


RK3399\_EVB\_TB\_LPDDR4 Ver1.1

Version	Date	Author	Change Note	Approved
V1.0	2018.01.11	Linus.Lin	First edictor 基于《RK_EVB_SOCBOARD_3399_LPDDR4P366SD8_V12_20170801_LX》修改,更新page39	




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Project:	RK3399_EVB_TB_LPDDR4_200P		
File:	00.Modify note		
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RK3399 I2C MAP

Port	Pin name	Domain	Bus name	Pull-up voltage	Slave Device	Slave Addr (MS 7Bits)	Note	Slave Bus Capability
I2C0	GPIO1_B7/SPI3_RXD/I2C0_SDA GPIO1_C0/SPI3_TXD/I2C0_SCL	PMUIO2 VCC1V8_PMU	I2C_SDA_PMIC I2C_SCL_PMIC	VCC1V8_PMU	MPS MP8865GQ	0x68,0x60	DC regulator	100kHz,400KHz FM, 3.4MHz HS mode
					Rohm BD99955MWV	0x12	Charger	10K-400KHz (SMBus)
					Rockchip RK808	0x1b	PMIC	
					Fairchild FUSB302B	0x44,0x46	USB-TypeC Mux	0-1MHz (FM+)
I2C1	GPIO4_A1/I2C1_SDA GPIO4_A2/I2C1_SCL	APIO5 VCC1V8_IO	I2C_SDA_AUDIO I2C_SCL_AUDIO	VCCA1V8_CODEC	Everest ES8316	0x10	Audio codec	
			I2C_SDA_CAM I2C_SCL_CAM	VCCA1V8_CODEC	Omnivision OV8858	0x6c,0x20	MIPI Camera	
I2C2	GPIO2_A0/VOP_D0/CIF_D0/I2C2_SDA GPIO2_A1/VOP_D1/CIF_D1/I2C2_SCL	APIO2 VCC1V8_IO	Other pin function					
I2C3	GPIO4_C0/I2C3_SDA/UART2B_RX GPIO4_C1/I2C3_SCL/UART2B_TX	APIO4 VCC3V0_IO	I2C_SDA_HDMI I2C_SCL_HDMI	VCC3V0_IO				
I2C4	GPIO1_B3/I2C4_SDA GPIO1_B4/I2C4_SCL	PMUIO2 VCC1V8_IO	I2C_SDA_MEMS I2C_SCL_MEMS	VCC1V8_PMU	Capellamicro CM3218	0x10,0x0c	ALS Sensor	
					AsahiKasei AK8963C		Compass	
					InverSense MPU6500	0x34	Accer+Gyro	
			I2C_SDA_TOUCH I2C_SCL_TOUCH	VCC1V8_TOUCH	Silead GSL3680	0x40	Touch panel	
I2C5	GPIO3_B2/MAC_RXER/I2C5_SDA GPIO3_B3/MAC_CLK/I2C5_SCL	APIO1 VCC3V3_LAN	I2C_SDA_PCIE I2C_SCL_PCIE	VCC3V3_IO				
I2C6	GPIO2_B1/SPI2_RXD/CIF_HREF/I2C6_SDA GPIO2_B2/SPI2_TXD/CIF_CLKIN/I2C6_SCL	APIO2 VCC1V8_IO	I2C_SDA_BAT I2C_SCL_BAT	VCC1V8_DVP	Chrome Battery	0x19	Battery	100KHz
I2C7	GPIO2_A7/VOP_D7/CIF_D7/I2C7_SDA GPIO2_B0/VOP_CLK/CIF_VSYNC/I2C7_SCL	APIO2 VCC1V8_IO	Other pin function					



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Project:

