HD3U100MVer.A SCHEMATIC

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37. QSC6240 RF POWER
38. QSC6240 RX/TX Circuit
39. BTS4025
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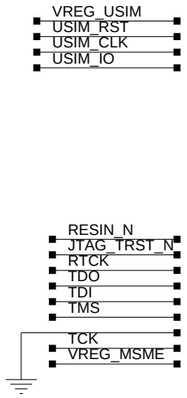
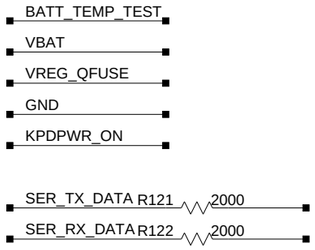
The type and specification of the components refer to the BOM

					09-11-08
				ECA NO	DATE
DESIGNED	HANJIANGUO 00133466	HD3U100M		00560804	
REVIEWED	ZHUJIANWEI 45059				
		VER	PART_NUMBER	SHEET 01 OF 21	
		A	03020UAW	HUAWEI TECH CO.,LTD.	

JTAG

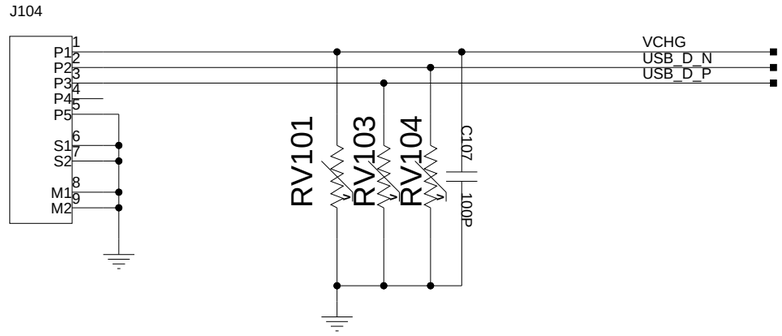


TEST

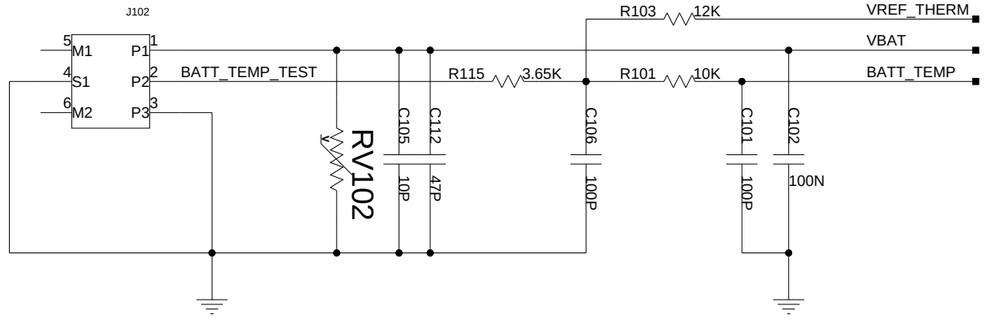


PLACE THOSE TESTPOINTS ON SAME SIDE OF RF SWITCH AND BT TESTPOINT.

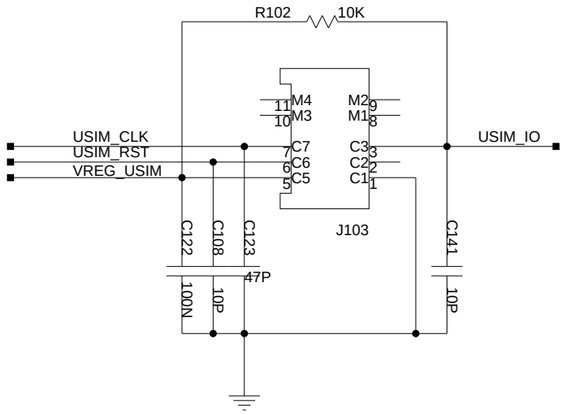
USB & CHARGE



BATTERY



SIM CARD CONNECTOR



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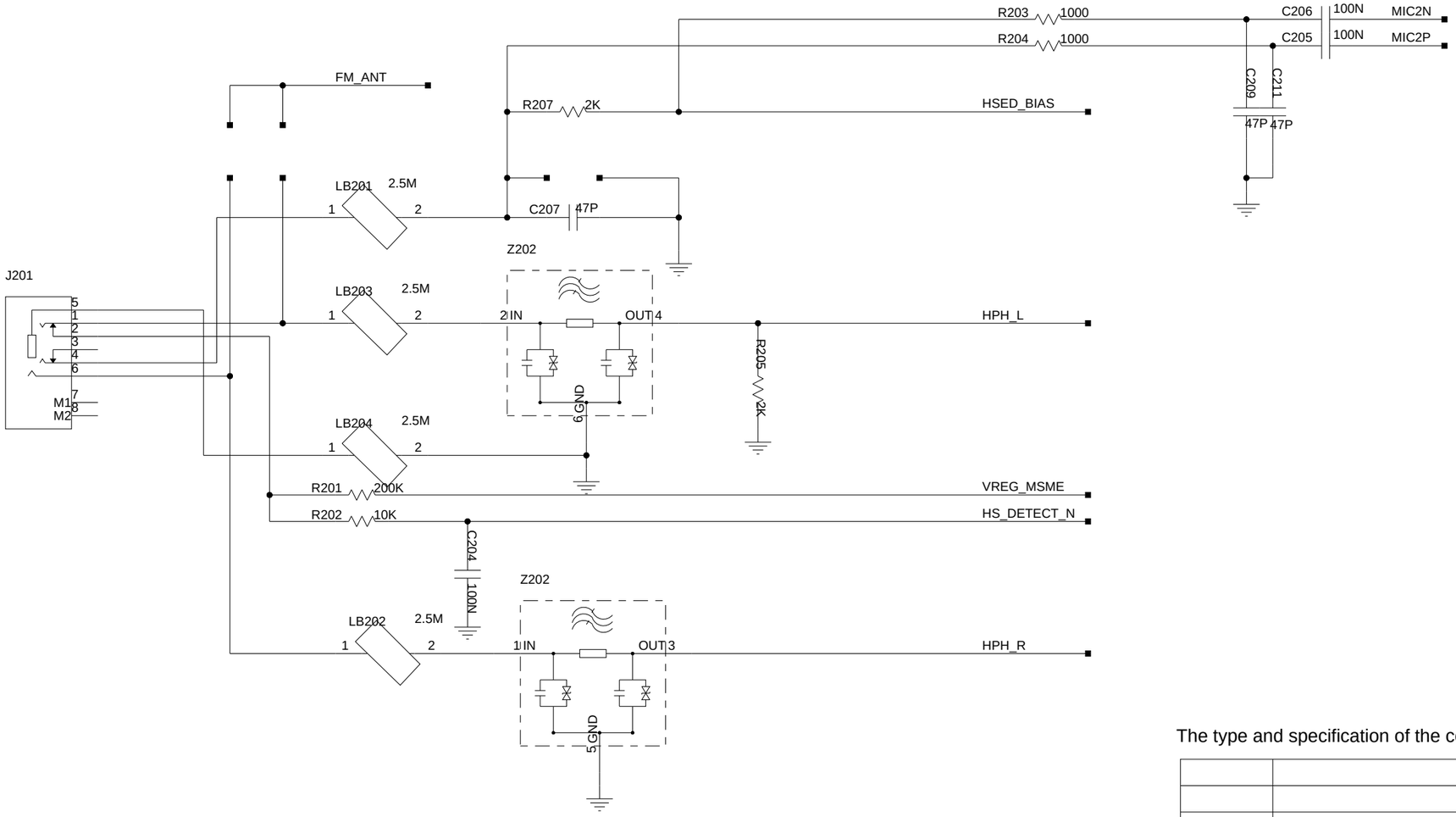
REVIEWED	ZHUJIANWEI 45059				
		VER	PART_NUMBER	SHEET 02 OF 21	
		A	03020UAW	HUAWEI TECH CO.,LTD.	

