

1.SCH List

BB SCHEMATICS

1. SCH List
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3. PMU-MT6320 Function Interface
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5. MT6589M GPIOs
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20. eMMC DCDC power

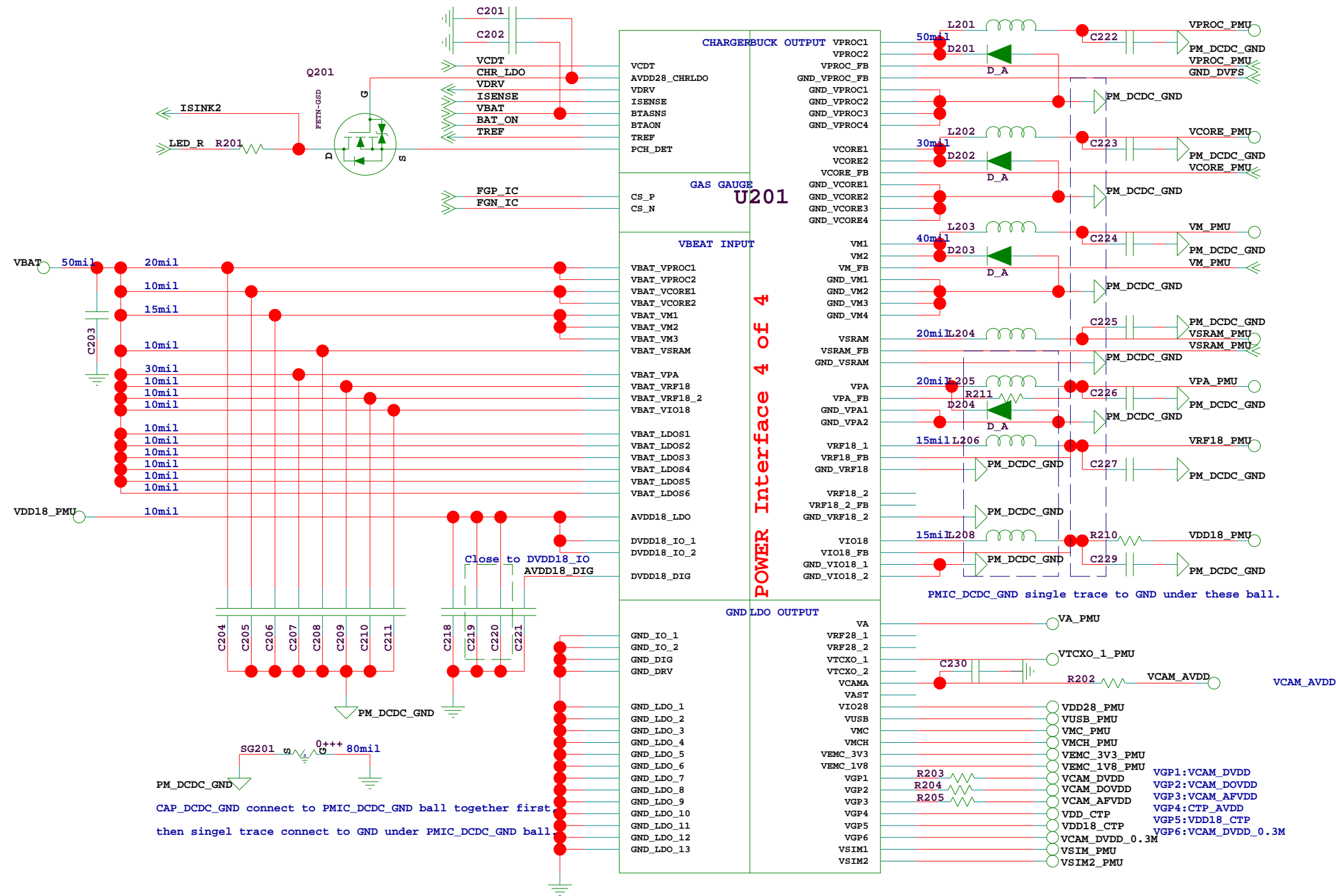
RF

21. RF Input Output Ports
22. WIFI/BT/FM/GPS MT6628Q
23. WIFI/BT/FM/GPS MT6628Q
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25. Reserved
26. Reserved
27. Reserved
- 28~30. Reserved
31. MT6167
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33. UMTS Band 1
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35. RX
28. Reserved
28. Reserved
36. Reserved (Diversity Path Front End)

The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 1 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

2. PMU-MT6320 Power



VPROC	1.15V Sleep mode 0.9V	2A	AP
VCORE	1.05V Sleep mode 0.9V	1.2A	Modem, system
VM	1.2V	1.1A	LPDDR2 core
VSRAM	1.15V Sleep mode 0.9V	600mA	SRAM IF.
VPA	3.4V	800mA	3G PA
VRF18	1.825v	450mA	MT6167
VRF18_2	1.825V	450mA	GPU
VDD18	1.8V	600mA	1V8 IO, VTD input
VTCXO_1	2.8V	40mA	MT6167
AVDD	1.8V	100mA	Analog, ADC
AVDD28	2.8V	40mA	Audio block(internal)
VCAMA	2.8V	200mA	CAM AVDD
VDD28	2.8V	400mA	2V8 IO, sensor
VUSB	3.3V	100mA	USB PHY
VMC	1.8/3.3V	200mA	TF Card IO IF.
VMCH	3.3V	800mA	TF Card Power
VEMC_1V8	1.8V	200mA	eMMC IO IF.
VEMC_3V3	3.0V	800mA	eMMC core
VGP1	1.8V	400mA	CAM DVDD
VGP2	1.8V	200mA	CAM DOVDD
VGP3	2.8V	200mA	CAM AFVDD
VGP4	2.8V	200mA	CTP_AVDD
VGP5	1.8V	200mA	VDD18_CTP
VGP6	1.8V	200mA	VCAM DVDD 0.3M
VSIM1	1.8/3.3V	200mA	SIM1
VSIM2	1.8/3.3V	200mA	SIM2
VIBR	3.0V	200mA	Vibrator
VRTC	2.8V	2mA	RTC block

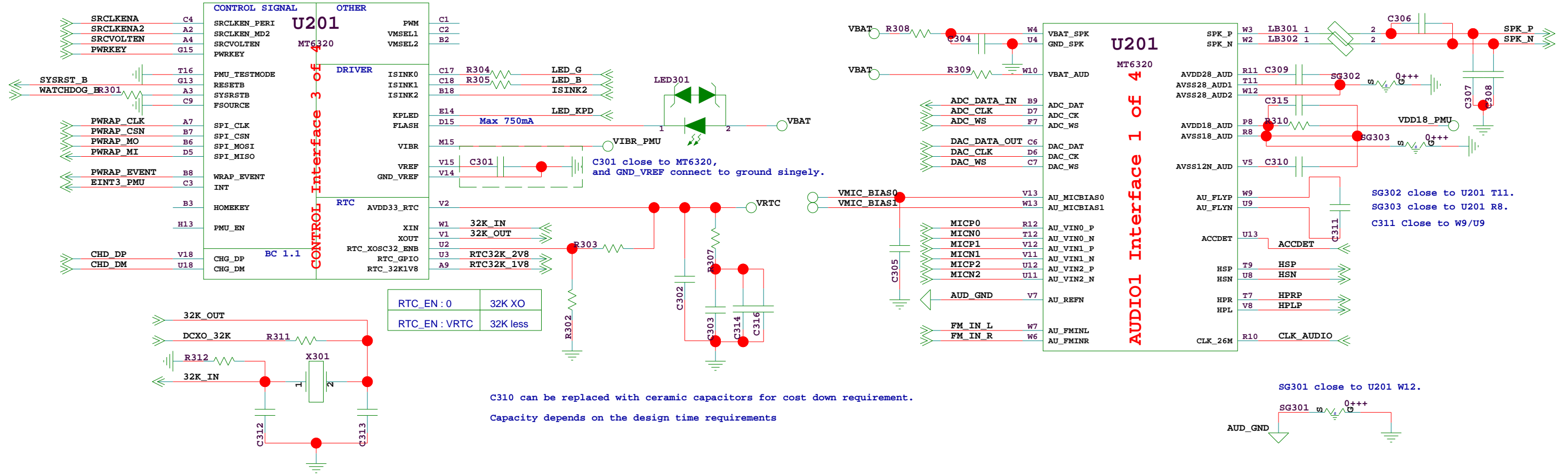
The type and specification of the components refer to the BOM

DESIGNED				ECA NO	DATE
REVIEWED					
		VER	PART_NUMBER	SHEET	OF
HUAWEI TECH CO.,LTD.					



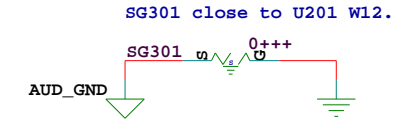
3. PMU-MT6320 Function Interface

	LPDDR2/1.2V	LPDDR3/1.25V	LPDDR2/1.35V	LPDDR2/1.5V
VMSEL 1	L	H	L	H
VMSEL 2	L	L	H	H

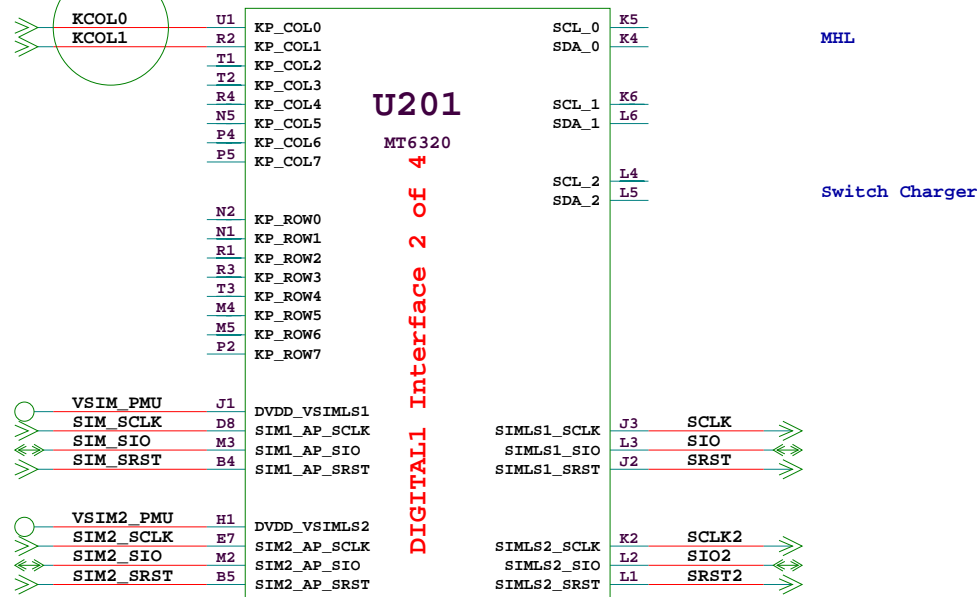


RTC_EN : 0	32K XO
RTC_EN : VRTC	32K less

C310 can be replaced with ceramic capacitors for cost down requirement.
Capacity depends on the design time requirements



KCOL0/KCOL1 configuration for INT mode.

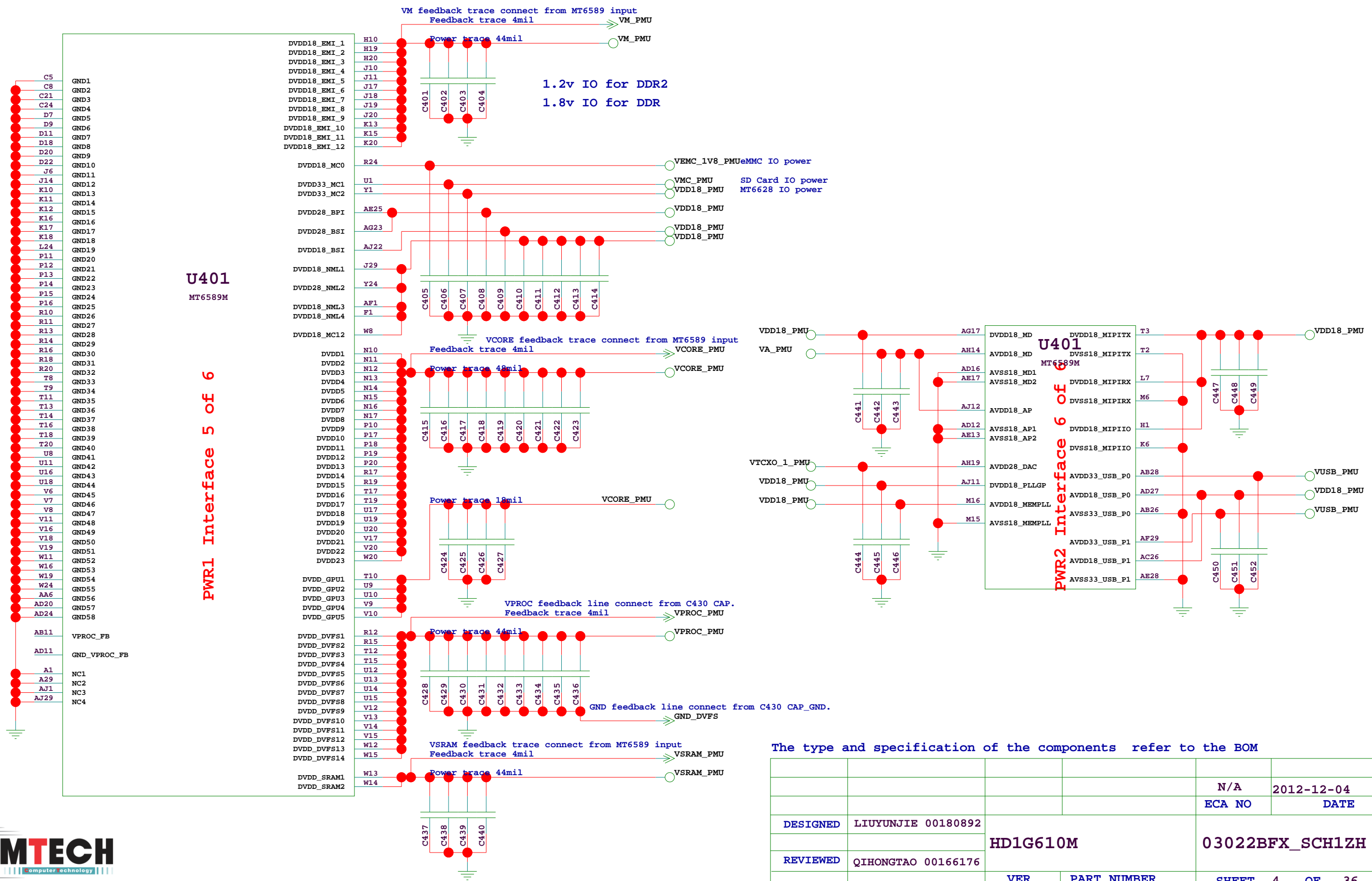


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DESIGNED	LIUYUNJIE 00180892	HD1G610M	03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176			
		VER	PART_NUMBER	SHEET 3 OF 36
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.