RK3399\_EVB\_TB\_LPDDR4\_200P

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01.I2C Map

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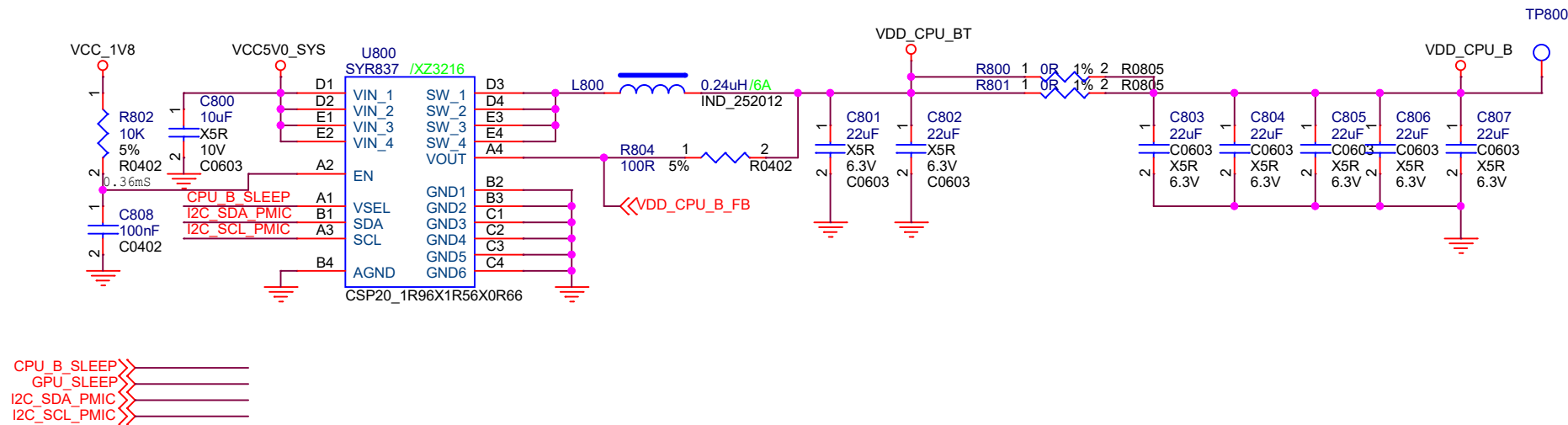
Linus

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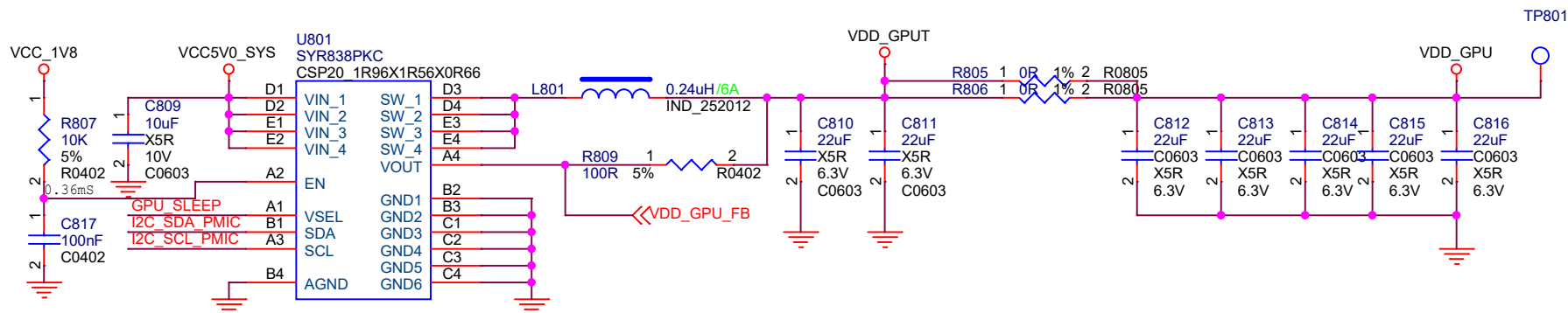
RK3399 Power Domain Map


Part Port	Domain	Pin name in datasheet	I/O type	Power supply	Power source
Part C	PMUI01	PMUI01_gpio0ab	1.8V only	VCC1V8_PMU	RK808 VLDO3
Part E	PMUI02	PMU1830_gpio1abcd	1.8V(Default) 3.0V	VCC1V8_PMU	RK808 VLDO3
Part I	API01	GMAC_gpio3abc	3.3V only	VCC1V8_IO VCC3V3_IO	RK808 Buck4 RK808 VSW2
Part L	API02	BT656_gpio2ab	1.8V(Default) 3.0V	VCC1V8_DVP	RK808 VLDO1
Part G	API03	WIFI/BT_gpio2cd	1.8V only	VCC1V8_WIFI	RK808 Buck4
Part K	API04	GPIO1830_gpio4cd	1.8V 3.0V(Default)	VCC_1V5 VCC3V0_IO	RK808 VLDO6 RK808 VLDO8
Part J	API05	AUDIO_gpio3d_gpio4a	1.8V(Default) 3.0V	VCCA1V8_CODEC	RK808 VLDO7
Part F	SDMMC0	SDMMC_gpio4b	1.8V 3.0V(Default)	VCC_SDIO	RK808 VLDO4



VDD\_CPU\_B

VDD\_GPU





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Project:

RK3399\_EVB\_TB\_LPDDR4\_200P

File:

POWER

Date:

Thursday, January 11, 2018

Rev:

