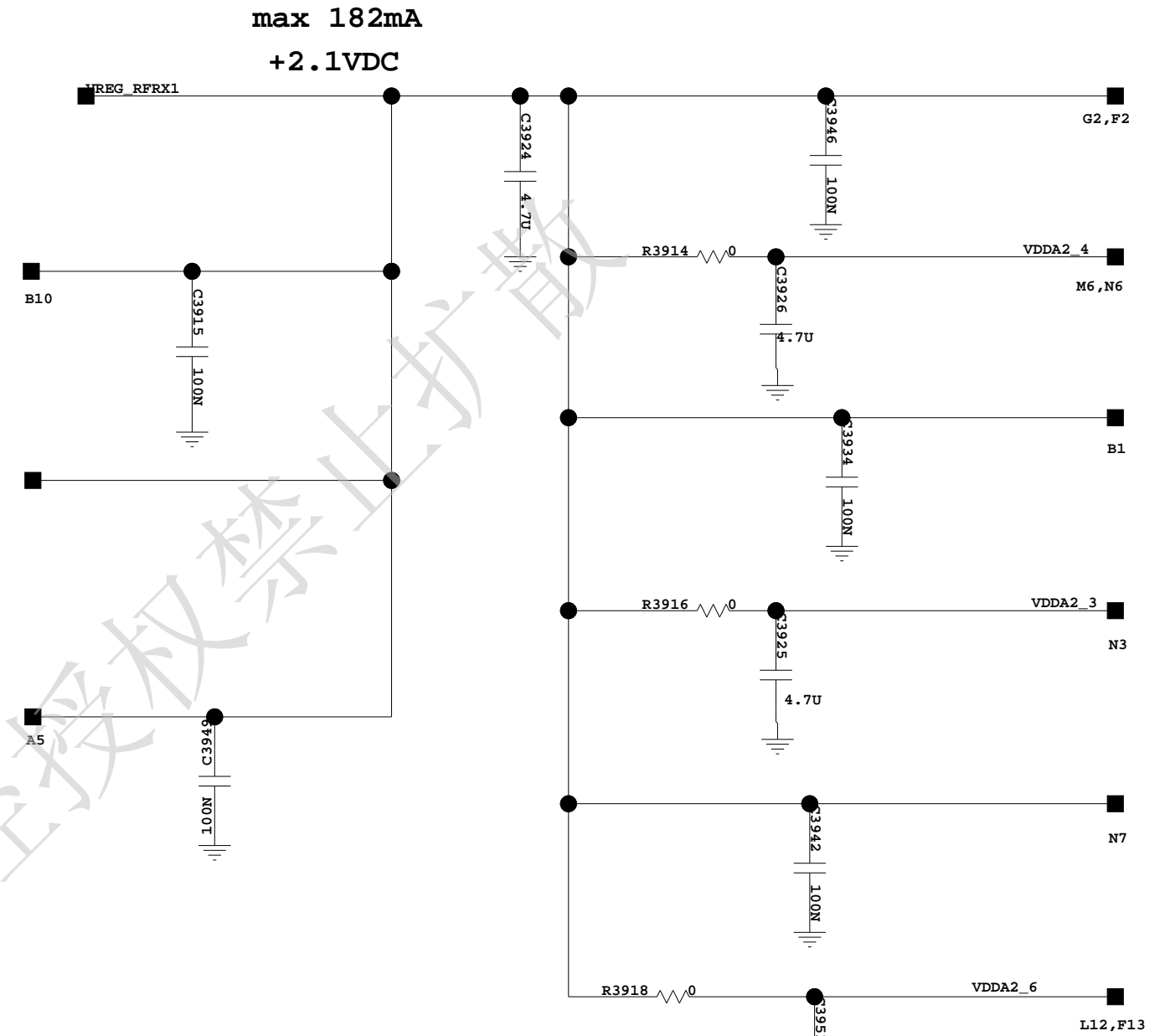
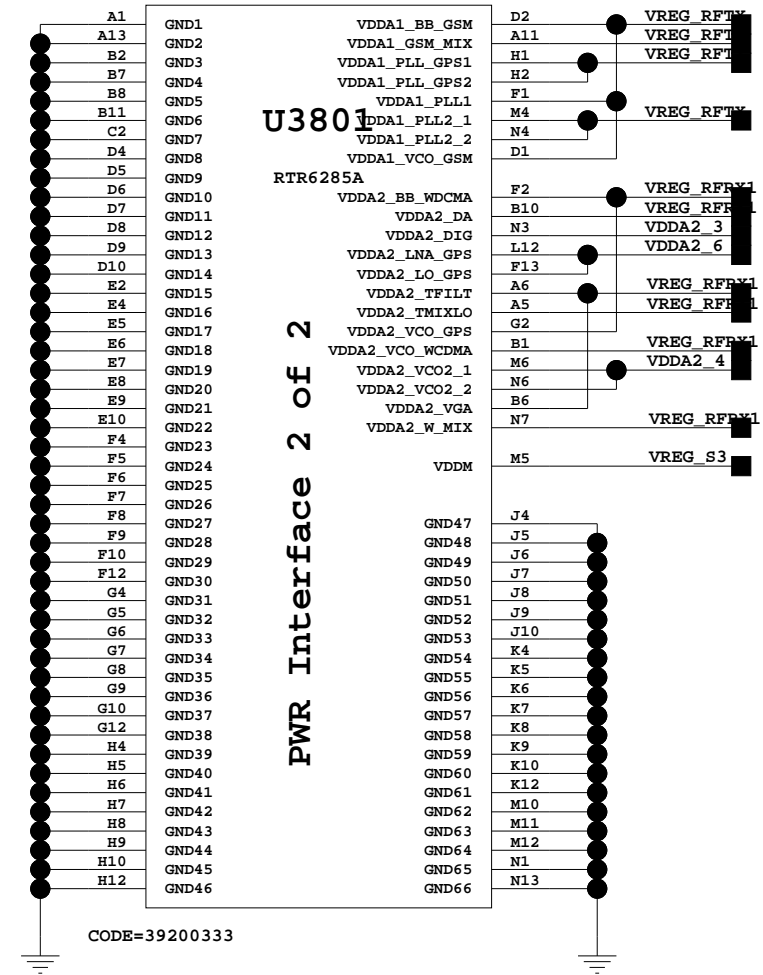
31. RTR6285A CIRCUIT