HEADSET



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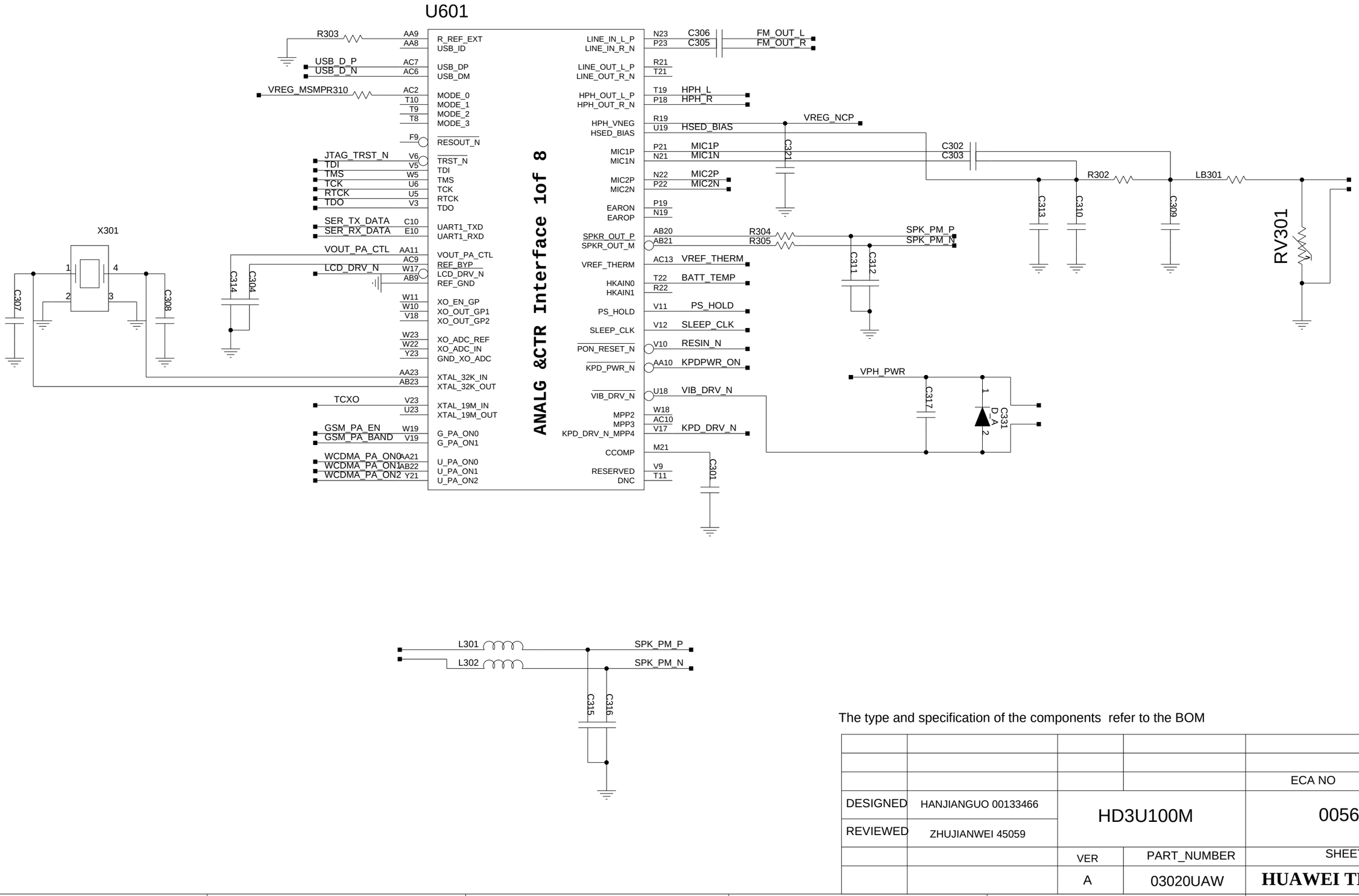
REVIEWED	ZHUJIANWEI 45059				
		VER	PART_NUMBER	SHEET 03 OF 21	
		A	03020UAW	HUAWEI TECH CO.,LTD.	

ANALOG



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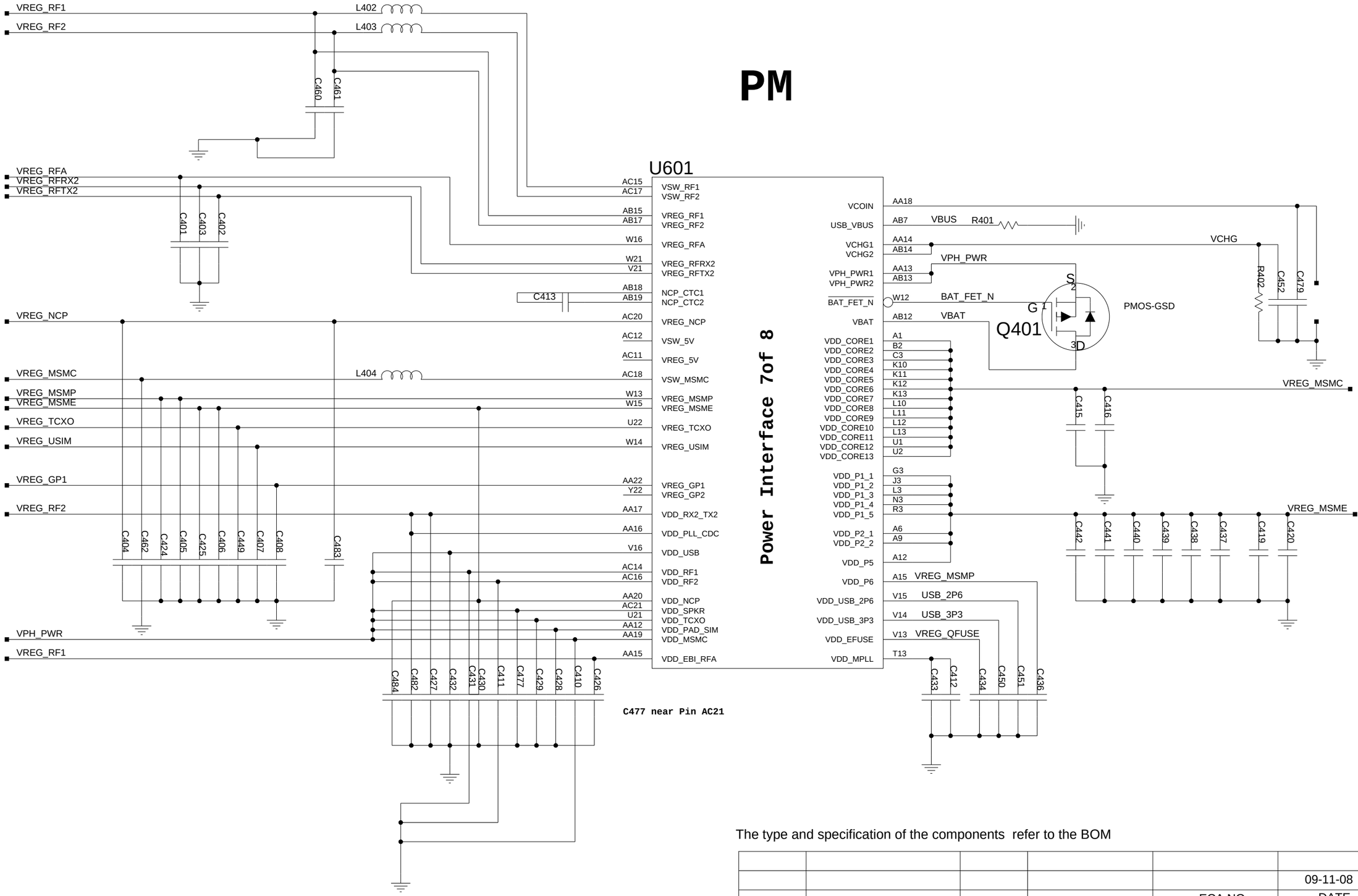
REVIEWED	ZHUJIANWEI 45059				
		VER	PART_NUMBER	SHEET 04 OF 21	
		A	03020UAW	HUAWEI TECH CO.,LTD.	