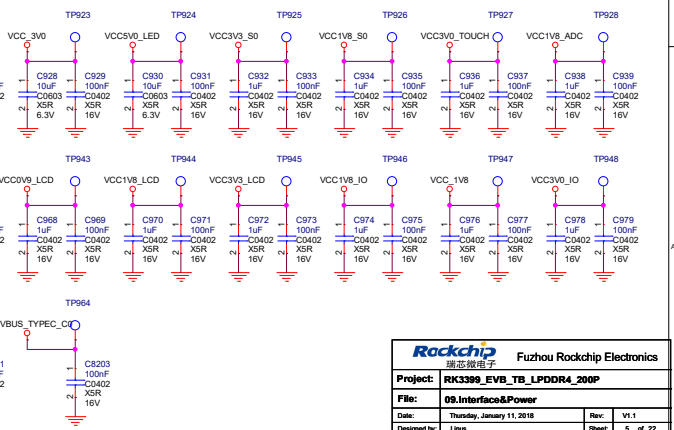
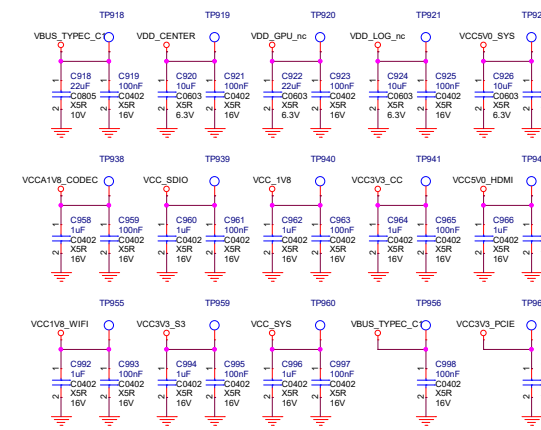
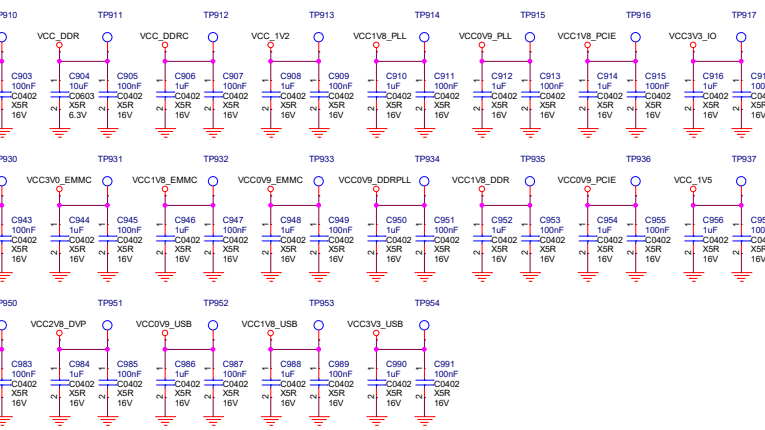