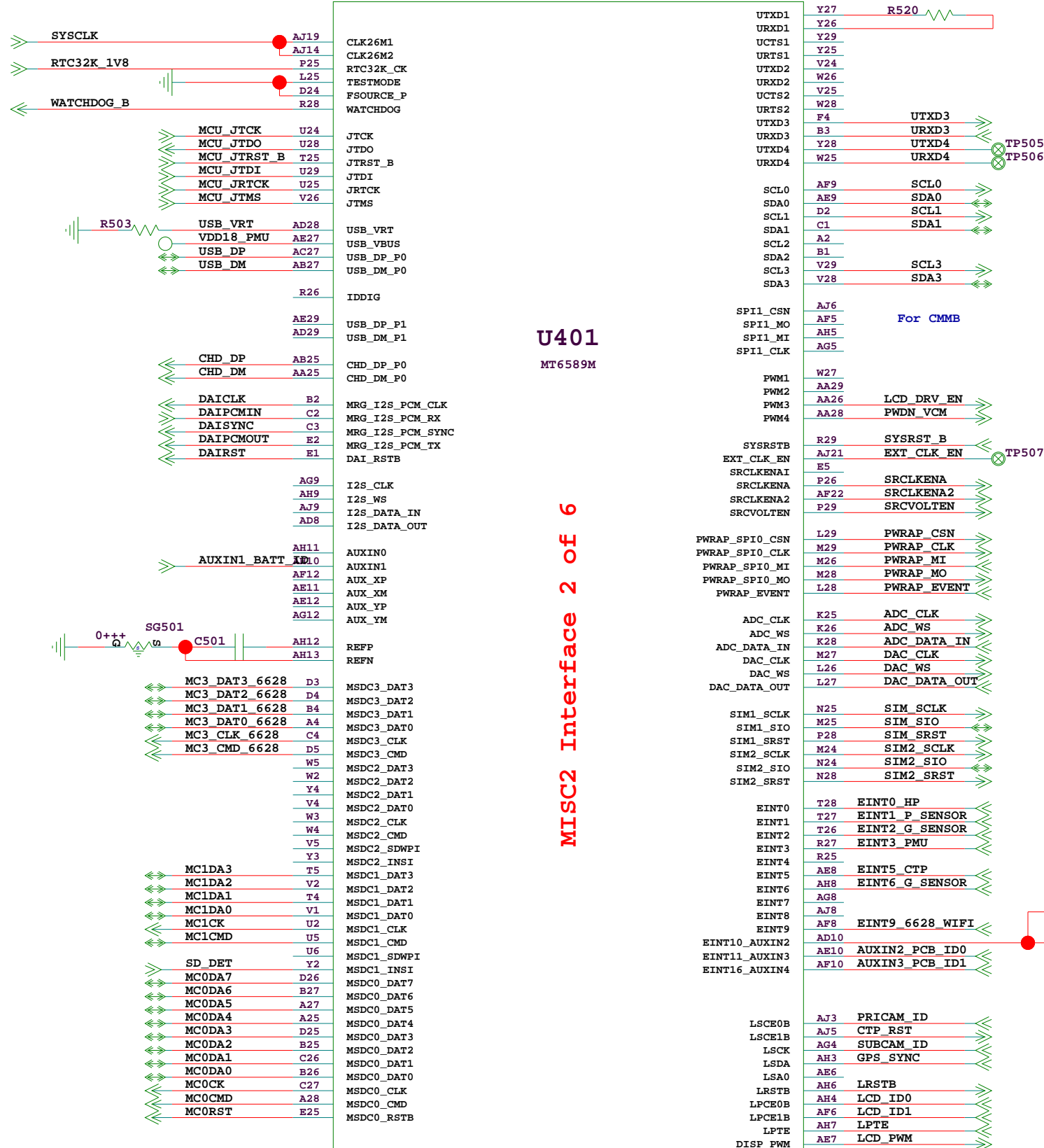
4. MT6589M Power Input



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				ECA NO	DATE
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		HD1G610M			03022BFX_SCH1ZH
REVIEWED	QIHONGTAO 00166176				
		VER	PART_NUMBER	SHEET	4 OF 36
		VER.C	03022BFX		HUAWEI TECH CO.,LTD.

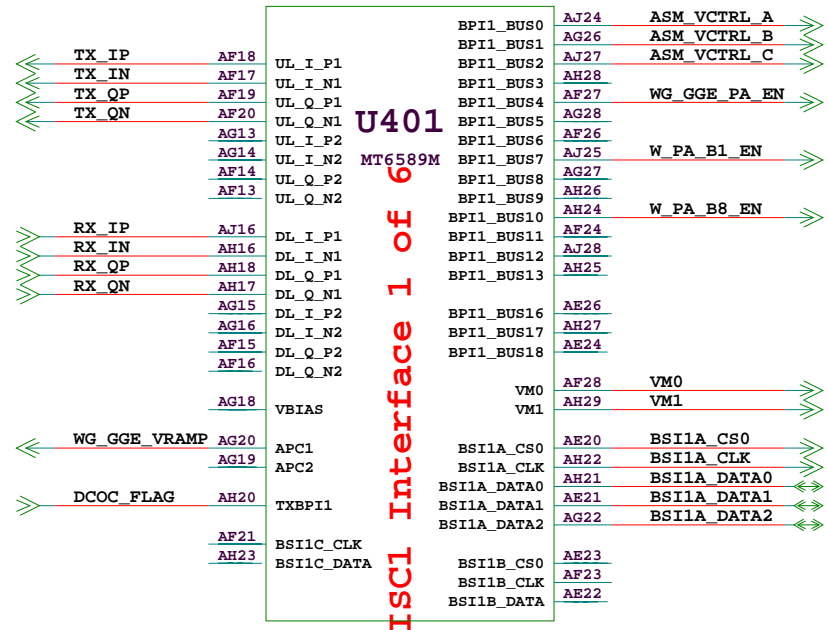


5. MT6589M GPIOs



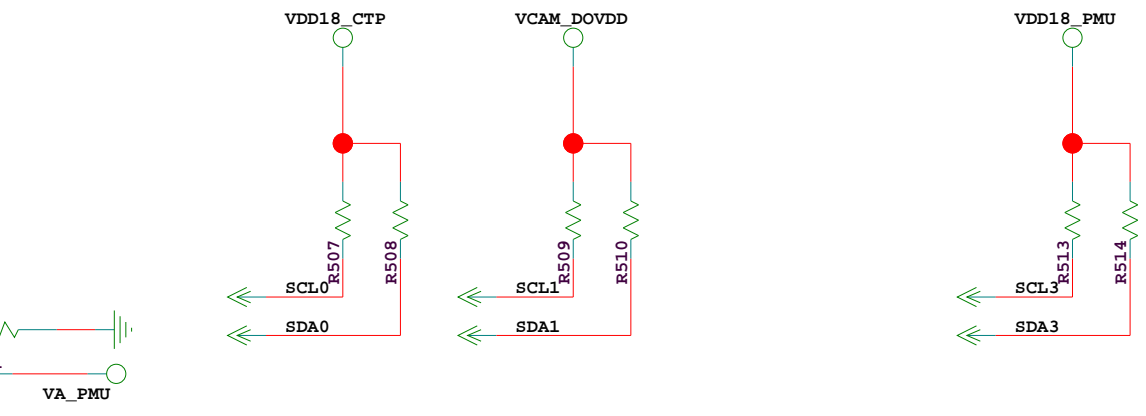
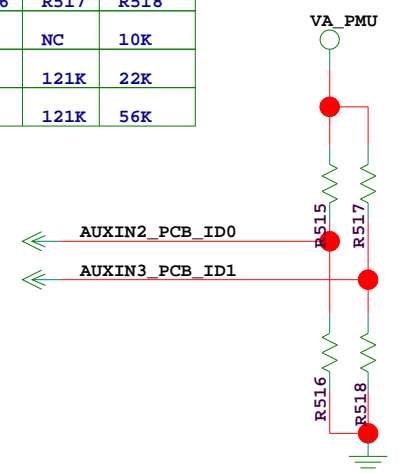
U401
MT6589M

MISC2 Interface 2 of 6



MISC1 Interface 1 of 6

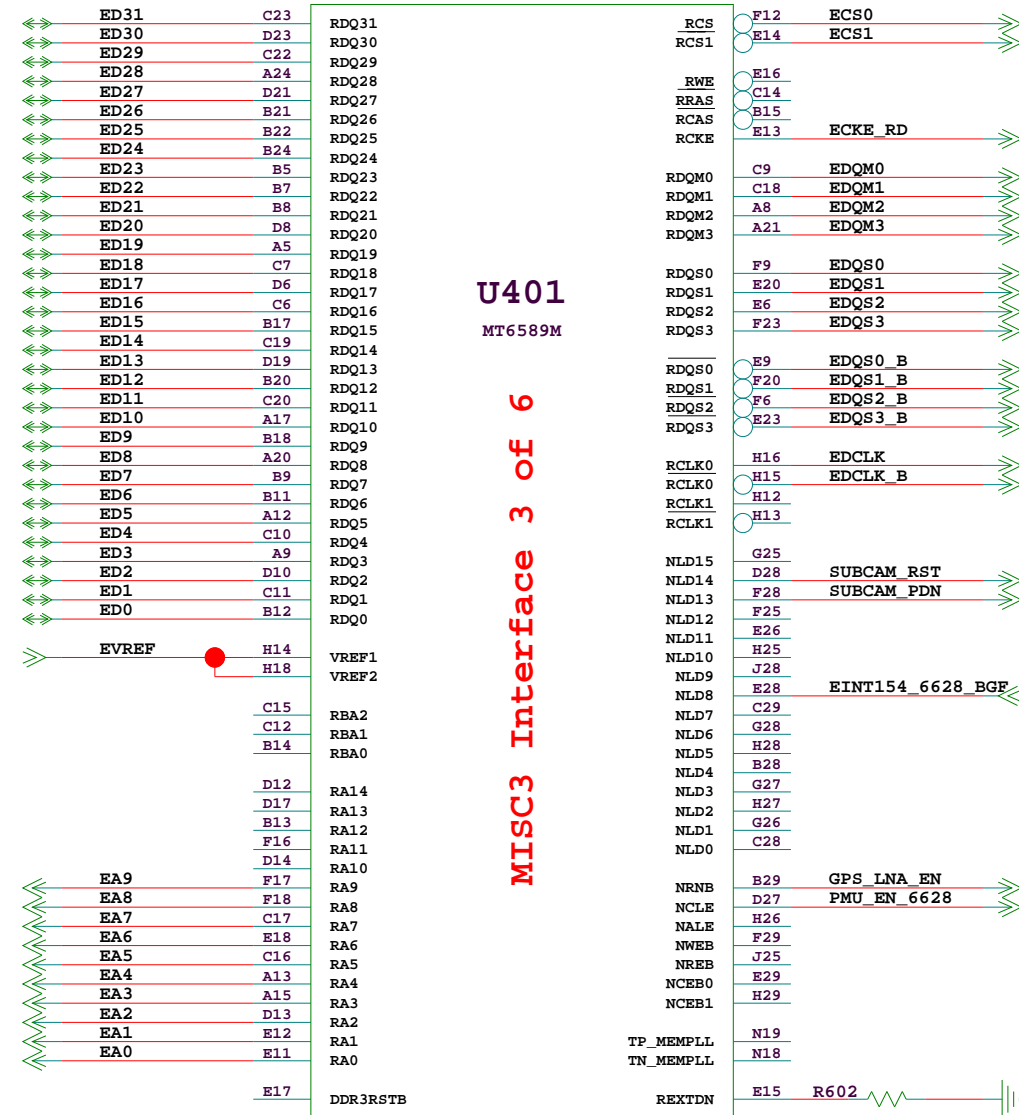
PCB ID	R515	R516	R517	R518
A	121K	22K	NC	10K
B	121K	22K	121K	22K
C	121K	22K	121K	56K



The type and specification of the components refer to the BOM

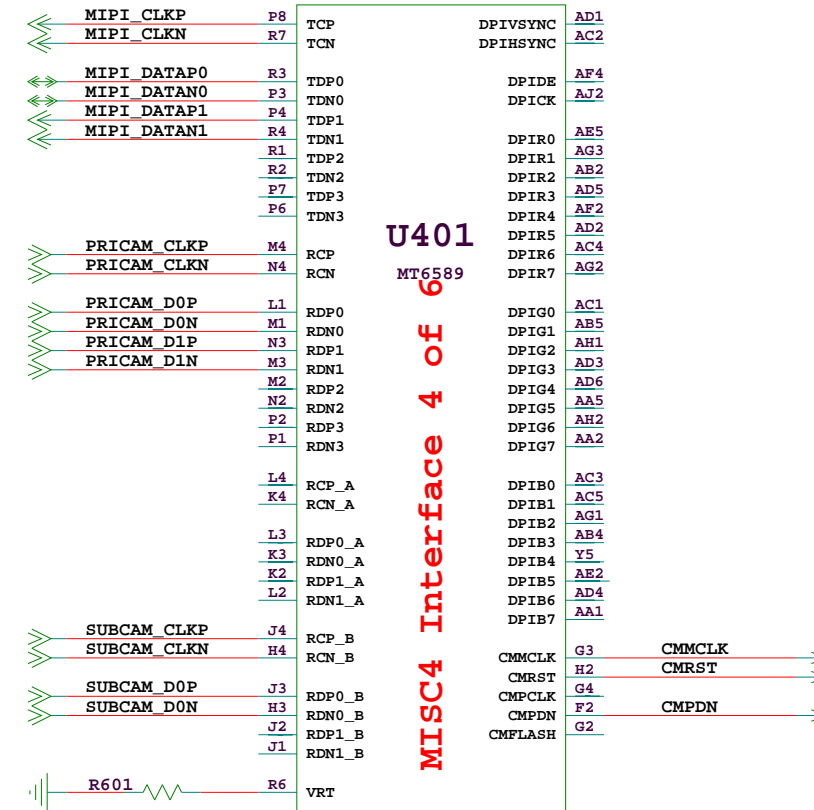
DESIGNED	LIUYUNJIE 0018092	HD1G610M	03022BFX_SCH1ZH
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER
		VER.C	03022BFX
		SHEET 5 OF 36	HUAWEI TECH CO.,LTD.