The type and specification of the components refer to the BOM

				NA
			ECA NO	DATE
DESIGNED	FANLEI 00132967	HD2U8951M		6711221_SCH4ZH
REVIEWED	RF TMG	VER	PART_NUMBER	SHEET 29 OF 37
		A	03021GTT	HUAWEI TECH CO.,LTD.

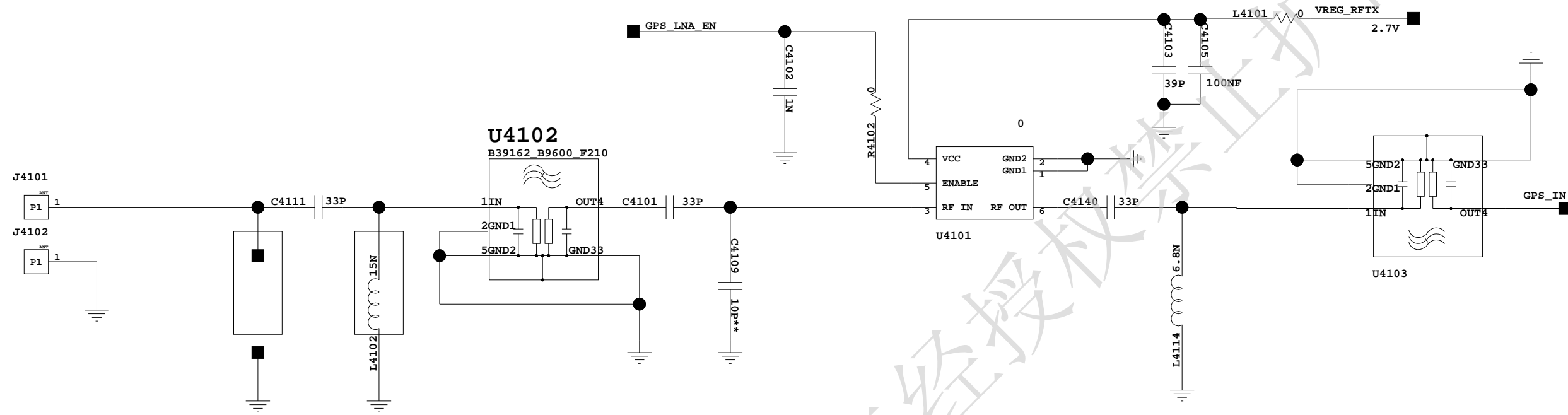
32. RTR6285A POWER DISTRIBUTION



The type and specification of the components refer to the BOM

DESIGNED	FANLEI 00132967	HD2U8951M	6711221_SCH4ZH
REVIEWED	RF TMG	VER	PART_NUMBER
		A	03021GTT
			SHEET 30 OF 37
			HUAWEI TECH CO.,LTD.