PM



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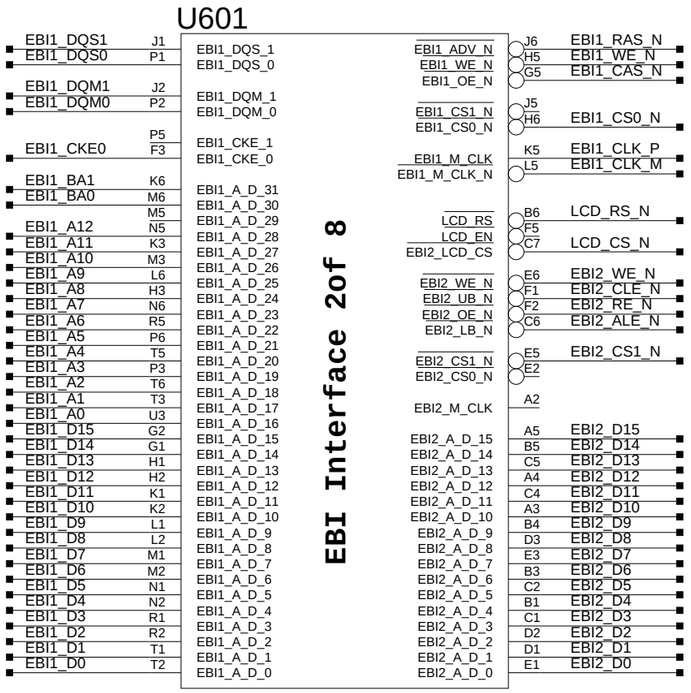
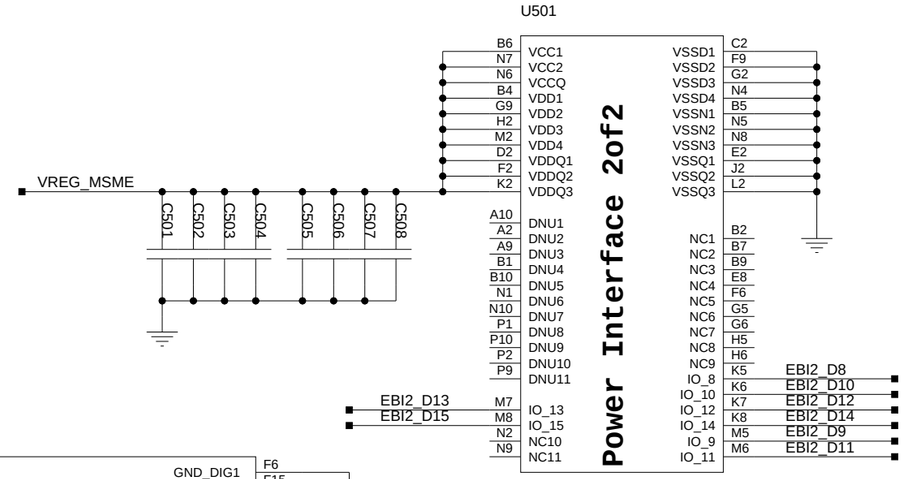
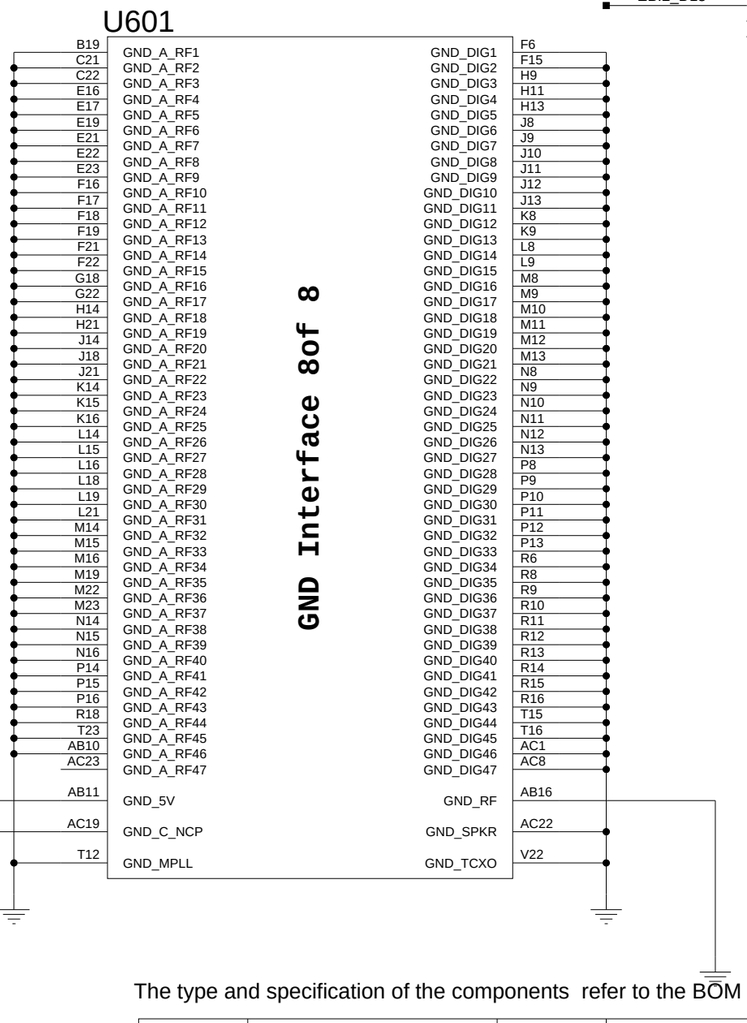
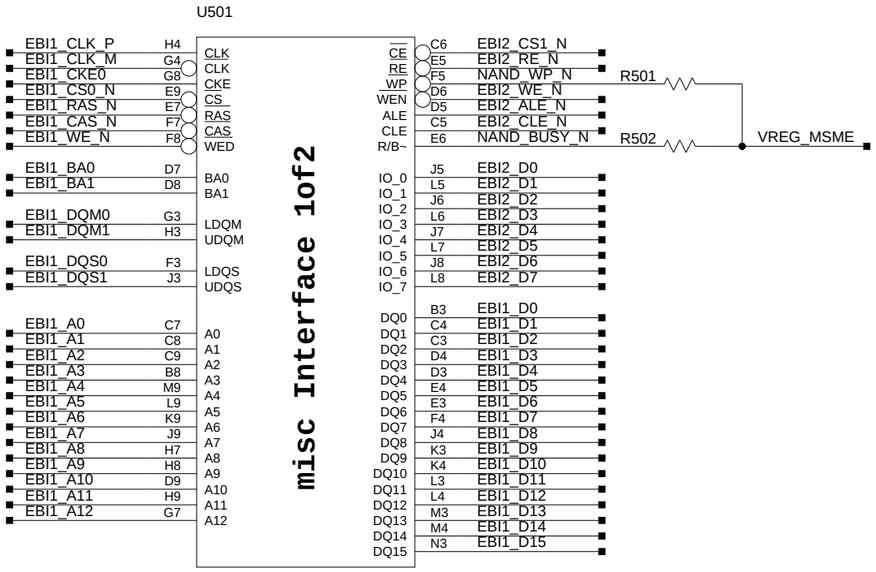
REVIEWED	ZHUJIANWEI 45059				
		VER	PART_NUMBER	SHEET 05 OF 21	
		A	03020UAW	HUAWEI TECH CO.,LTD.	

MEMORY









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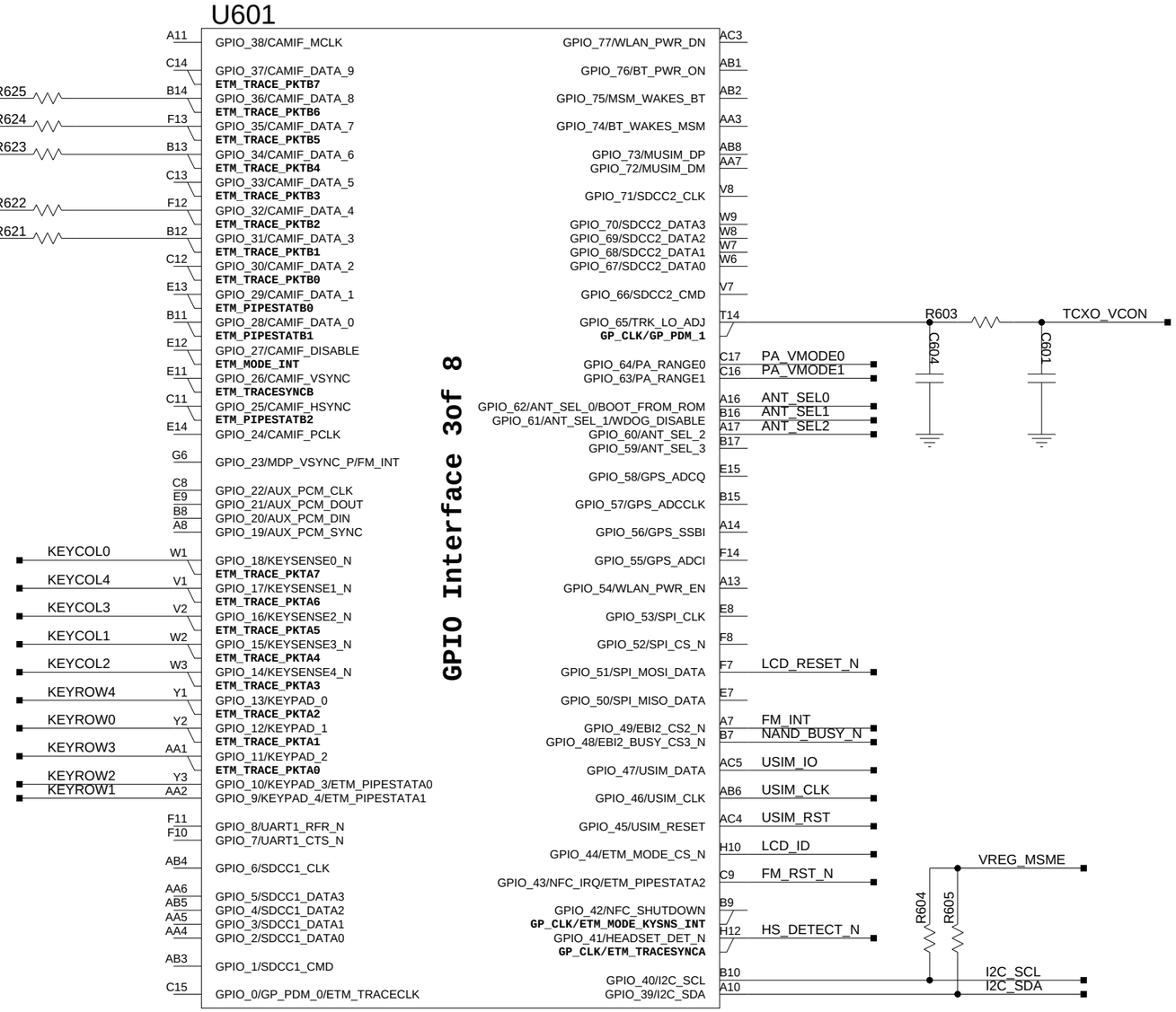
REVIEWED	ZHUJIANWEI 45059				
		VER	PART_NUMBER	SHEET 06 OF 21	
		A	03020UAW	HUAWEI TECH CO.,LTD.	