6. MT6589M High-speed BUS Interface (DDR2,MIPI)



U401
MT6589M

MISC3 Interface 3 of 6



U401
MT6589M

MISC4 Interface 4 of 6

The type and specification of the components refer to the BOM

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				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176				
		VER	PART_NUMBER	SHEET	6 OF 36
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

7. Reserved (MT6168)

A

A

B

B

C

C

D

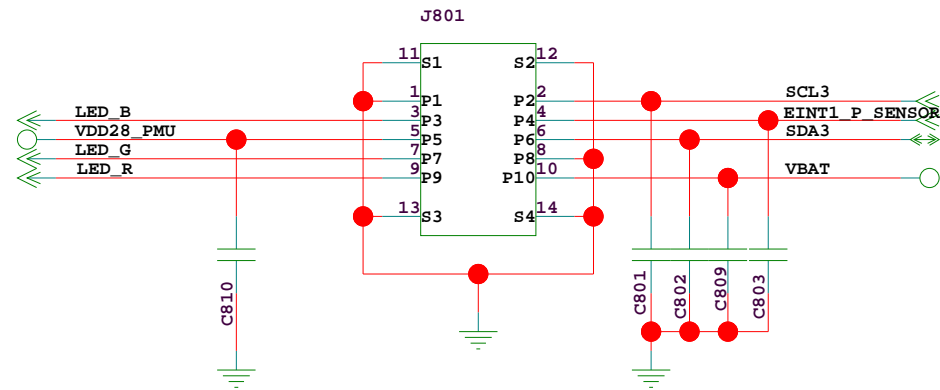
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The type and specification of the components refer to the BOM

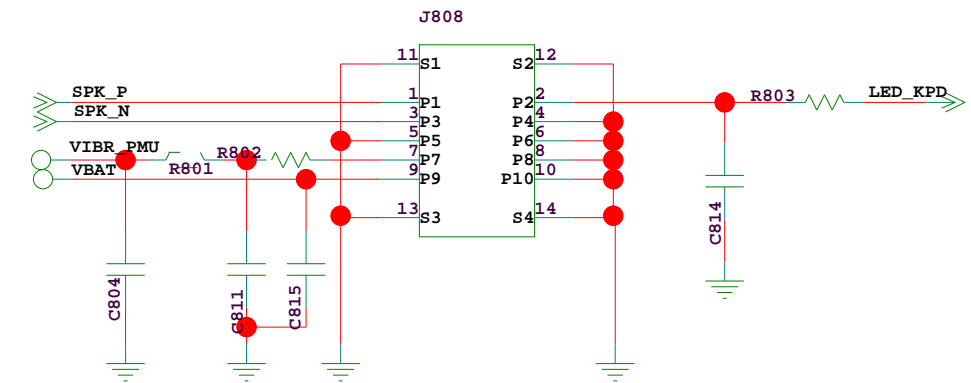
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REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 7 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

8. Peripheral FPC Interface/Indicator LED

Upper FPC



Lower FPC



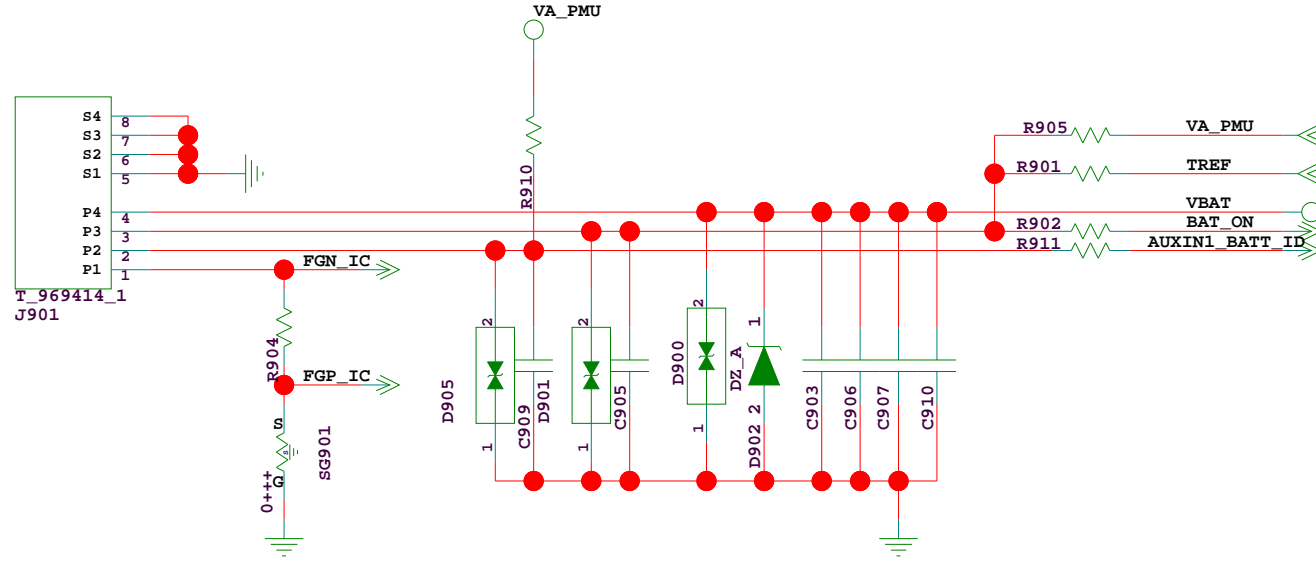
Indicator LED

The type and specification of the components refer to the BOM

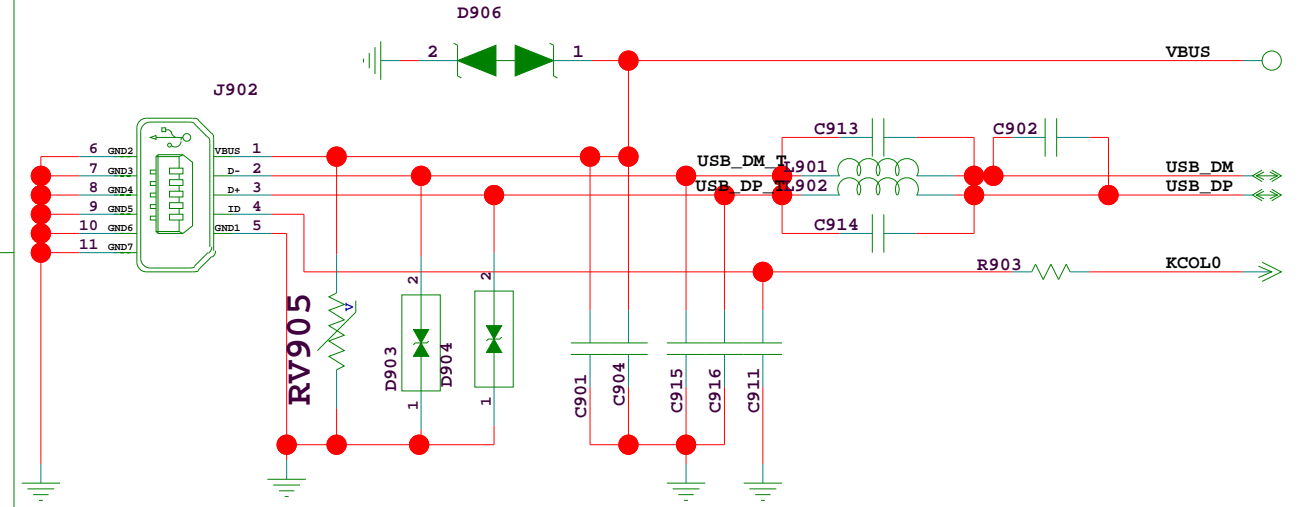
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REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 8 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

9. Battery/USB/Charger

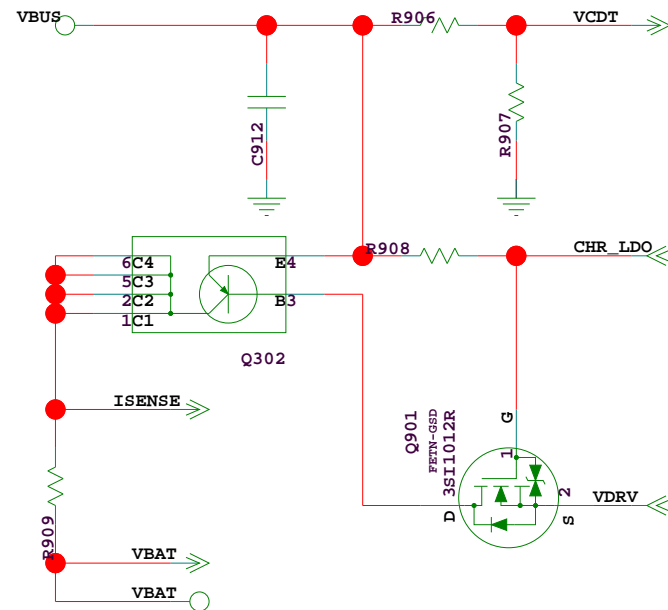
Battery Connector



Micro USB Connector



Linear charger



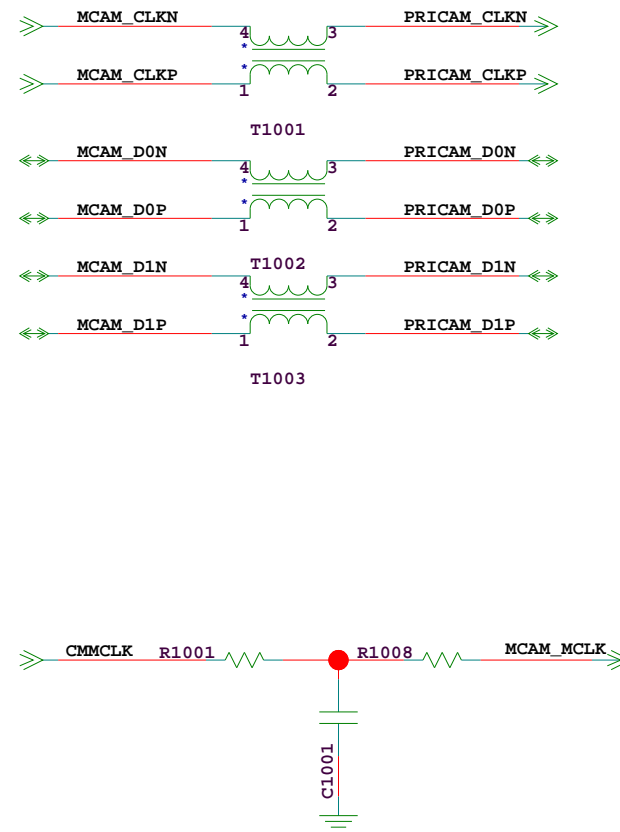
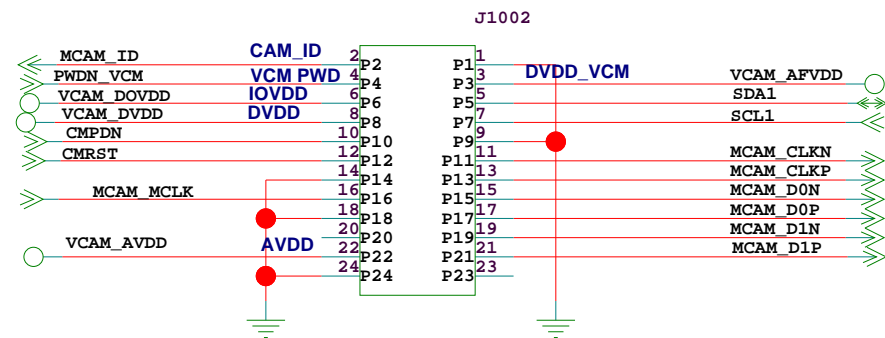
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		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

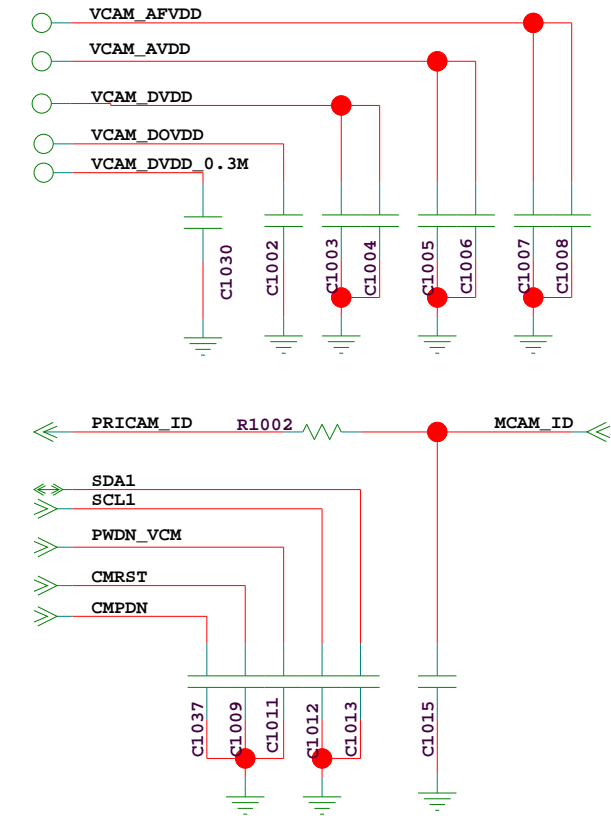
10. Main Camera/Slave Camera

Main Camera

5M MAIN CAMERA 23060110

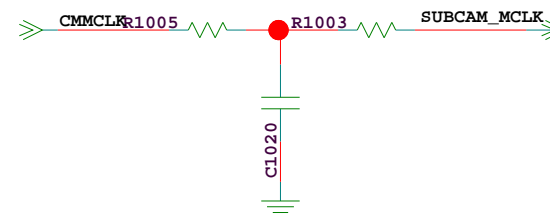
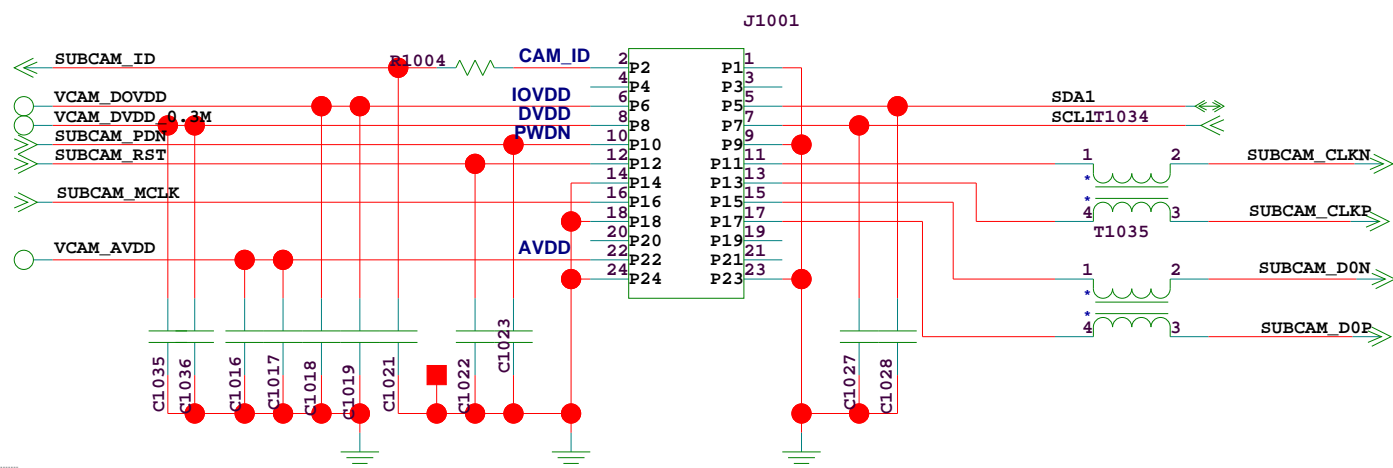


