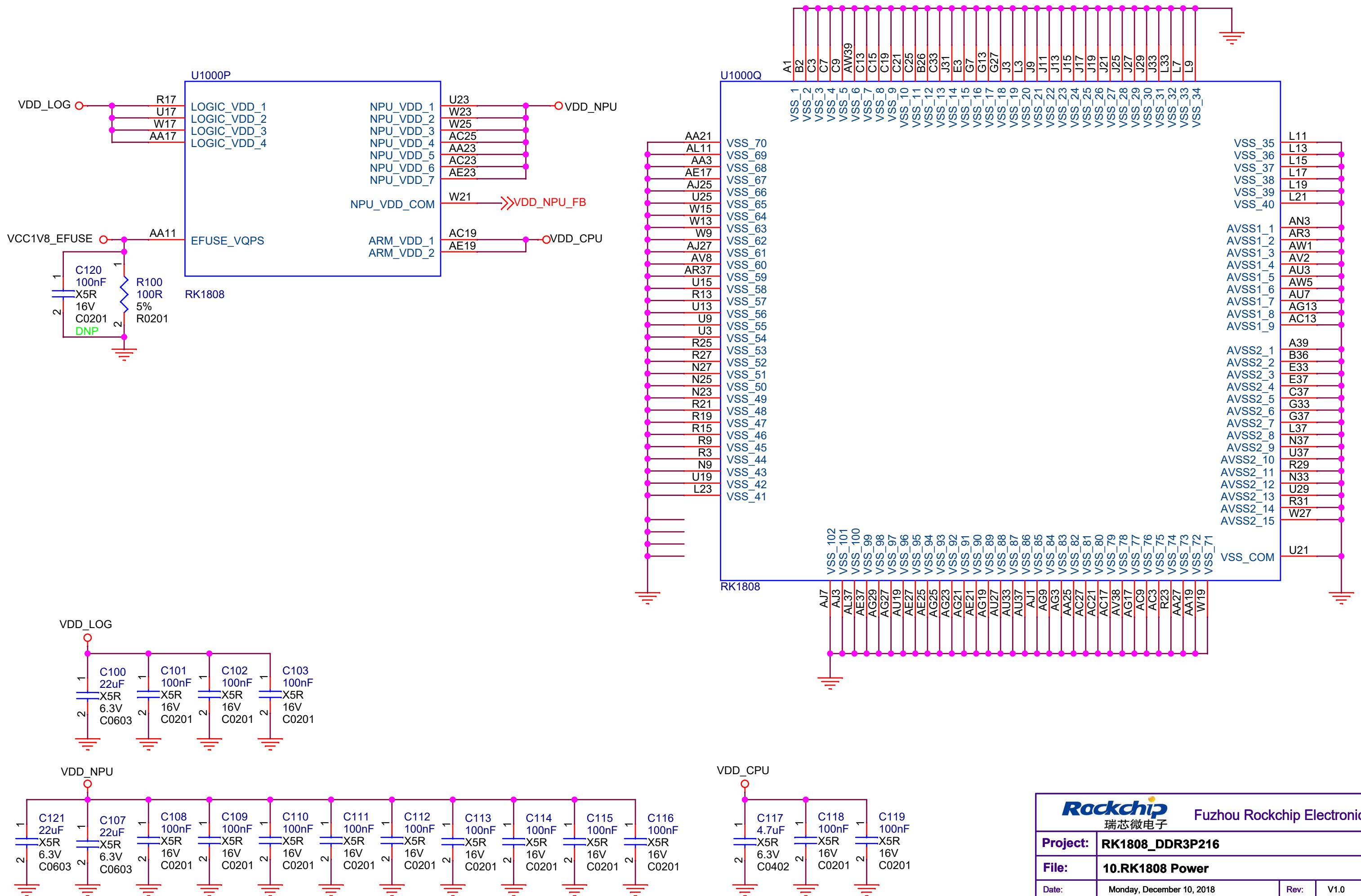
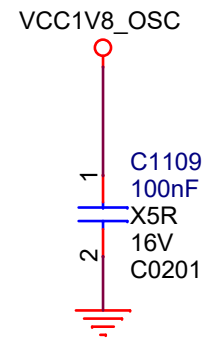
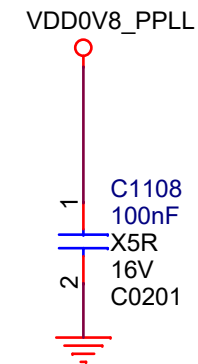
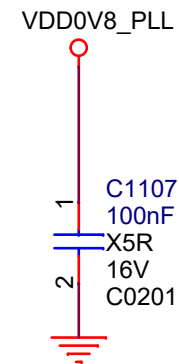
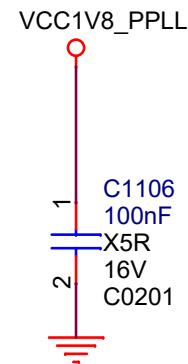
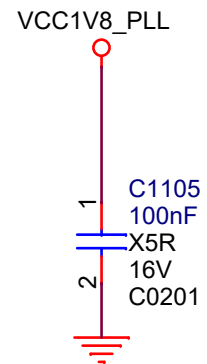
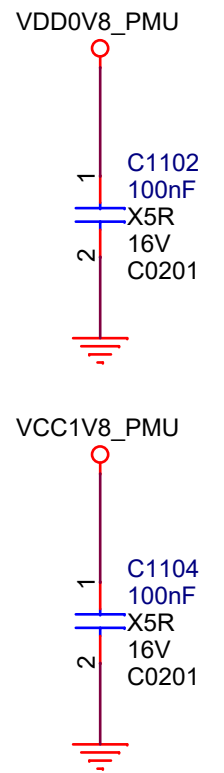
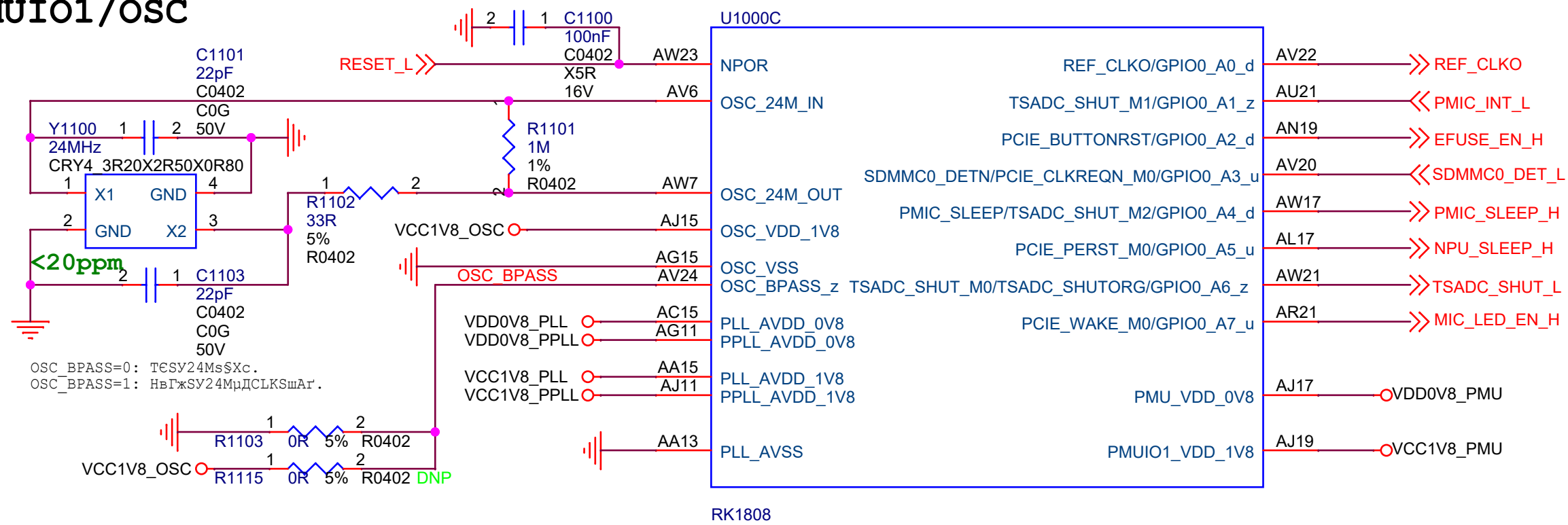


