

# 1.HD1U2801M SCHEMATIC

- |   |   |
|---|---|
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|---|---|

The type and specification of the components refer to the BOM

					2011-09-01
				ECA NO	DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 28255				
		VER	PART_NUMBER	SHEET 01 OF 26	
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>	

# 2. GPIO Mapping

GPIO0	GSM_SAW_SW_GSM850
GPIO1	SDCC1_CMD
GPIO2	SDCC1_DATA0
GPIO3	SDCC1_DATA1
GPIO4	SDCC1_DATA2
GPIO5	SDCC1_DATA3
GPIO6	SDCC1_CLK
GPIO7	UART1_CTS_N
GPIO8	UART1_RFR_N
GPIO9	KEYPAD4
GPIO10	KEYPAD3
GPIO11	KEYPAD2
GPIO12	KEYPAD1
GPIO13	KEYPAD0
GPIO14	KEYSENSE4_N
GPIO15	KEYSENSE3_N
GPIO16	KEYSENSE2_N
GPIO17	KEYSENSE1_N
GPIO18	KEYSENSE0_N
GPIO19	AUX_PCM_SYNC
GPIO20	AUX_PCM_DIN
GPIO21	AUX_PCM_DOUT
GPIO22	AUX_PCM_CLK
GPIO23	NFC_CLK_REQ
GPIO24	CAMIF_PCLK
GPIO25	CAMIF_HSYNC
GPIO26	CAMIF_VSYNC
GPIO27	CAMIF_RST
GPIO28	
GPIO29	
GPIO30	CAMIF_DATA2
GPIO31	CAMIF_DATA3
GPIO32	CAMIF_DATA4
GPIO33	CAMIF_DATA5

GPIO34	CAMIF_DATA6
GPIO35	CAMIF_DATA7
GPIO36	CAMIF_DATA8
GPIO37	CAMIF_DATA9
GPIO38	CAMIF_MCLK
GPIO39	I2C_SDA
GPIO40	I2C_SCL
GPIO41	HEADSET_DET
GPIO42	SCAM_RST (GP_CLK)
GPIO43	FM_RST_N
GPIO44	LCD_ID0
GPIO45	USIM_RST
GPIO46	USIM_CLK
GPIO47	USIM_DATA
GPIO48	NAND_BUSY_N
GPIO49	GPS_LNA_EN
GPIO50	CAMIF_SHDN
GPIO51	SCAM_SHDN
GPIO52	LCD_ID1
GPIO53	NFC_INT
GPIO54	LCD_BL_CTRL
GPIO55	GPS_ADCI
GPIO56	GPS_SSBI
GPIO57	GPS_ADCCLK
GPIO58	GPS_ADCQ
GPIO59	ANT_SEL3
GPIO60	ANT_SEL2
GPIO61	ANT_SEL1
GPIO62	ANT_SEL0
GPIO63	PA_RANGE1
GPIO64	PA_RANGE0
GPIO65	RESERVED
GPIO66	GSM_SAW_SW_GSM900
GPIO67	RESERVED

GPIO68	RESERVED
GPIO69	RESERVED
GPIO70	RESERVED
GPIO71	RESERVED
GPIO72	RESERVED
GPIO73	RESERVED
GPIO74	CAMIF_ID
GPIO75	SCAM_ID
GPIO76	BT_RST_N
GPIO77	SDCC1_DETECT_N

LCD_DRV_N	LCD_DRV_N
MPP2	NFC_DLOAD_EN
MPP3	KPD_DRV_N
MPP4	NFC_VEN

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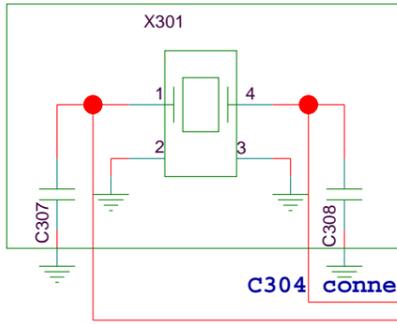
					2011-09-01
				ECA NO	DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255				
		VER	PART_NUMBER	SHEET 02 OF 26	
		C	03021DXK	HUAWEI TECH CO.,LTD.	

# 3. ANALOG

U601

ANALG & CTR Interface Iof 8

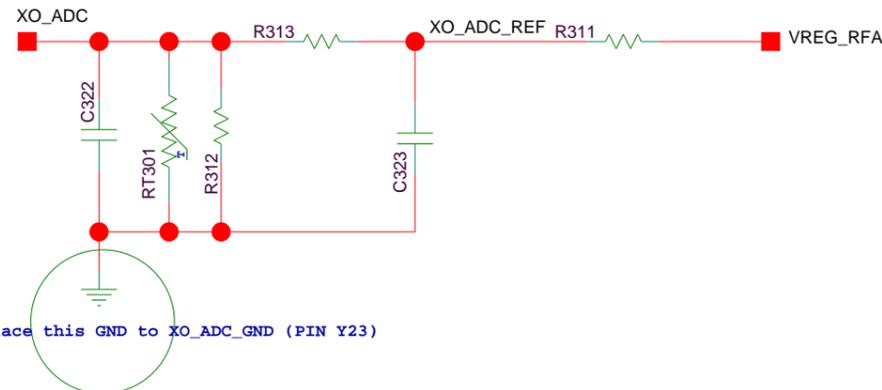
NOETS:19.2M XO is implement,  
X301/C307/C308 can be removed  
when SMPL and RTC are not needed.



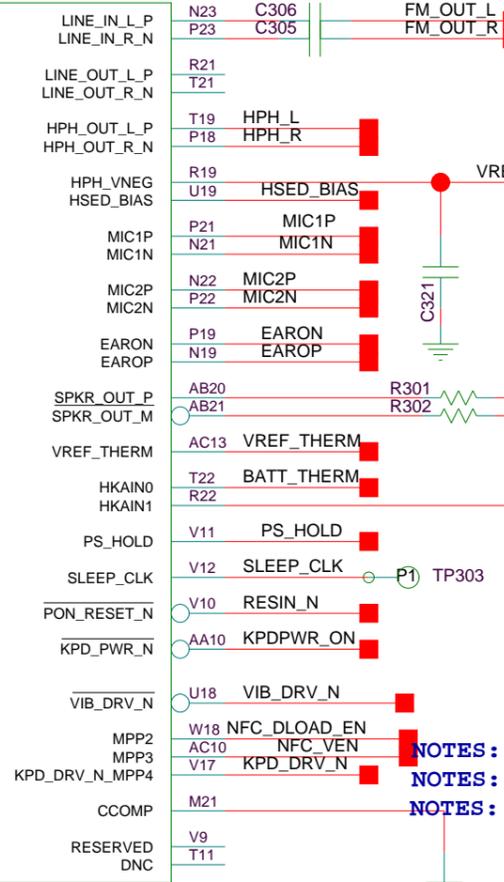
AB9 is GND\_NCP

C304 connect to AC1 which is REF\_GND

place this GND to XO\_ADC\_GND (PIN Y23)

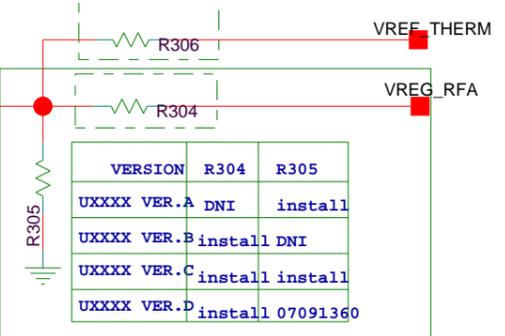


place this GND to XO\_ADC\_GND (PIN Y23)



NOTES: V17 is MPP3; AC10 is MPP4  
NOTES: LCD\_DRV\_N and MPP3 150mA current sink;  
NOTES: MPP2/4 40mA current sink;

NOTES:VERSION\_ID

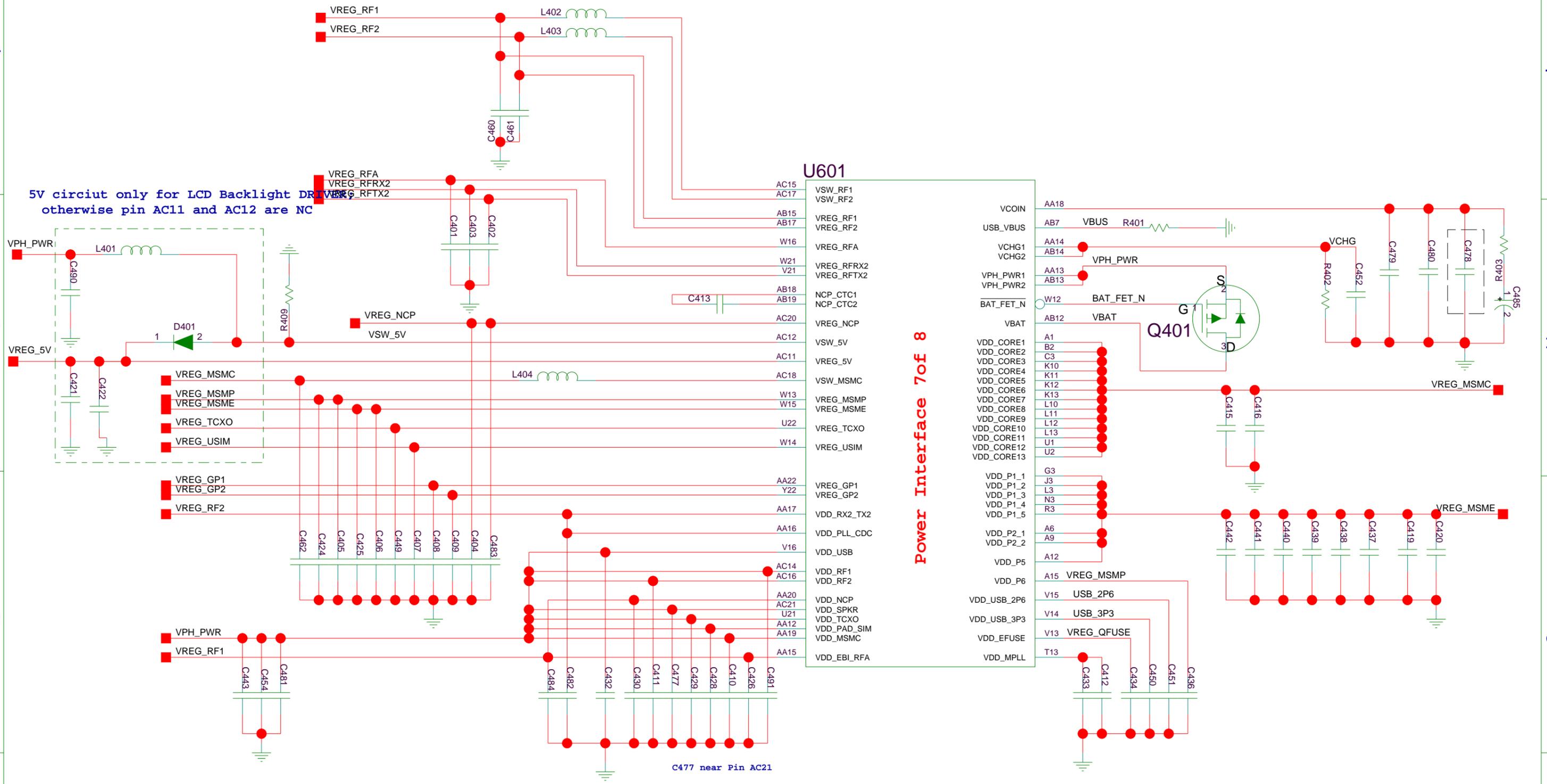


VERSION	R304	R305
UXXXX VER.A	DNI	install
UXXXX VER.B	install	DNI
UXXXX VER.C	install	install
UXXXX VER.D	install	07091360

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DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255			SHEET 03 OF 26	
		VER	PART_NUMBER		
		C	03021DXK	HUAWAI TECH CO.,LTD.	

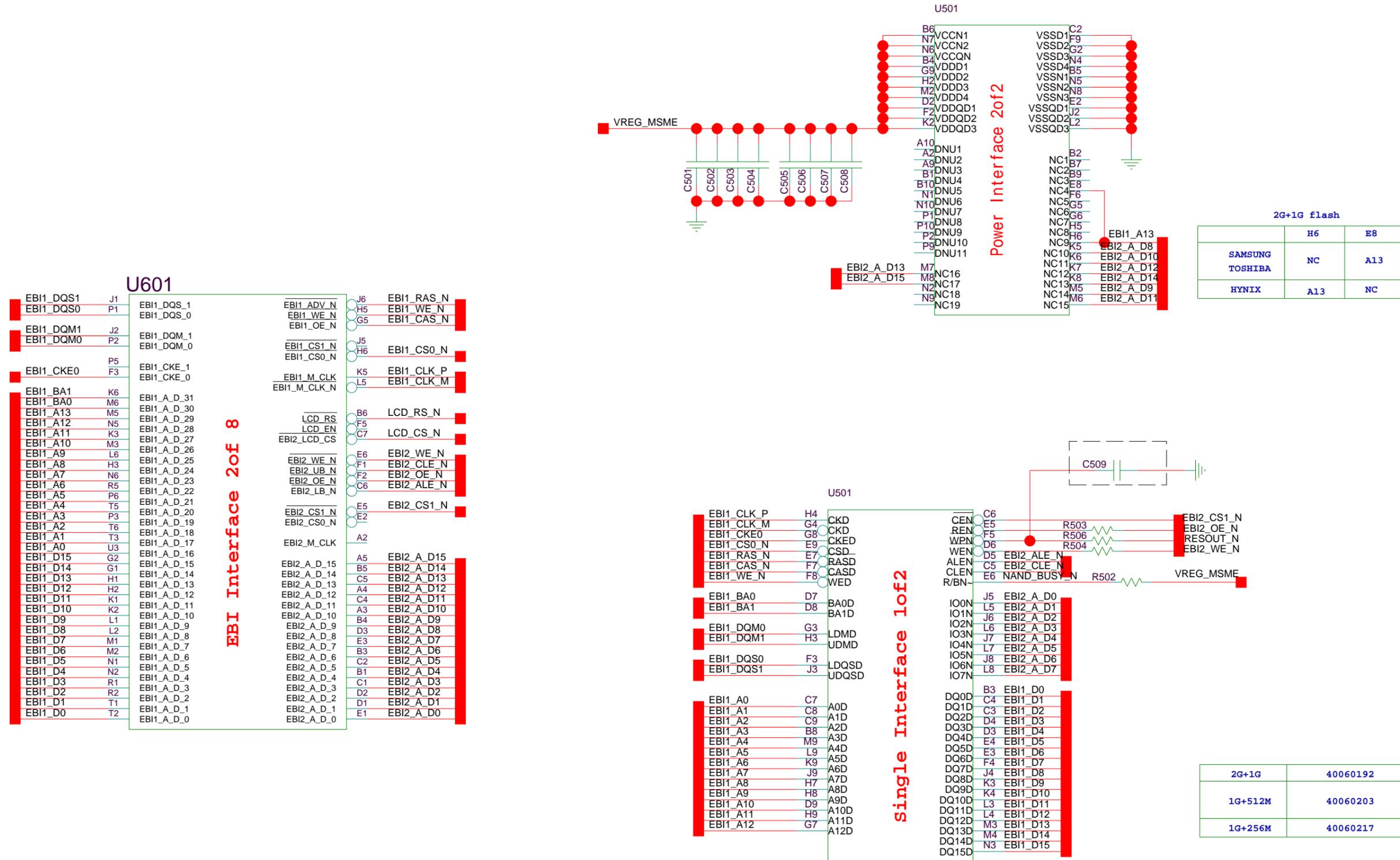
# 4. PM



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			ECA NO	DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612
REVIEWED	LVWEI 38255			
		VER	PART_NUMBER	SHEET 04 OF 26
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>