Main Camera Power



Slave Camera

0.3M SLAVE CAMERA 23060112

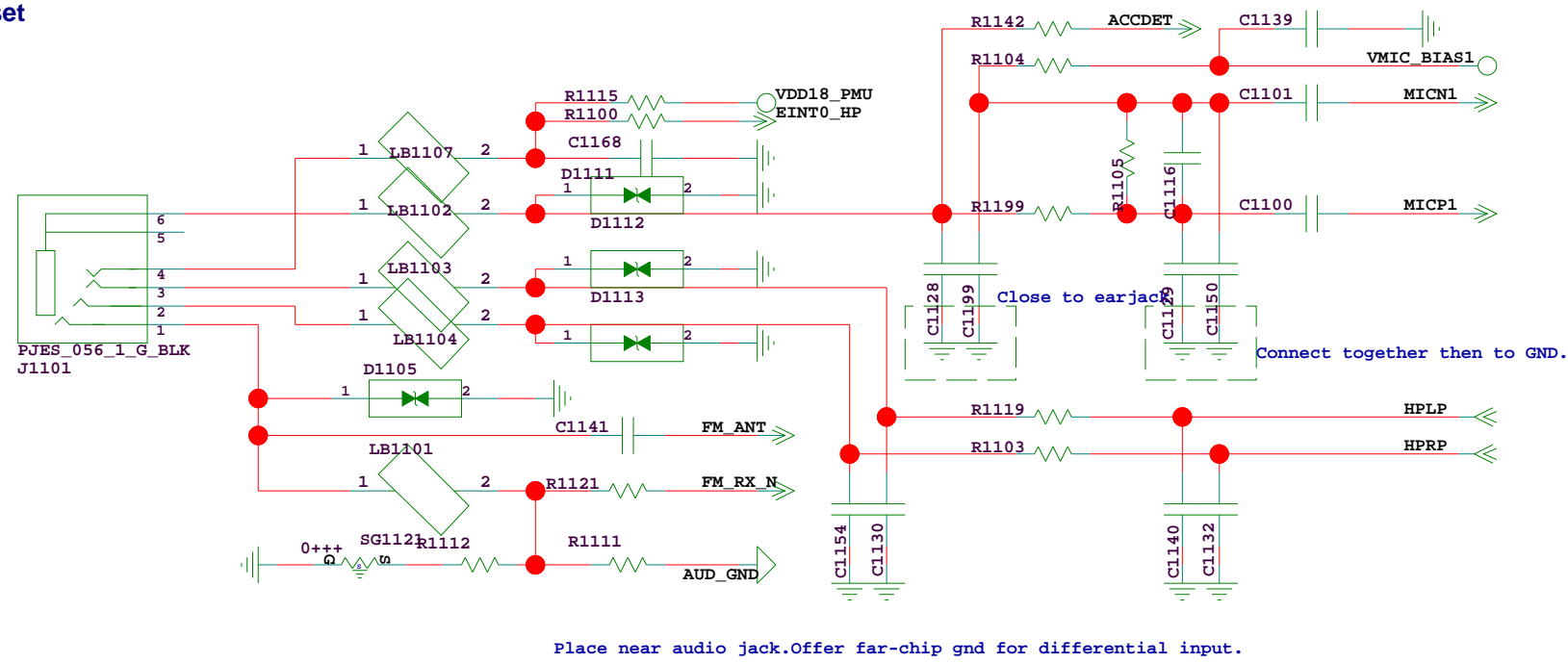


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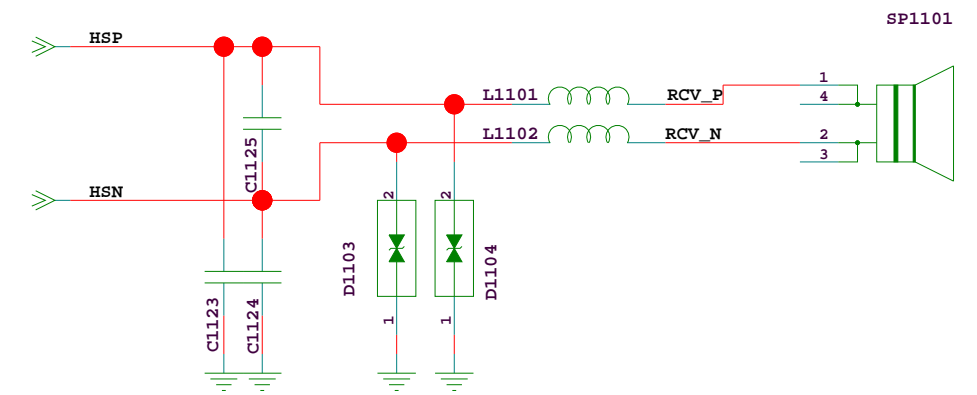
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REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 10 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

11. 3.5 Headset/MIC/Receiver

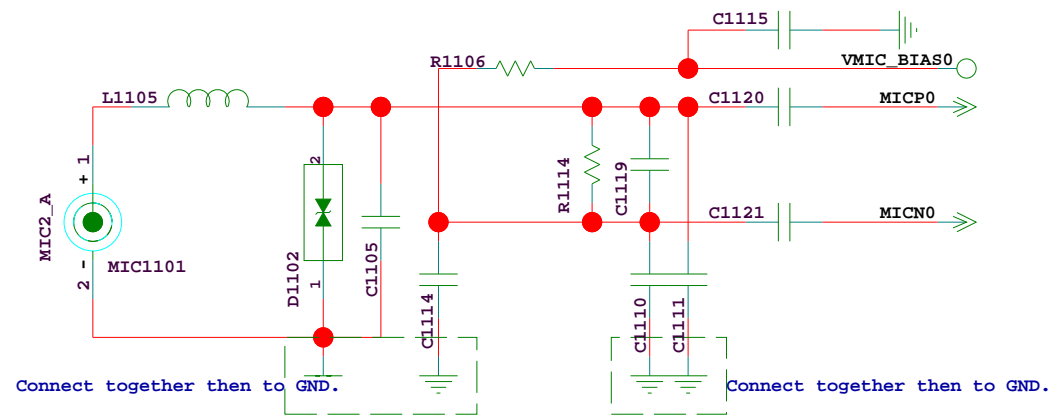
Headset



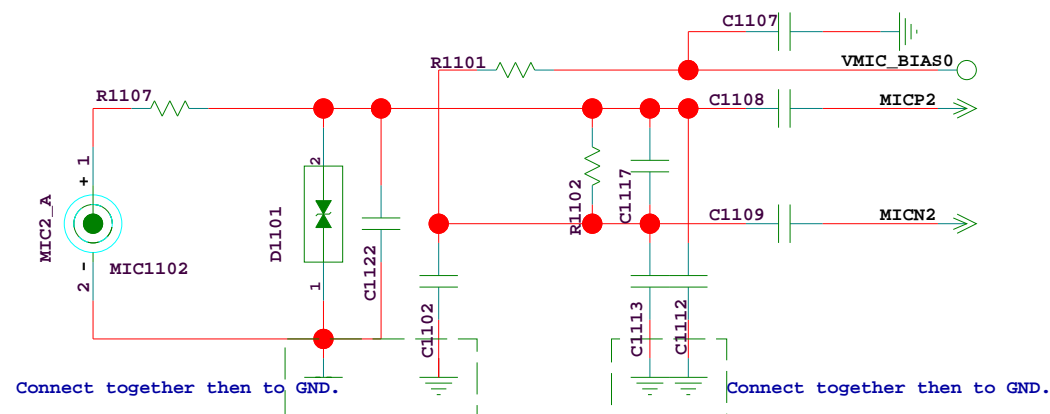
Receiver



Main MIC



Slave MIC

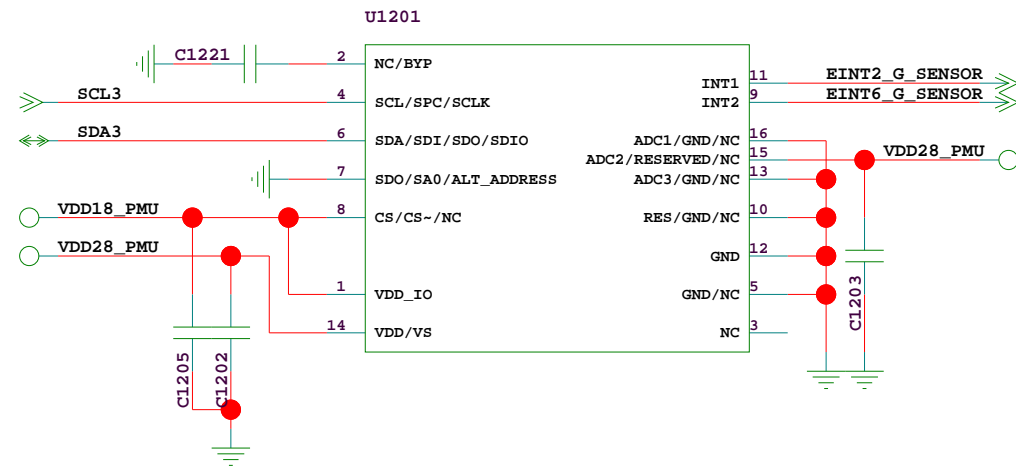


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REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 11 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

12. Sensor

G Sensor



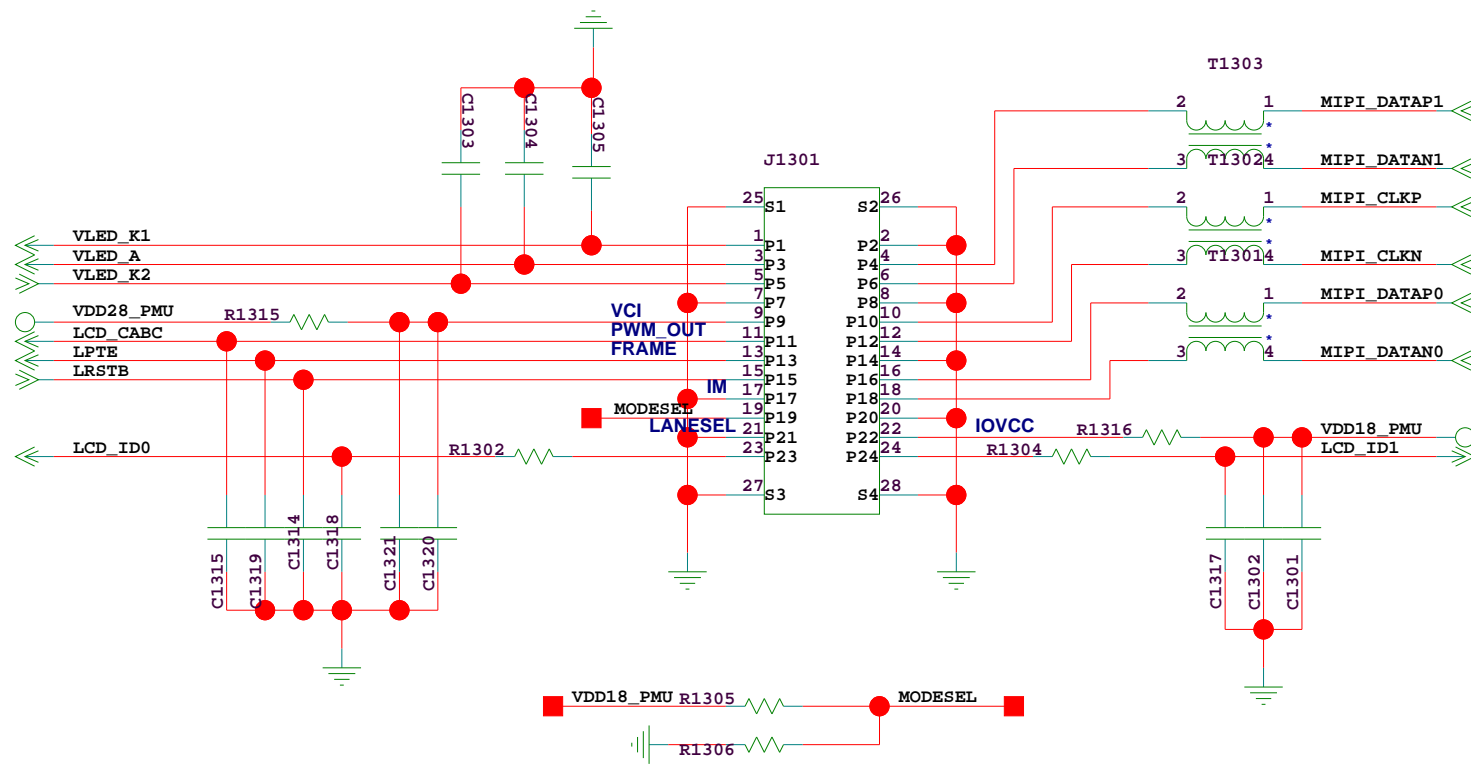
M Sensor-COMPASS

The type and specification of the components refer to the BOM

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				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 12 OF 36	
		VER.C	03022BFX	HUAWAI TECH CO.,LTD.	