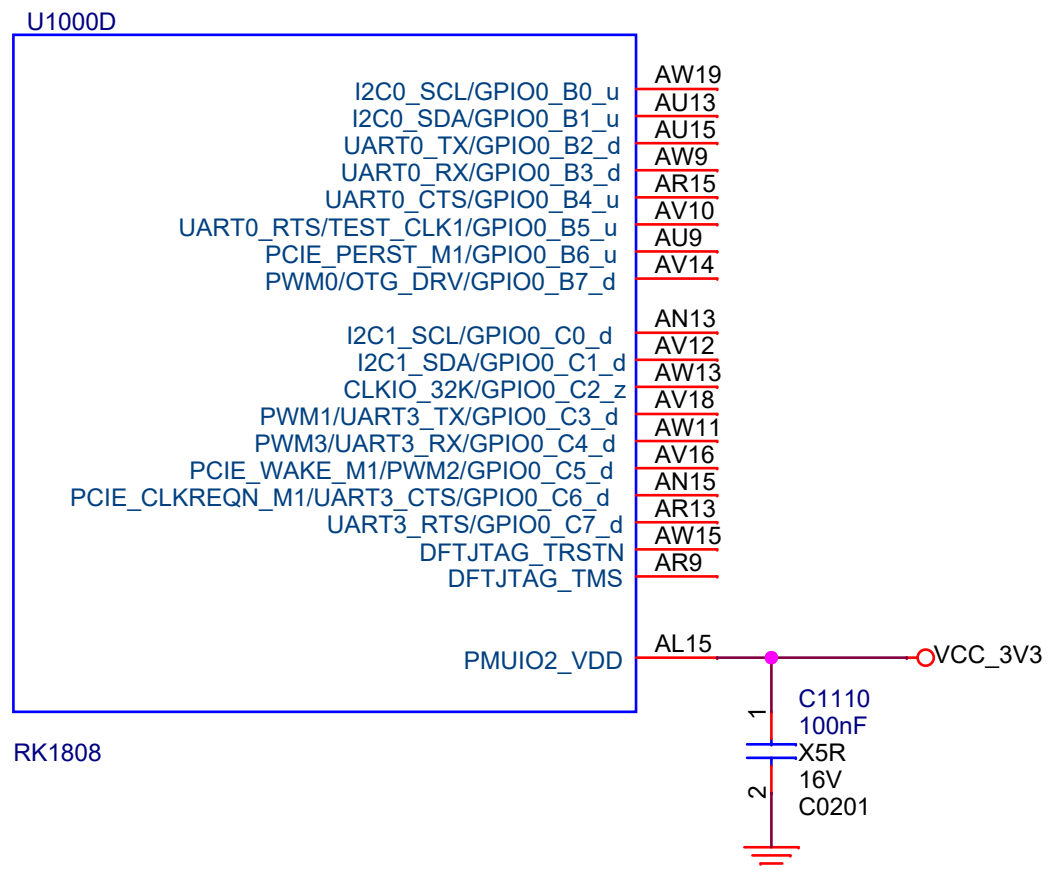
RK1808 Power



PMUIO1/OSC



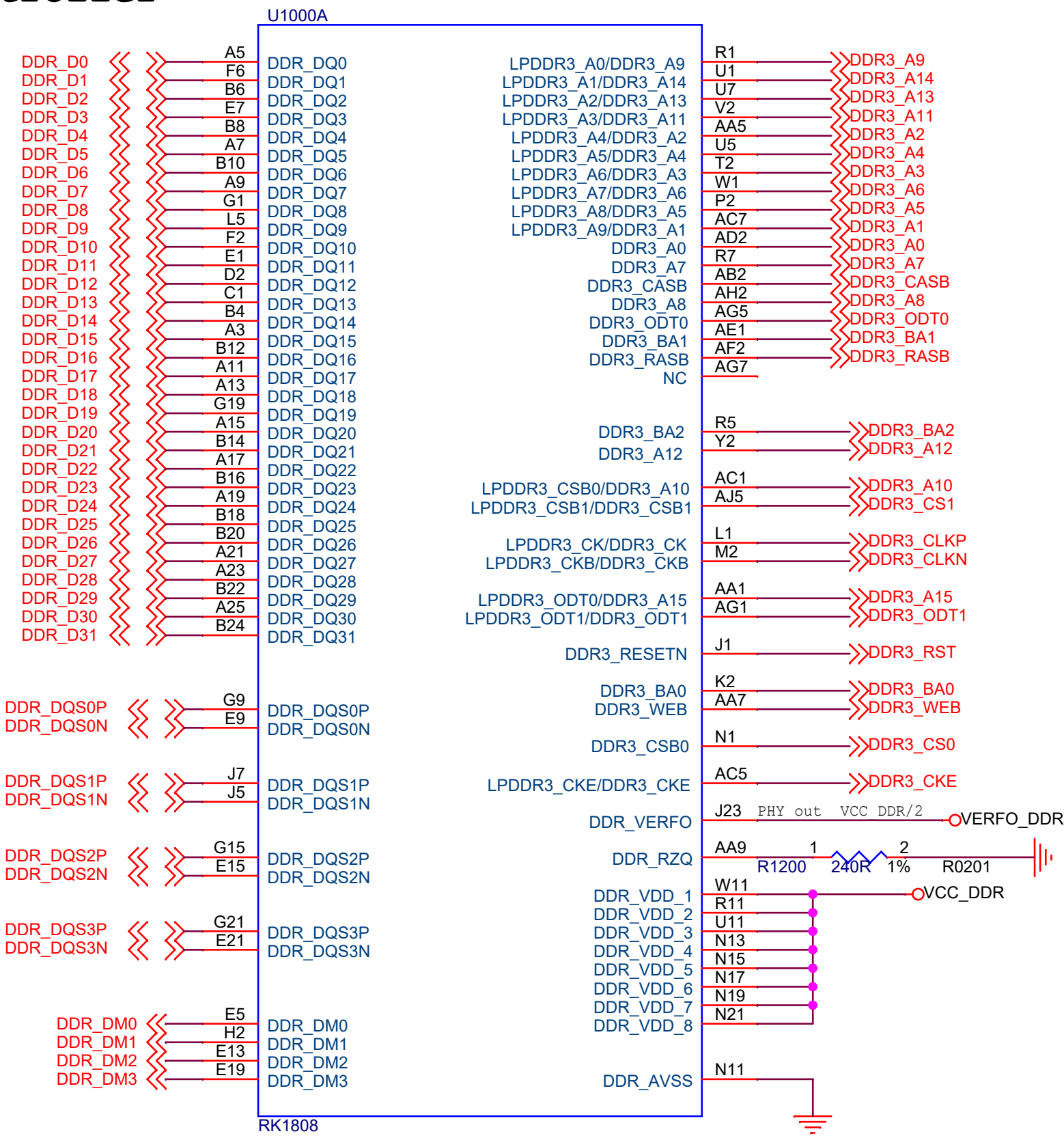
PMUIO2



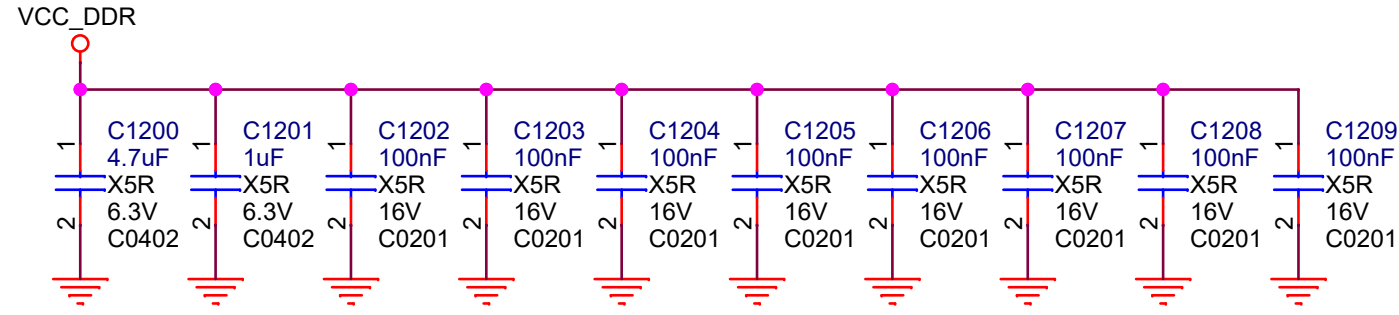
Fuzhou Rockchip Electronics

Project:	RK1808_DDR3P216		
File:	11.RK1808 OSC/PMUIO1/PMUIO2		
Date:	Monday, December 10, 2018	Rev:	V1.0
Designed by:	Rzf	Sheet:	11 of 99

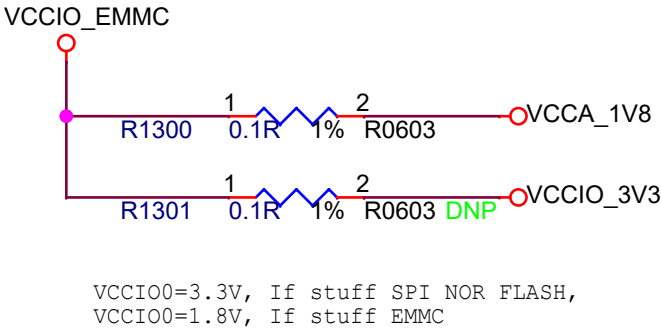
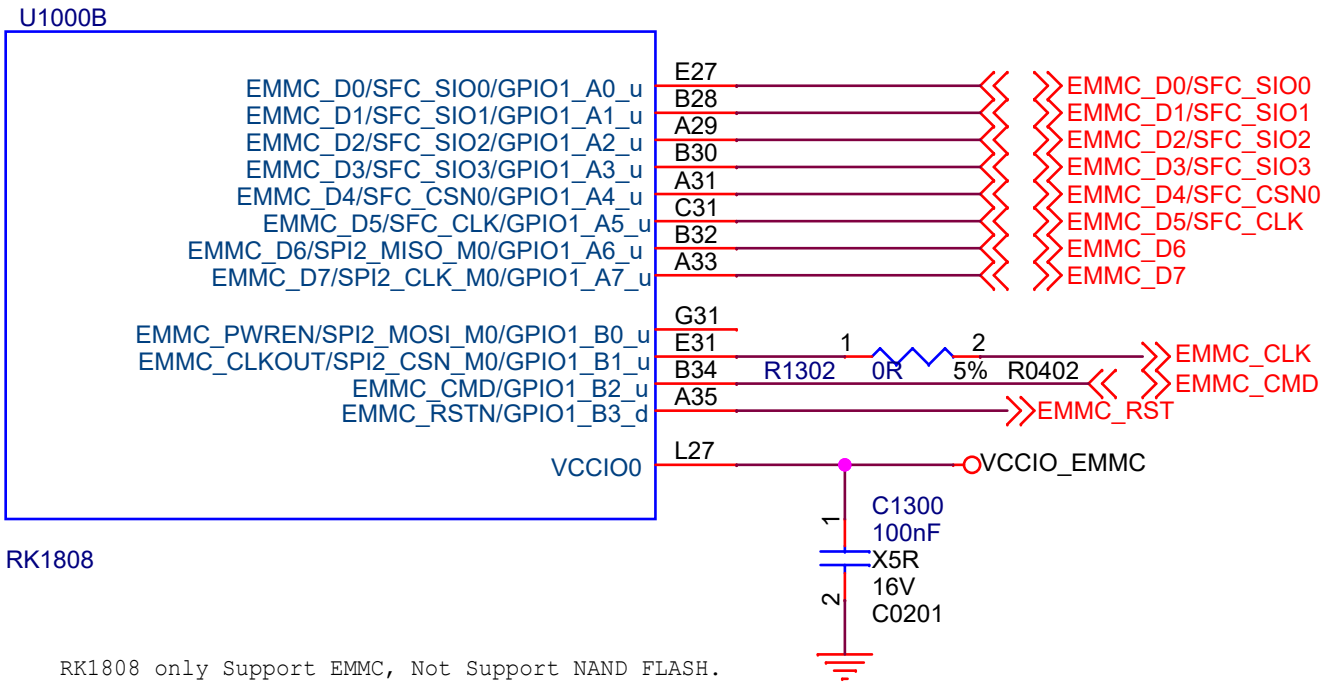
DDR Controller