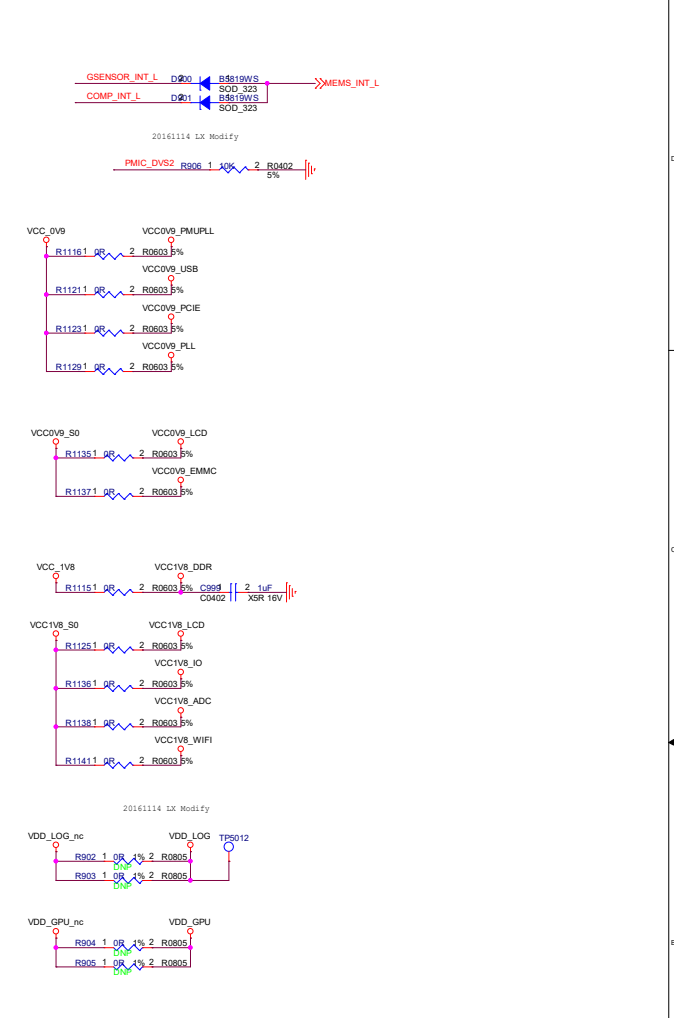
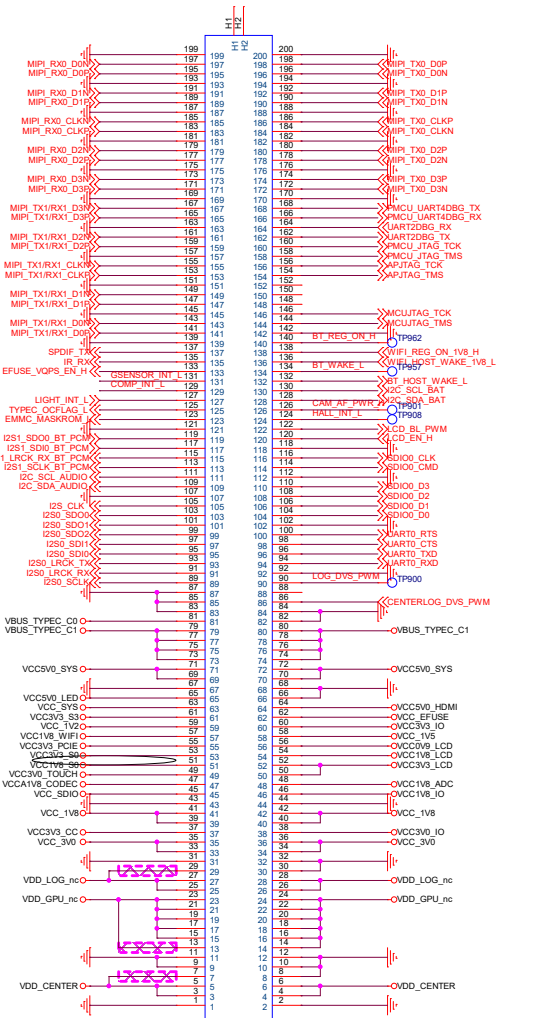
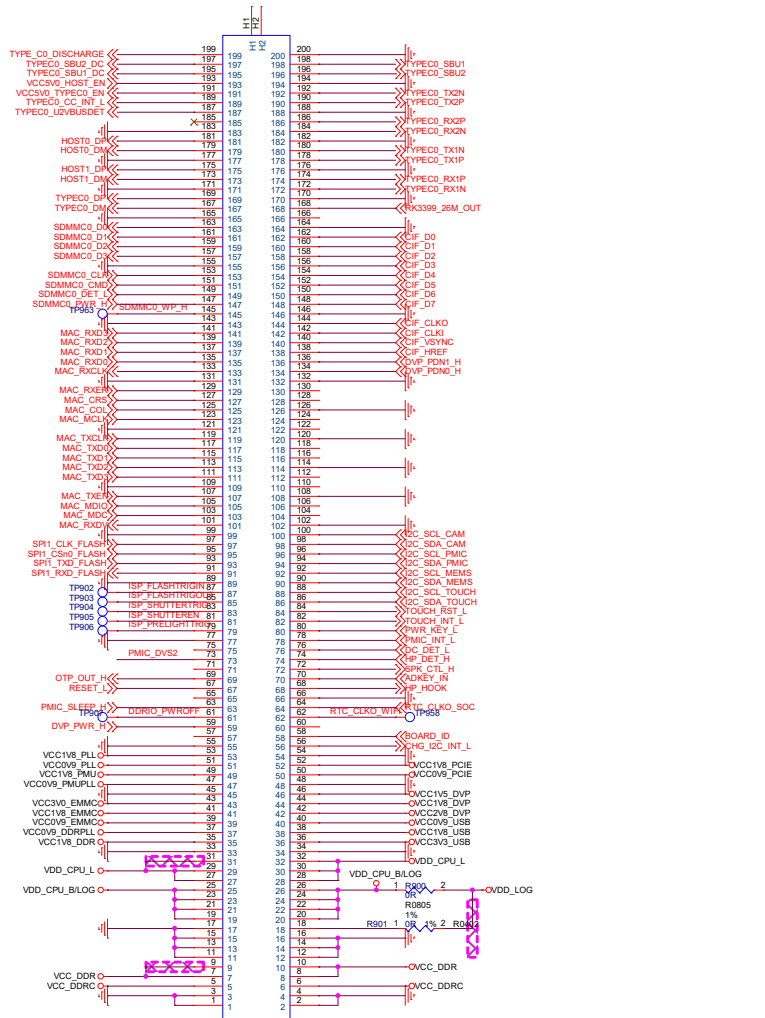
V1.1