13. LCD/LCD Power

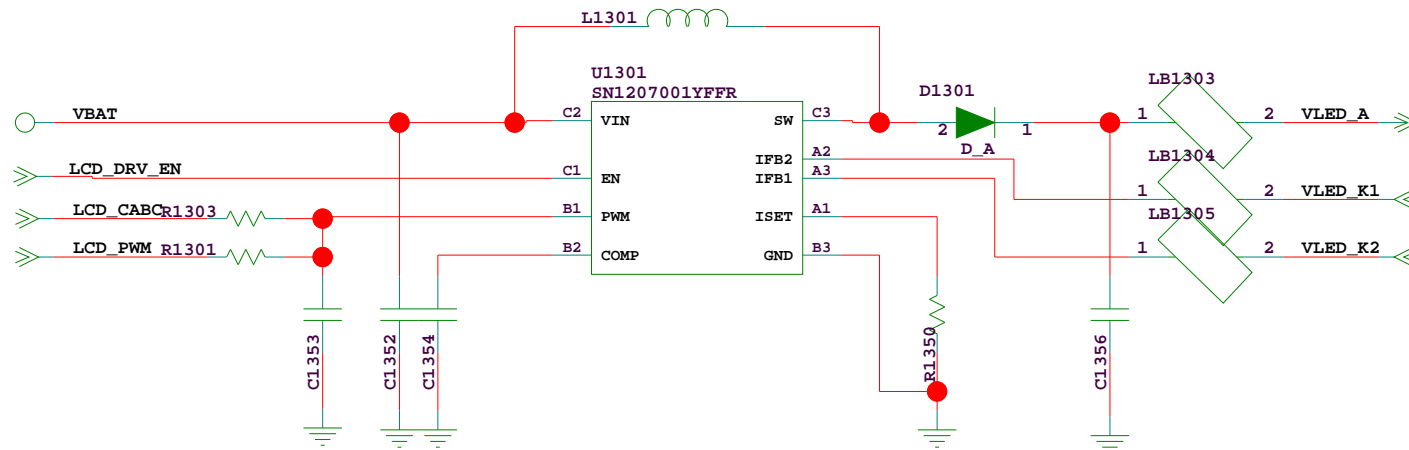
LCD



LCD Bias Voltage Driver*

LCD Backlight Driver

Replace bead if having antenna interference problems



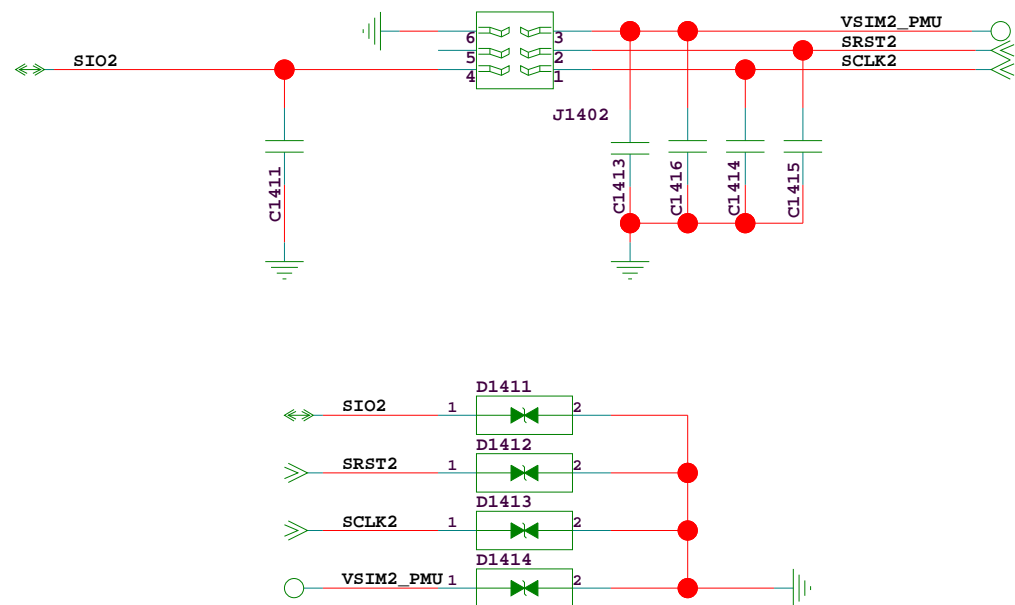
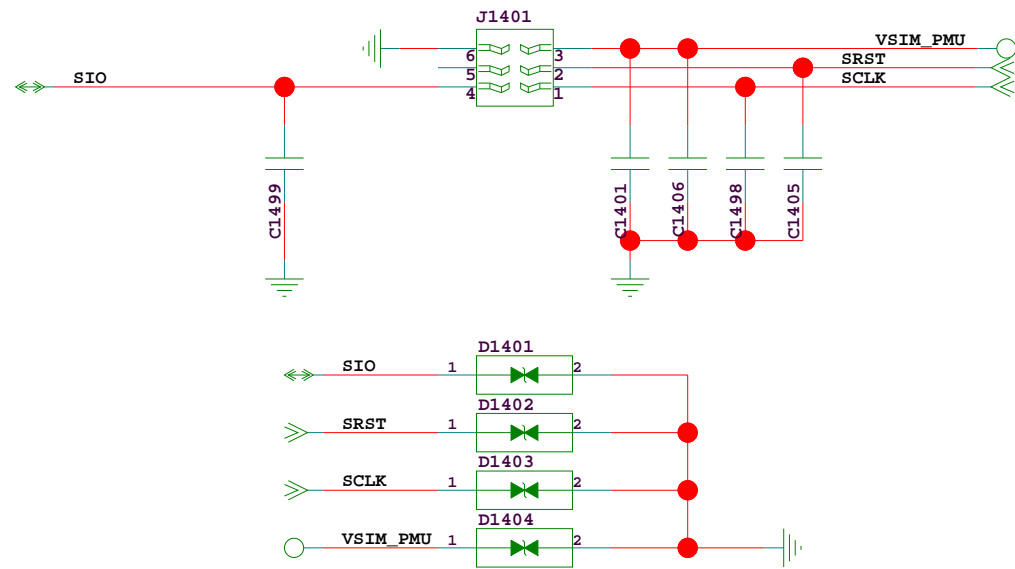
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		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

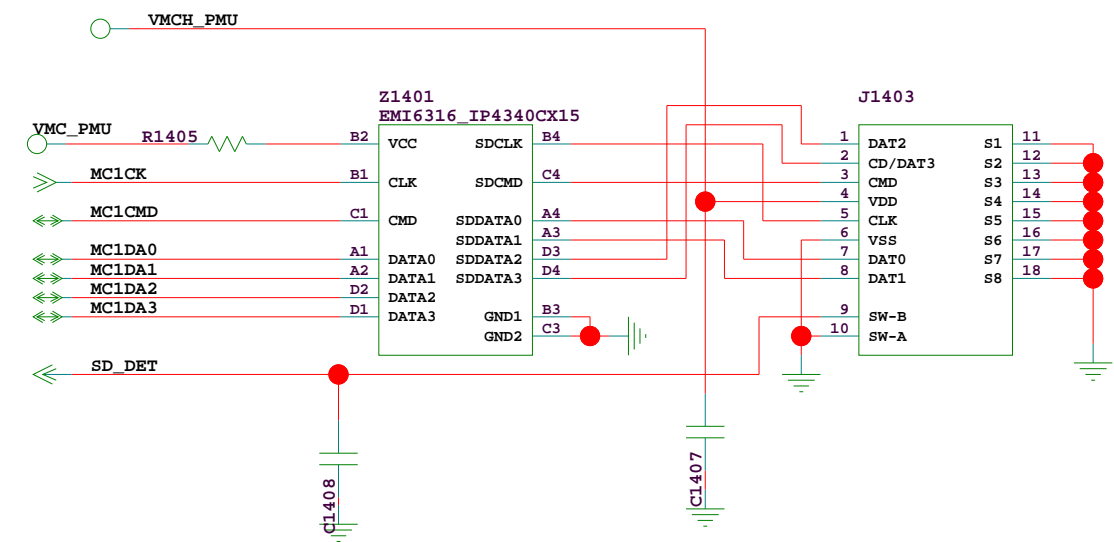
14. SIM/Micro SD Card

SIM1 Card

Without NFC: Remove R1403, C1402, D1402 & related signals(VSIM_NFC, SWP).
VSIM_IN connected to VSIM_PMU through R1401



Micro SD Card

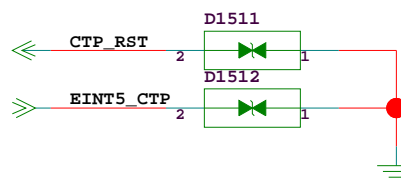
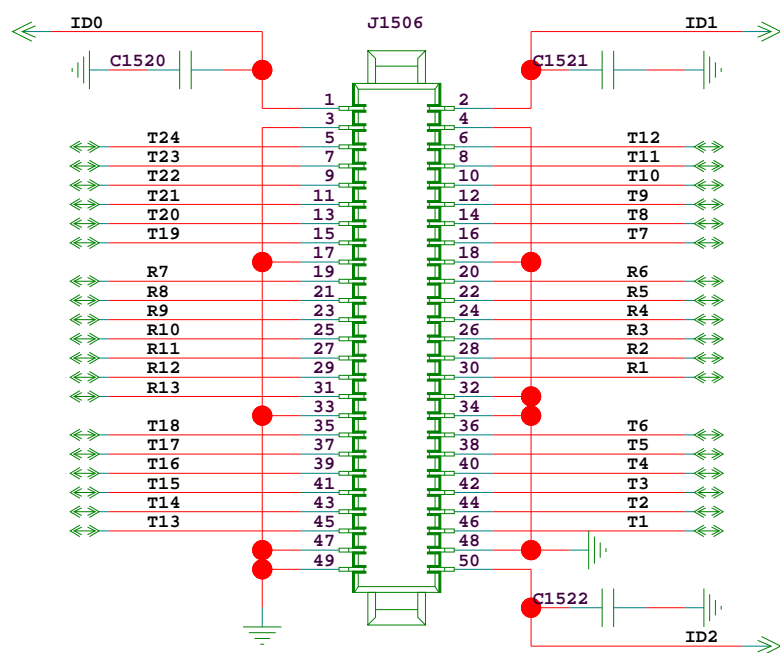
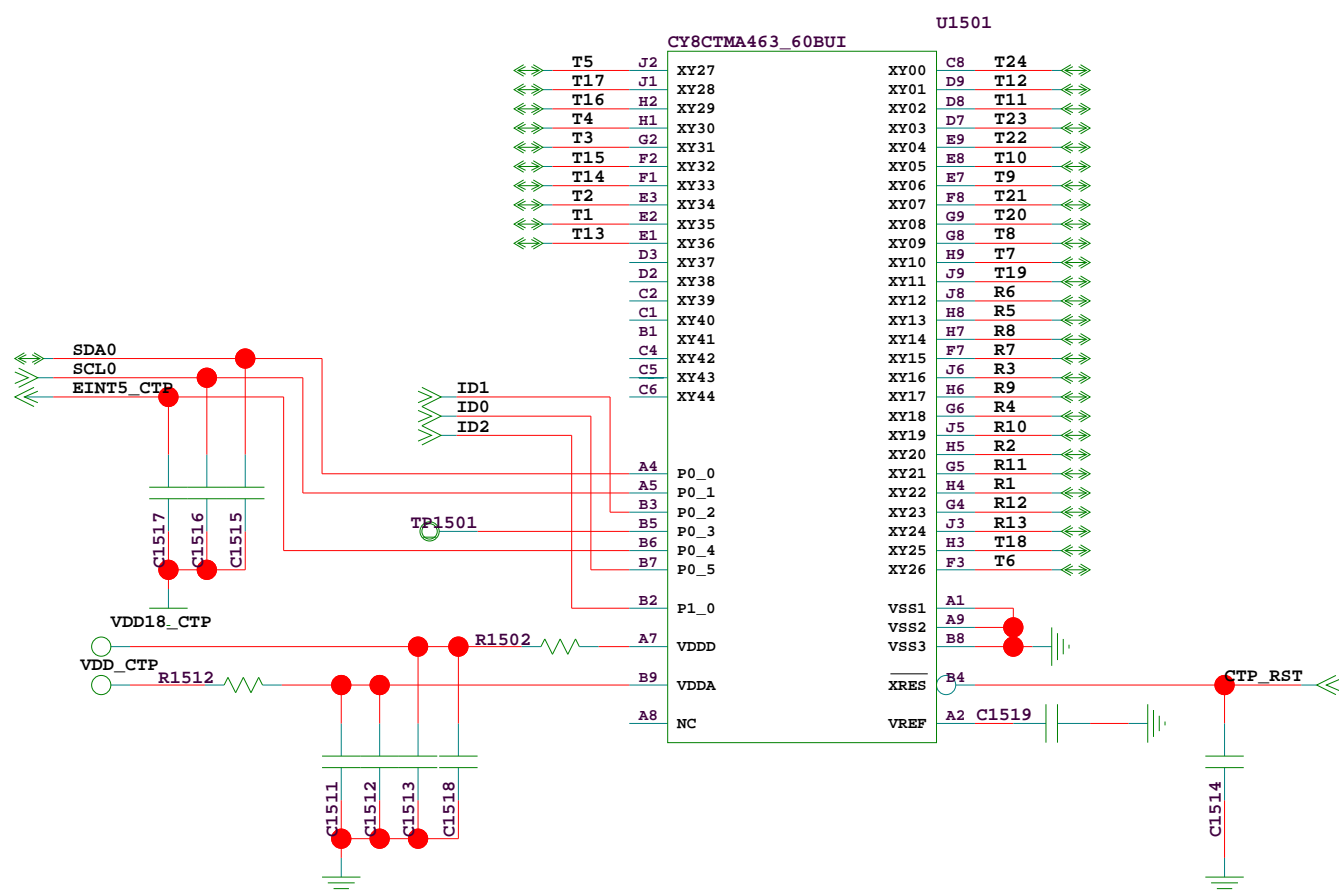


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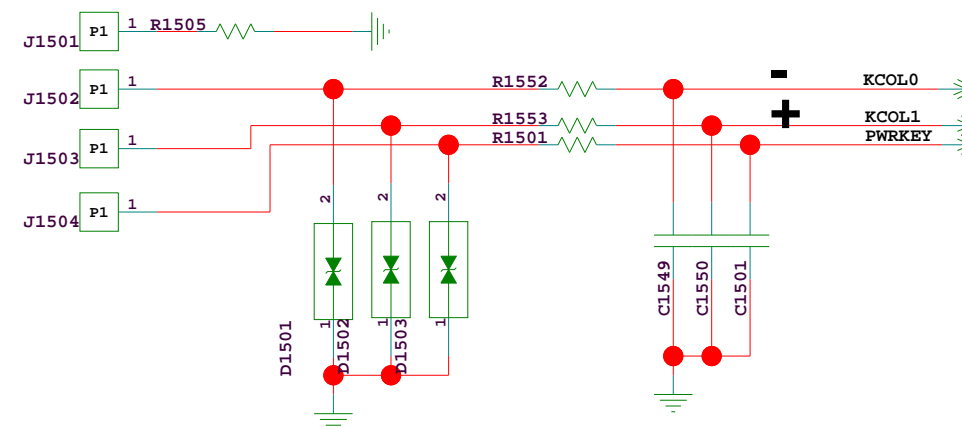
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REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 14 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

15. CTP/Side Key (vloume,power)

TP



Power Key/Volume +/- Key

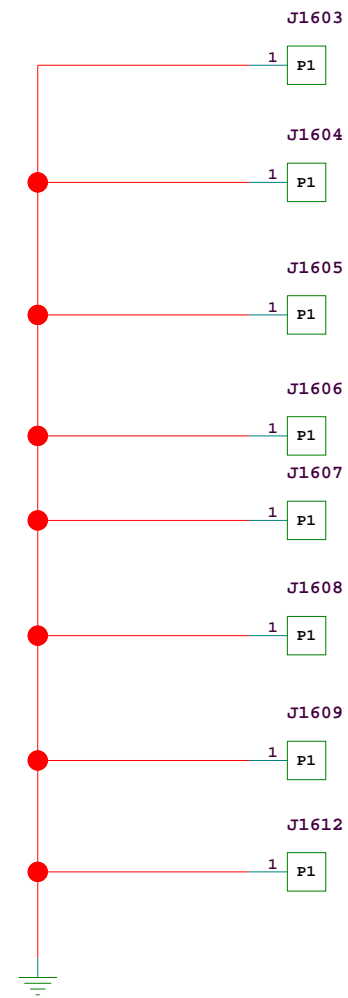


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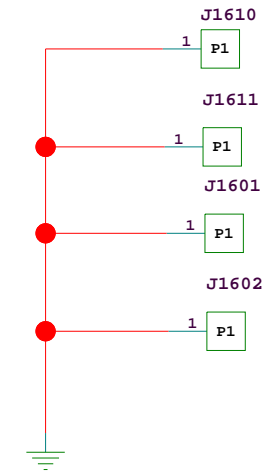
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REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 15 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