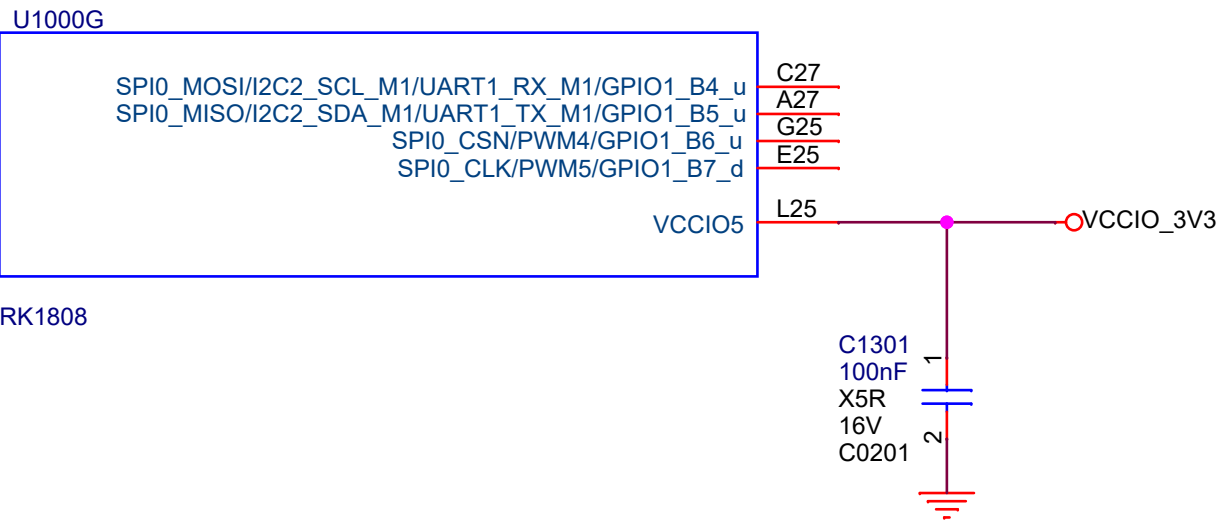
LPDDR3/LPDDR2	DDR3
A0	A9
A1	A14
A2	A13
A3	A11
A4	A2
A5	A4
A6	A3
A7	A6
A8	A5
A9	A1
	A0
	A7
	CASB
	A8
	ODT0
	BA1
	RASB
	CSB0
	BA2
	A12
	BA0
	WE
CK	CK
CKB	CKB
CKE	CKE
CSB0	A10
CSB1	CSB1
ODT0	A15
ODT1	ODT1
	RESETN



EMMC/SFC Controller



SPI0 Controller

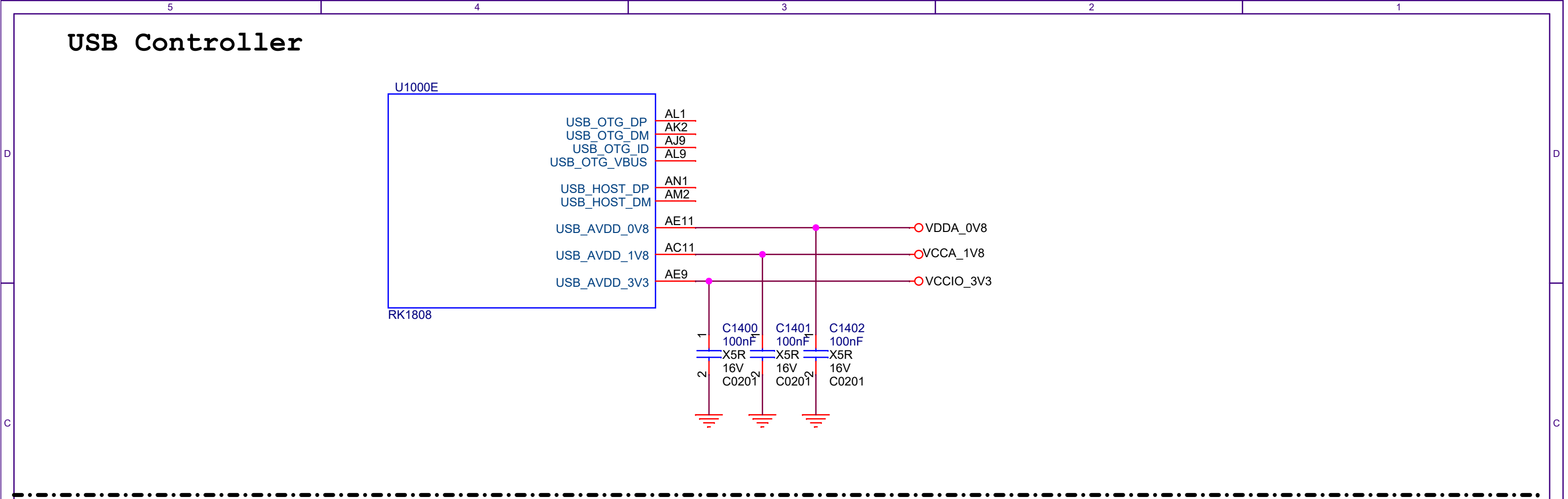


Rockchip 瑞芯微电子 Fuzhou Rockchip Electronics			
Project:	RK1808_DDR3P216		
File:	13.RK1808 EMMC /SPI Controller		
Date:	Monday, December 10, 2018	Rev:	V1.0
Designed by:	Rzf	Sheet:	13 of 99

The diagram illustrates the electrical connection between a USB Controller (U1000E) and an RK1808 microcontroller. The USB Controller is represented by a blue box with pins labeled on the right side. The RK1808 is represented by a blue box with pins labeled on the left side. The connections are as follows:

- Signal Connections:**
 - USB_OTG_DP (U1000E) to AL1 (RK1808)
 - USB_OTG_DM (U1000E) to AK2 (RK1808)
 - USB_OTG_ID (U1000E) to AJ9 (RK1808)
 - USB_OTG_VBUS (U1000E) to AL9 (RK1808)
 - USB_HOST_DP (U1000E) to AN1 (RK1808)
 - USB_HOST_DM (U1000E) to AM2 (RK1808)
- Power Supply Connections:**
 - USB_AVDD_0V8 (U1000E) to AE11 (RK1808), which is connected to VDDA_0V8.
 - USB_AVDD_1V8 (U1000E) to AC11 (RK1808), which is connected to VCCA_1V8.
 - USB_AVDD_3V3 (U1000E) to AE9 (RK1808), which is connected to VCCIO_3V3.
- Decoupling Capacitors:**
 - C1400 (100nF) is connected between pins 1 and 2 of the VCCIO_3V3 supply line.
 - C1401 (100nF) is connected between pins 1 and 2 of the VCCA_1V8 supply line.
 - C1402 (100nF) is connected between pins 1 and 2 of the VDDA_0V8 supply line.

The components are labeled with their respective values and part numbers: C1400, C1401, C1402 (100nF capacitors), X5R (capacitor type), 16V (voltage rating), and C0201 (package type).



The schematic diagram illustrates the PCIE Controller circuit. It features a U1000M component (PCIE Controller) connected to an RK1808 component (PCIE Controller). The connections are as follows:

- PCIE_RX0P/USB3_SSRXP** (U1000M) to **AR1** (RK1808)
- PCIE_RX0N/USB3_SSRXN** (U1000M) to **AP2** (RK1808)
- PCIE_RX1P** (U1000M) to **AW3** (RK1808)
- PCIE_RX1N** (U1000M) to **AV4** (RK1808)
- PCIE_TX0P/USB3_SSTXP** (U1000M) to **AU1** (RK1808)
- PCIE_TX0N/USB3_SSTXN** (U1000M) to **AT2** (RK1808)
- PCIE_TX1P** (U1000M) to **AR5** (RK1808)
- PCIE_TX1N** (U1000M) to **AR7** (RK1808)
- PCIE_REFCLKP** (U1000M) to **AN5** (RK1808)
- PCIE_REFCLKN** (U1000M) to **AN7** (RK1808)
- PCIE_RBIAS** (U1000M) to **AN9** (RK1808)
- PICE_VCCA_0V8** (U1000M) to **AE15** (RK1808)
- PICE_VCCD_0V8** (U1000M) to **AE13** (RK1808)
- PICE_VDDREF_0V8** (U1000M) to **AJ13** (RK1808)
- PICE_VCCA_1V8** (U1000M) to **AL13** (RK1808)

The RK1808 component is connected to various power and ground pins, including **VDDA_0V8**, **VCCA_1V8**, and **VCCA_0V8**. The diagram also shows the connection of the **PCIE_RBIAS** pin to a network of resistors and capacitors, including **R1403**, **R0402**, **C1403**, **C1404**, **C1405**, and **C1406**.