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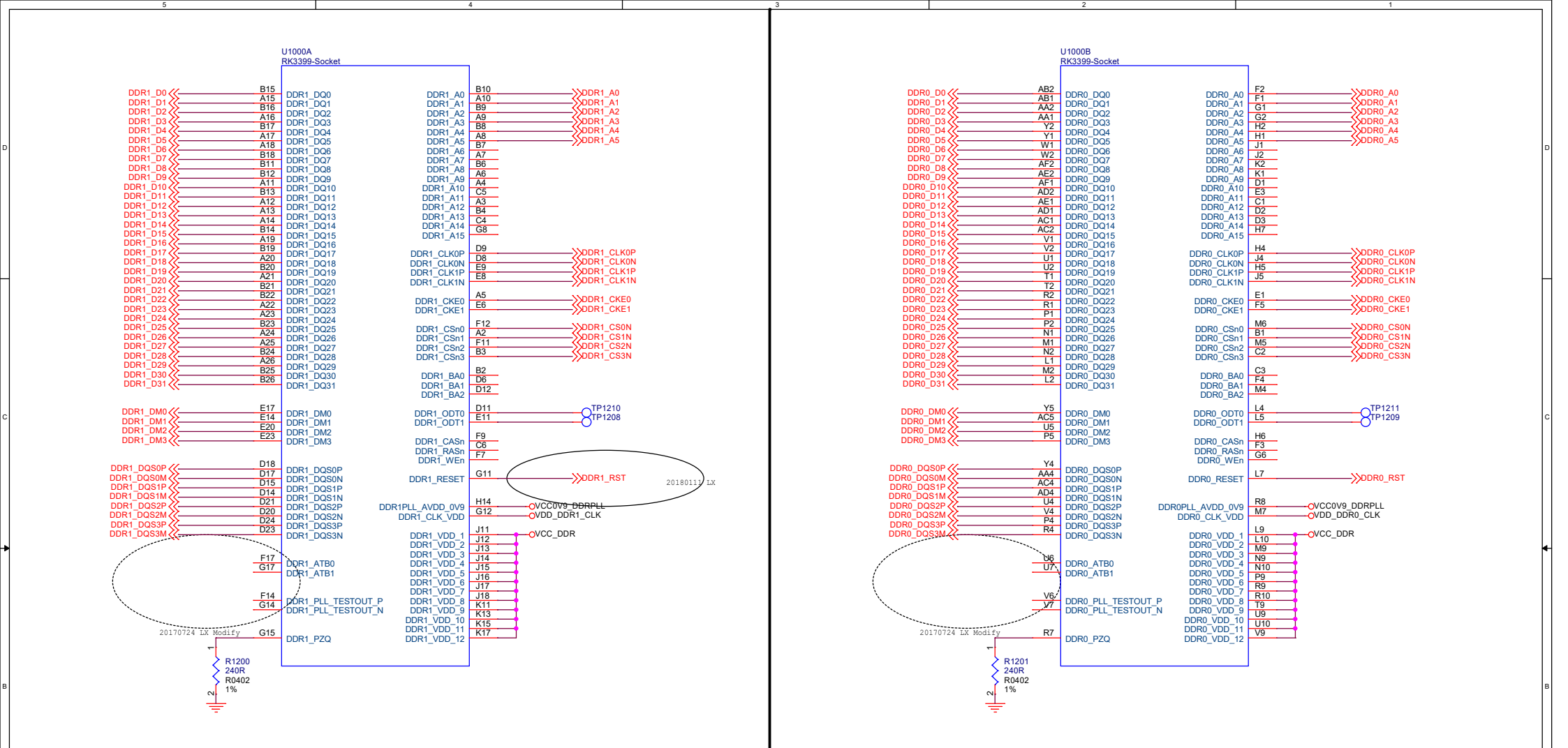
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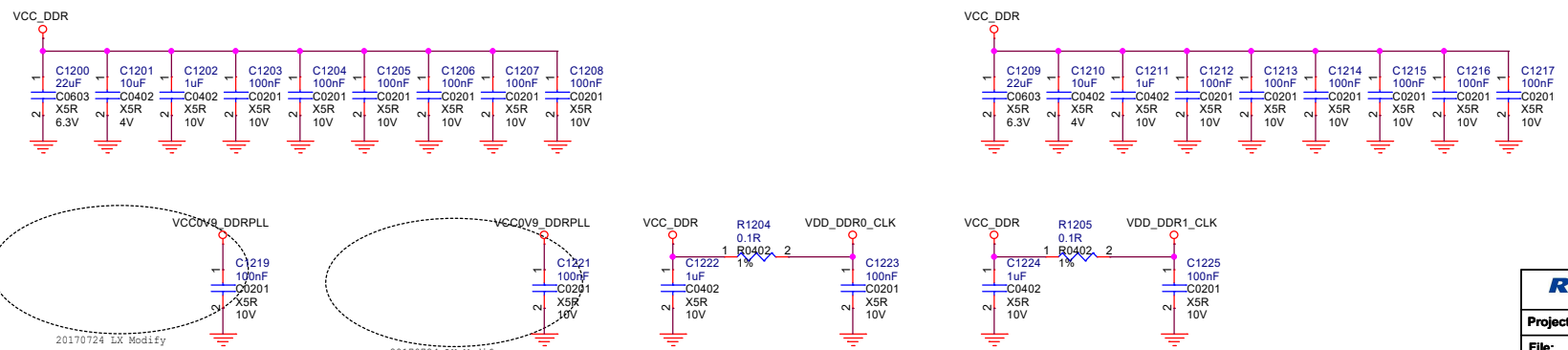