0

GPIO



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REVIEWED	ZHUJIANWEI 45059				
		VER	PART_NUMBER	SHEET 07 OF 21	
		A	03020UAW	**HUAWEI TECH CO.,LTD.**	

GPIO Mapping

GPIO0	
GPIO1	SD_CMD
GPIO2	SD_DATA0/BOARD_ID0
GPIO3	SD_DATA1/BOARD_ID1
GPIO4	SD_DATA2/BOARD_ID2
GPIO5	SD_DATA3/BOARD_ID3
GPIO6	SD_CLK
GPIO7	UART1_CTS_N
GPIO8	UART1_RFR_N
GPIO9	KEYROW1
GPIO10	KEYROW2
GPIO11	KEYROW3
GPIO12	KEYROW0
GPIO13	KEYROW4
GPIO14	KEYCOL2
GPIO15	KEYCOL1
GPIO16	KEYCOL3
GPIO17	KEYCOL4
GPIO18	KEYCOL0
GPIO19	AUX_PCM_SYNC
GPIO20	AUX_PCM_DIN
GPIO21	AUX_PCM_DOUT
GPIO22	AUX_PCM_CLK
GPIO23	MDP_VSYNC_P
GPIO24	CAMIF_PCLK_I
GPIO25	CAMIF_HSYNC
GPIO26	CAMIF_VSYNC
GPIO27	CAMIF_SHDN
GPIO28	CAMIF_SHDN_T
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	HS_DETECT_N
GPIO42	
GPIO43	FM_RST_N
GPIO44	LCD_ID
GPIO45	USIM_RST
GPIO46	USIM_CLK
GPIO47	USIM_IO
GPIO48	NAND_BUSY_N
GPIO49	FM_INT
GPIO50	CAMIF_RESET
GPIO51	LCD_RESET_N
GPIO52	
GPIO53	
GPIO54	VERSION_ID
GPIO55	
GPIO56	
GPIO57	
GPIO58	
GPIO59	
GPIO60	ANT_SEL2
GPIO61	ANT_SEL1
GPIO62	ANT_SEL0
GPIO63	PA_VMODE1
GPIO64	PA_VMODE0
GPIO65	TCXO_VCON
GPIO66	
GPIO67	SPK_REV_SWITCH

GPIO68	
GPIO69	
GPIO70	
GPIO71	
GPIO72	
GPIO73	
GPIO74	
GPIO75	
GPIO76	BT_PWR_ON
GPIO77	
GPIO78	

The type and specification of the components refer to the BOM

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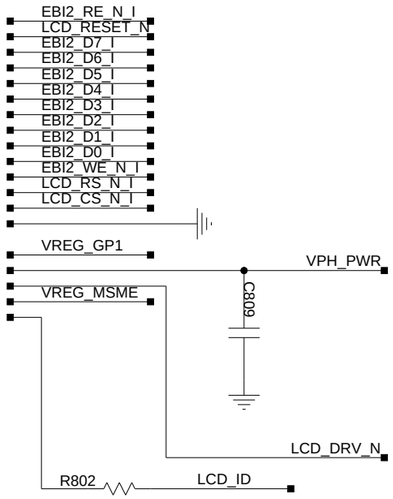
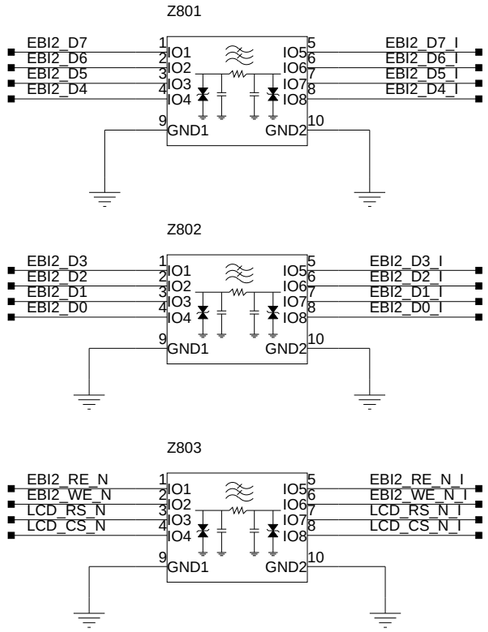
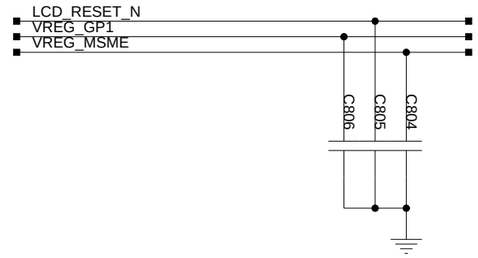
		VER	PART_NUMBER	SHEET 08 OF 21	
		A	03020UAW	HUAWEI TECH CO.,LTD.	