# 5. MEMORY

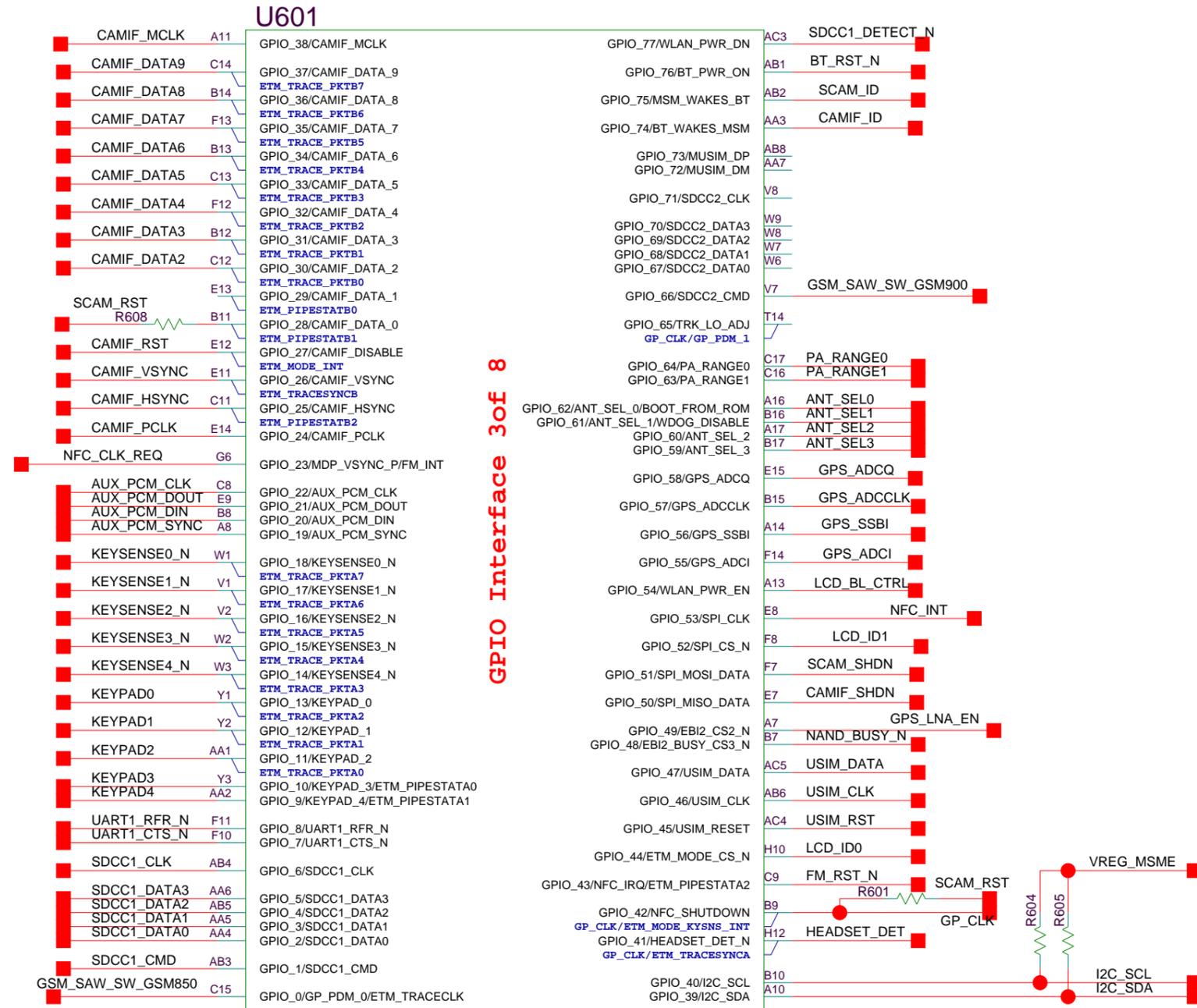


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DESIGNED	ZHAPENG 00142590	HD1U2801M	00699612	
REVIEWED	LVWEI 38255			
		VER	PART_NUMBER	SHEET 05 OF 26
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>

# 6. GPIOs

VREG_MSMC	1.225V	500mA
VREG_RF1	2.3V	500mA
VREG_RF2	1.4V	500mA
VREG_MSME	1.8V	300mA
VREG_MSMP	2.6V	300mA
VREG_RFA	2.2V	300mA
VREG_GP2	2.9V	300mA
VREG_RFRX2	1.3V	150mA
VREG_RFTX2	1.3V	150mA
VREG_CDC2	1.3V	150mA
VREG_MPLL	1.3V	150mA
VREG_USIM	1.8V/2.85V	150mA
VREG_GP1	2.85V	150mA
VREG_TCXO	2.85V	50mA
USB_2P6	2.6V	50mA
USB_3P3	3.3V	50mA
VREG_NCP	-1.8V	200mA
VREG_5V	5V	600mA

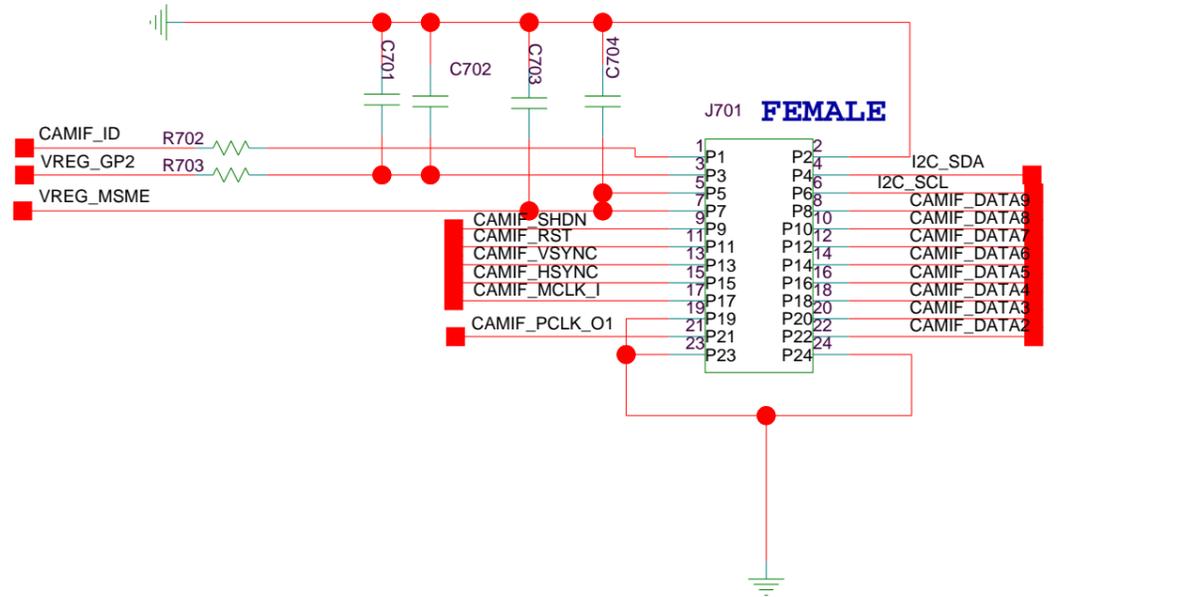


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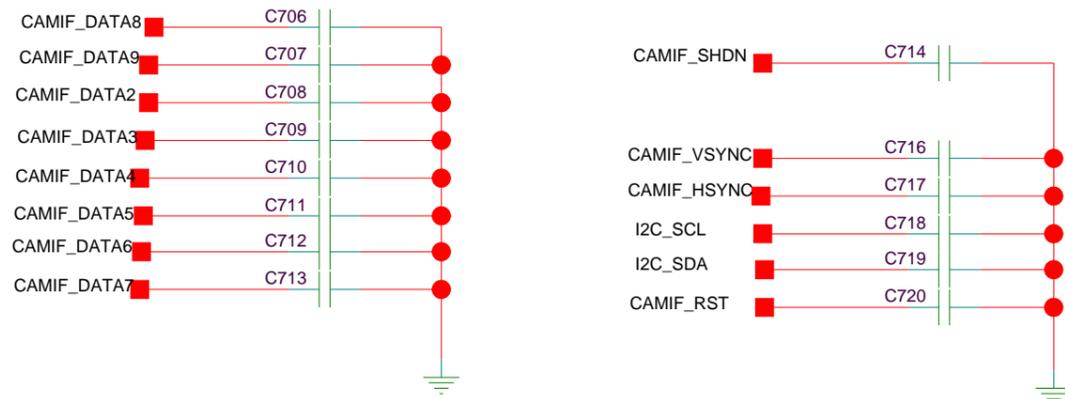
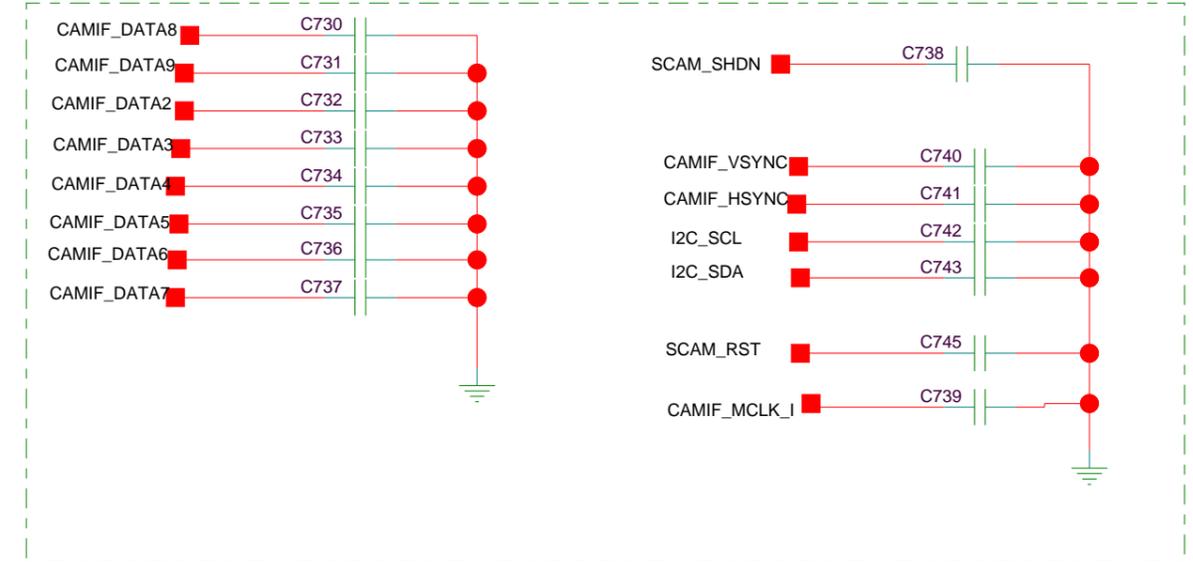
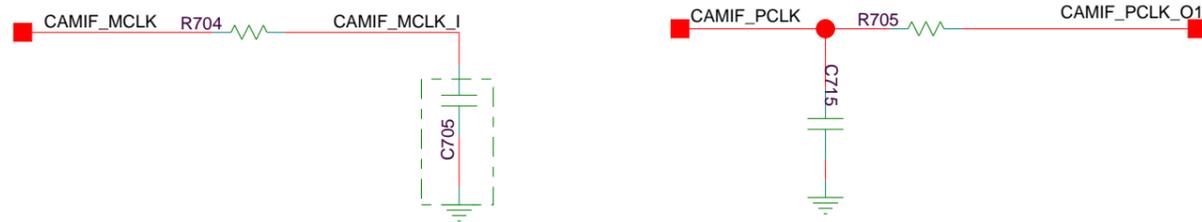
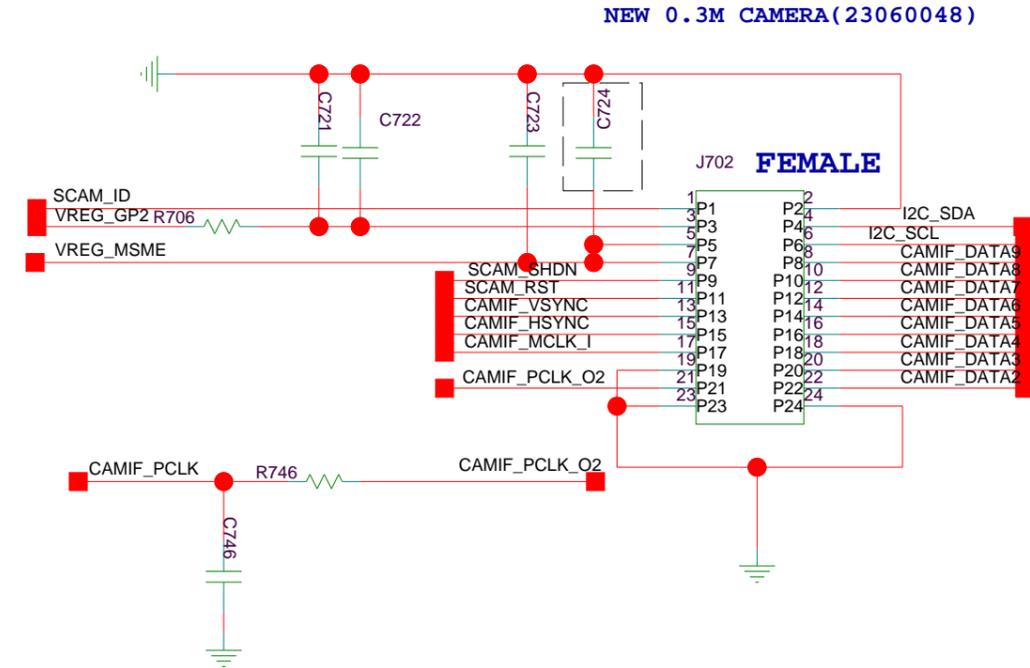
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			ECA NO	DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612
REVIEWED	LVWEI 38255			
		VER	PART_NUMBER	SHEET 06 OF 26
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# 7. CAMERA