PCIE Controller

U1000M

PCIE_RX0P/USB3_SSRXP
PCIE_RX0N/USB3_SSRXN

PCIE_RX1P
PCIE_RX1N

PCIE_TX0P/USB3_SSTXP
PCIE_TX0N/USB3_SSTXN

PCIE_TX1P
PCIE_TX1N

PCIE_REFCLKP
PCIE_REFCLKN

PCIE_RBIAS

PICE_VCCA_0V8
PICE_VCCD_0V8
PICE_VDDREF_0V8

PICE_VCCA_1V8

AR1
AP2

AW3
AV4

AU1
AT2

AR5
AR7

AN5
AN7

AN9

AE15
AE13
AJ13

AL13

RK1808

VDDA_0V8

VCCA_1V8

R1403
2k

R0402
1%

C1403
100nF
X5R
16V
C0201

C1404
4.7uF
X5R
10V
C0402

C1405
100nF
X5R
16V
C0201

C1406
1uF
X5R
6.3V
C0402

Rockchip
瑞芯微电子

Fuzhou Rockchip Electronics

Project: RK1808_DDR3P216

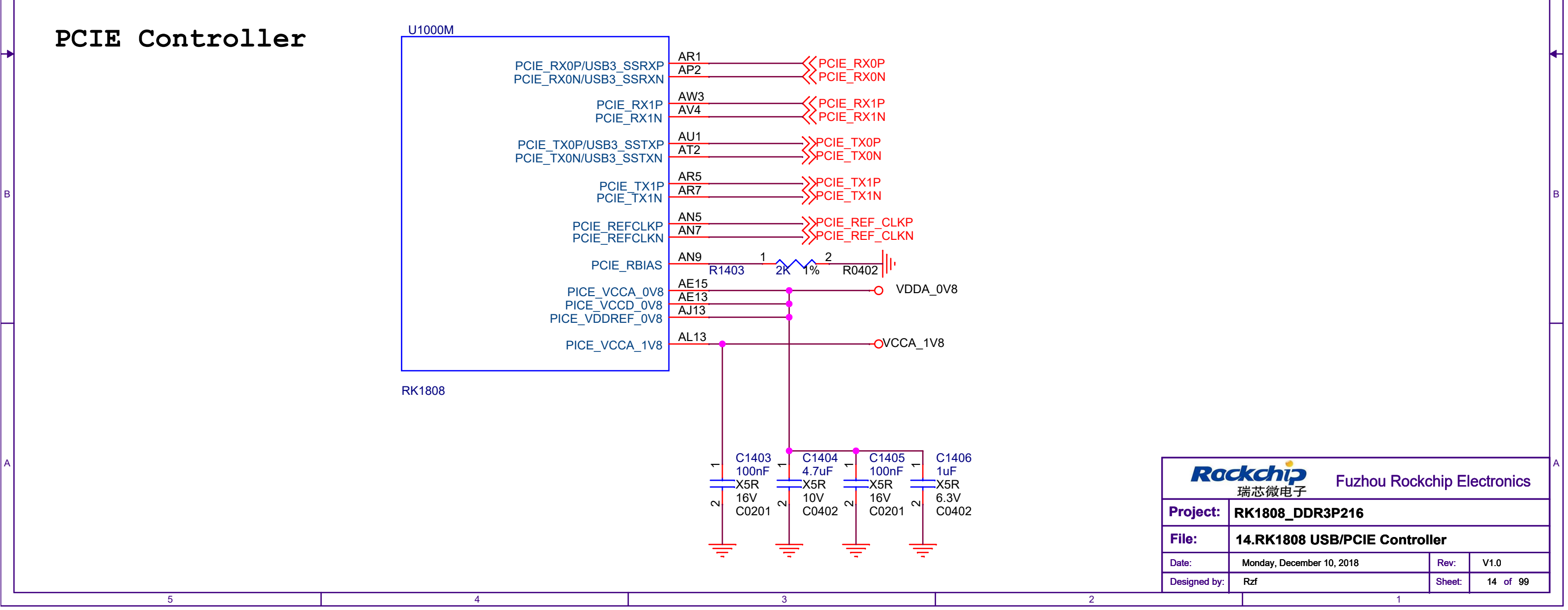
File: 14.RK1808 USB/PCIE Controller

Date: Monday, December 10, 2018

Rev: V1.0

Designed by: Rzf

Sheet: 14 of 99



 瑞芯微电子	Fuzhou Rockchip Electronics
Project: RK1808_DDR3P216	
File: 14.RK1808 USB/PCIE Controller	
Date: Monday, December 10, 2018	Rev: V1.0
Designed by: Rzf	Sheet: 14 of 99

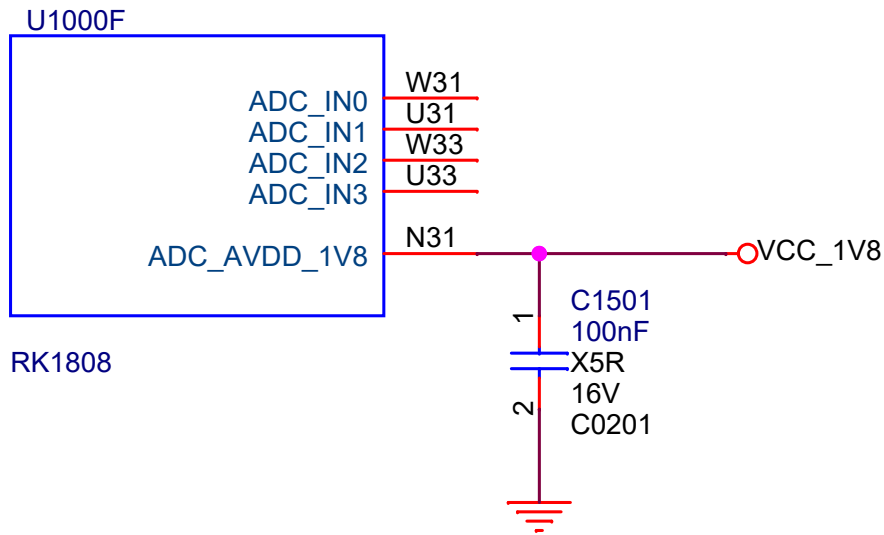
 瑞芯微电子	Fuzhou Rockchip Electronics
Project: RK1808_DDR3P216	
File: 14.RK1808 USB/PCIE Controller	
Date: Monday, December 10, 2018	Rev: V1.0
Designed by: Rzf	Sheet: 14 of 99

 瑞芯微电子	Fuzhou Rockchip Electronics
Project: RK1808_DDR3P216	
File: 14.RK1808 USB/PCIE Controller	
Date: Monday, December 10, 2018	Rev: V1.0
Designed by: Rzf	Sheet: 14 of 99

 瑞芯微电子	Fuzhou Rockchip Electronics
Project: RK1808_DDR3P216	
File: 14.RK1808 USB/PCIE Controller	
Date: Monday, December 10, 2018	Rev: V1.0
Designed by: Rzf	Sheet: 14 of 99

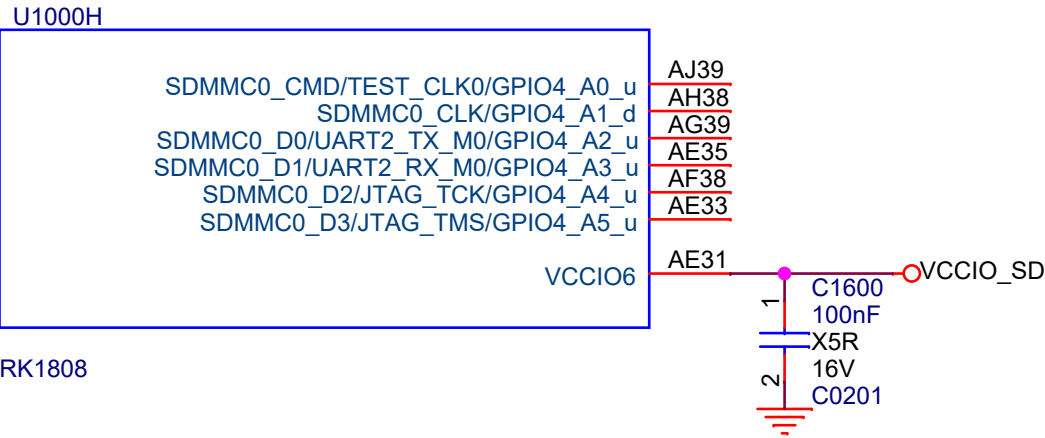
 瑞芯微电子	Fuzhou Rockchip Electronics
Project: RK1808_DDR3P216	
File: 14.RK1808 USB/PCIE Controller	
Date: Monday, December 10, 2018	Rev: V1.0
Designed by: Rzf	Sheet: 14 of 99

SARADC/KEY

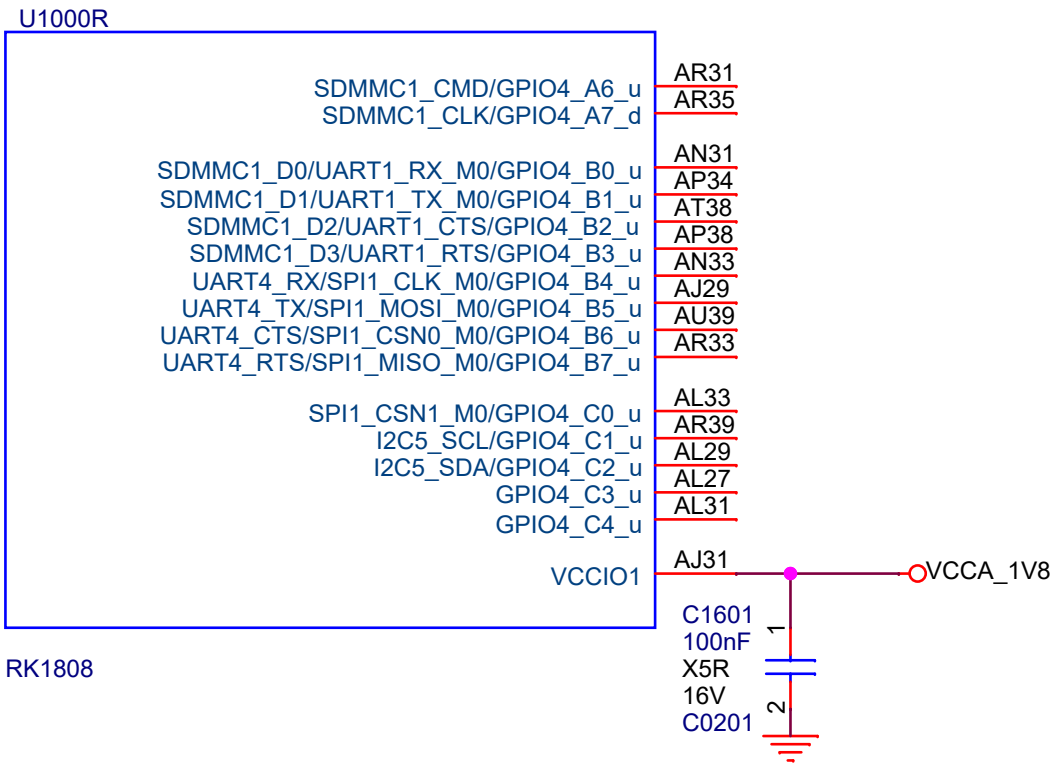


 瑞芯微电子 Fuzhou Rockchip Electronics			
Project:	RK1808_DDR3P216		
File:	15.RK1808 SARADC/KEY		
Date:	Monday, December 10, 2018	Rev:	V1.0
Designed by:	Rzf	Sheet:	15 of 99