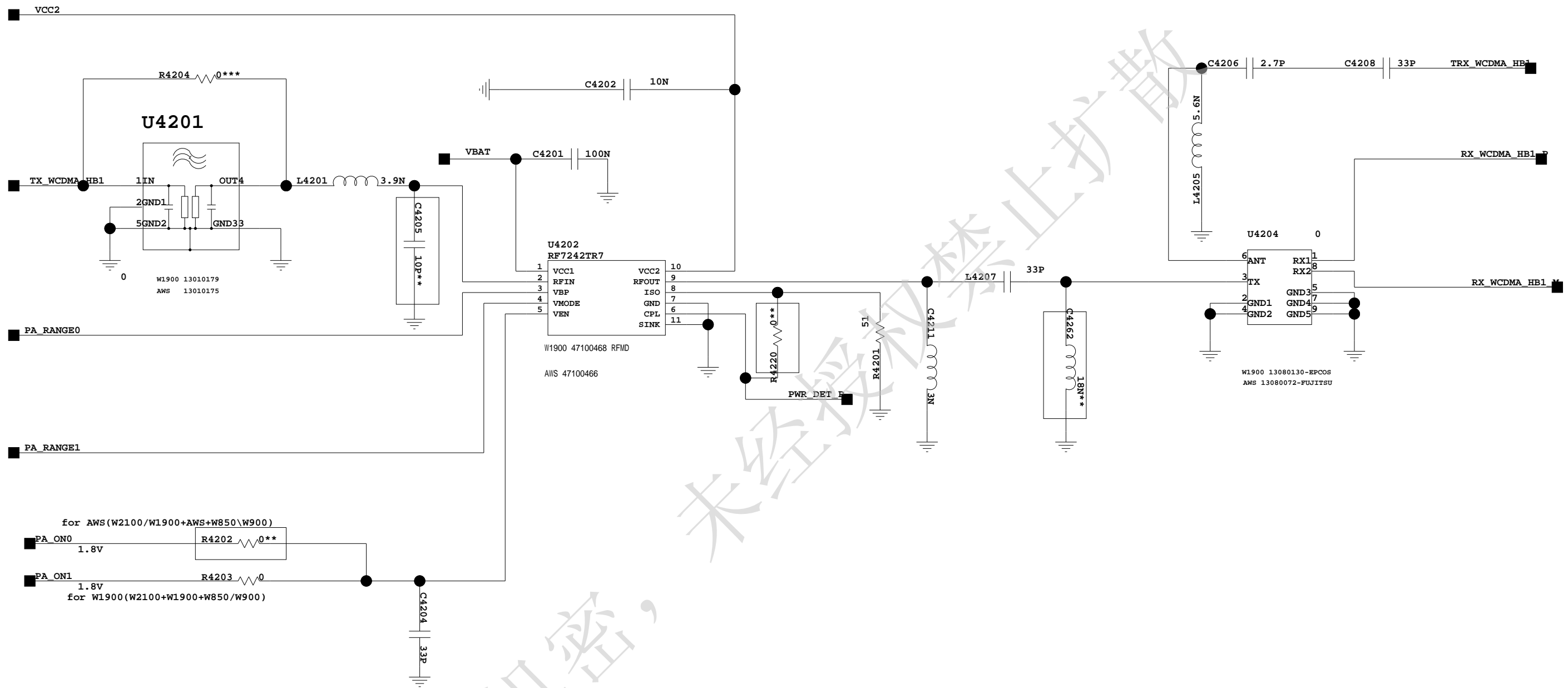
41.GPS



The type and specification of the components refer to the BOM

				NA	
				ECA NO	DATE
DESIGNED	FANLEI 00132967	HD2U8951M		6711221_SCH4ZH	
REVIEWED	RF TMG	VER	PART_NUMBER	SHEET 31 OF 37	
		A	03021GTT	HUAWEI TECH CO.,LTD.	