## Main camera



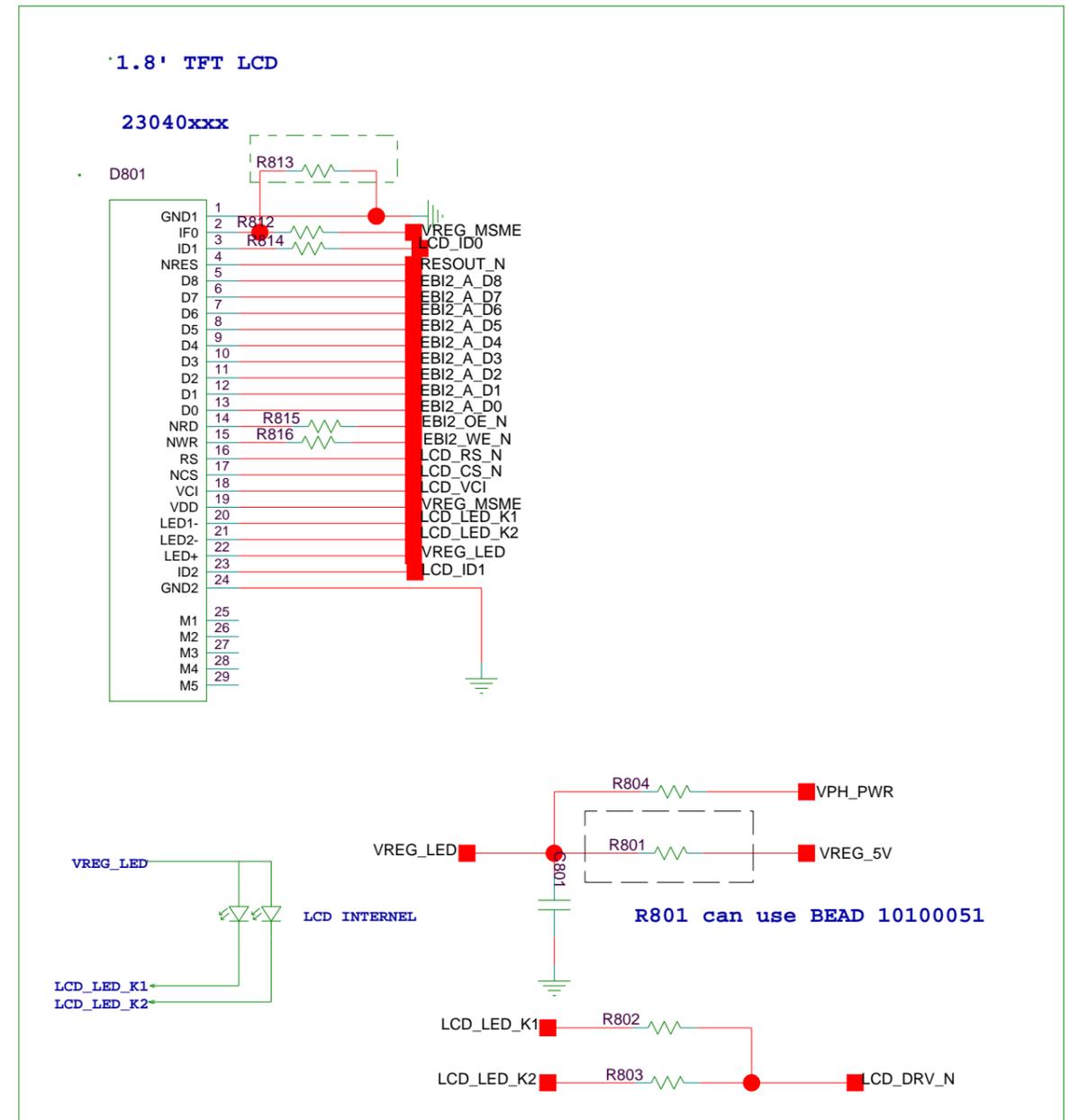
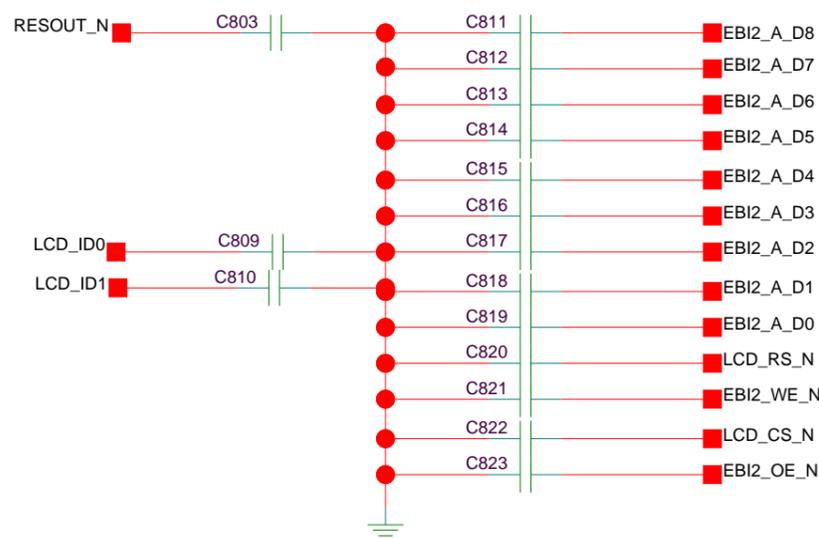
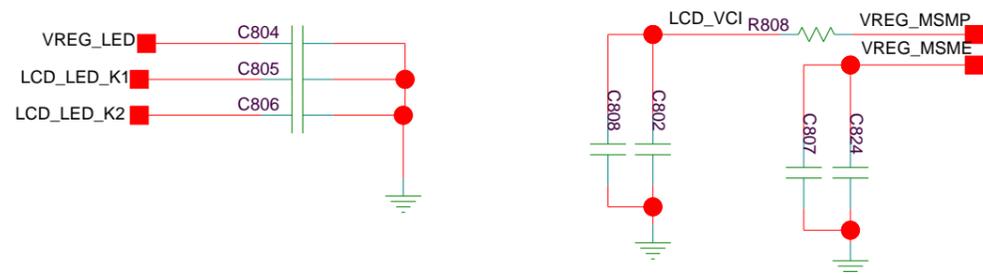
## Slave camera



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			ECA NO	DATE
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REVIEWED	LVWEI 38255			
		VER	PART_NUMBER	SHEET 07 OF 26
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>

# 8. LCD

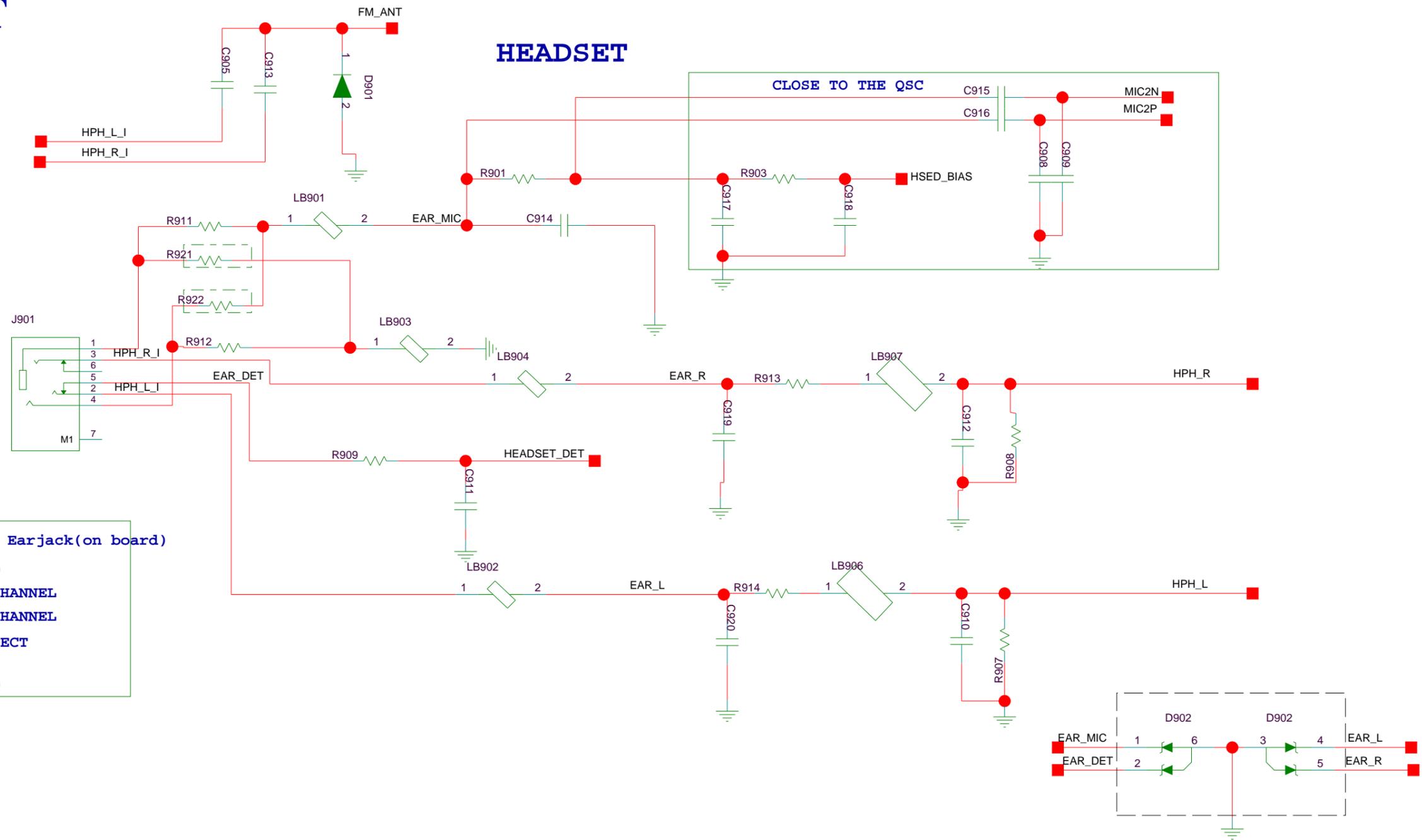


No backlight driver IC on 1.5' and 1.8' LCD

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				ECA NO	DATE
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REVIEWED	LVWEI 38255			SHEET 08 OF 26	
		VER	PART_NUMBER		
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>	

# 9. HEADSET



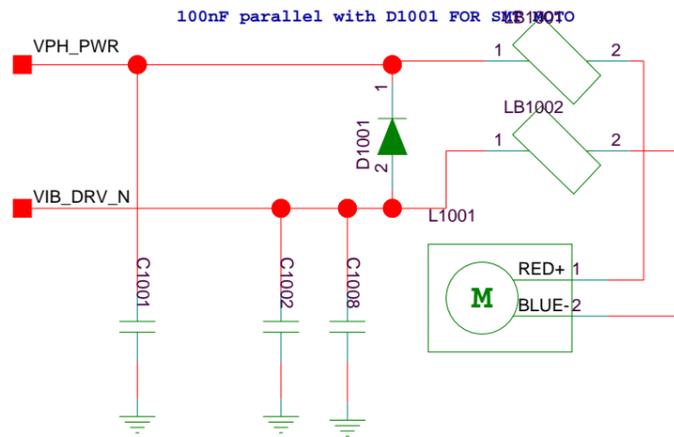
	14240184	Arc Earjack(on board)
PIN1	GND	GND
PIN2	R-CHANNEL	R-CHANNEL
PIN3	R-CHANNEL	L-CHANNEL
PIN4	DETECT	DETECT
PIN5	L-CHANNEL	
PIN6	MIC	MIC

The type and specification of the components refer to the BOM

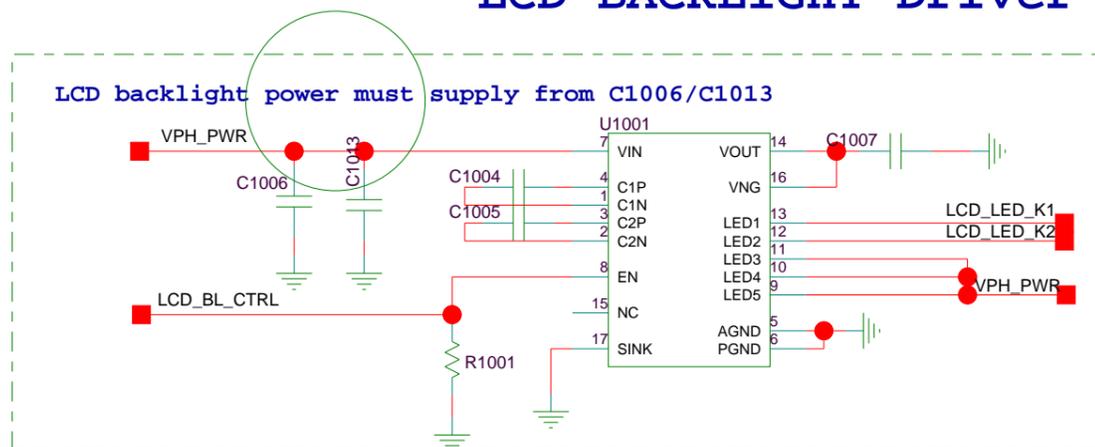
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DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255				
		VER	PART_NUMBER	SHEET 09 OF 26	
		C	03021DXK	HUAWEI TECH CO.,LTD.	