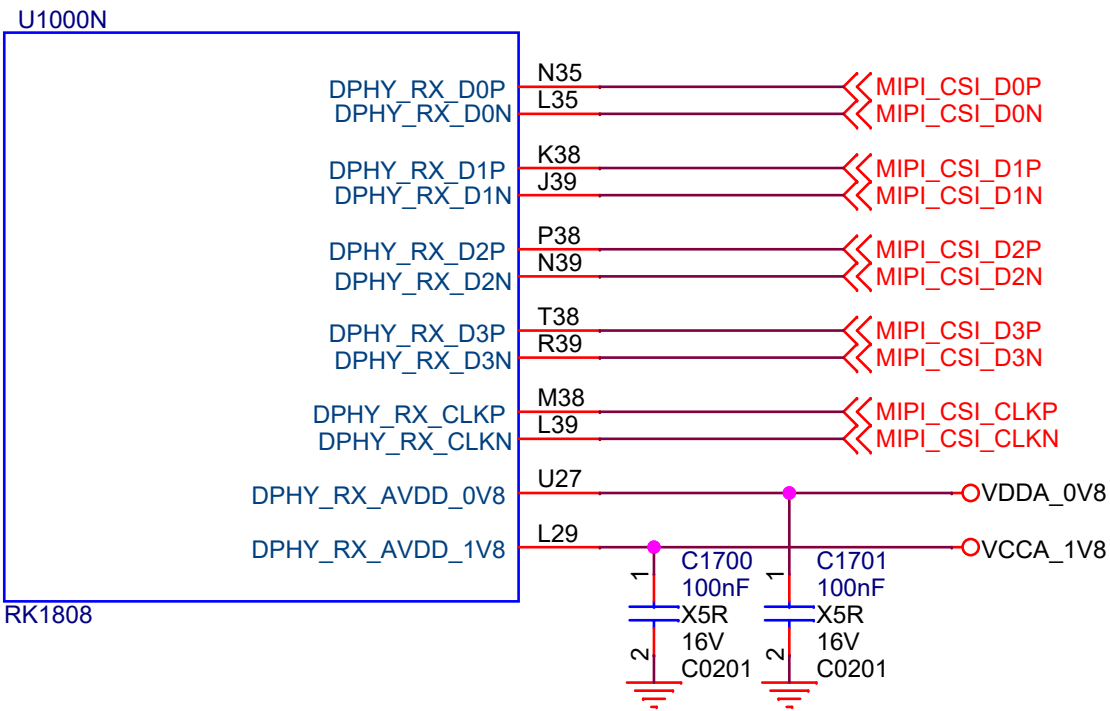
SDMMC0 Controller



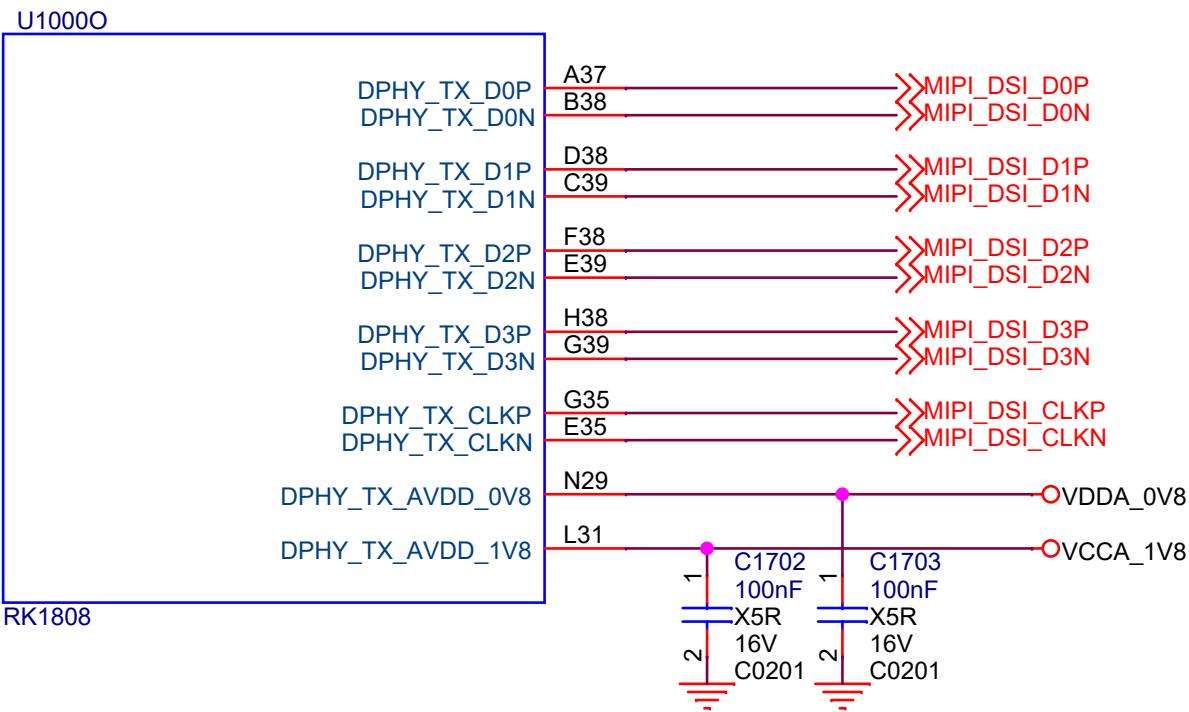
SDMMC1 Controller



MIPI CSI Controller

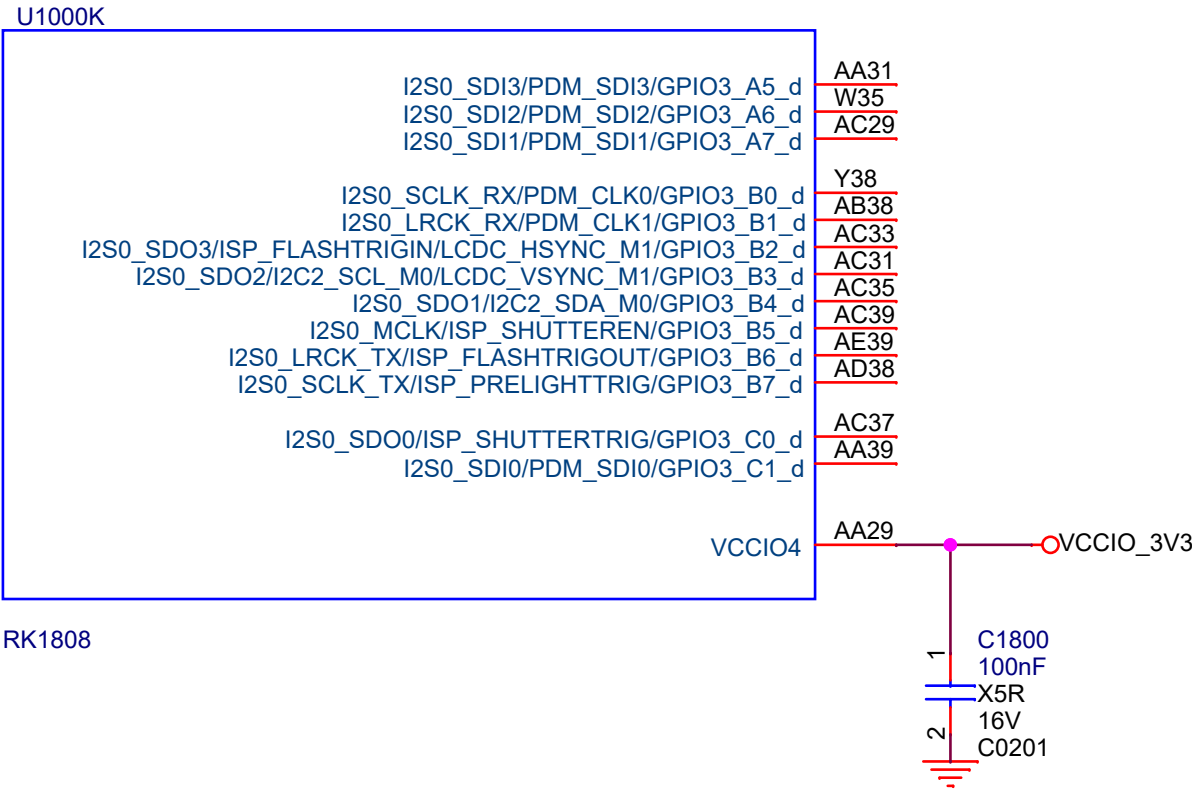


MIPI DSI Controller

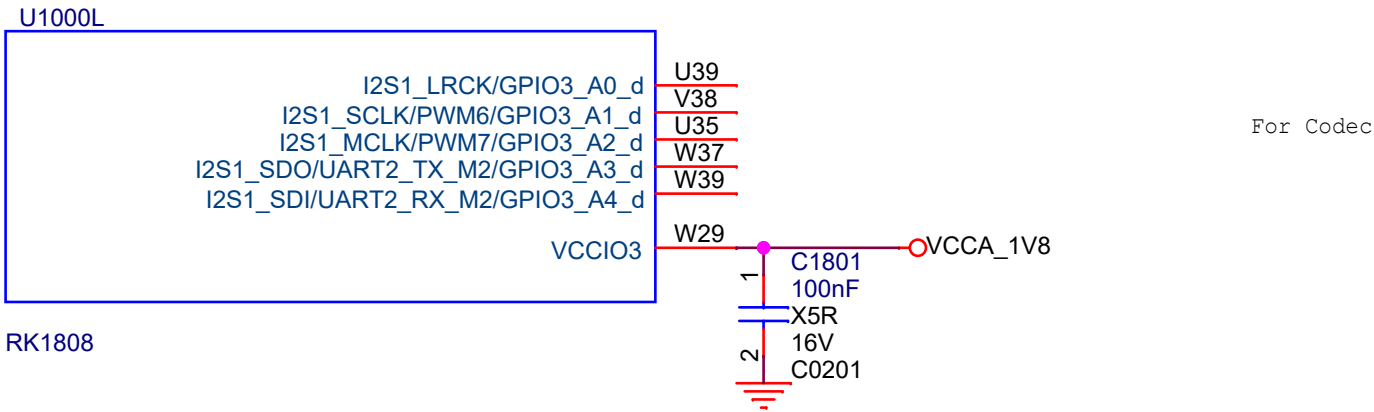


 Fuzhou Rockchip Electronics			
Project:	RK1808_DDR3P216		
File:	17.RK1808 MIPI DSI/CSI		
Date:	Monday, December 10, 2018	Rev:	V1.0
Designed by:	Rzf	Sheet:	17 of 99