16. Shield

Shield



GND

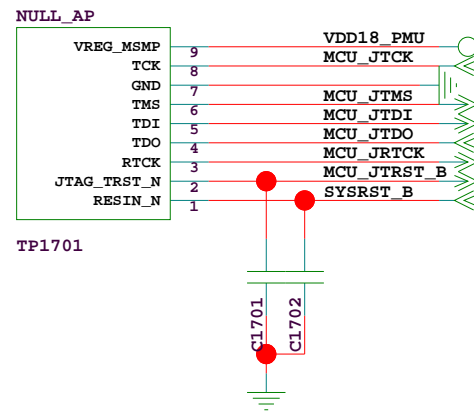


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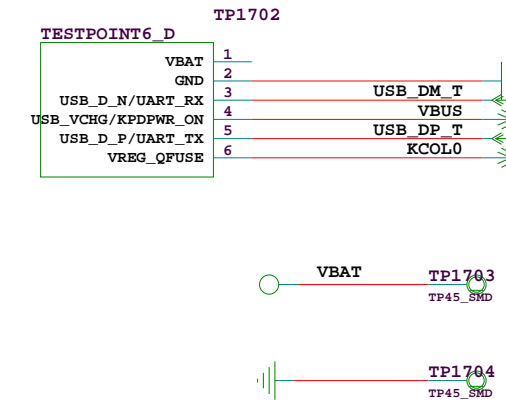
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REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 16 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

17. Testpoint/JTAG

JTAG



Equipment Test Point

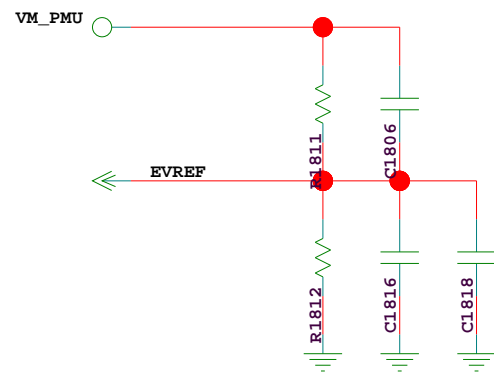
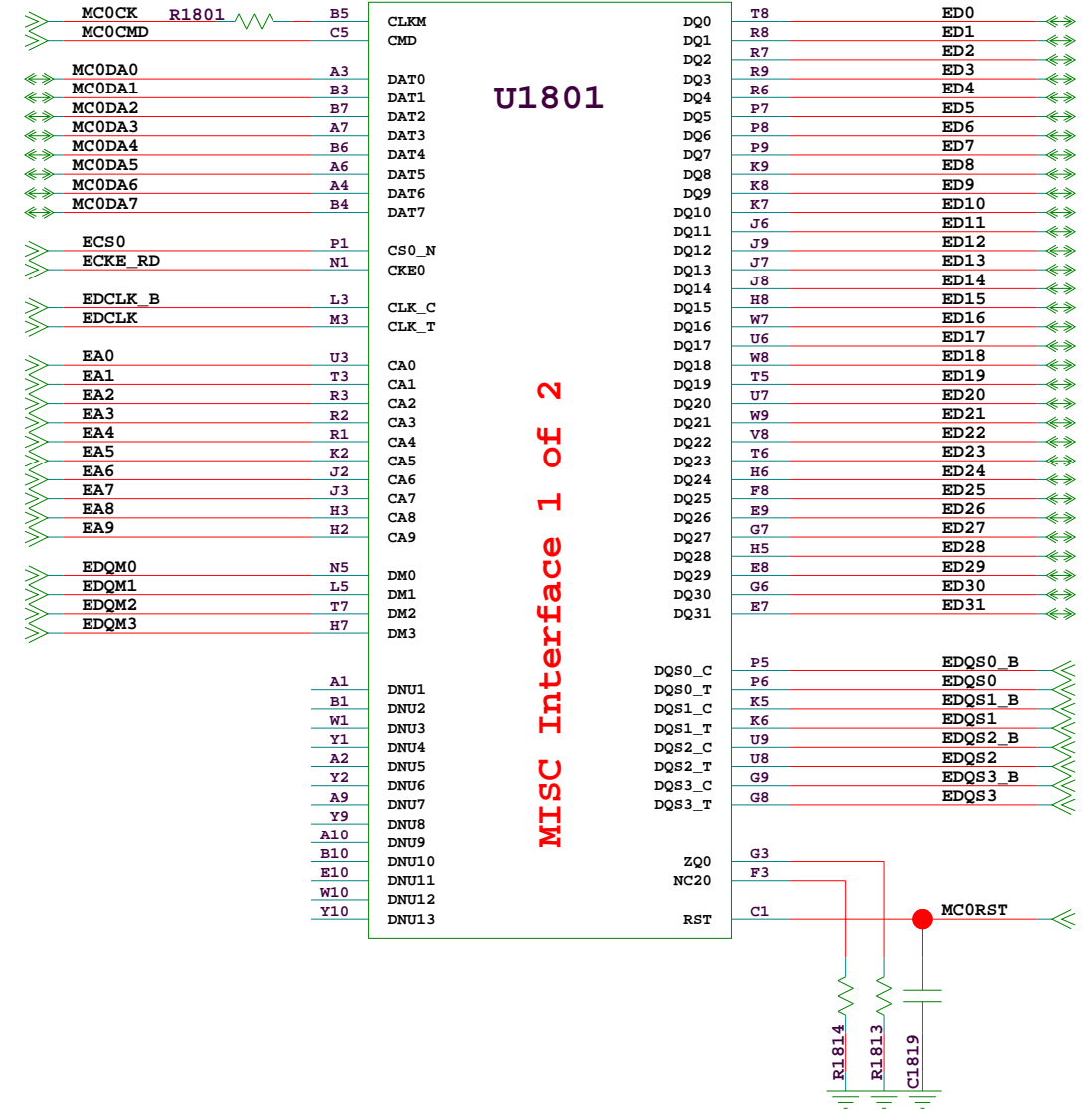
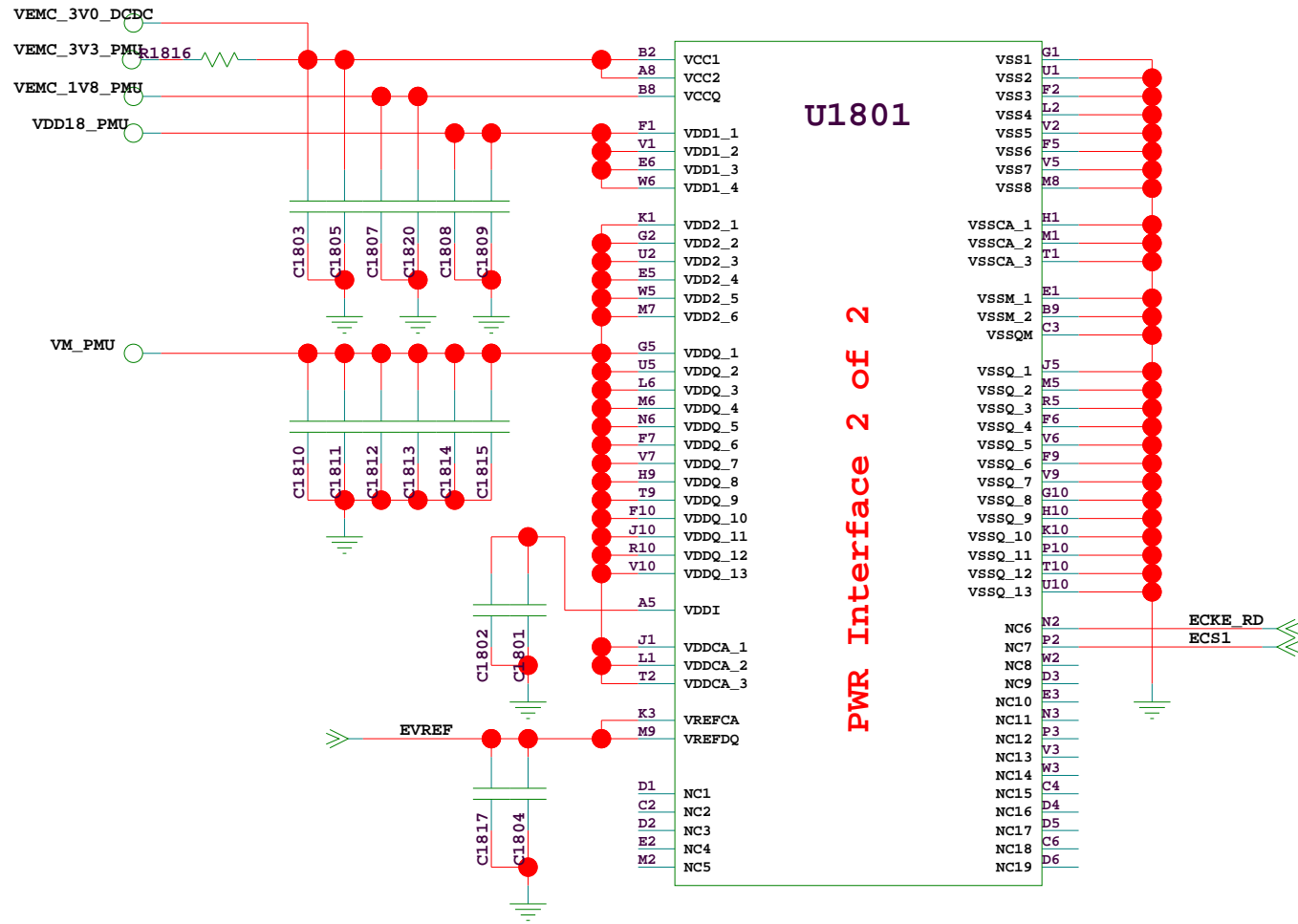


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DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 17 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

18. eMMC+LPDDR2

eMMC 4GB + LPDDR2 1GB : 40060387



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REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 18 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

19. Reserved

A

B

C

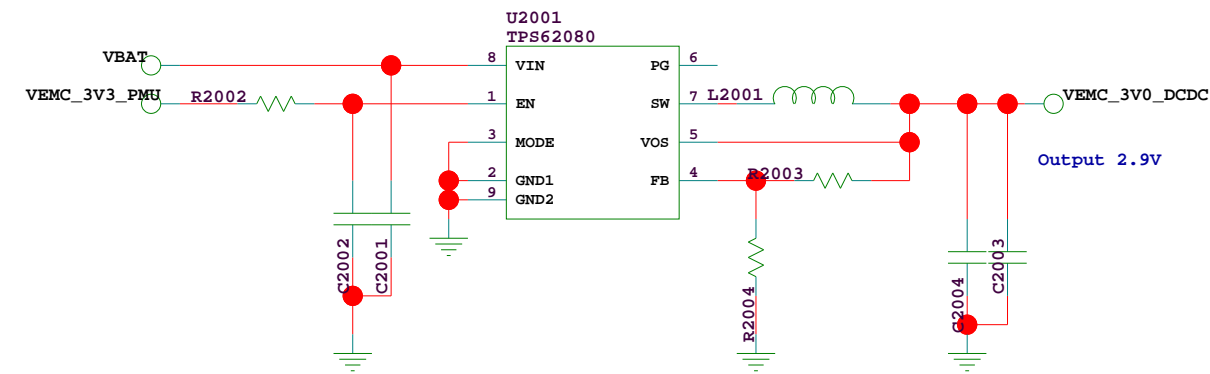
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REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 19 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	



20. eMMC DCDC power

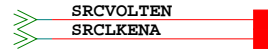
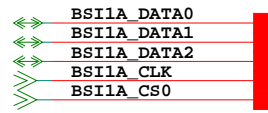
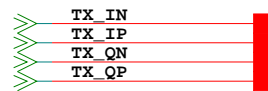
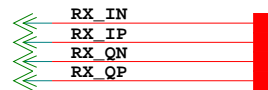
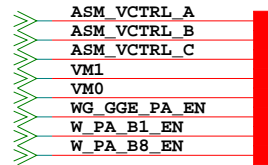
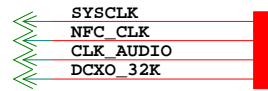


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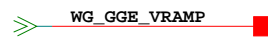
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		VER.C	03022BFX	HUAWAI TECH CO.,LTD.	

21. RF Input Output Ports

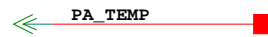
26MHz SYSCLK Output



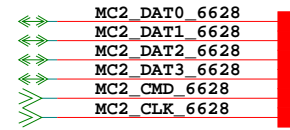
VRAMP Control



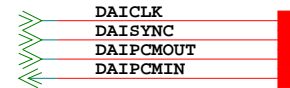
PA Temp Sense



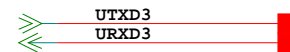
MT6628 SDIO : Used for WLAN Data & Control



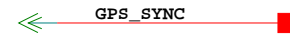
MT6628 PCM : Used for BT Data



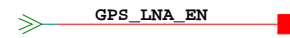
MT6628 UART : Used for BT, GPS, FM Control