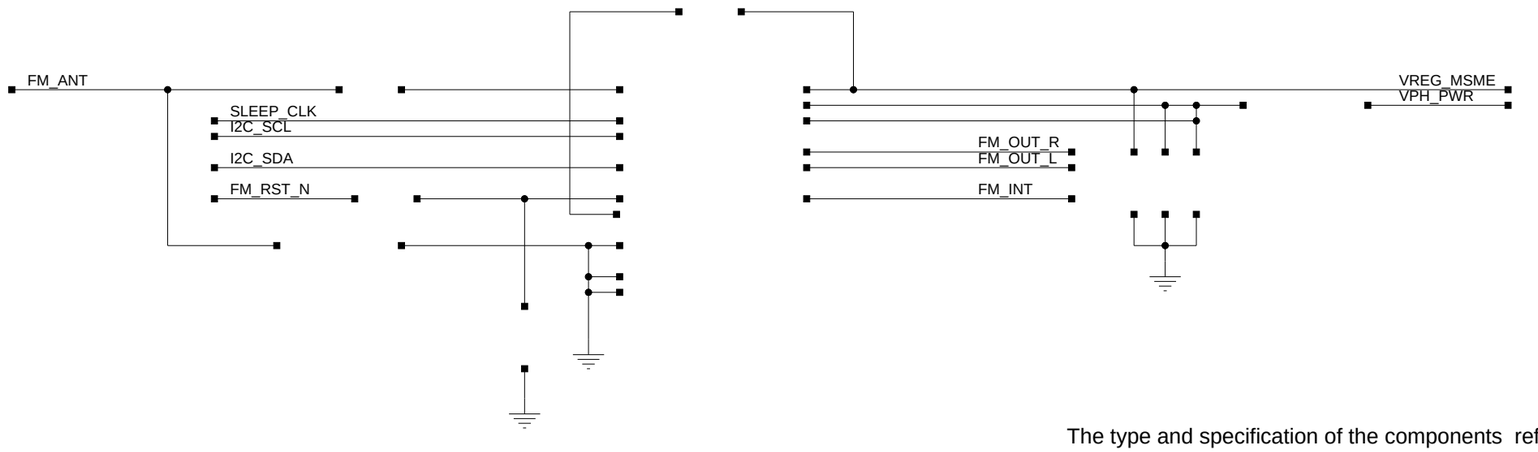
LCD







FM



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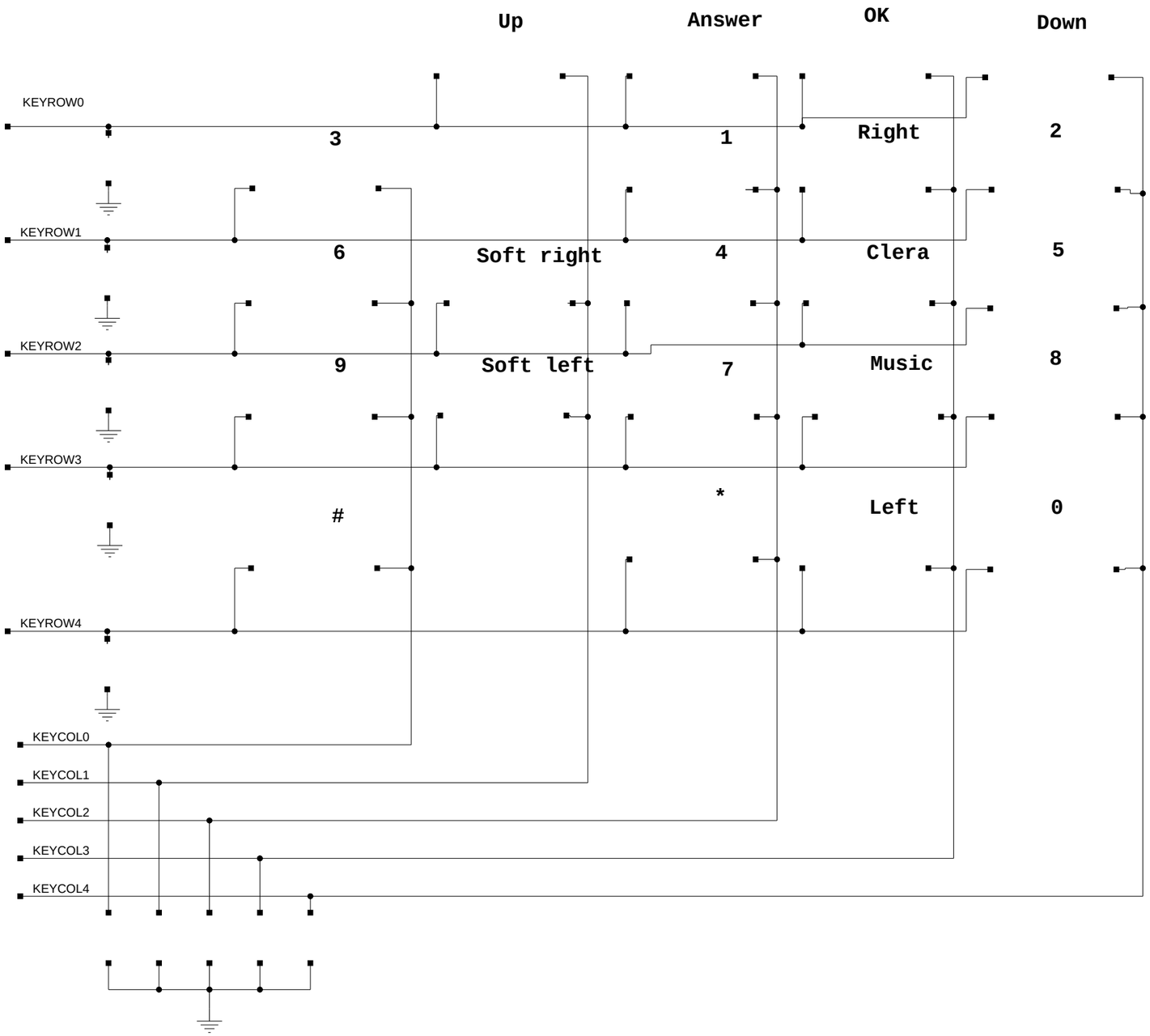
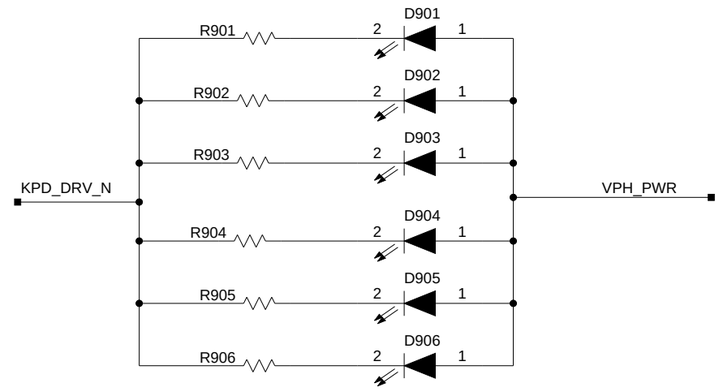
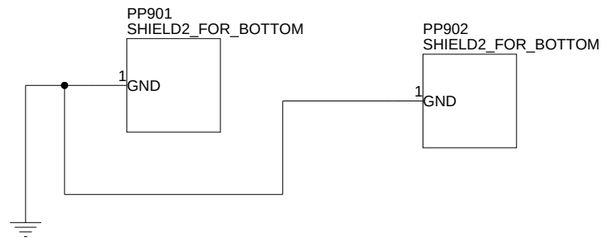
DESIGNED	HANJIANGUO 00133466	HD3U100M		00560804	
REVIEWED	ZHUJIANWEI 45059				
		VER	PART_NUMBER	SHEET 09 OF 21	
		A	03020UAW	HUAWEI TECH CO.,LTD.	

KEYPAD



FOR NOW KEYPAD, R901/2=22, R905/6=0.
FOR FUTURE, R901/2=0, R905/6=22.





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DESIGNED	HANJIANGUO 00133466	HD3U100M		00560804	
REVIEWED	ZHUJIANWEI 45059				
		VER	PART_NUMBER	SHEET 10 OF 21	
		A	03020UAW	HUAWEI TECH CO.,LTD.	

30. RF TO BASEBAND I/O PORTS

POWER SUPPLY FOR QSC6240/6270 RF

VREG_RFTX2
VREG_RFRX2
VREG_RFA

FOR ANTERNA SWITCH CONTROL

VREG_MSMP
ANT_SEL0
ANT_SEL1
ANT_SEL2

FOR TCXO

VREG_TCXO
TCXO
TCXO_VCON

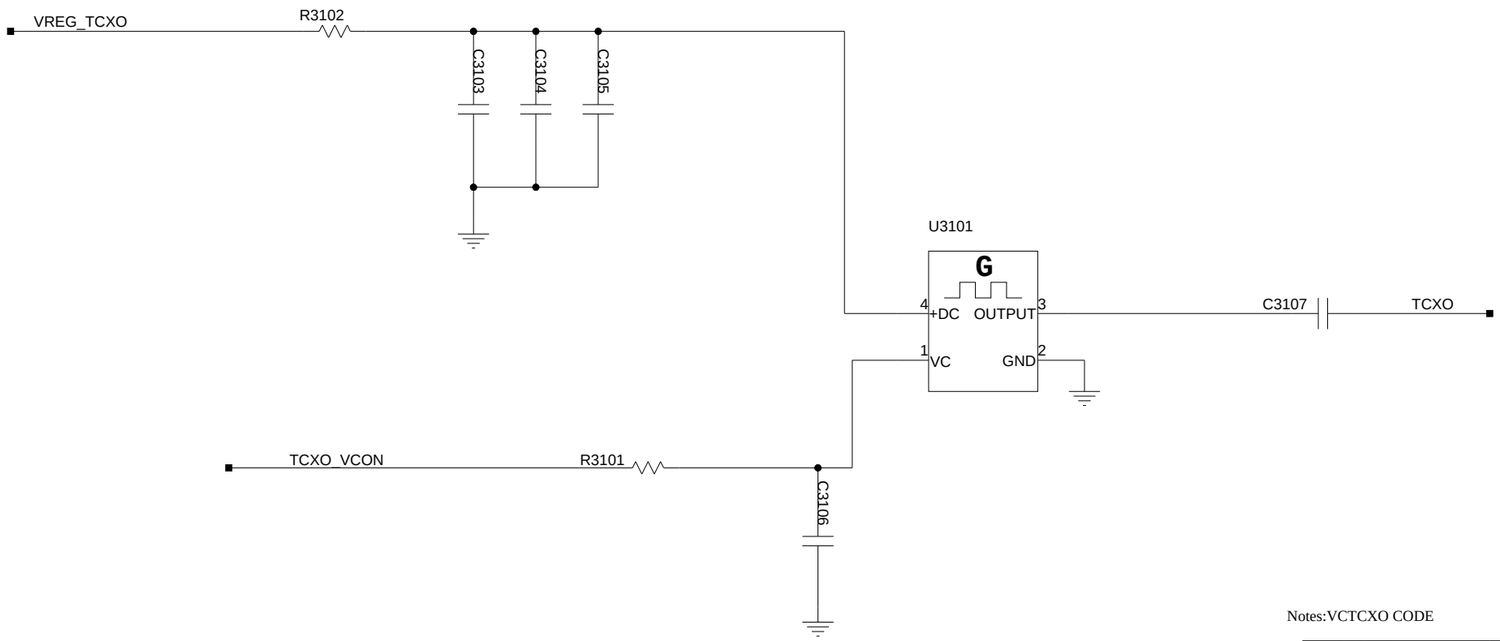
FOR PA CONTROL

PA_VMODE0
PA_VMODE1
WCDMA_PA_ON0
WCDMA_PA_ON2
WCDMA_PA_ON1
VBAT
GSM_PA_BAND
GSM_PA_EN

The type and specification of the components refer to the BOM

				NA	09-04-23
				ECA NO	DATE
DESIGNED	ZENG WEICAI 65065	QSC6240 RF		00******	
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 1 OF 12	
		A	0302****	HUAWEI TECH CO.,LTD.	

31. 19.2MHz VCTCXO



Notes:VCTCXO CODE

CODE	Load
12070013	5k//40pF
12070023	5k//40pF(for GPS)

The type and specification of the components refer to the BOM

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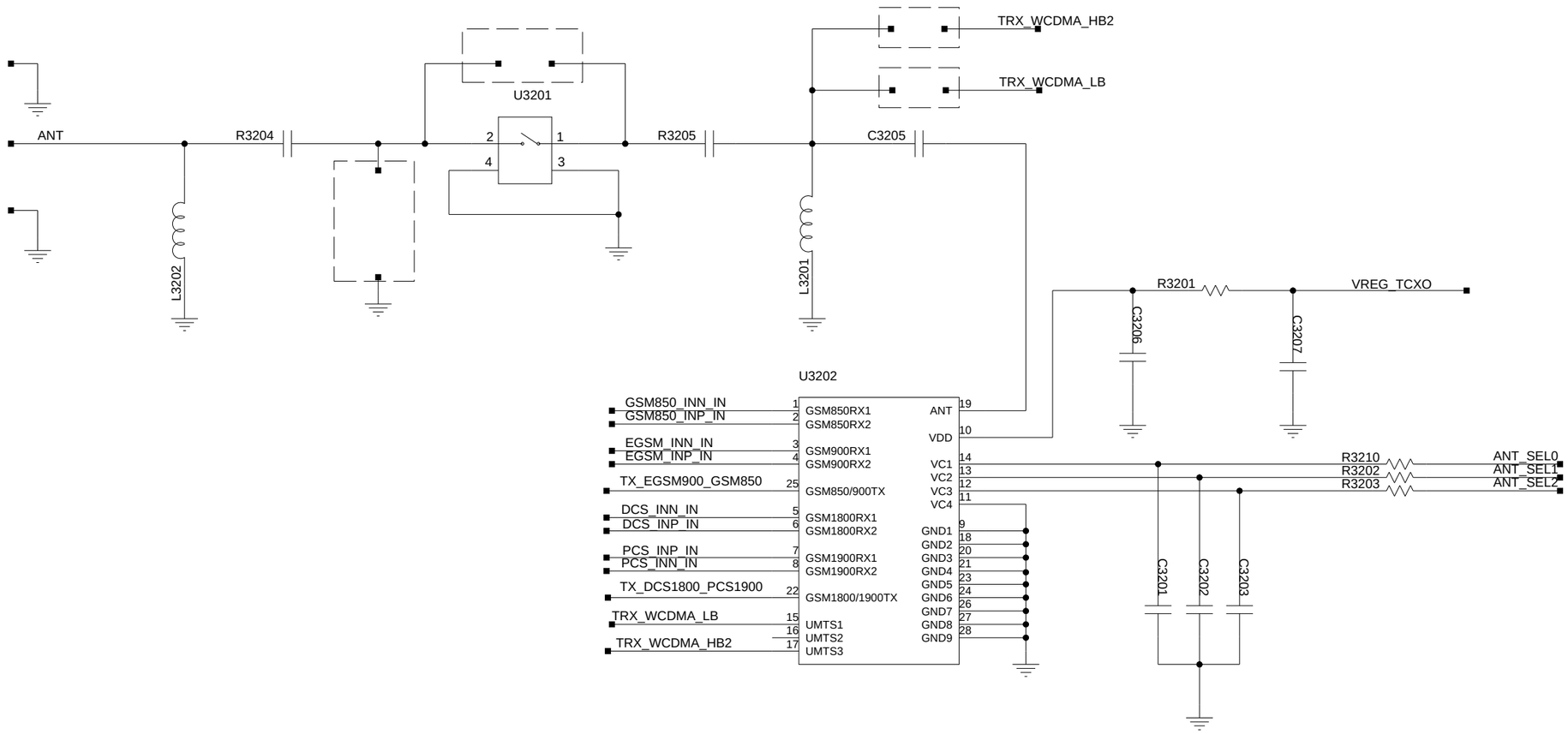
DESIGNED	ZENG WEICAI 65065	QSC6240 RF		00******	
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 2 OF 12	
		A	0302****	HUAWEI TECH CO.,LTD.	