# 10. VIBRATOR & BACKLIGHT DRIVER & TP Driver

## VIBRATOR



## LCD BACKLIGHT Driver

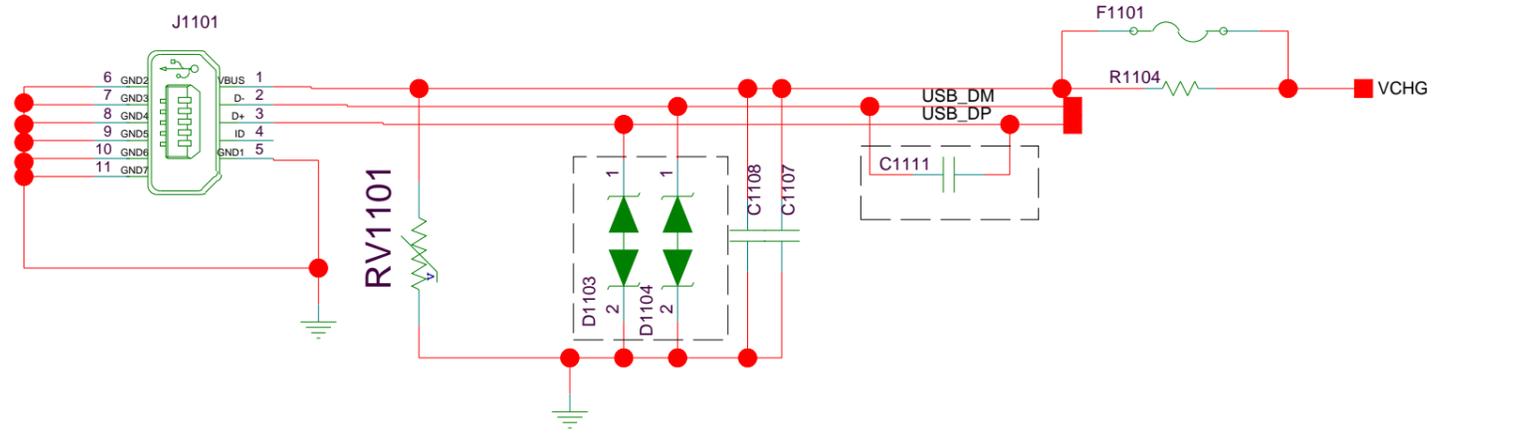


The type and specification of the components refer to the BOM

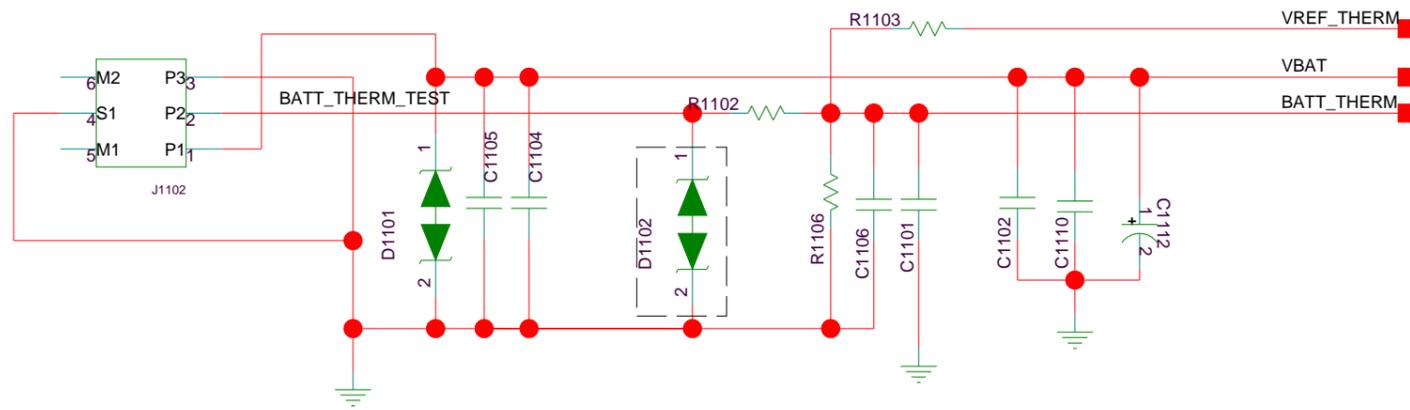
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DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255				
		VER	PART_NUMBER	SHEET 10 OF 26	
		C	03021DXK	HUAWEI TECH CO.,LTD.	

# 11. USB & CHARGER & BATTERY

## USB & CHARGER



## BATTERY

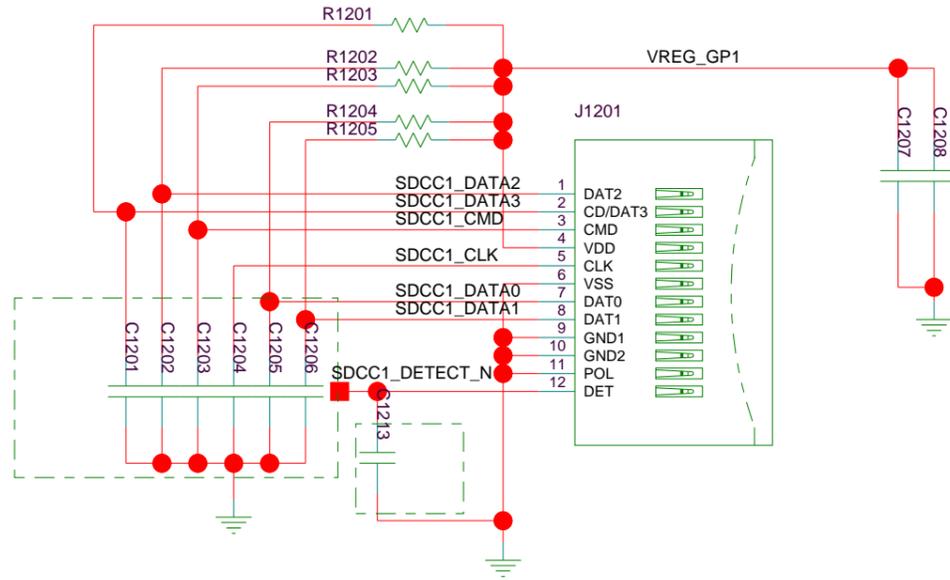


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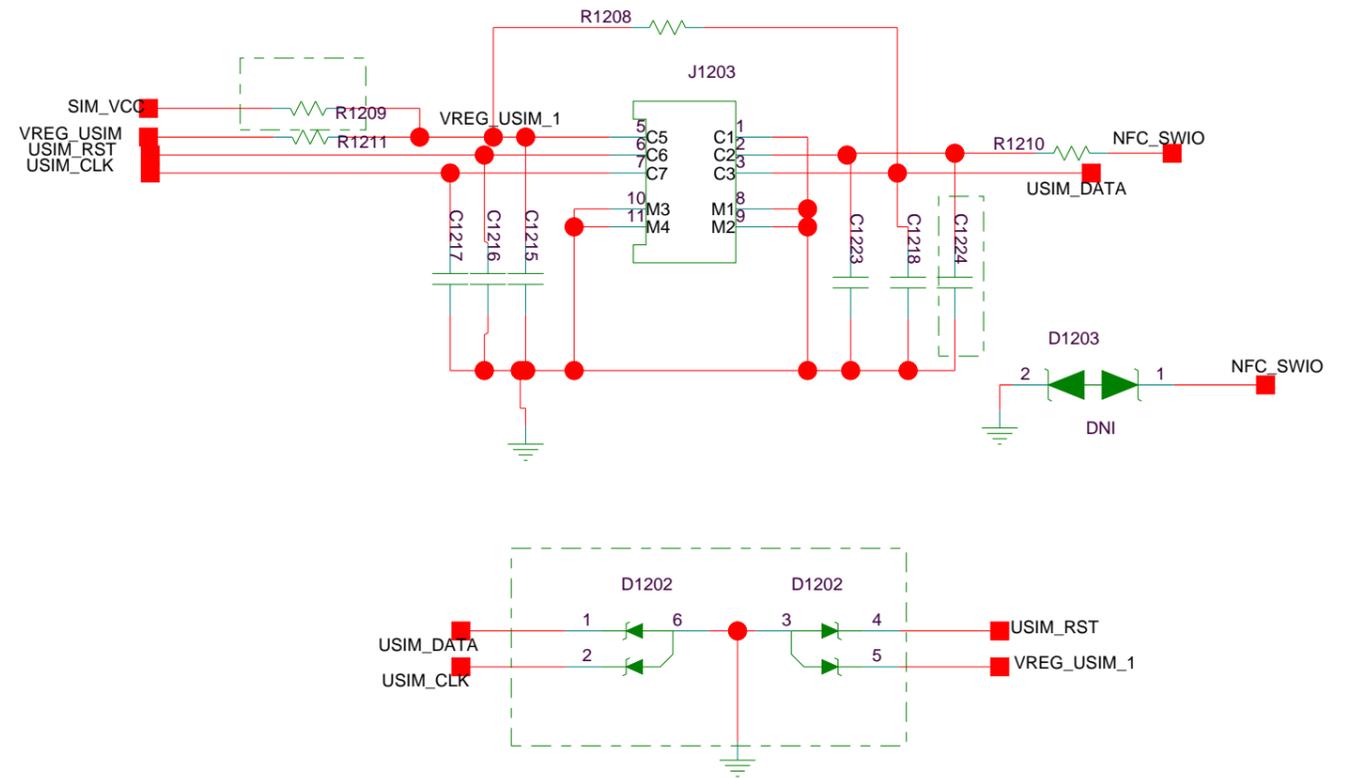
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DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255			SHEET 11 OF 26	
		VER	PART_NUMBER		
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>	

# 12. TF CARD&SIM CARD

## TF CARD



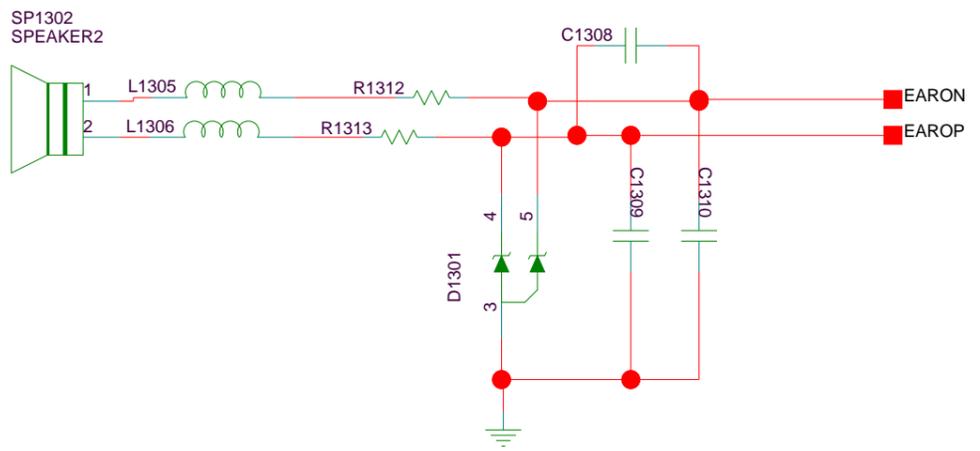
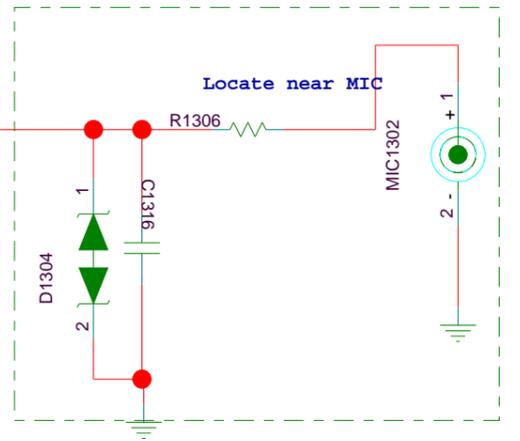
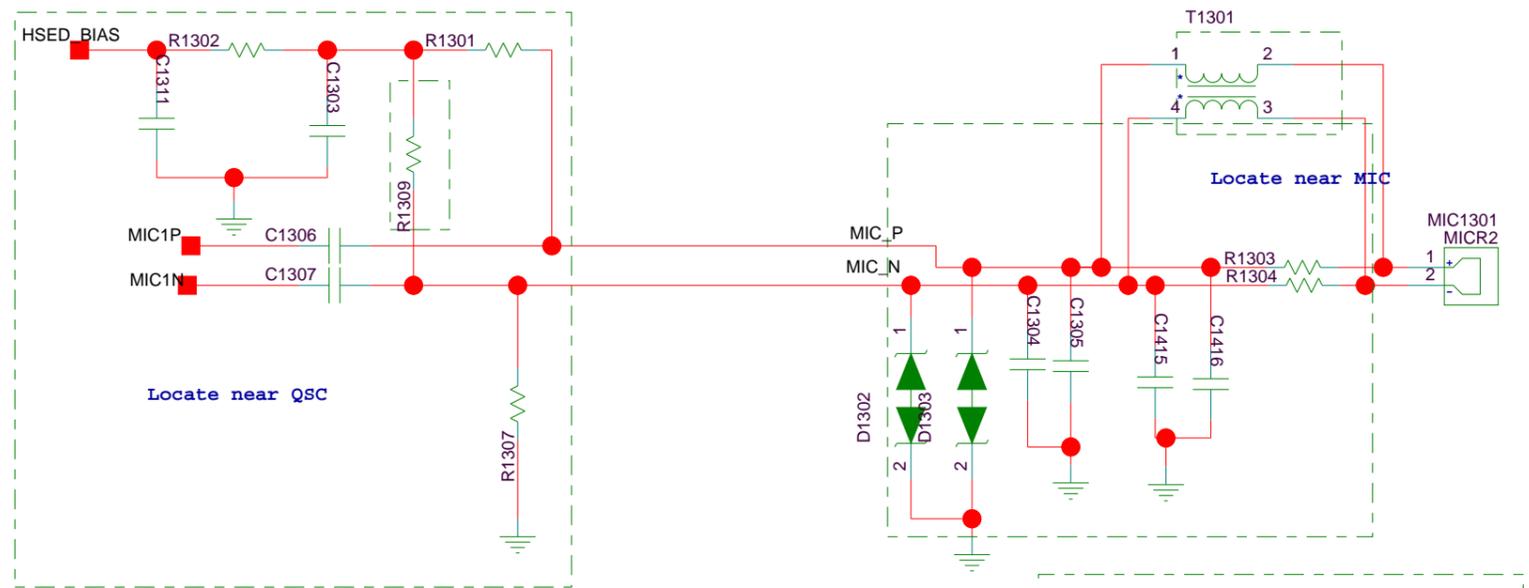
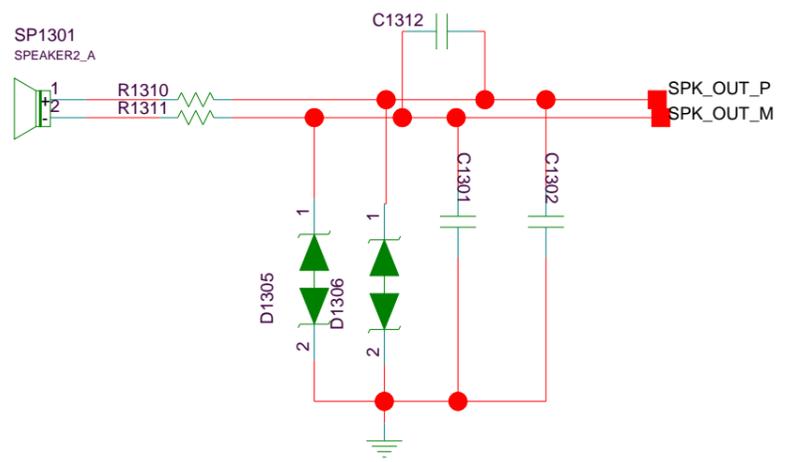
## NFC & MAIN CARD