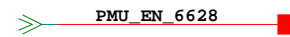
MT6628 AGPS SYNC



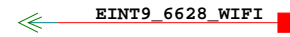
MT6628 GPS LNA Enable



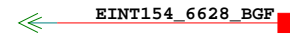
MT6628 PMU Enable



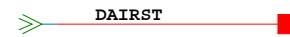
MT6628 WLAN Interrupt



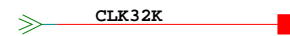
MT6628 BT, GPS, FM Interrupt



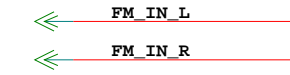
MT6628 Reset Signal



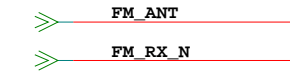
MT6628 32KHz Clk Input



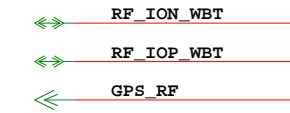
MT6628 FM Audio



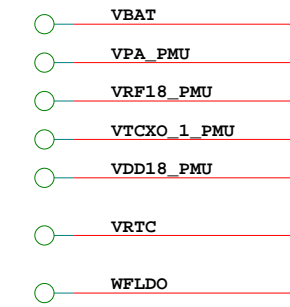
MT6628 FM RF



MT6628 WIFI/BT RF



RF Device Power

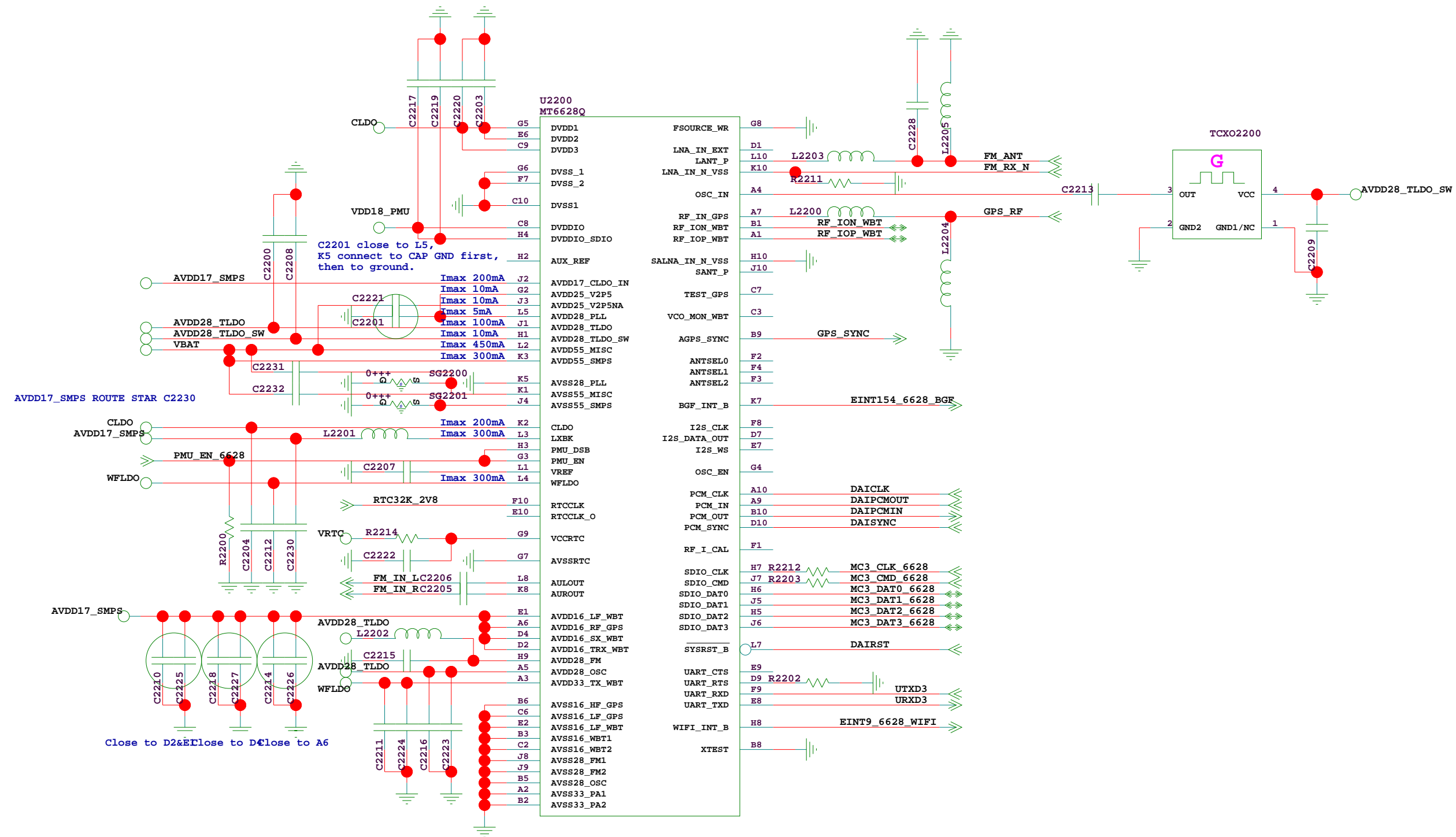


The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 21 OF 36	
		VER.C	03022BFX	HUAWAI TECH CO.,LTD.	



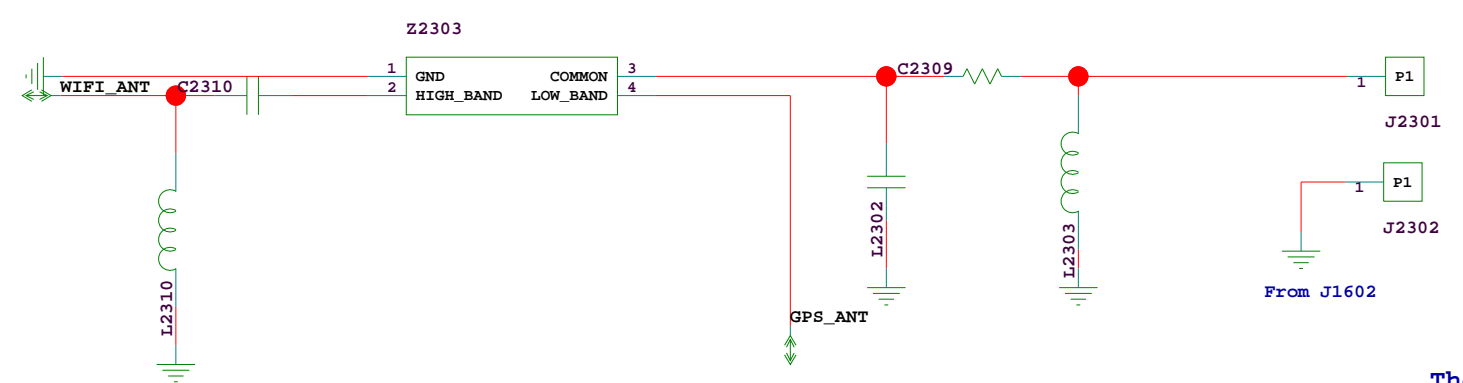
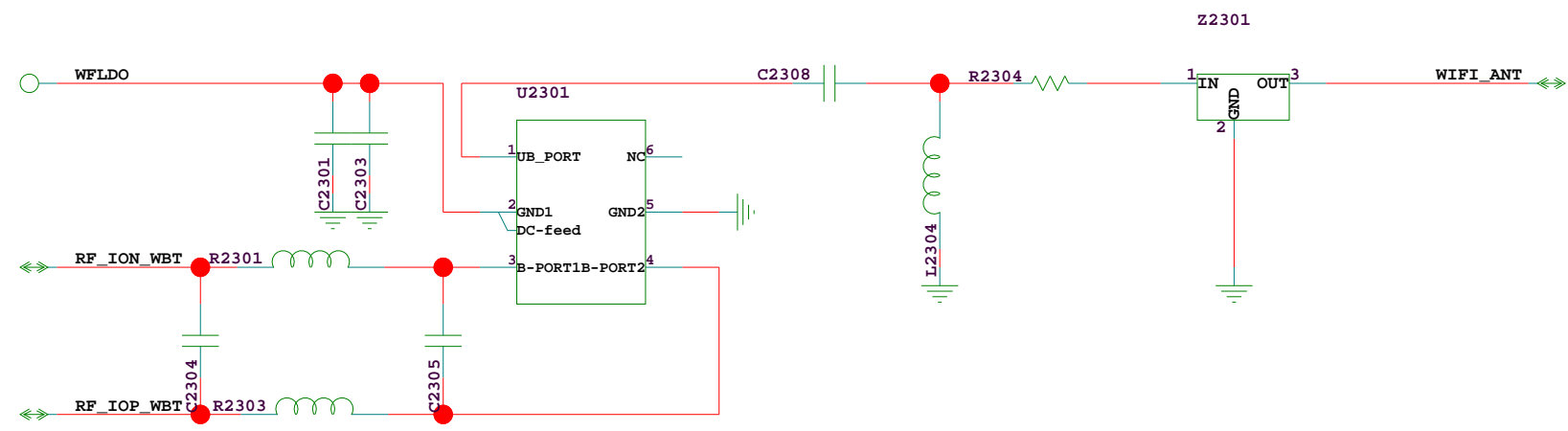
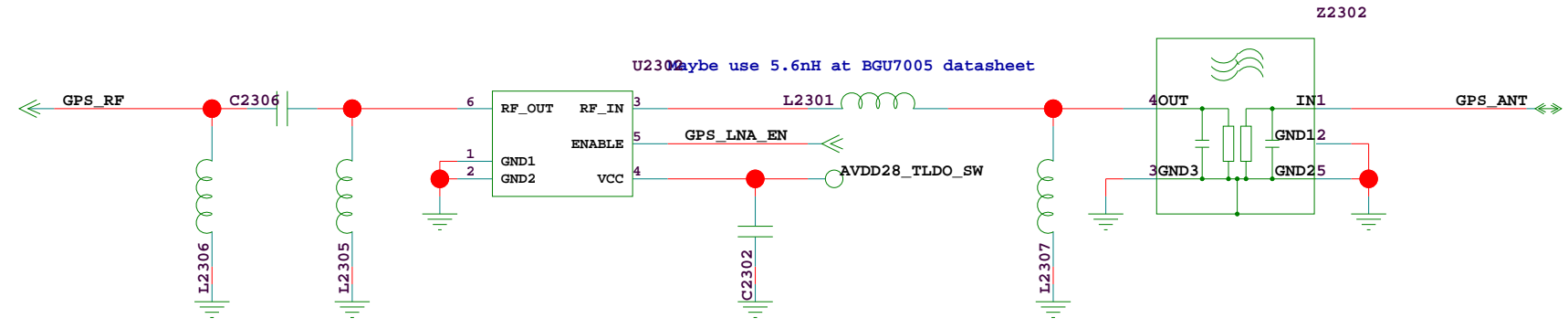
22.WIFI/BT/FM/GPS MT6628Q



The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 22 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

23.WIFI/BT/FM/GPS MT6628Q



The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176				
		VER	PART_NUMBER	SHEET 23 OF 36	
		VER.C	03022BFX	HUAWAI TECH CO.,LTD.	



24.TD/GSM PAM

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The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 24 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

25.TD/GSM RX

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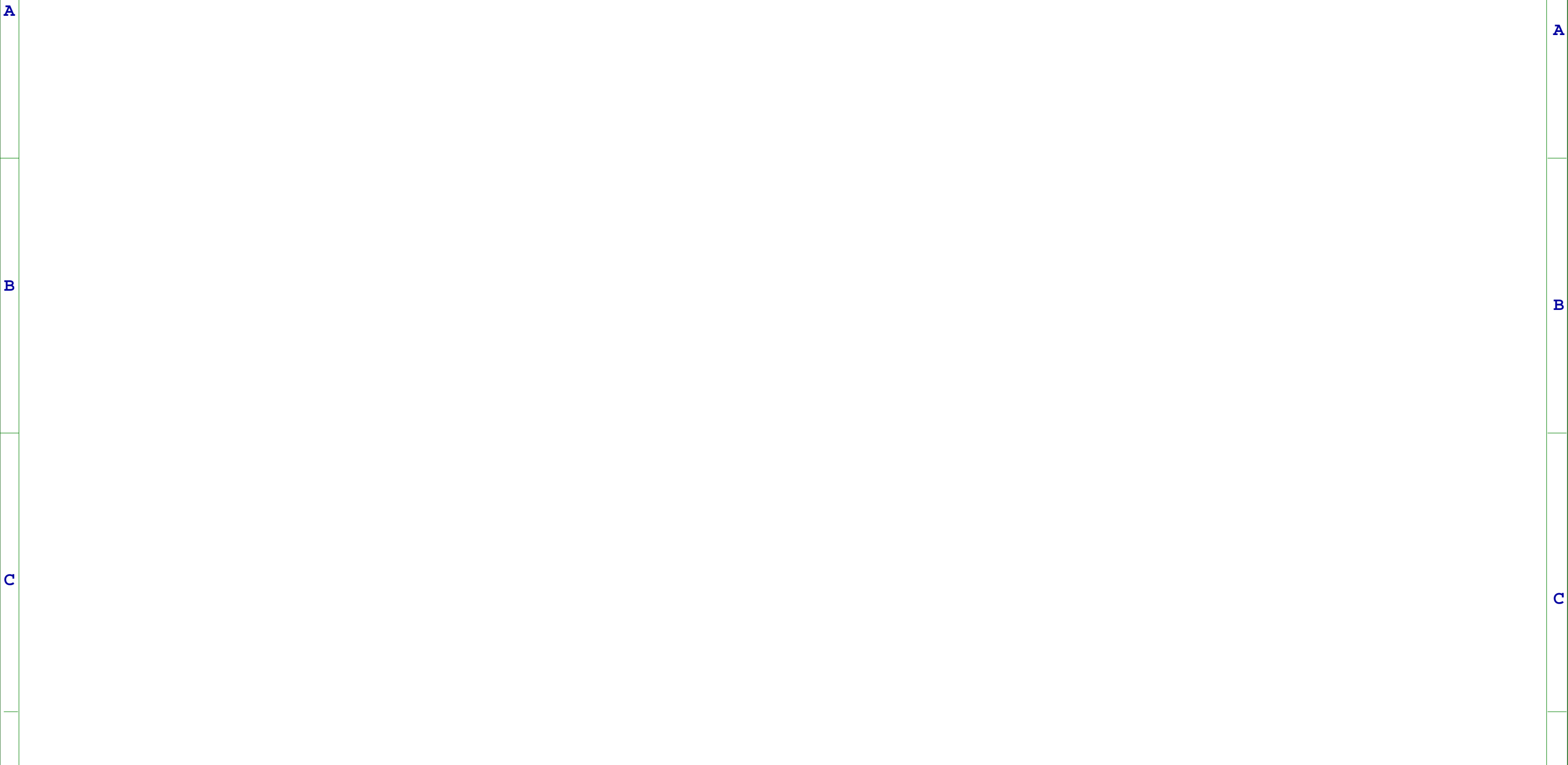
D

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The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 25 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

26. Reserved



The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 26 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	



27. NFC 20793

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The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 27 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

28. Reserved



The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 28 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	



29. Reserved



The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 29 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	