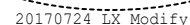


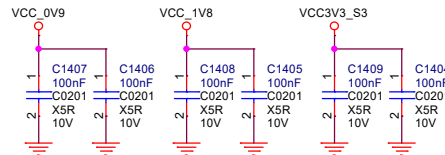
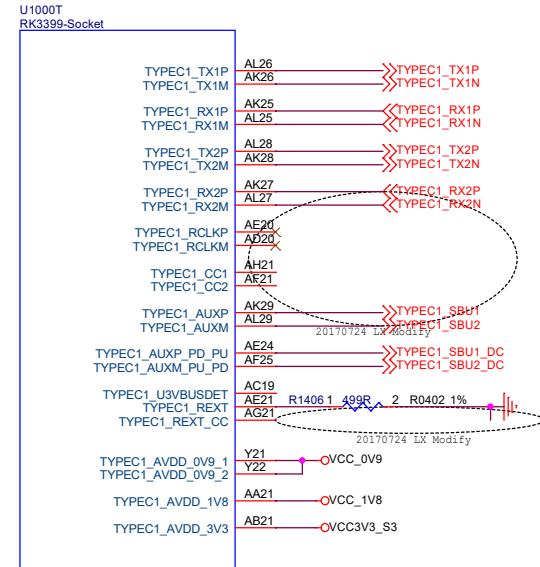
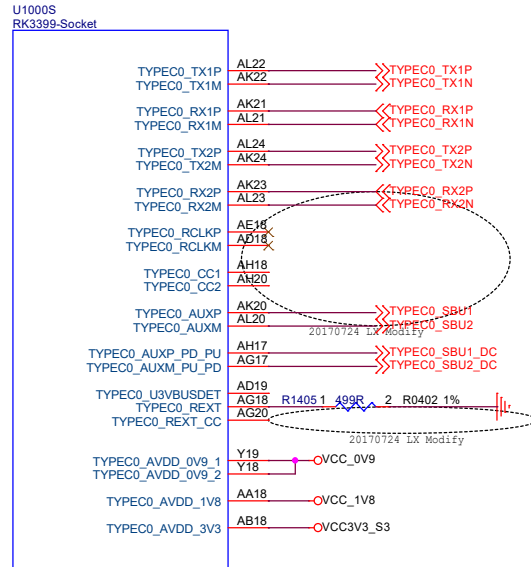
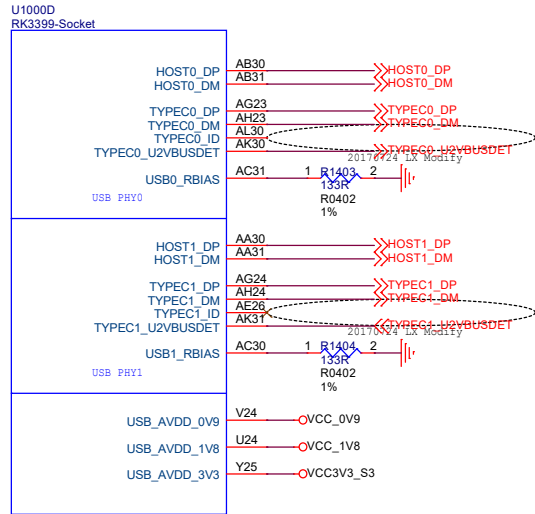
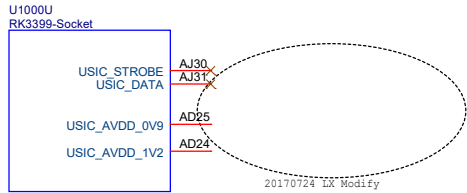