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
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		24
WCDMA CELL	824-849	869-894		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	1	1	0
PCS_RX	GSM1900 RX	0	1	0	0
EGSM_RX	GSM900 RX	0	0	1	0
GCELL_RX/CUT	GSM850 RX	0	0	0	0
BAND VIII_TX/RX	W900_TX/RX	1	0	1	0
IMT_TX/RX	W2100/TX/RX	1	1	1	0
PCS_TX/RX	W1900/TX/RX/PCS1900 RX	1	0	1	1



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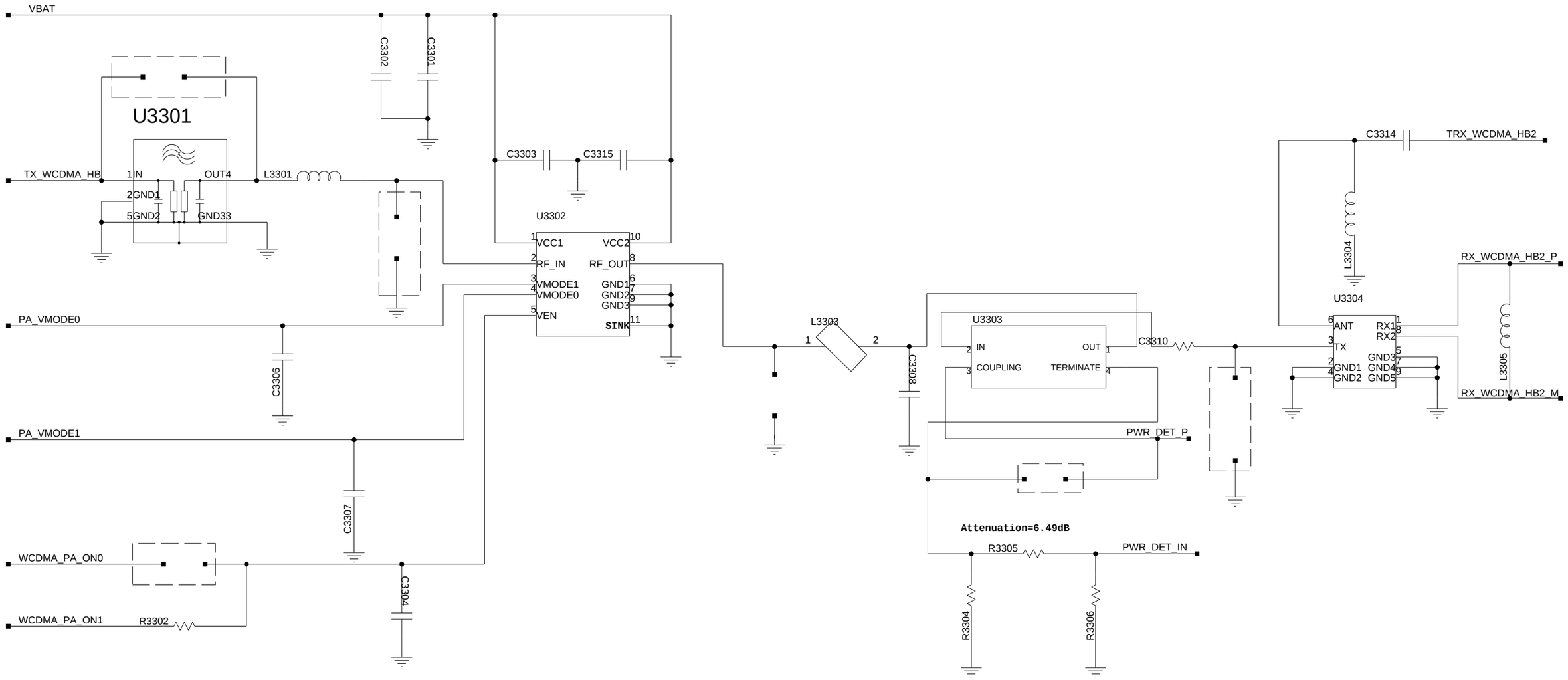
		VER	PART_NUMBER	SHEET 3 OF 12	
		A	0302****	HUAWEI TECH CO.,LTD.	

33. WCDMA IMT/PCS Power Amplifier



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

The type and specification of the components refer to the BOM

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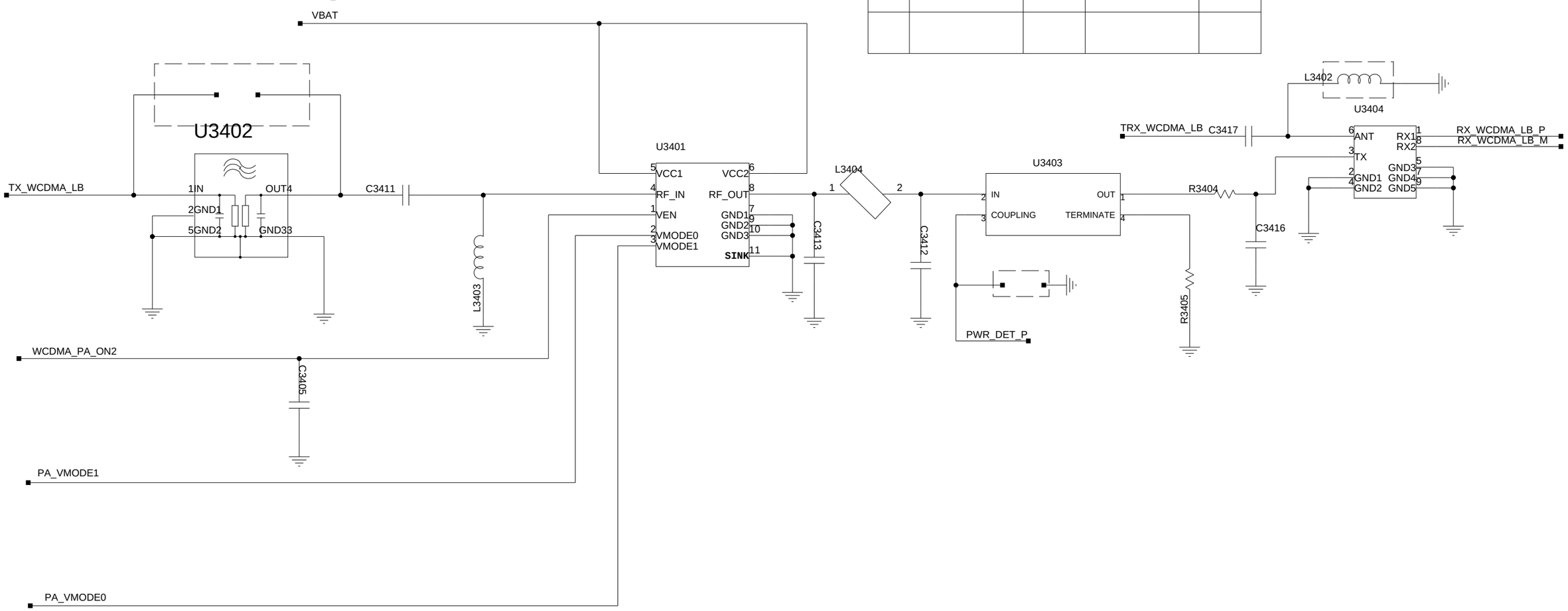
				ECA NO	DATE
DESIGNED	ZENG WEICAI 65065	QSC6240 RF		00******	
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 3 OF 12	
		A	0302****	HUAWEI TECH CO.,LTD.	