42.WCDMA PCS Power Amplifier



The type and specification of the components refer to the BOM

				NA	
				ECA NO	DATE
DESIGNED	FANLEI 00132967	HD2U8951M		6711221_SCH4ZH	
REVIEWED	RF TMG	VER	PART_NUMBER	SHEET 32 OF 37	
		A	03021GTT	HUAWAI TECH CO.,LTD.	

43. UMTS RX DIVERSITY

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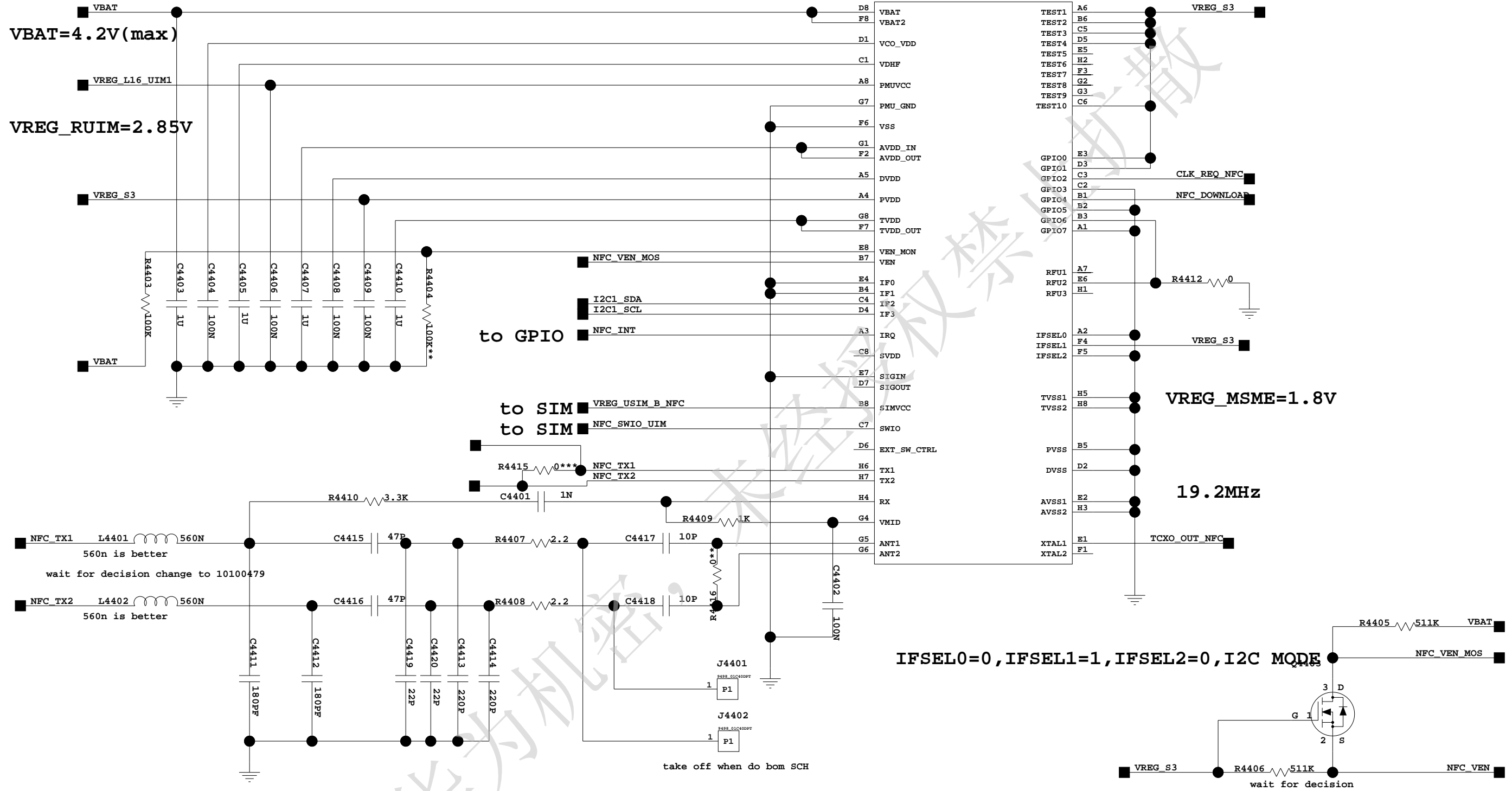
The type and specification of the components refer to the BOM

				NA	2009-04-15
				ECA NO	DATE
DESIGNED	FANLEI 00132967	HD2U8951M		6711221_SCH5ZH	
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 33 OF 39	
		A	03021GTT	HUAWEI TECH CO.,LTD.	