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				DATE	
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255			SHEET 12 OF 26	
		VER	PART_NUMBER		
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>	

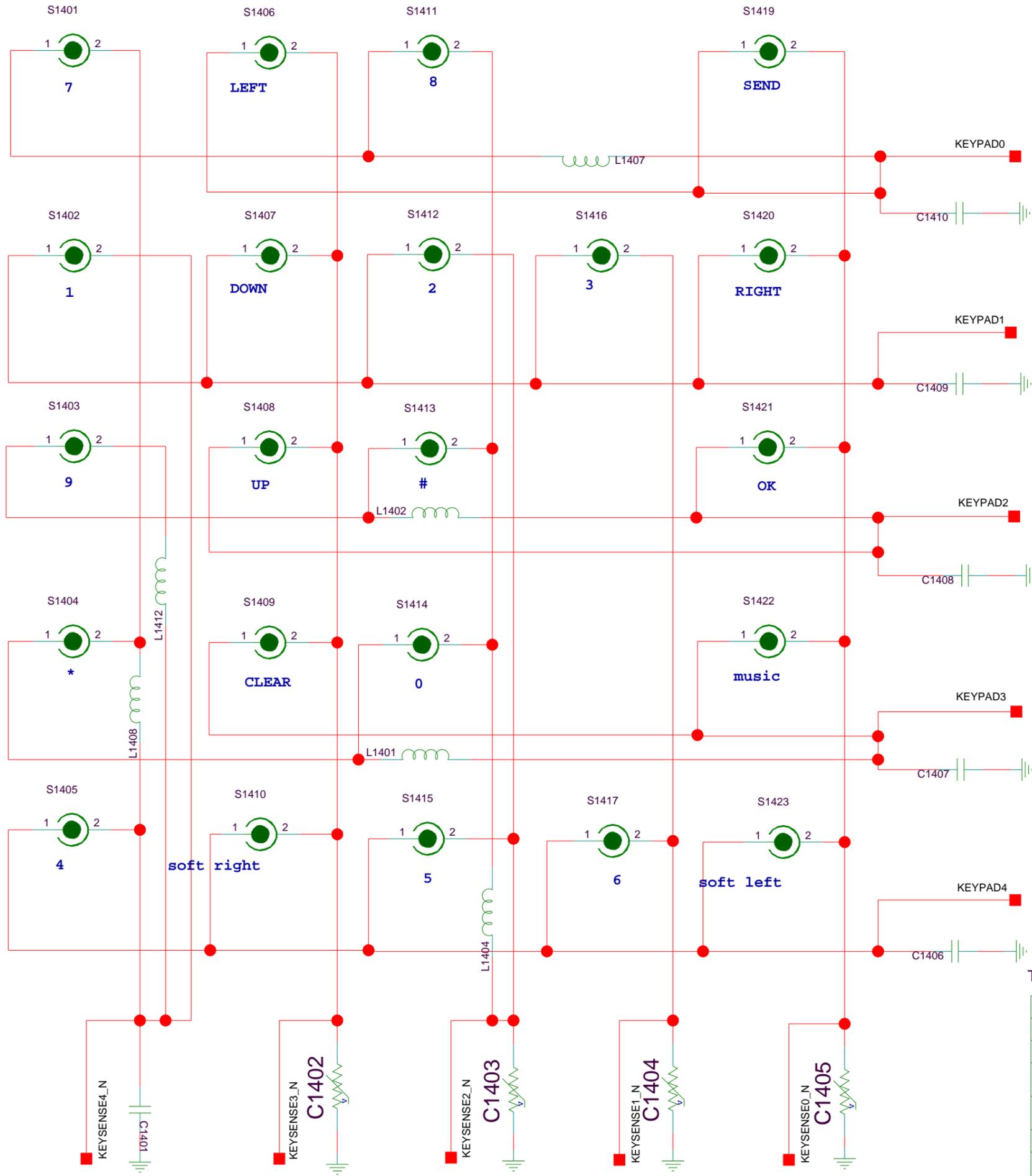
# 13. RCV&SPK&MIC



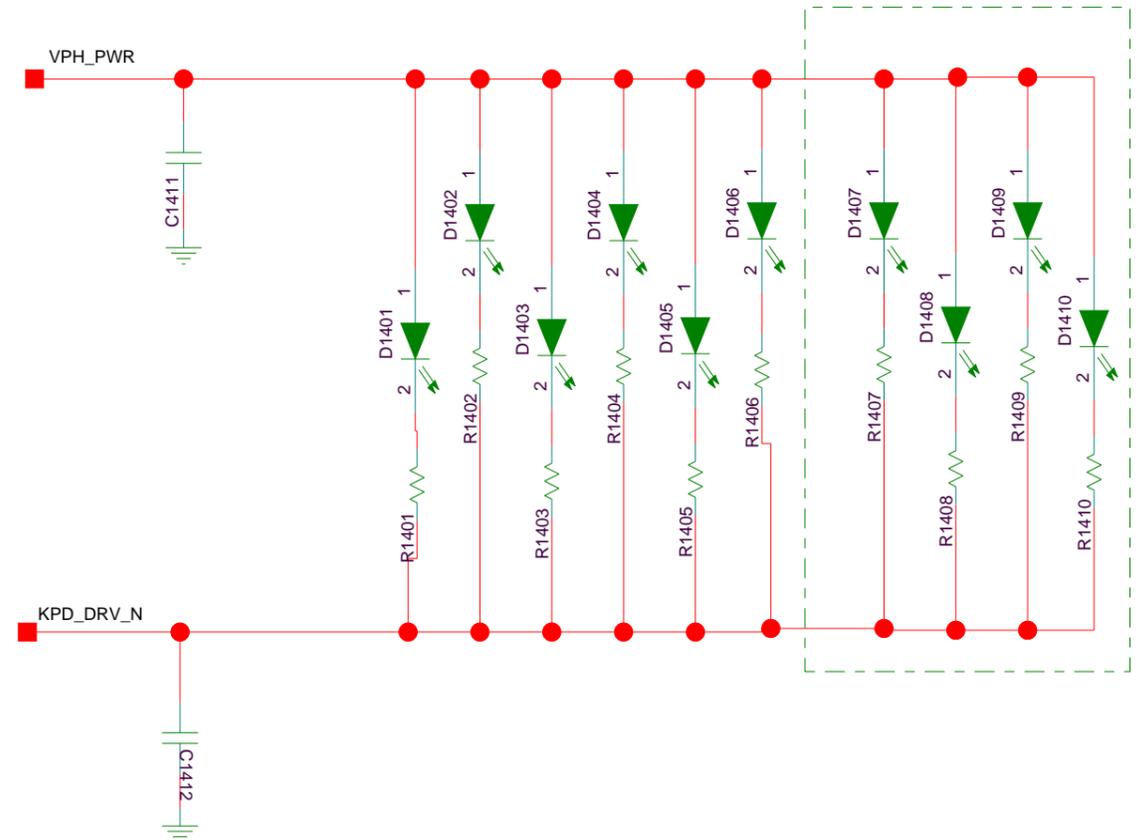
The type and specification of the components refer to the BOM

					2011-09-01
				ECA NO	DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255				
		VER	PART_NUMBER	SHEET 13 OF 26	
		C	03021DXK	HUAWEI TECH CO.,LTD.	

# 14. KEYPAD



## KPD\_BL



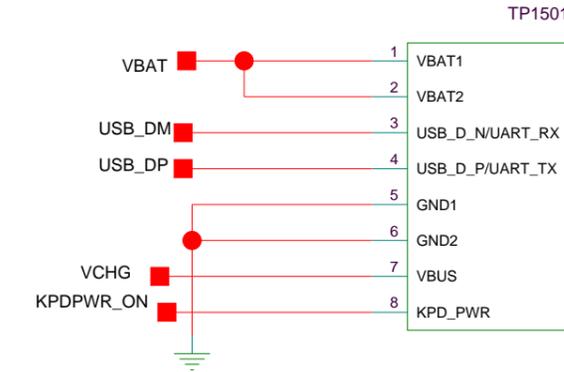
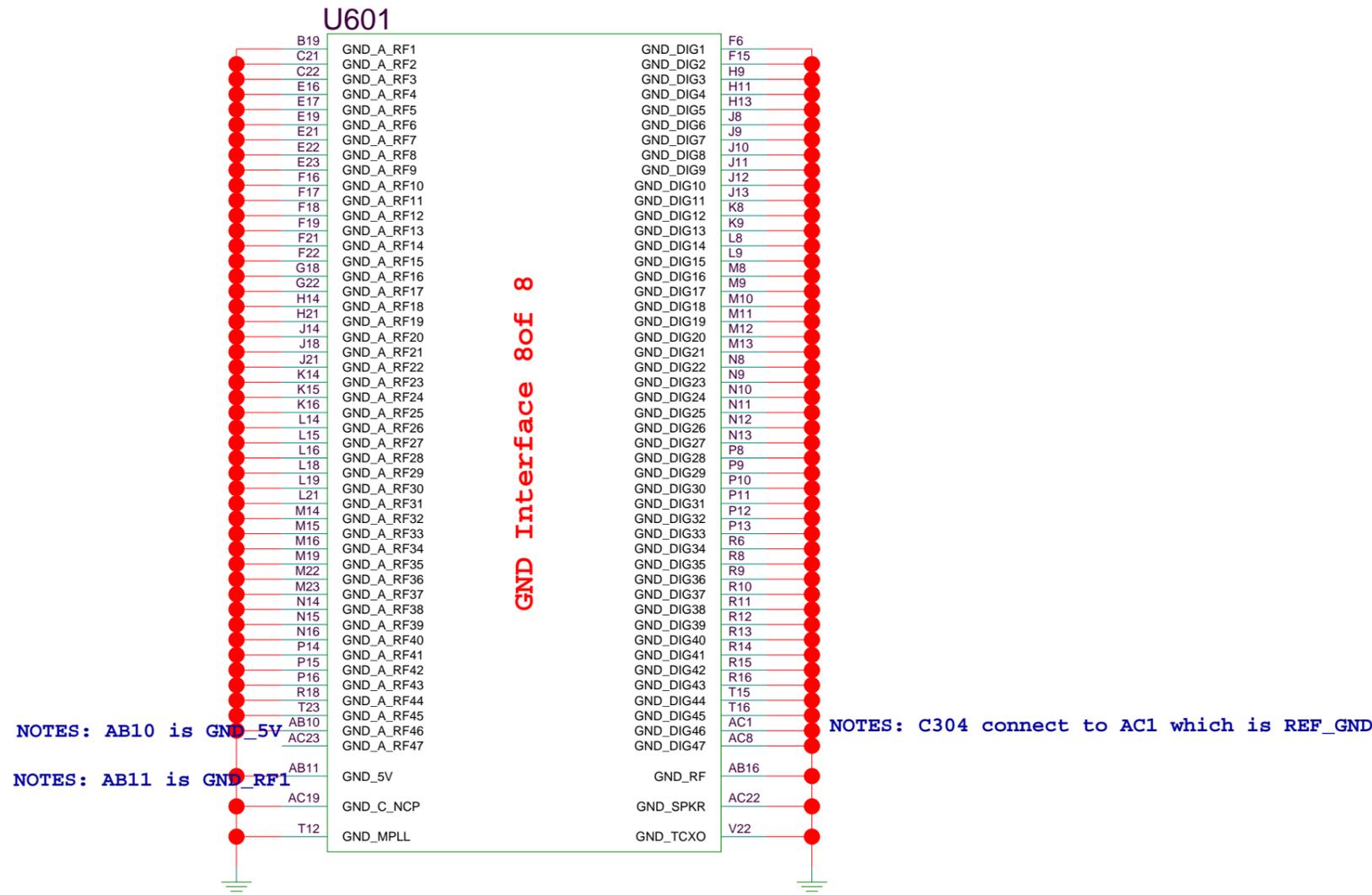
The type and specification of the components refer to the BOM

			NA	2011-09-01
			ECA NO	DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M	00699612	
REVIEWED	LVWEI 38255		SHEET 14 OF 26	
		VER	PART_NUMBER	
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>

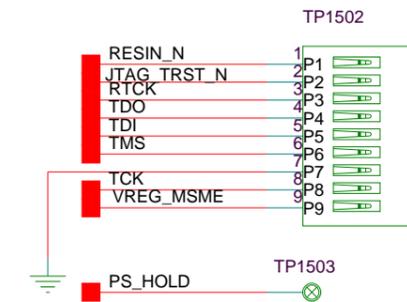
# 15. GND & TEST POINT

## TEST POINT

PLACE THOSE TESTPOINTS ON SAME SIDE OF RF SWITCH AND BT TESTPOINT.