30. Reserved

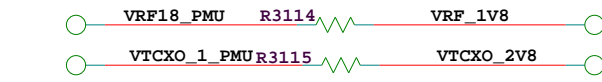


The type and specification of the components refer to the BOM

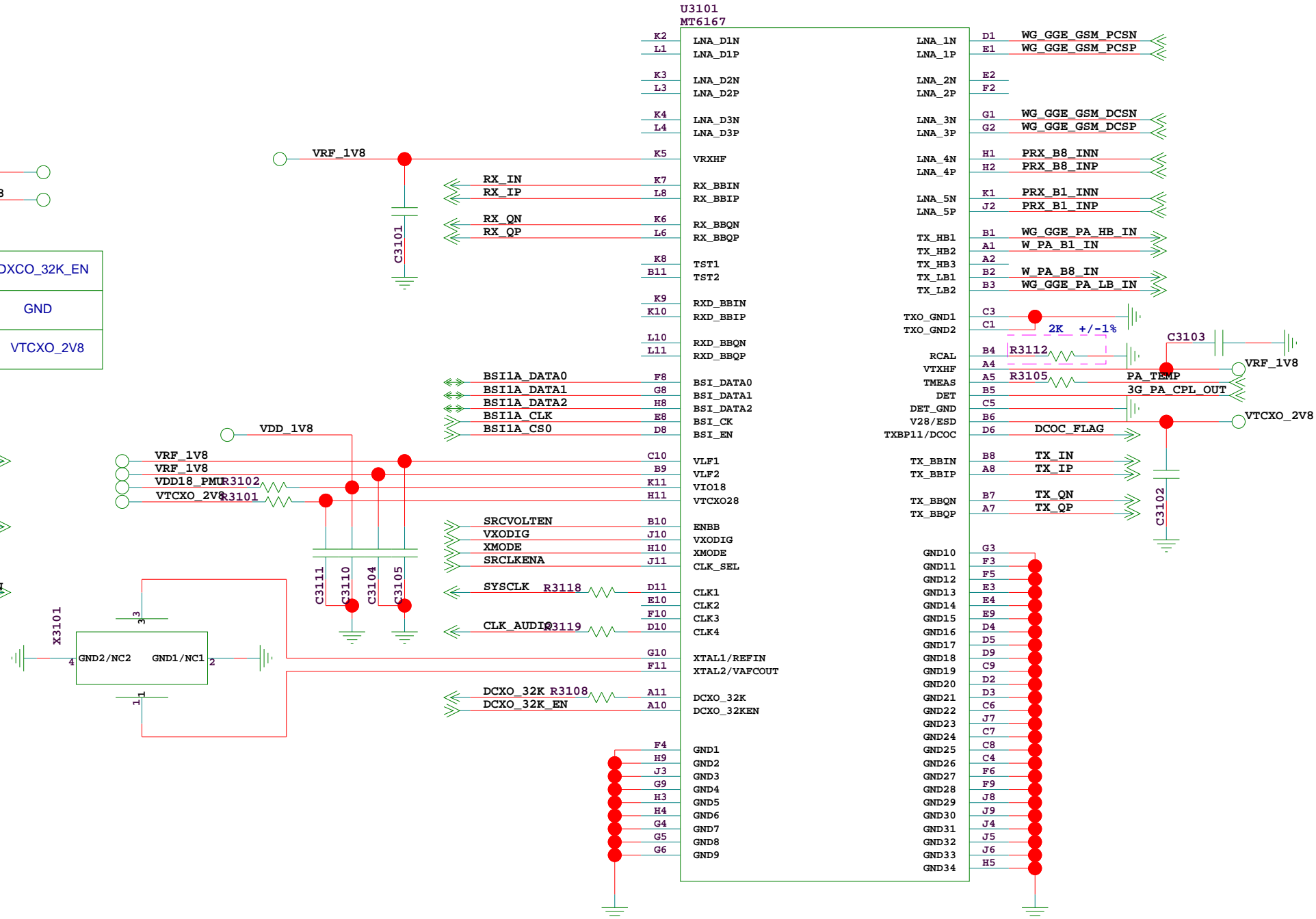
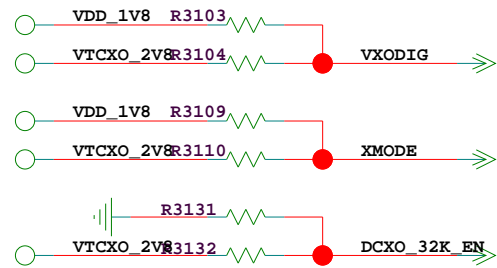
				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 30 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	



31. MT6167



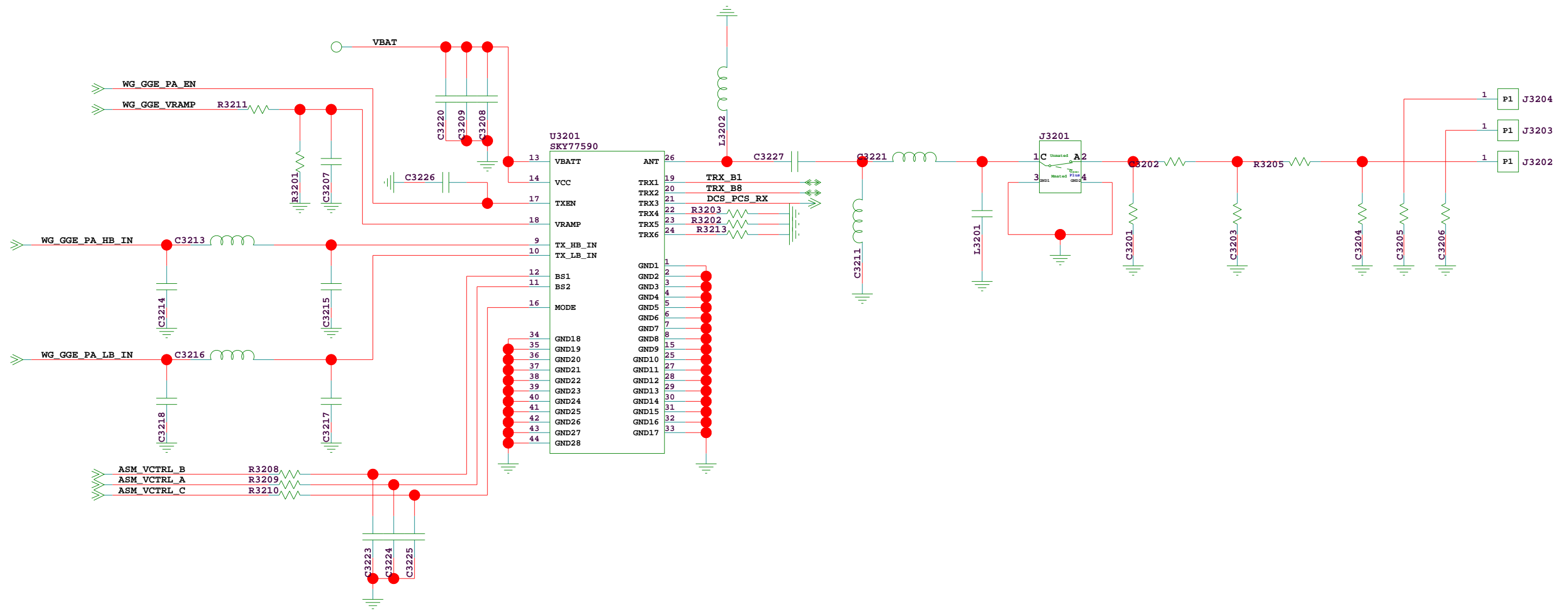
XO Config	VXODIG	XMODE	DCXO_32K_EN
DCXO + 32K XO	VDD_1V8	VDD_1V8	GND
DCXO + 32K Less	VTCXO_2V8	VTCXO_2V8	VTCXO_2V8



The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 31 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

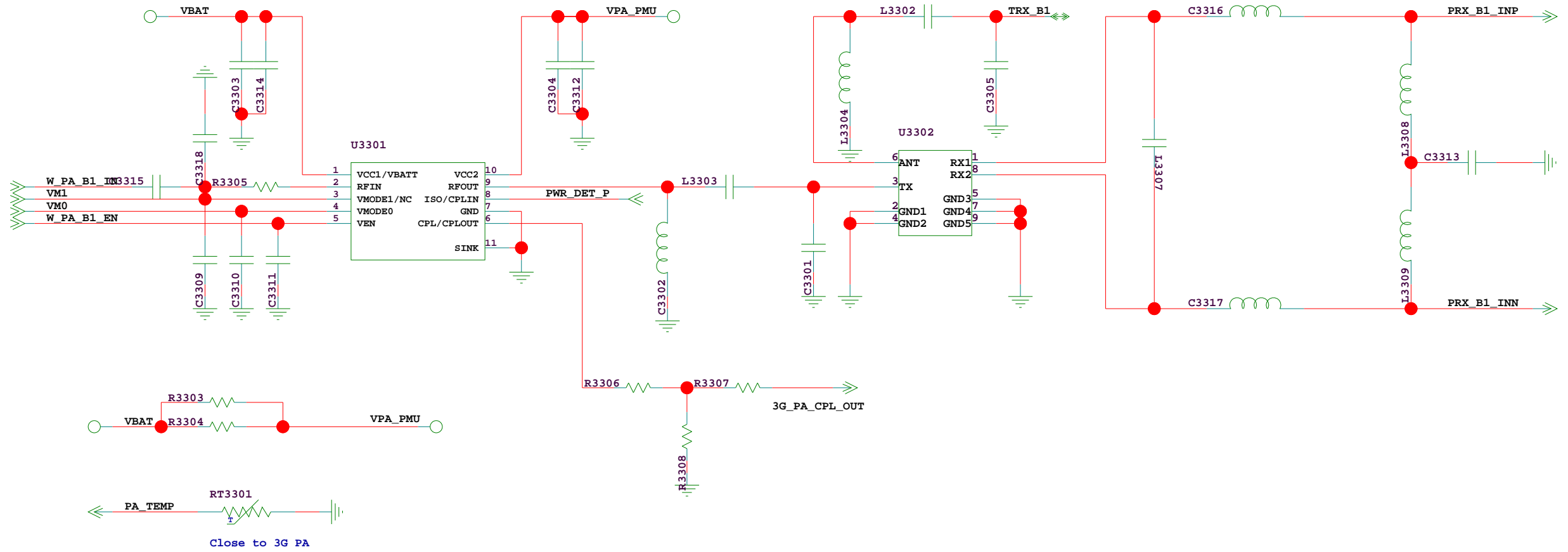
32. UMTS ANT Switch



The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 32 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

33. UMTS Band 1



WCDMA_PA_ON0/ON1	PA STATE
H	ON
L	OFF

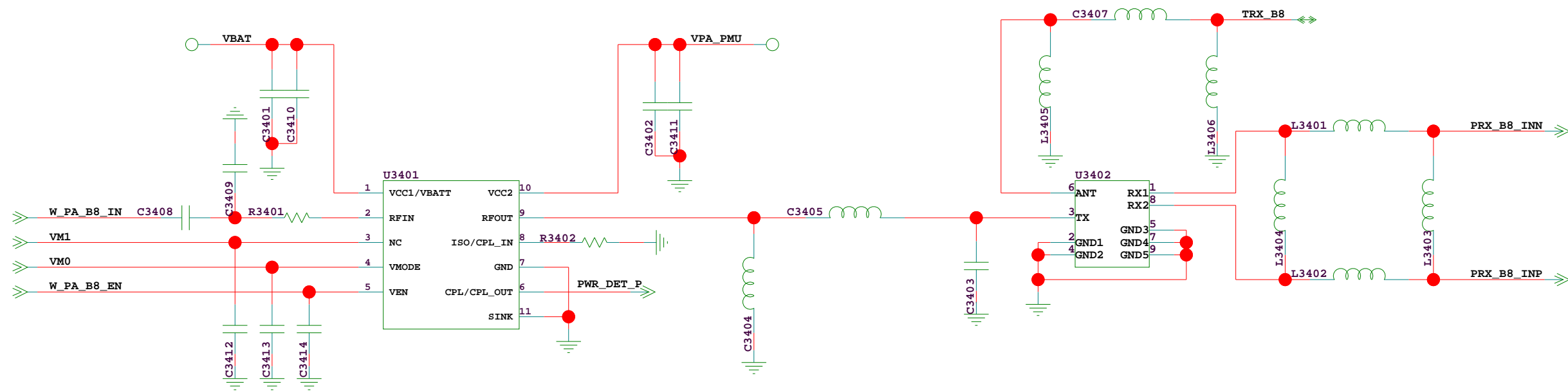
PA_VMODE0	PA_VMODE1	MODE
L	L	High Power
L	H	Middle Power
H	H	Low Power

WCDMA_PA_ON0	W2100
WCDMA_PA_ON1	W1900
WCDMA_PA_ON2	W850/900

The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 33 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

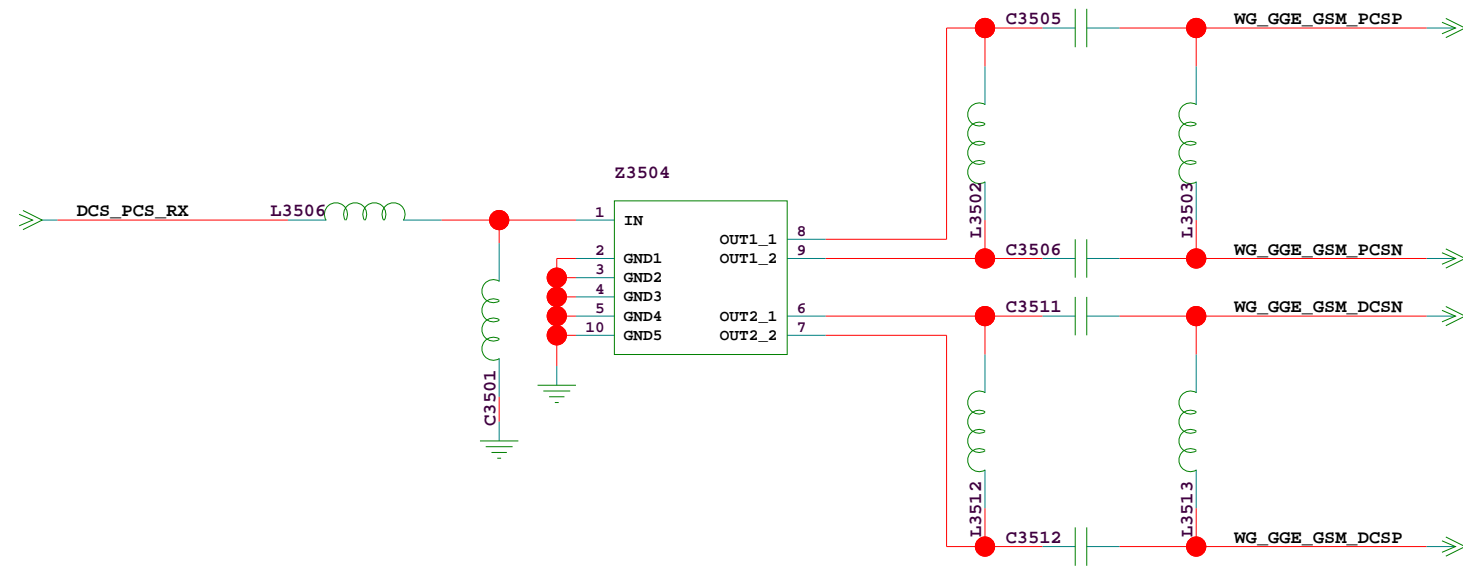
34. UMTS Band 8



The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176				
		VER	PART_NUMBER	SHEET 34 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

35. RX



The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176				
		VER	PART_NUMBER	SHEET 35 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

36. Reserved (Diversity Path Front End)

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The type and specification of the components refer to the BOM

				N/A	2012-12-04
				ECA NO	DATE
DESIGNED	LIUYUNJIE 00180892	HD1G610M		03022BFX_SCH1ZH	
REVIEWED	QIHONGTAO 00166176	VER	PART_NUMBER	SHEET 36 OF 36	
		VER.C	03022BFX	HUAWEI TECH CO.,LTD.	