36. NFC

IF0=IF1=GND, I2C ADDRESS is 0x50(0x28+R/W)



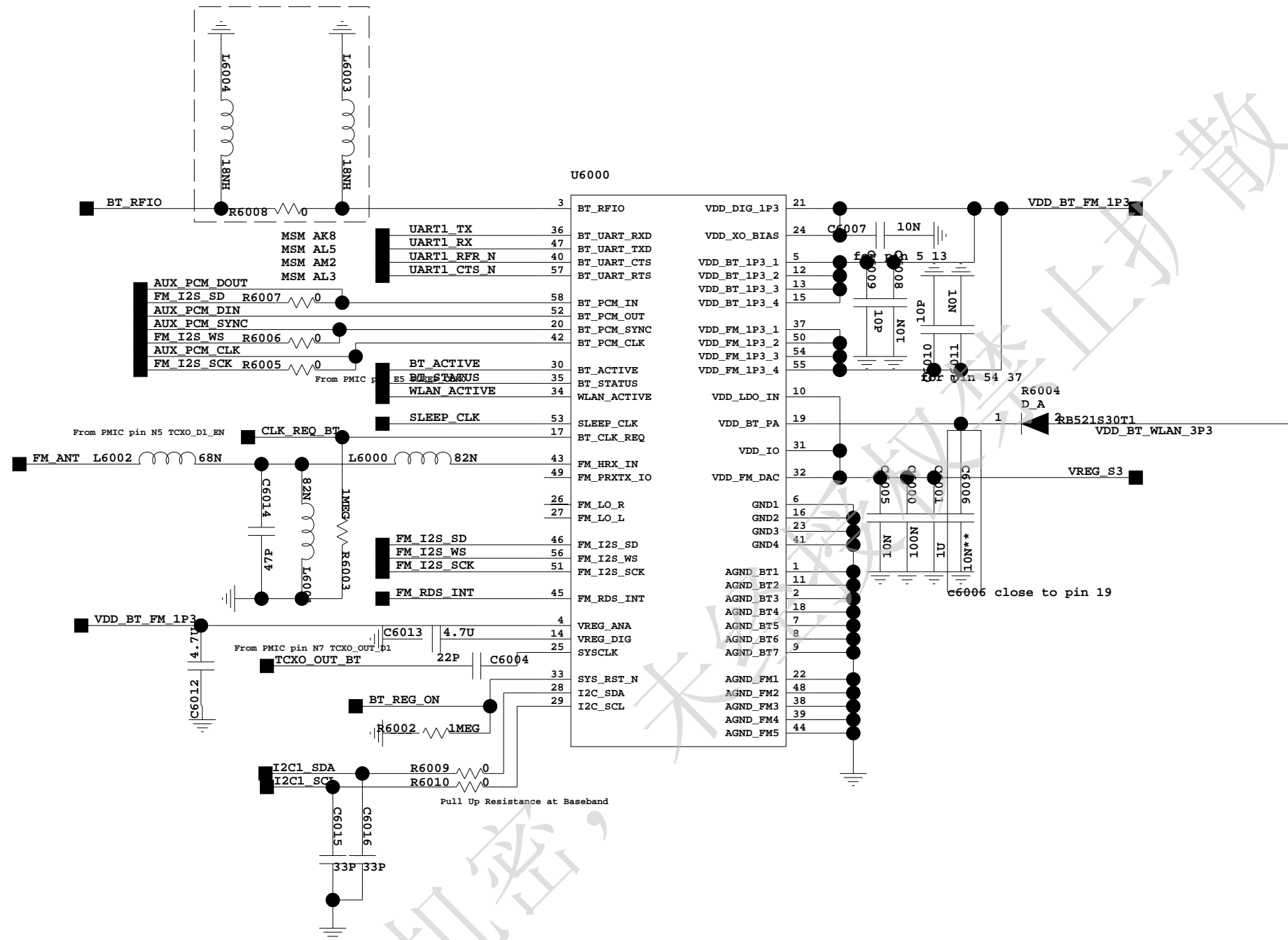
IFSEL0=0, IFSEL1=1, IFSEL2=0, I2C MODE

The type and specification of the components refer to the BOM

				NA	@DATETIME=8-31-2012_10:15
				ECA NO	DATE
DESIGNED	ZHANGWENFU 00135043	HD2U8951M		00651446	
REVIEWED	RF TMG	VER	PART_NUMBER	SHEET 34 OF 37	