DDR FILTER









U1000V  
RK3399-Socket

ADC\_IN0  
ADC\_IN1  
ADC\_IN2  
ADC\_IN3  
ADC\_IN4

ADC\_AVDD

AG26  
AH26  
AG25  
AG28  
AH27

BOARD\_ID  
ADKEY\_IN  
HP\_HOOK  
RAM\_ID  
VDD\_GPU

VCC1V8\_PMU

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ADKEY\_IN

R1500 1 10K 1% 2 R0402

VCC1V8\_PMU

RAM\_ID

R1501 1 100K1% 2 R0402

VCC1V8\_PMU

R1502 1 499K1% 2 R0402

C1501 1 2 100nF

C0402 X5R 16V

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BOARD\_ID

R1506 1 200K1% 2 R0402

VCC1V8\_PMU

VCC1V8\_PMU

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C1500

100nF

C0201

X5R

10V



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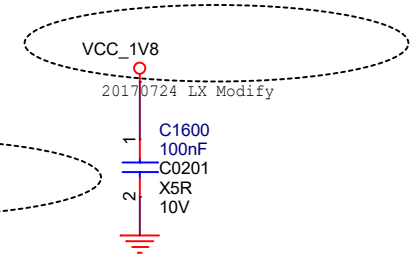
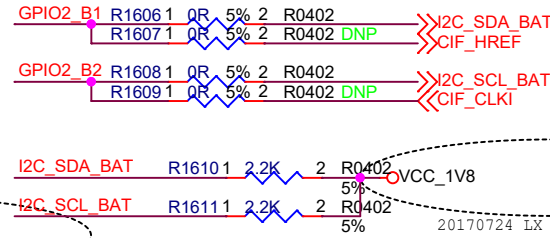
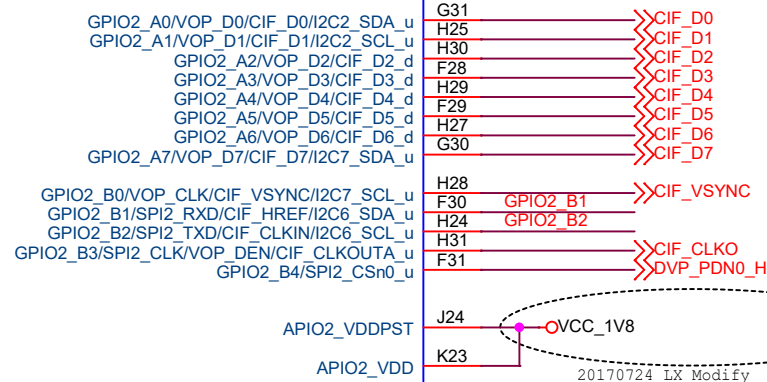
Project: RK3399\_EVB\_TB\_LPDDR4\_200P

File: 15.RK3399 SARADC

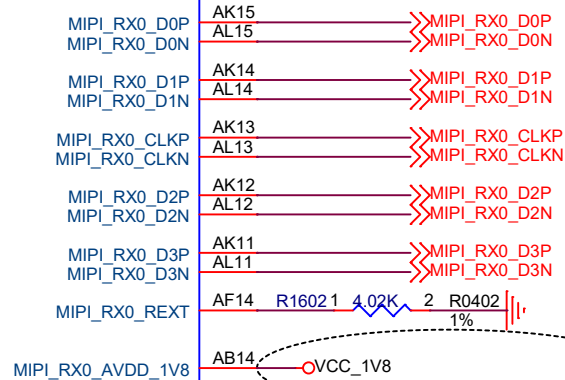
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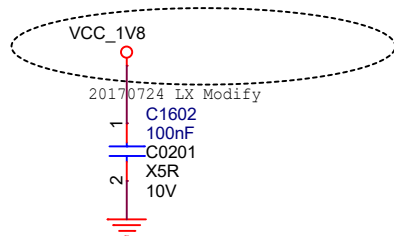
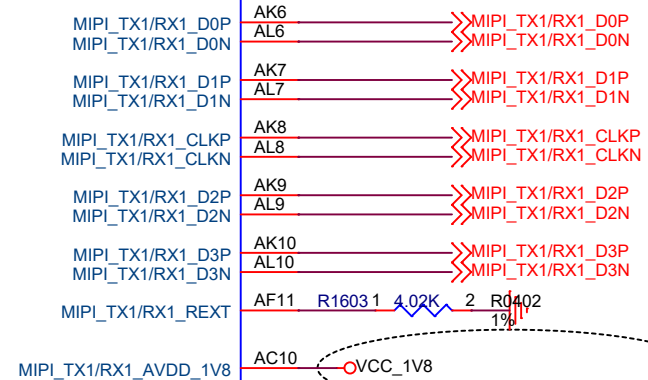
U1000L  
RK3399-Socket