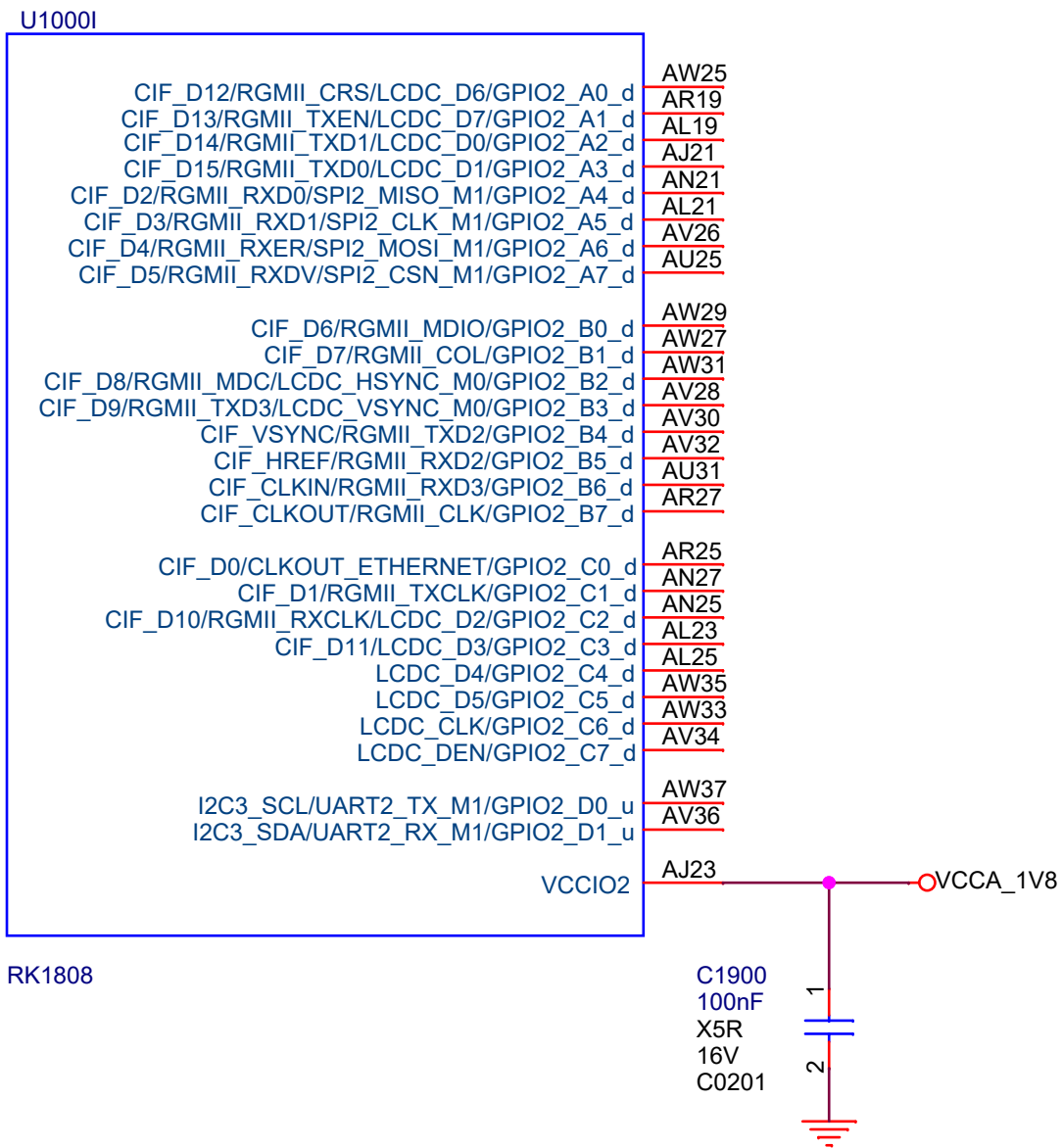
I2S0 Controller



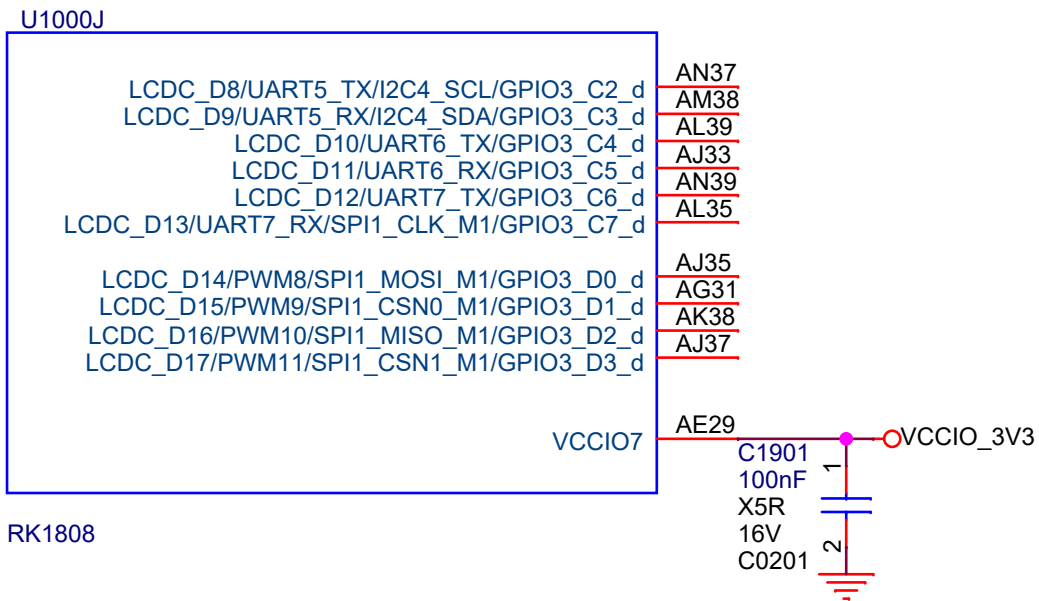
I2S1 Controller



CIF/RGMII/LCDC Controller



LCDC Controller



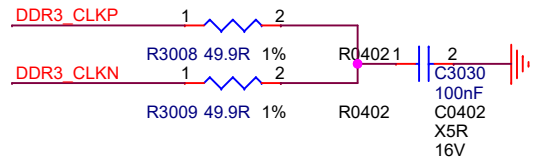
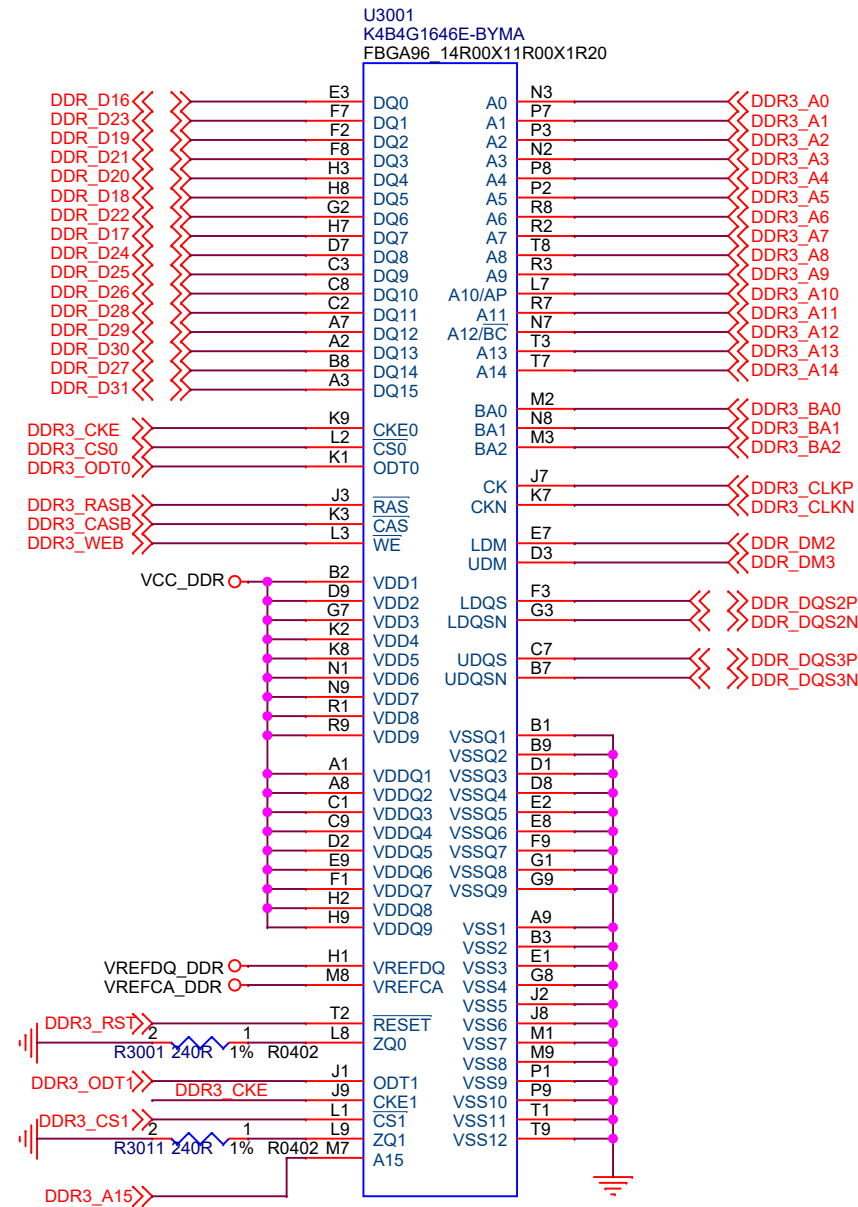
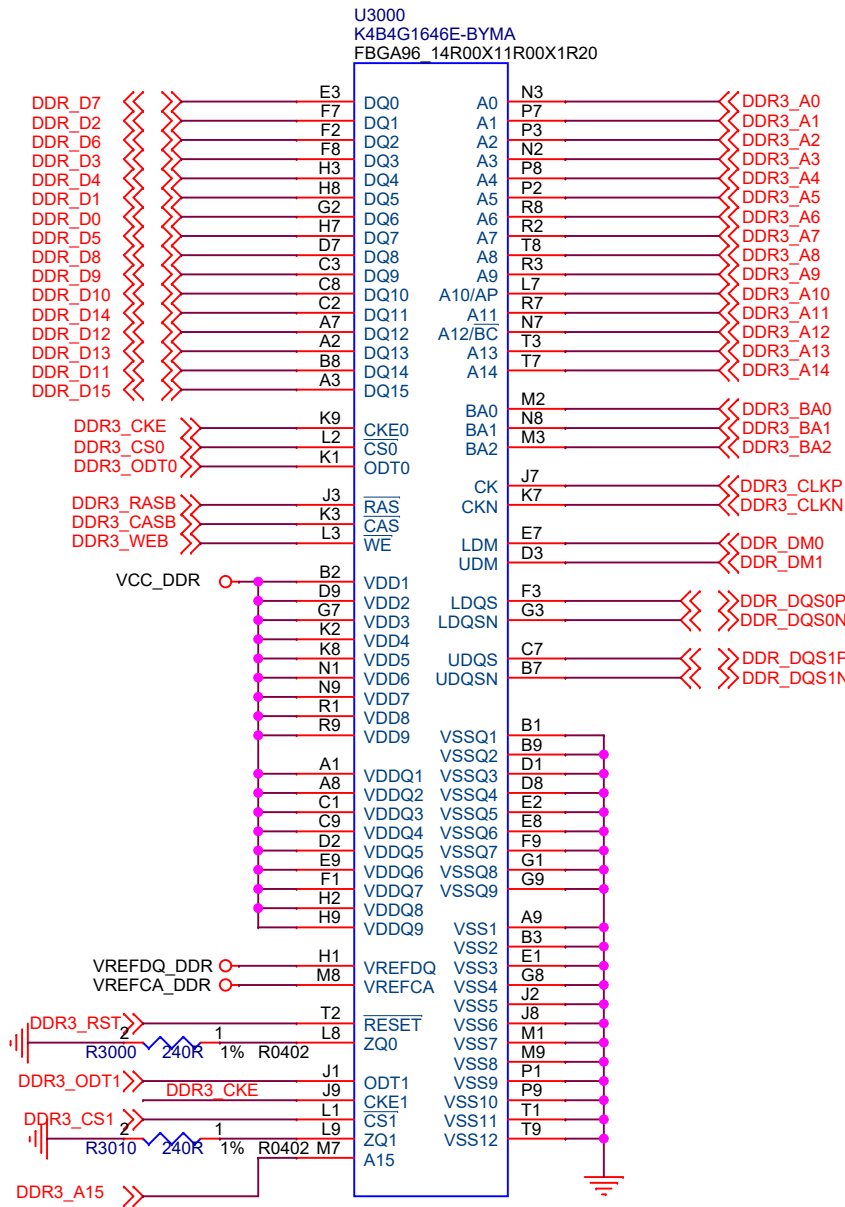