		C	03021BWF	HUAWEI TECH CO.,LTD.	



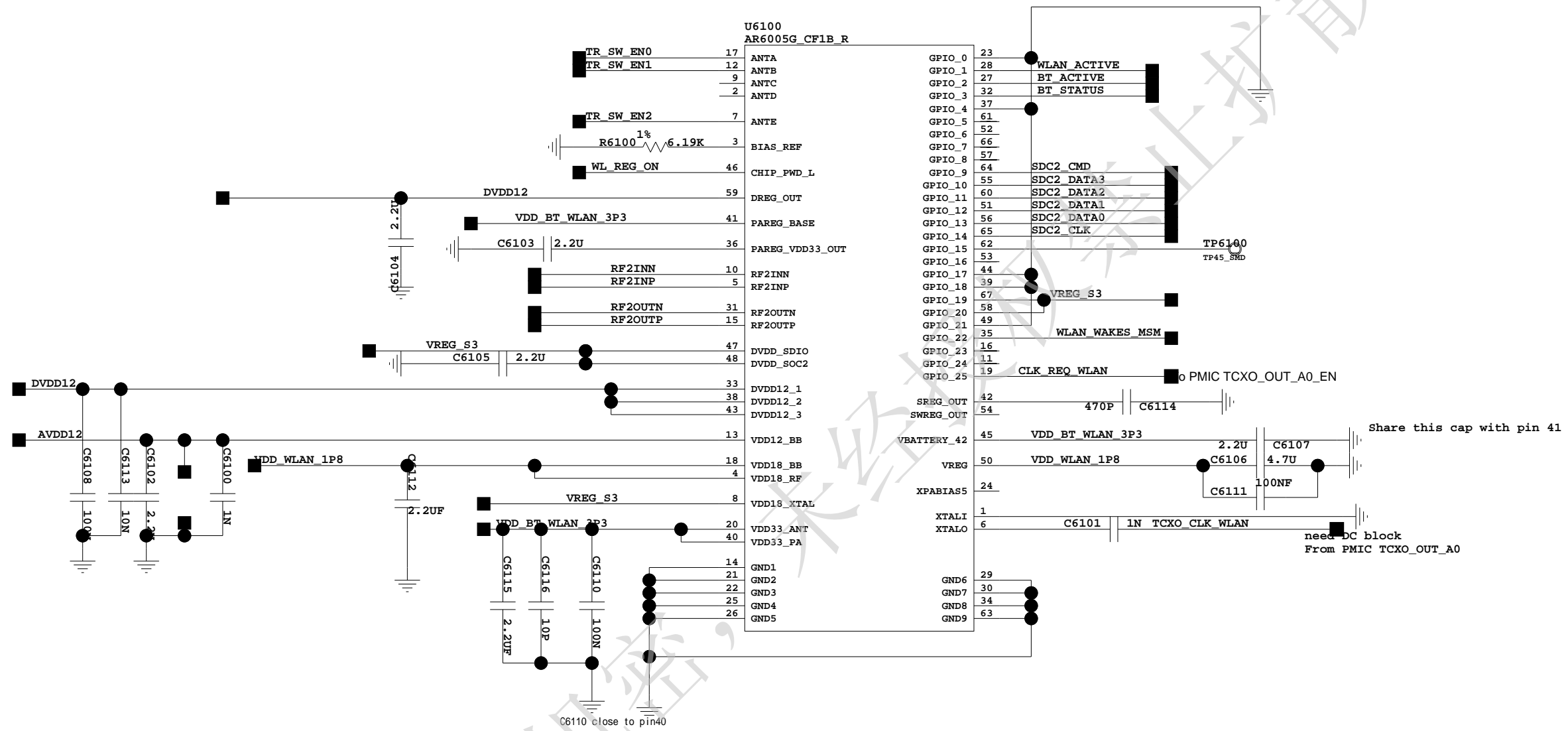
60.BT FM WCN2243



The type and specification of the components refer to the BOM

				NA	2010-03-15
				ECA NO	DATE
DESIGNED	ZHANGKUI 00140080	HD2U8951M		6711221_SCH5ZH	
REVIEWED	WANGAIMENG 165565				
		VER	PART_NUMBER	SHEET 35 OF 37	
		B	03021GTT	HUAWAI TECH CO.,LTD.	