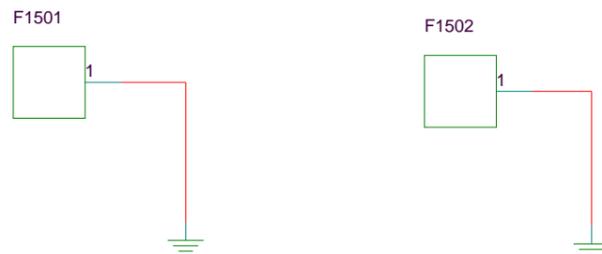


## JTAG



NOTES: round testpoint 00510481(testpoint)

NOTES: place PS\_HOLD near JTAG



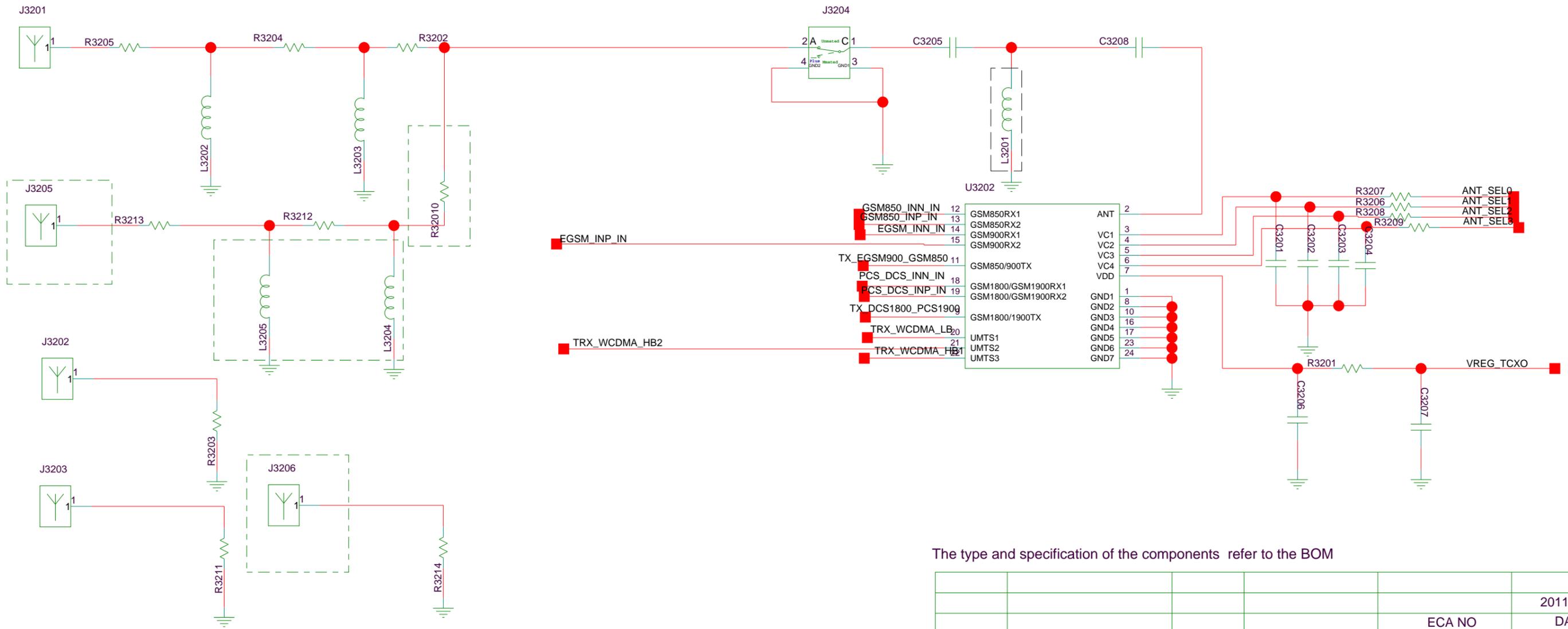
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				ECA NO	2011-09-01
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DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255			SHEET 15 OF 26	
		VER	PART_NUMBER		
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>	

# 16. Antenna Switchplexer

MODE	TX FREQ	RX FREQ	PWR CLASS	PWR
GSM850	824-849	869-894	4	33
GSM900	880-915	925-960	4	33
GSM1800	1710-1785	1805-1880	1	30
GSM1900	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

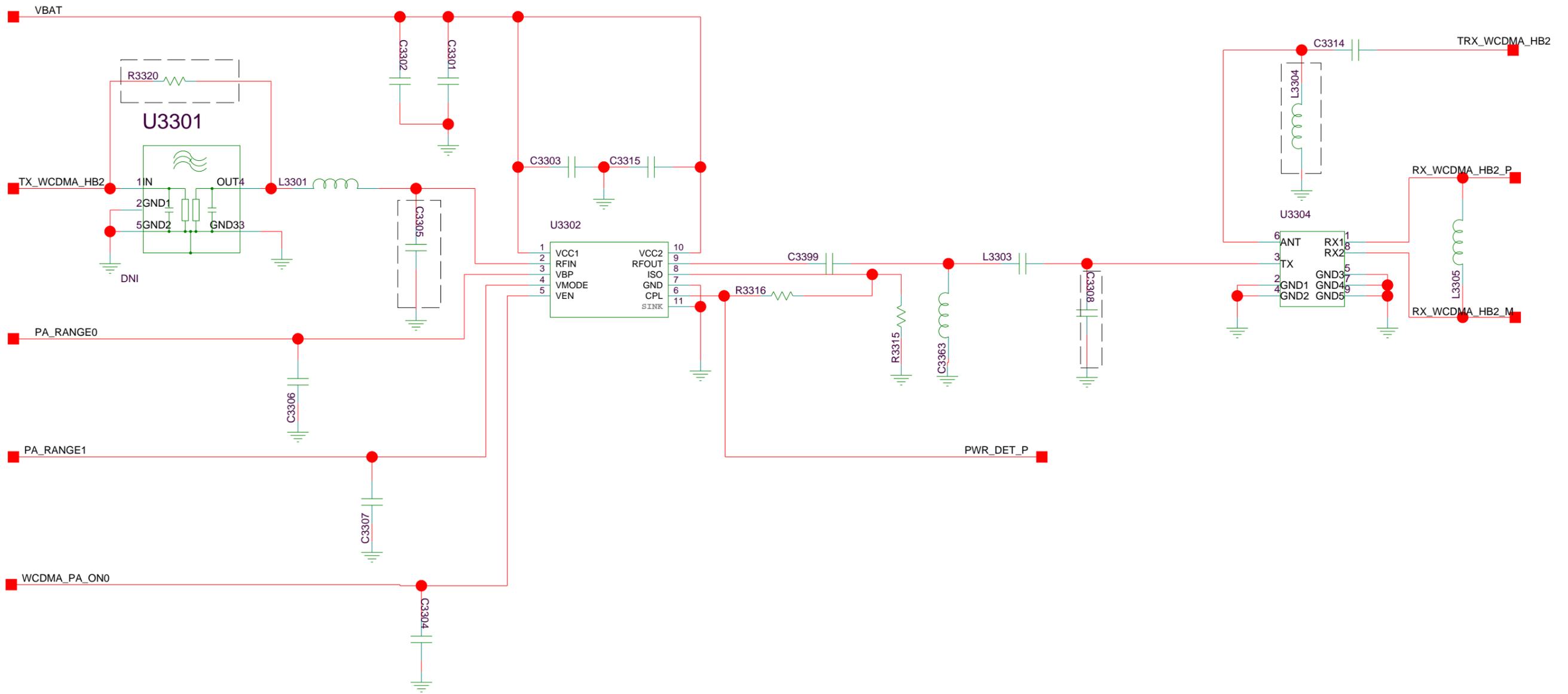
		ANT_SEL0	ANT_SEL1	ANT_SEL2	ANT_SEL3
GCELL/EGSM_TX	GSM850/900 TX	1	0	0	0
DCS/PCS_TX	GSM1800/1900 TX	1	1	0	0
GCELL_RX/CUT	GSM850 RX	0	1	1	0
EGSM_RX	GSM900 RX	0	0	1	0
DCS_RX	GSM1800 RX	0	0	0	0
PCS_RX	GSM1900 RX	0	1	0	0
BAND VIII_TX/RX (UMTS3)	W900_TX/RX	0	0	1	1
IMT_TX/RX (UMTS2)	W2100/TX/RX	0	1	0	1
PCS_TX/RX (UMTS1)	W1900/TX/RX/PCS1900 RX	0	0	0	1



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REVIEWED	LVWEI 38255				
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# 17. WCDMA IMT Power Amplifier



WCDMA_PA_ON0/ON1	PA STATE
H	ON
L	OFF

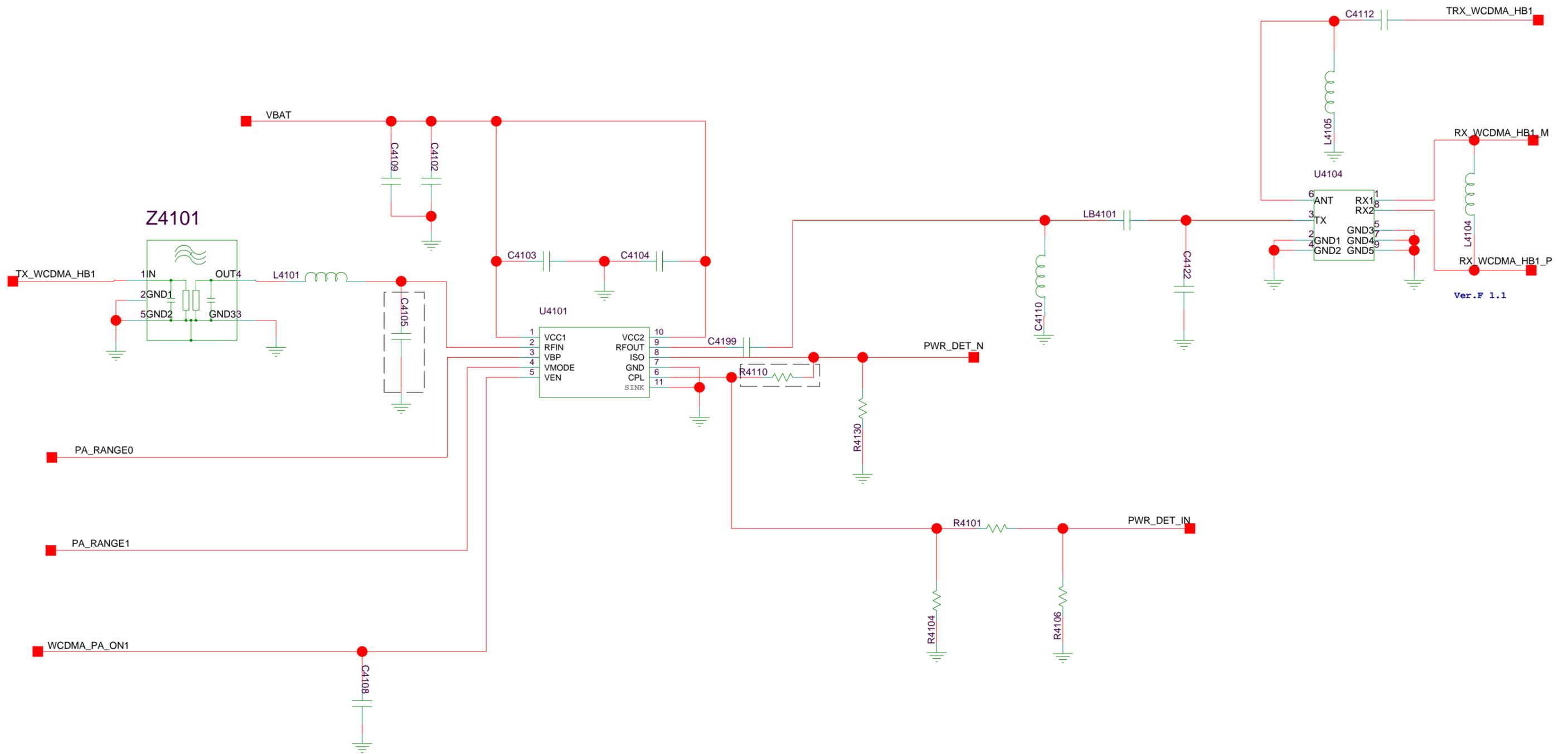
PA_RANGE0	PA_RANGE1	MODE
L	L	High Power
L	H	Middle Power
H	H	Low Power
H	L	NO USE

WCDMA_PA_ON0	W2100
WCDMA_PA_ON1	W1900
WCDMA_PA_ON2	W850/900

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		C	03021DXK
		SHEET 17 OF 26	
		HUAWEI TECH CO.,LTD.	

# 18. WCDMA AWS Power Amplifier



WCDMA_PA_ON0/ON1	PA STATE
H	ON
L	OFF

PA_RANGE0	PA_RANGE1	MODE
L	L	High Power
L	H	Middle Power
H	H	Low Power
H	L	NO USE

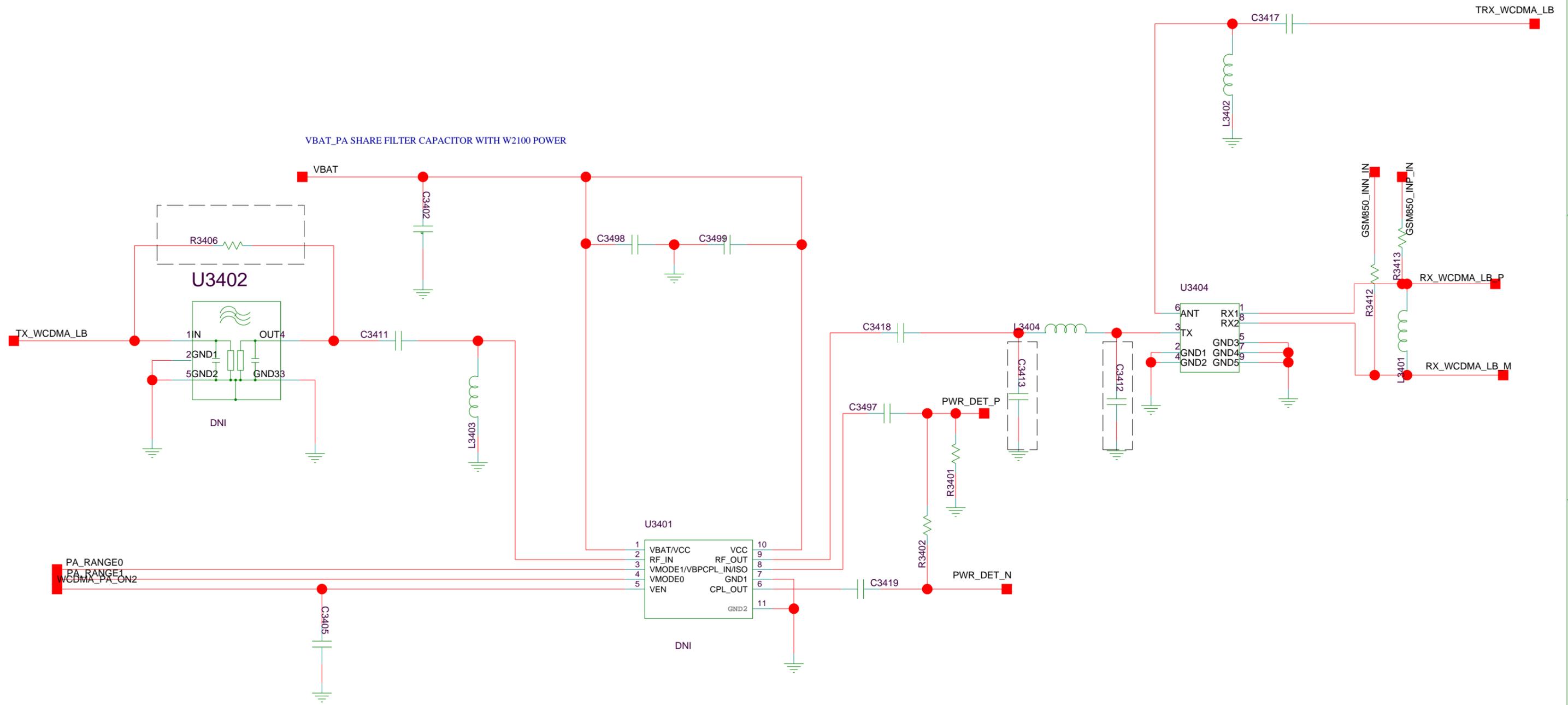
WCDMA_PA_ON0	W2100
WCDMA_PA_ON1	W1900
WCDMA_PA_ON2	W850/900