34. 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	13010189
U3404	B7640	13080035	B7681	13080029

VBAT_PA SHARE FILTER CAPACITOR WITH W2100 POWER



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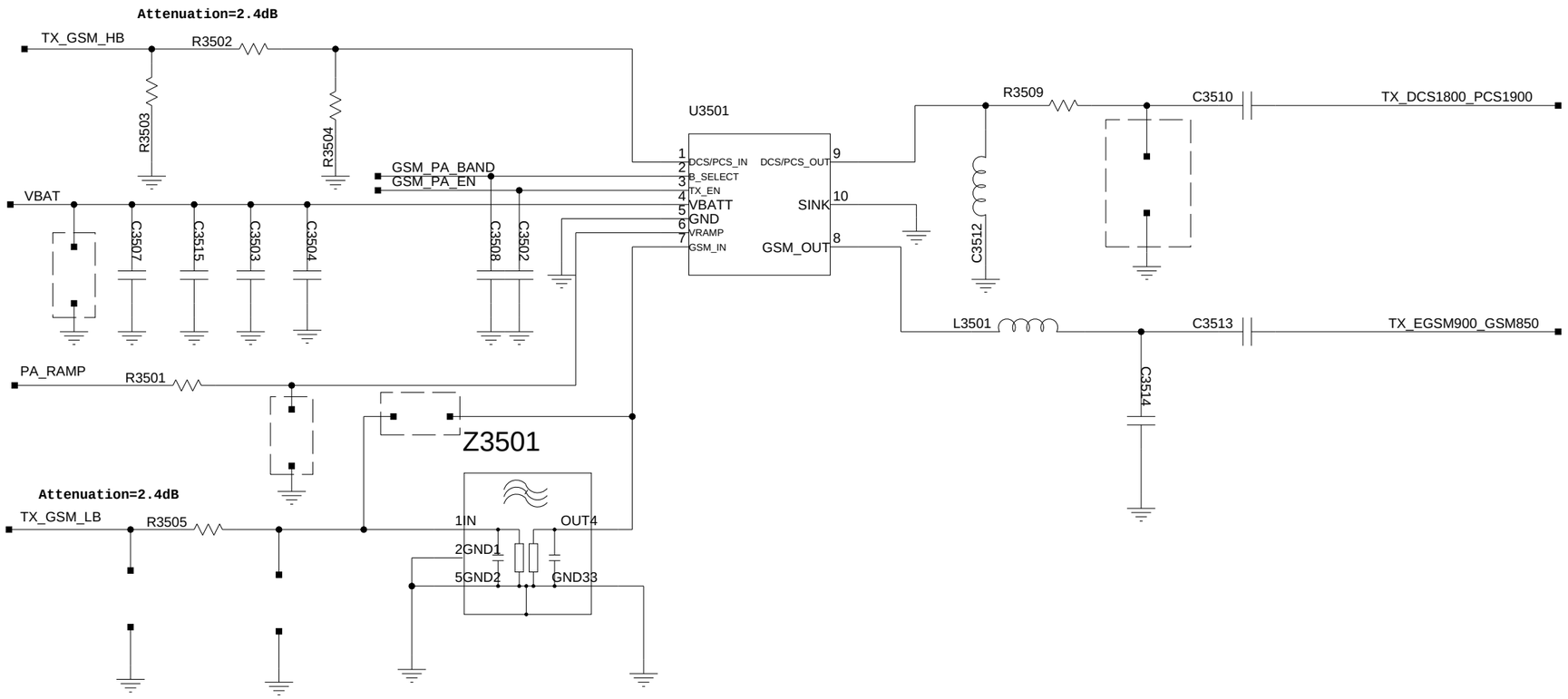
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 5 OF 12	
		A	0302****	HUAWEI TECH CO.,LTD.	

35. 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



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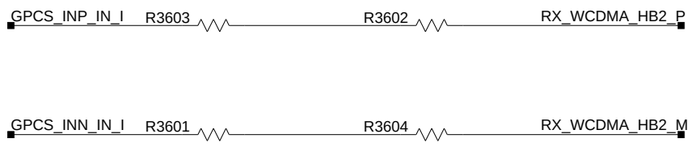
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 6 OF 12	
		A	0302****	HUAWEI TECH CO.,LTD.	