61.AR6005 BB



HMODE[1,0]	interface mode
11	SDIO
10	GSPI

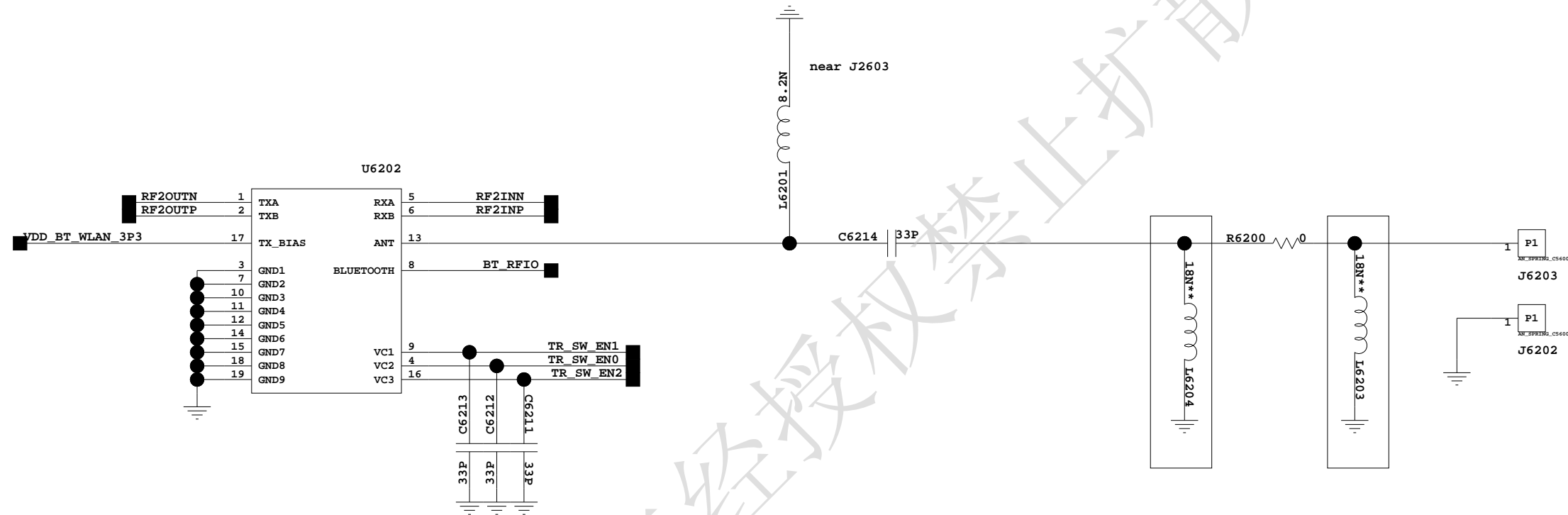
The type and specification of the components refer to the BOM

				NA	
				ECA NO	DATE
DESIGNED	ZHANGKUI 00140080	HD2U8951M		6711221_SCH5ZH	
REVIEWED	LIUHONGTAO 163002	VER	PART_NUMBER	SHEET 36 OF 37	
		A	03021GTT	HUAWAI TECH CO.,LTD.	



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62.AR6005 RF



ture table

V1	V2	J1-J2	J1-J3
0	Vhigh	Insertion loss	Isolation
Vhigh	0	Isolation	Insertion loss

Vhigh=3-5V

The type and specification of the components refer to the BOM

				NA	
				ECA NO	DATE
DESIGNED	ZHANGKUI 00140080	HD2U8951M		6711221_SCH5ZH	
REVIEWED	LIUHONGTAO 163002	VER	PART_NUMBER	SHEET 37 OF 37	
		A	03021GTT	HUAWEI TECH CO.,LTD.	