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VER	C	PART_NUMBER	03021DXK
		SHEET 18 OF 26	
<b>HUAWEI TECH CO.,LTD.</b>			

D

# 19. WCDMA CELL Power Amplifier



WCDMA_PA_ON0/ON1	PA STATE
H	ON
L	OFF

PA_RANGE0	PA_RANGE1	MODE
L	L	High Power
L	H	Middle Power
H	H	Low Power
H	L	NO USE

WCDMA_PA_ON0	W2100
WCDMA_PA_ON1	W1900
WCDMA_PA_ON2	W850/900

The type and specification of the components refer to the BOM

DESIGNED	ZHAPENG 00142590	HD1U2801M	00699612	2011-09-01
REVIEWED	LVWEI 38255			DATE
		VER	PART_NUMBER	SHEET 19 OF 26
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>

# 20. GSM Quad\_band\_PA

EDGE	GSM/GPRS
RF3161B	RF3196MS
47100222	47100165

GSM_PA_EN	PA
H	ON
L	OFF

GSM_PA_BAND	MODE
L	LOW BAND
H	HIGH BAND

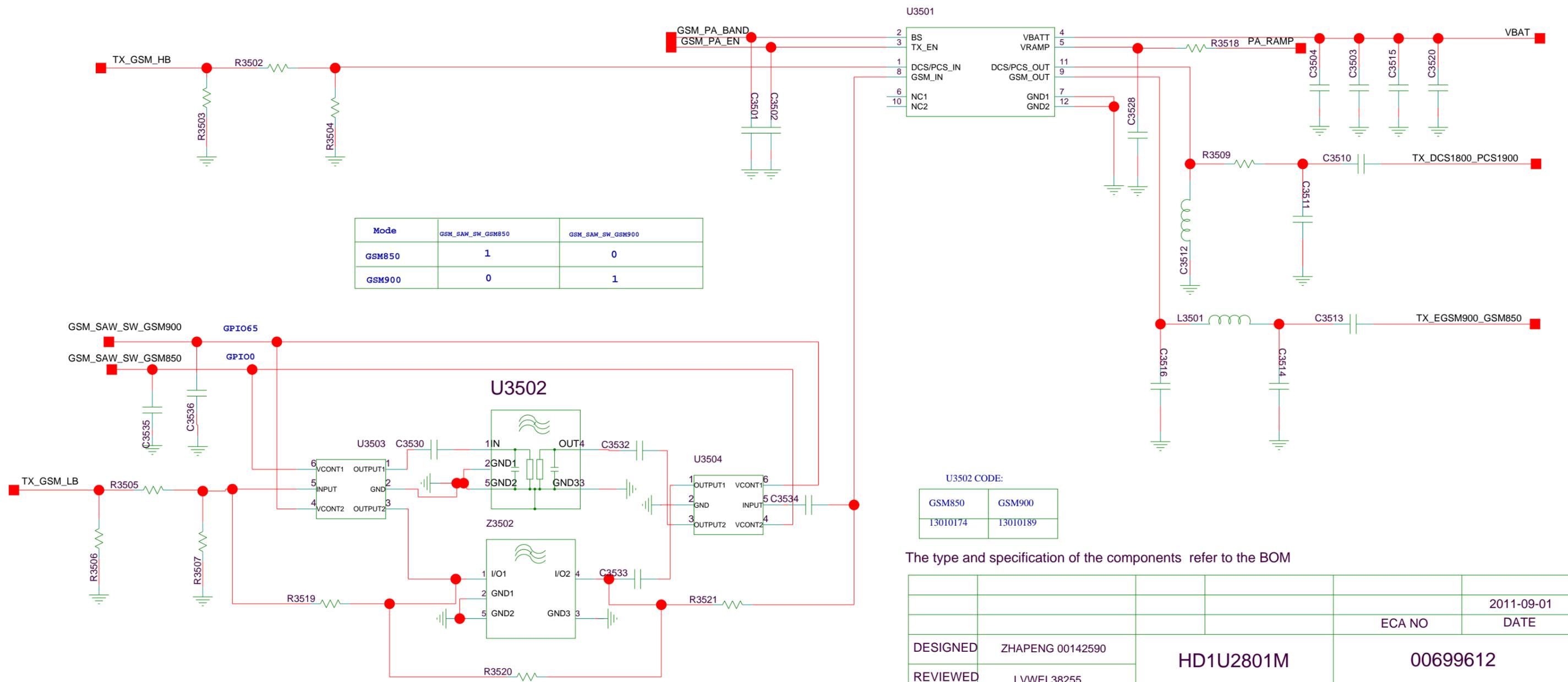
Mode	GSM_SAW_SW_GSM850	GSM_SAW_SW_GSM900
GSM850	1	0
GSM900	0	1

U3502 CODE:

GSM850	GSM900
13010174	13010189

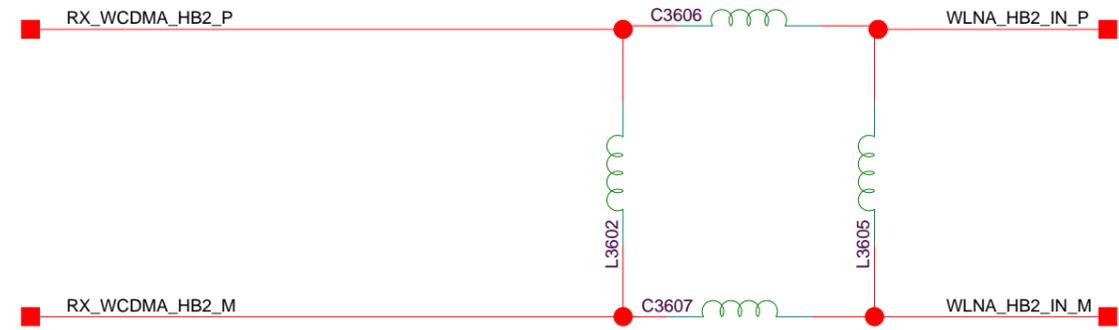
The type and specification of the components refer to the BOM

				ECA NO	2011-09-01
					DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255			SHEET 20 OF 26	
		VER	PART_NUMBER		
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>	

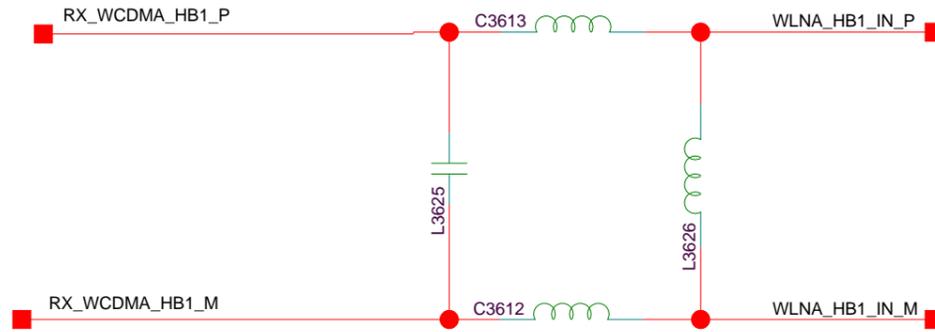


# 21. MATCHING CIRCUIT

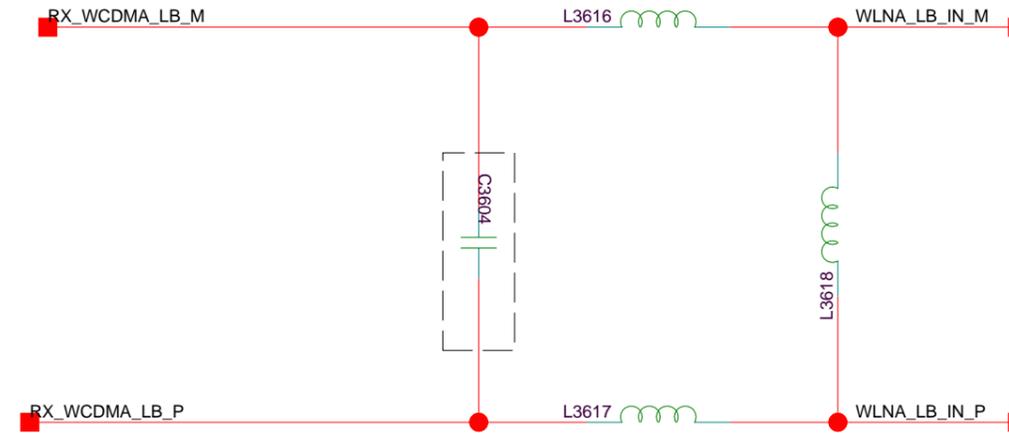
## UMTS2100 RX MATCHING



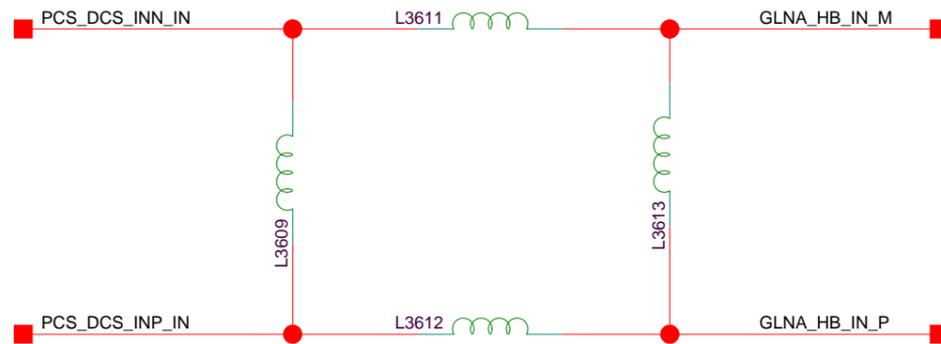
## UMTS AWS&PCS1900 RX MATCHING



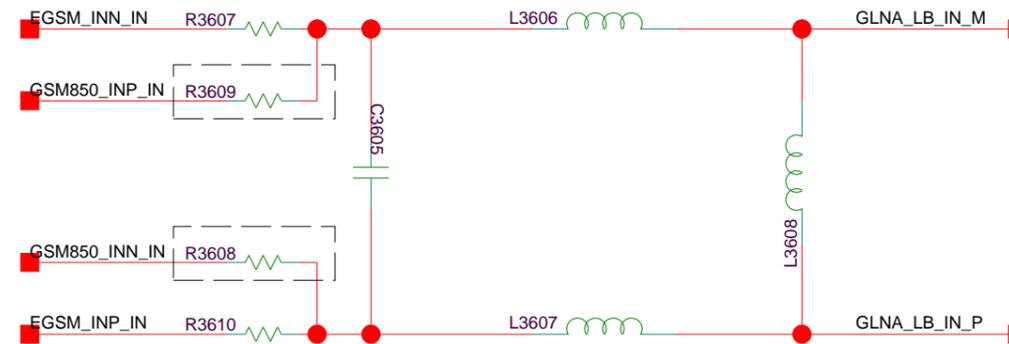
## UMTS LB RX MATCHING



## PCS\_DCS RX MATCHING



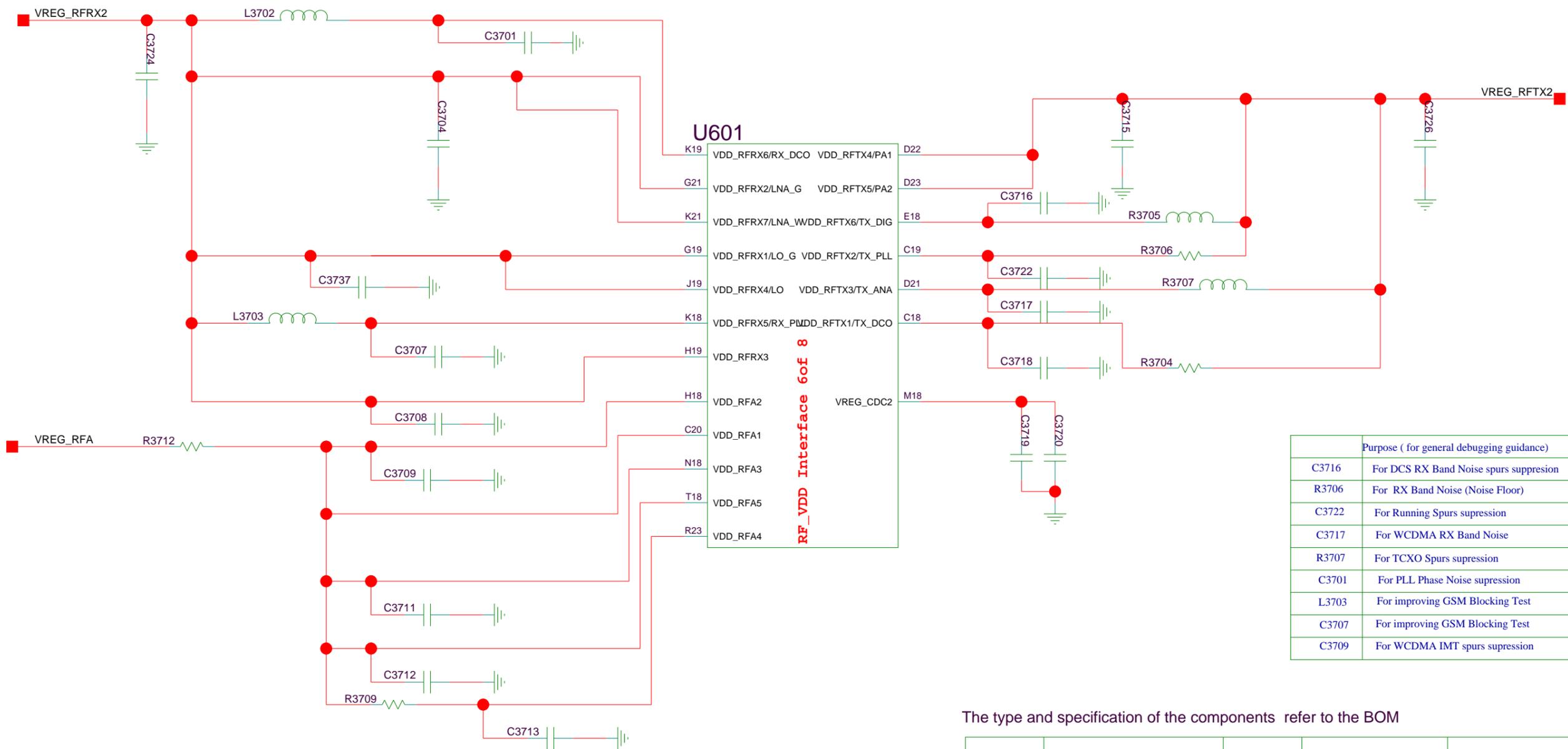
## GSM900 RX MATCHING



The type and specification of the components refer to the BOM

				ECA NO	2011-09-01 DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255				
		VER	PART_NUMBER	SHEET 21 OF 26	
		C	03021DXK	HUAWEI TECH CO.,LTD.	