瑞芯微电子

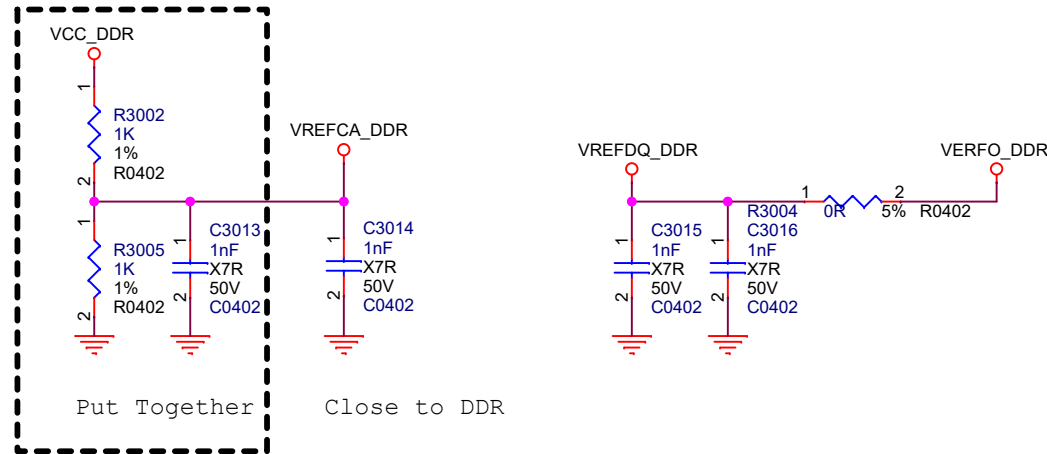
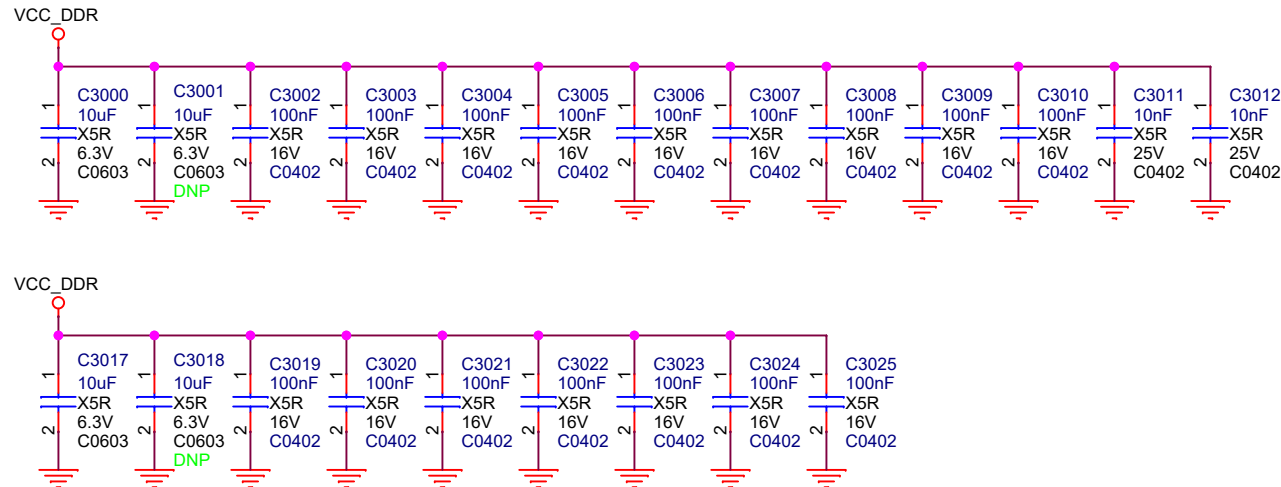
Fuzhou Rockchip Electronics

Project:	RK1808_DDR3P216		
File:	19.RK1808 RGMII/LCDC/CIF		
Date:	Monday, December 10, 2018	Rev:	V1.0
Designed by:	Rzf	Sheet:	19 of 99