36. MATCHING CIRCUIT

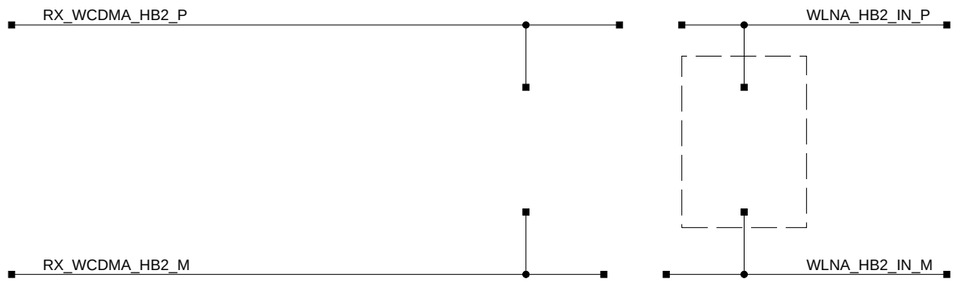
UMTS1900 RX MATCHING



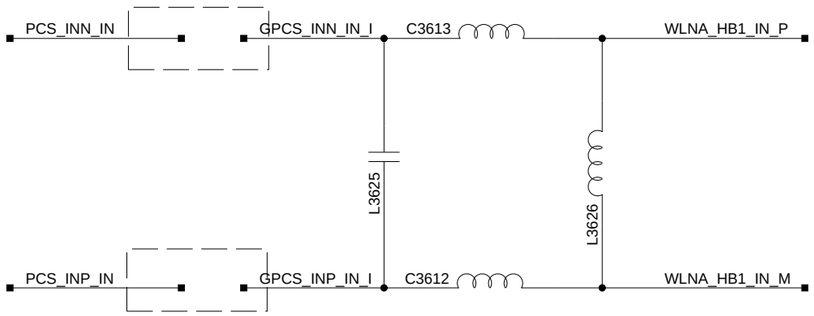
R3601/R3603 close to L3625

R3602/R3604 close to L3602

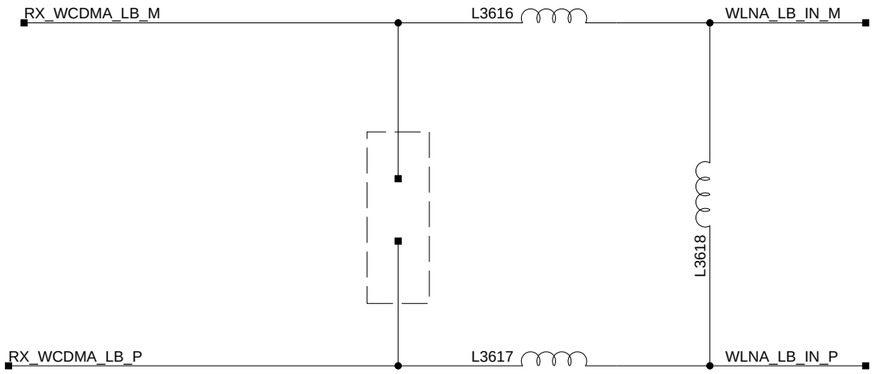
UMTS2100 RX MATCHING



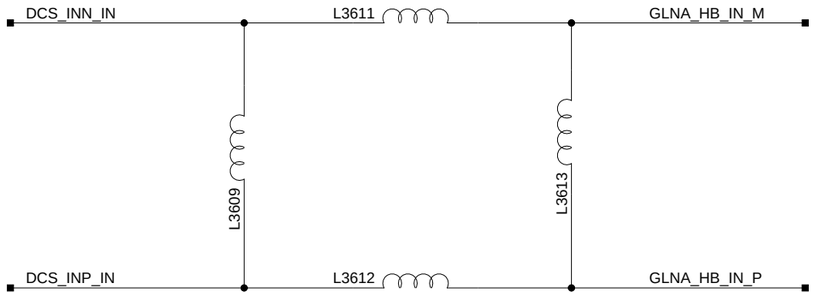
PCS RX MATCHING



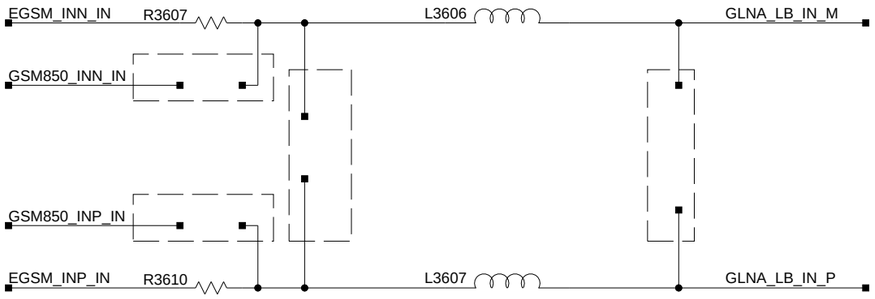
UMTS LB RX MATCHING



DCS RX MATCHING



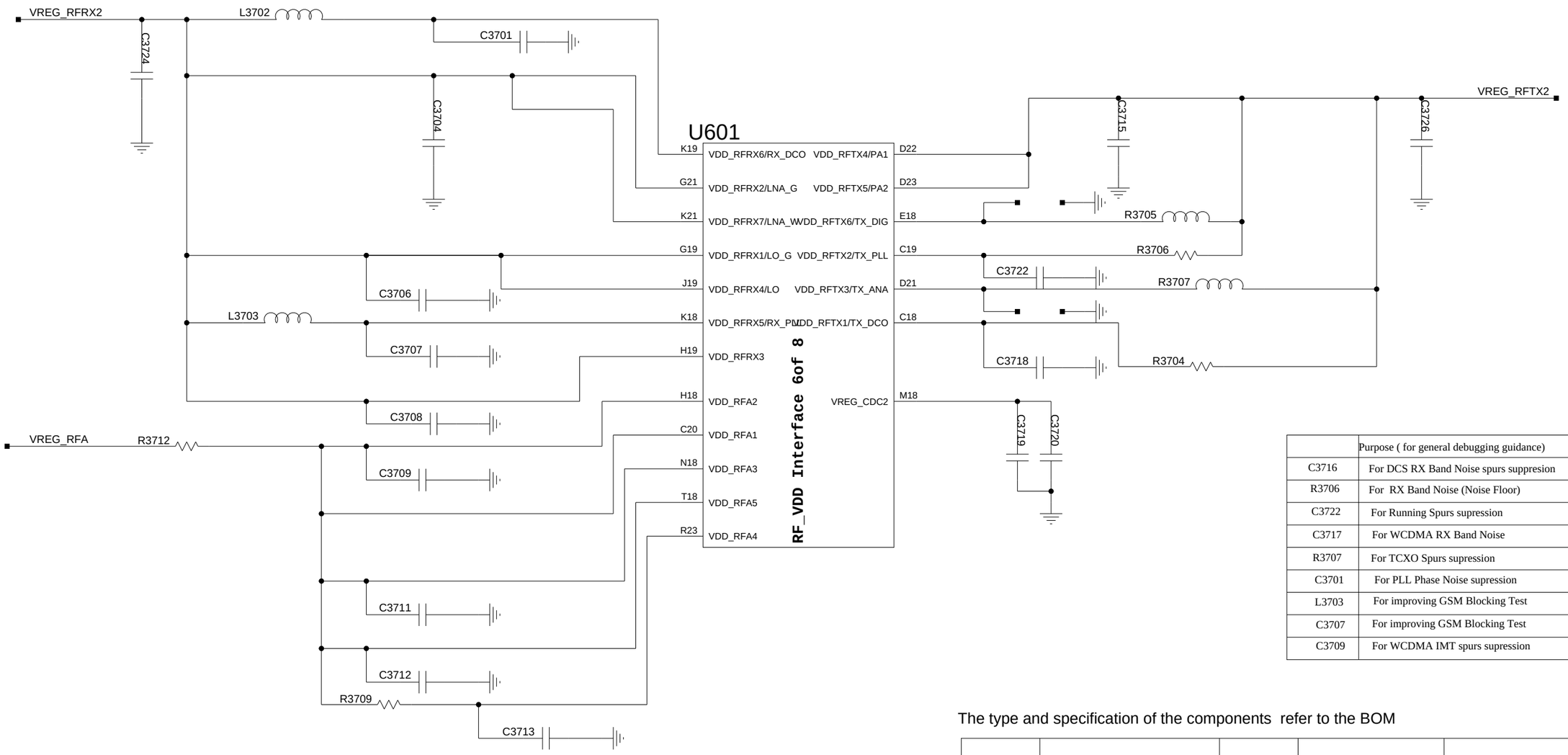
GSM900 RX MATCHING



The type and specification of the components refer to the BOM

				NA	09-11-08
				ECA NO	DATE
DESIGNED	ZENG WEICAI 65065	HD1U310M		00560804	
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 17 OF 21	
		A	03020UAW	HUAWEI TECH CO.,LTD.	

37. QSC6240/6270 RF POWER

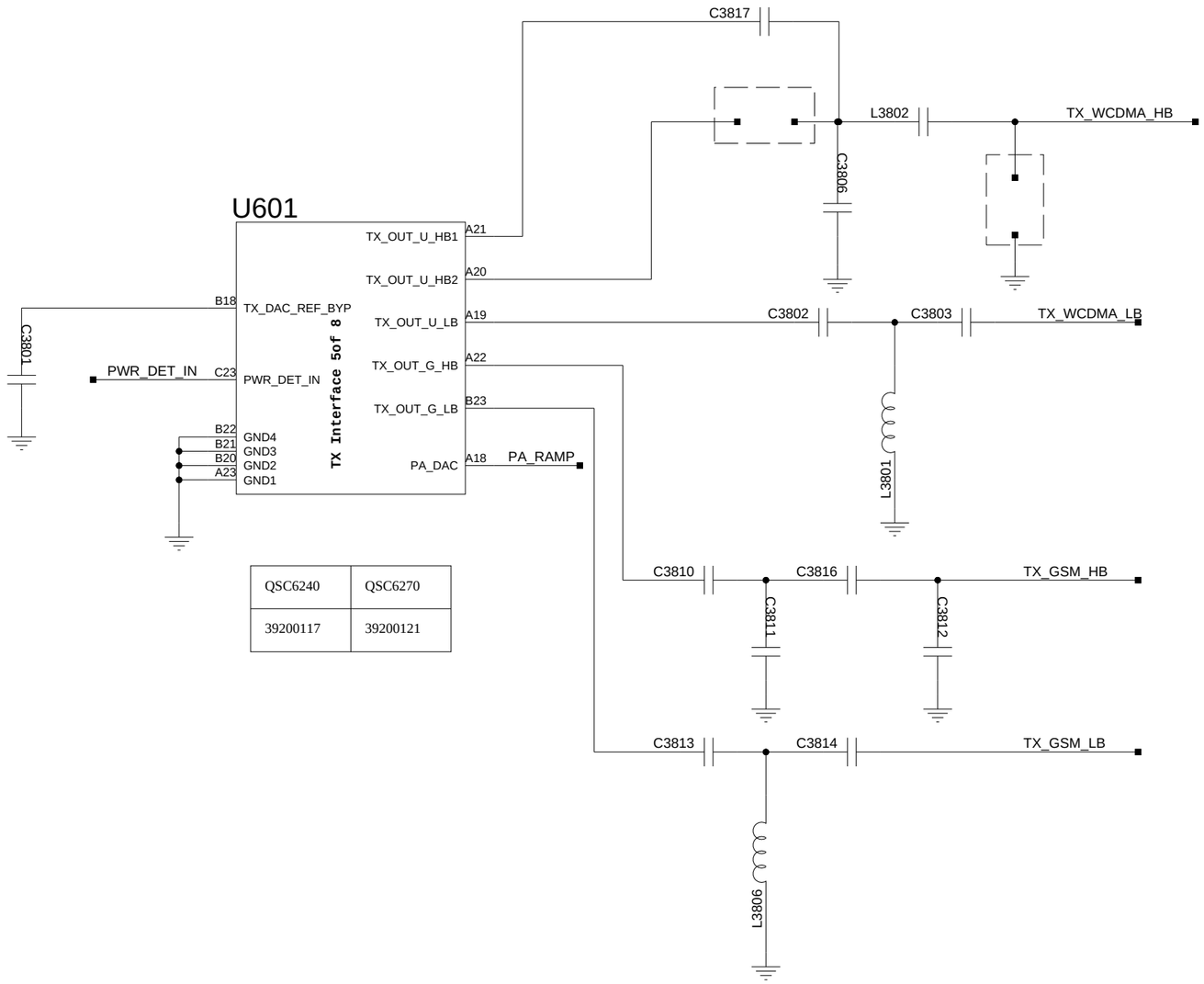


	Purpose (for general debugging guidance)
C3716	For DCS RX Band Noise spurs suppresion
R3706	For RX Band Noise (Noise Floor)
C3722	For Running Spurs supression
C3717	For WCDMA RX Band Noise
R3707	For TCXO Spurs supression
C3701	For PLL Phase Noise supression
L3703	For improving GSM Blocking Test
C3707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

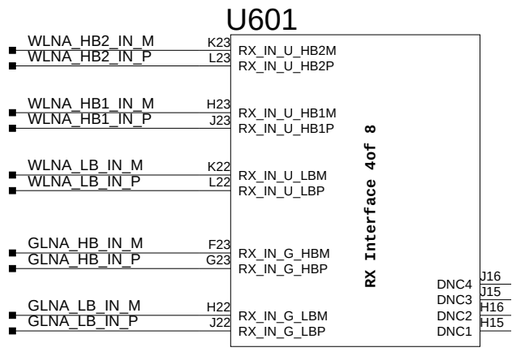
The type and specification of the components refer to the BOM

				NA	09-04-23
				ECA NO	DATE
DESIGNED	ZENG WEICAI 65065	QSC6240 RF		00******	
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 8 OF 12	
		A	0302****	HUAWEI TECH CO.,LTD.	

38. QSC6240/6270 RX/TX Circuit



QSC6240	QSC6270
39200117	39200121



The type and specification of the components refer to the BOM

				NA	09-04-23
				ECA NO	DATE
DESIGNED	ZENG WEICAI 65065	QSC6240 RF		00******	
REVIEWED	RF TMG				
		VER	PART_NUMBER	SHEET 9 OF 12	
		A	0302****	HUAWEI TECH CO.,LTD.	