# 22. RF POWER

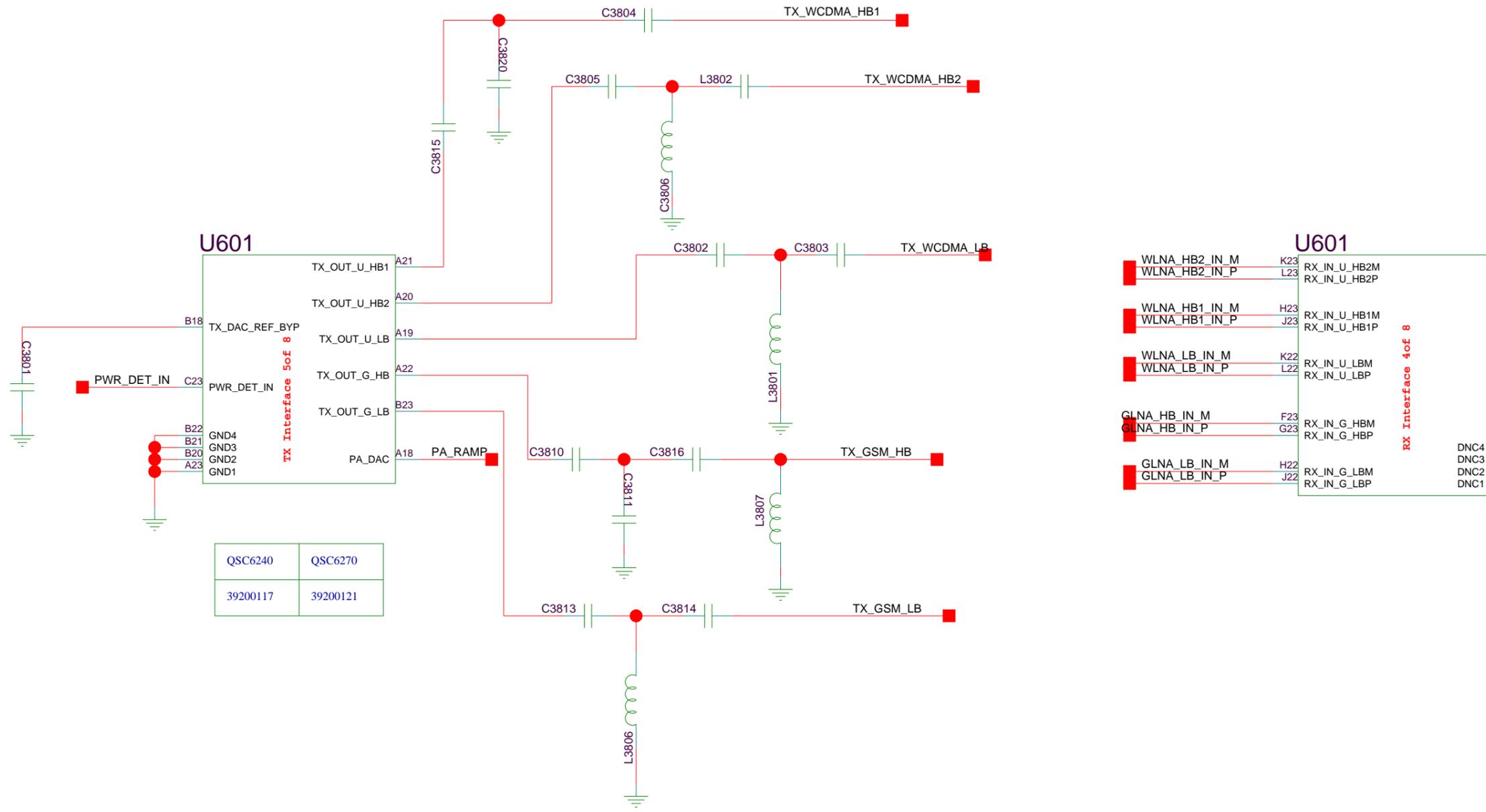


	Purpose ( for general debugging guidance)
C3716	For DCS RX Band Noise spurs suppression
R3706	For RX Band Noise (Noise Floor)
C3722	For Running Spurs suppression
C3717	For WCDMA RX Band Noise
R3707	For TCXO Spurs suppression
C3701	For PLL Phase Noise suppression
L3703	For improving GSM Blocking Test
C3707	For improving GSM Blocking Test
C3709	For WCDMA IMT spurs suppression

The type and specification of the components refer to the BOM

					2011-09-01
				ECA NO	DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255			SHEET 22 OF 26	
		VER	PART_NUMBER		
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>	

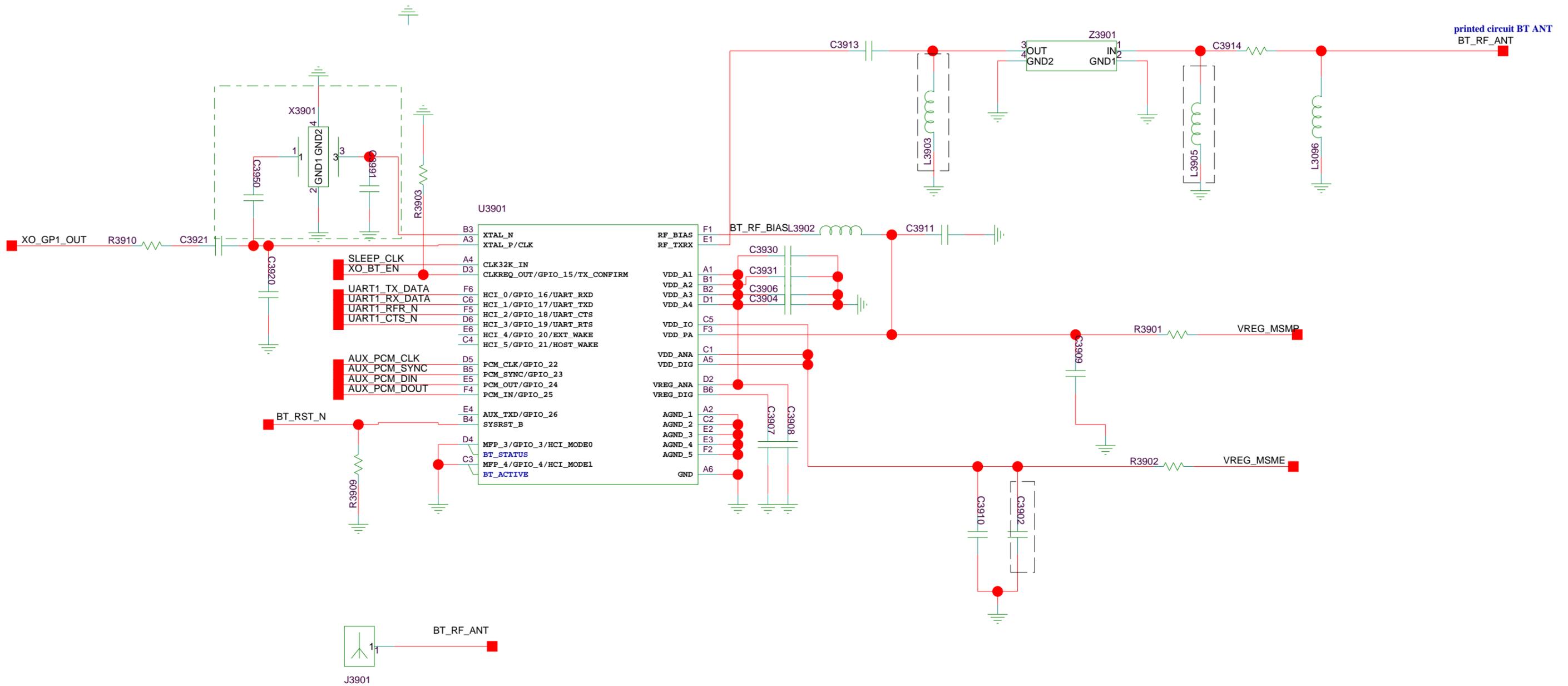
# 23. RX/TX Circuit



The type and specification of the components refer to the BOM

					2011-09-01
				ECA NO	DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612	
REVIEWED	LVWEI 38255				
		VER	PART_NUMBER	SHEET 23 OF 26	
		C	03021DXK	HUAWEI TECH CO.,LTD.	

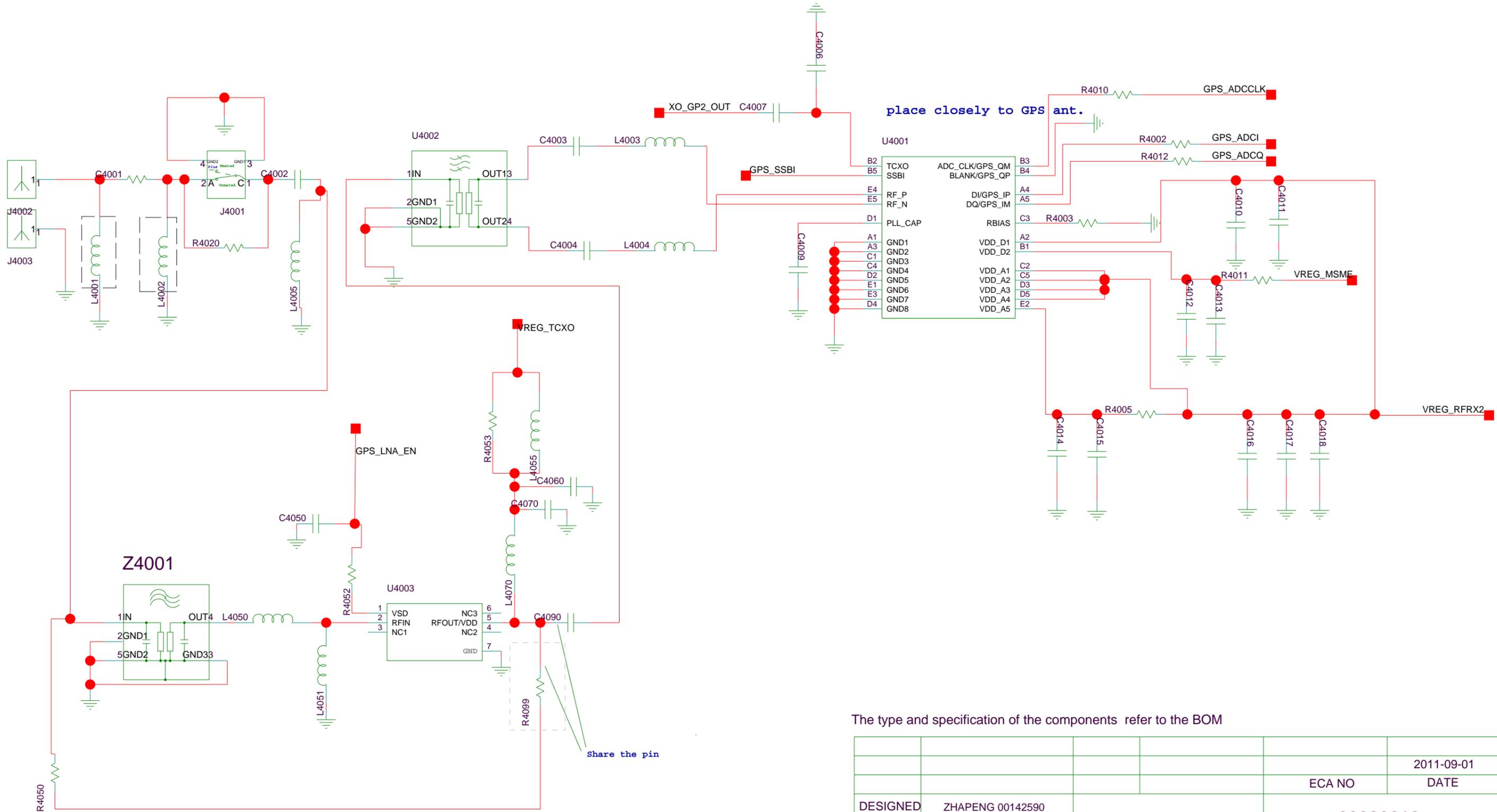
# 24. BTS4025 TX/RX Circuit



The type and specification of the components refer to the BOM

				2011-09-01
			ECA NO	DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612
REVIEWED	LVWEI 38255			
		VER	PART_NUMBER	SHEET 24 OF 26
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>

# 25. GPS



The type and specification of the components refer to the BOM

				2011-09-01
			ECA NO	DATE
DESIGNED	ZHAPENG 00142590	HD1U2801M		00699612
REVIEWED	LVWEI 38255			
		VER	PART_NUMBER	SHEET 25 OF 26
		C	03021DXK	<b>HUAWEI TECH CO.,LTD.</b>