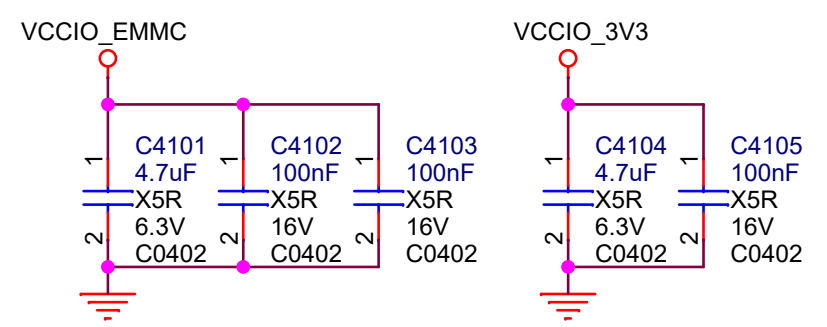
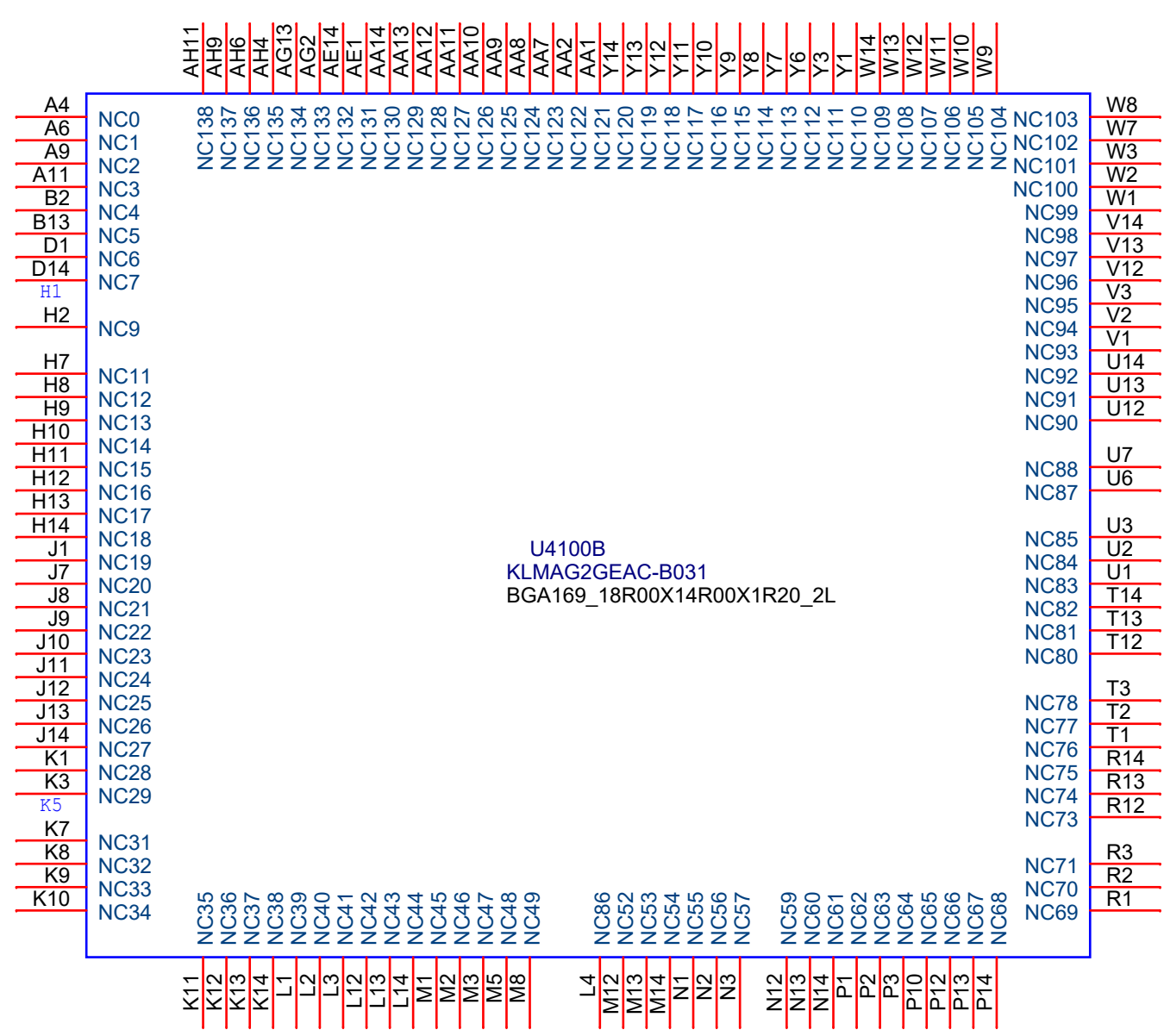
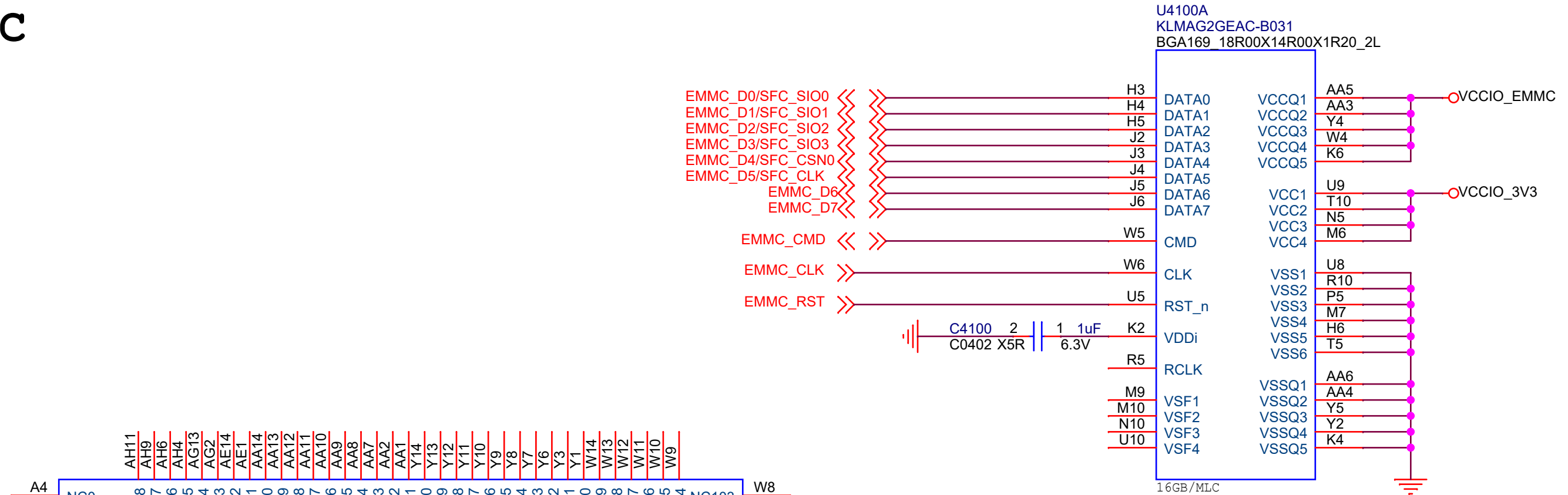
DDR3/DDR3L 2x16bit



Note:All the Power filter capacitors should be placed close to the power pins of DDR3



eMMC



Note:
Reserve TestPoint for firmware update.
If FLASH_CLE=0V at power-on reset,
then system will enter into Maskrom mode.

Masrom

EMMC_D0/SFC_SIO0

R4100

10R

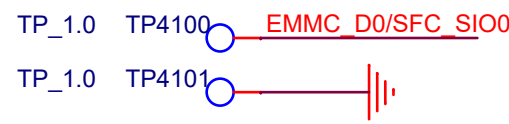
5%

R0402

SW4100

Maskrom

SW2_6R00X3R70X2R50

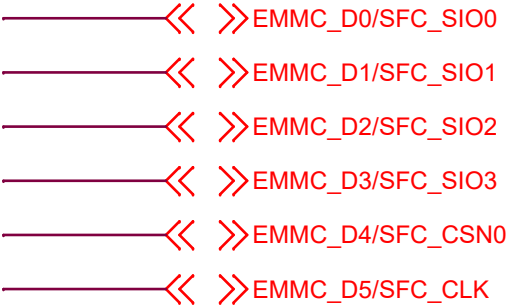
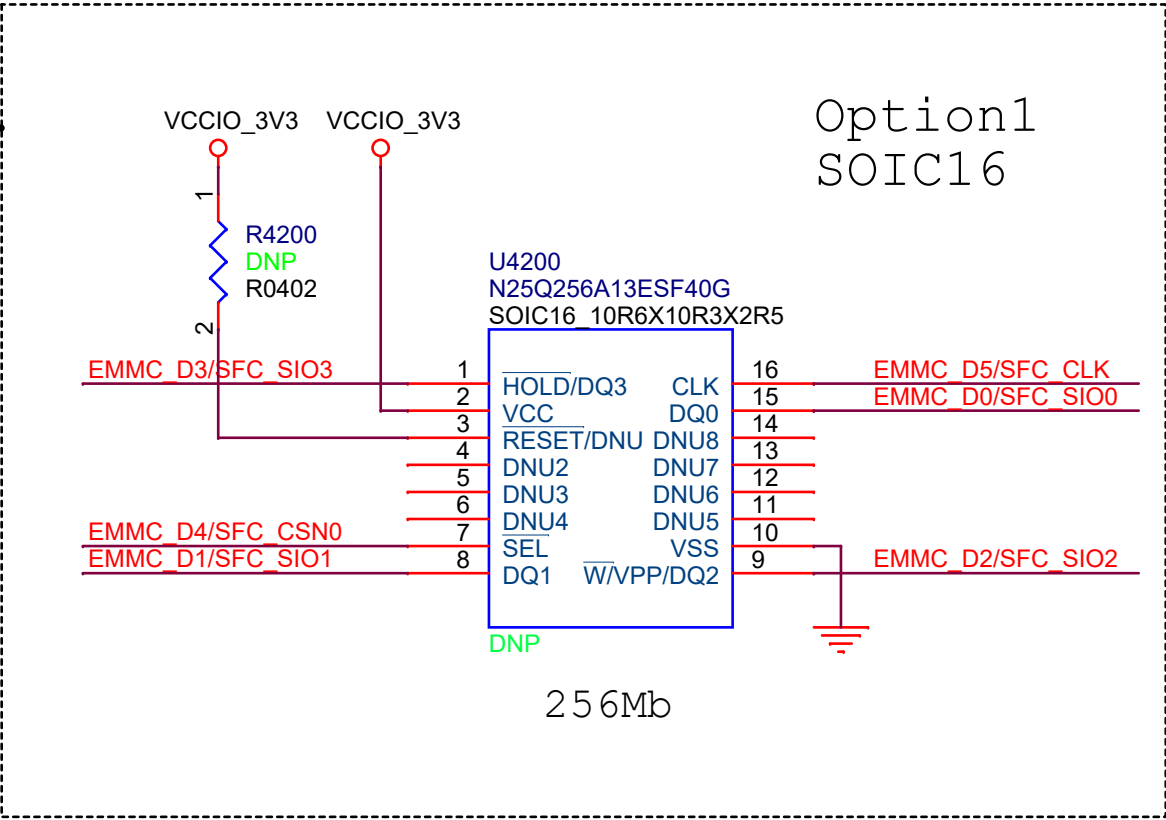
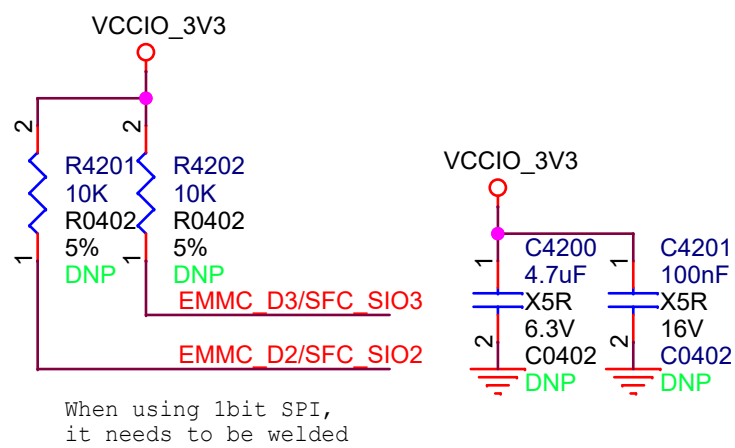


Remind: Refer to the latest AVL for parts selection.

Rockchip 瑞芯微电子 Fuzhou Rockchip Electronics			
Project:	RK1808_DDR3P216		
File:	41.EMMC		
Date:	Monday, December 10, 2018	Rev:	V1.0
Designed by:	Rzf	Sheet:	41 of 99

SPI NOR Flash

Reserved for minimal system.



Remind: Refer to the latest AVL for parts selection.

Rockchip 瑞芯微电子 Fuzhou Rockchip Electronics			
Project:	RK1808_DDR3P216		
File:	42.SPI Flash		
Date:	Monday, December 10, 2018	Rev:	V1.0
Designed by:	Rzf	Sheet:	42 of 99