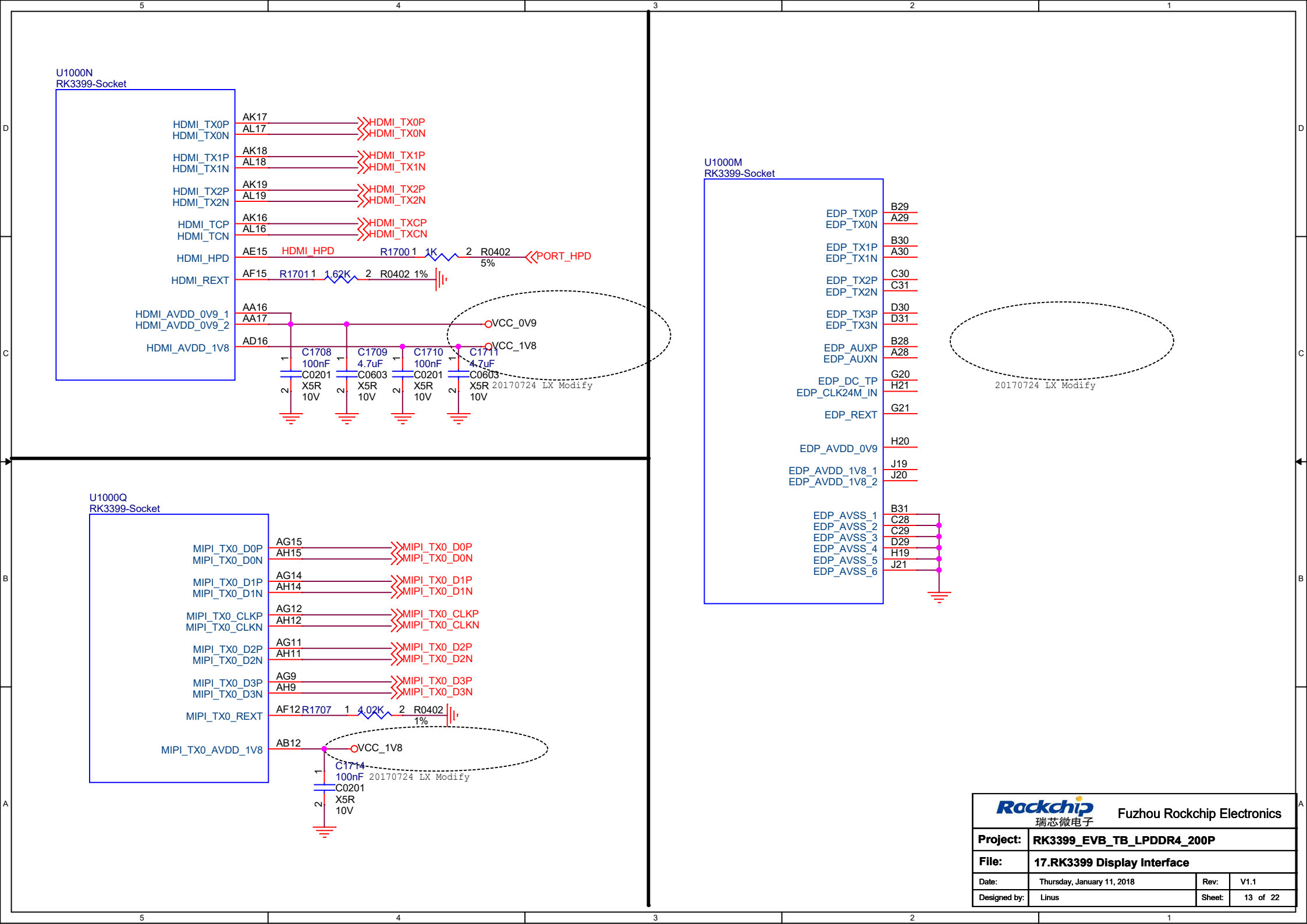
U1000R  
RK3399-Socket



U1000P  
RK3399-Socket



<b>Rockchip</b> 瑞芯微电子			
Fuzhou Rockchip Electronics			
Project:	RK3399_EVB_TB_LPDDR4_200P		
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U1000I  
RK3399-Socket

3.3V Only

GPIO3\_A0/MAC\_TXD2/SP4\_RXD\_d  
GPIO3\_A1/MAC\_TXD3/SP4\_TXD\_d  
GPIO3\_A2/MAC\_RXD2/SP4\_CLK\_u  
GPIO3\_A3/MAC\_RXD3/SP4\_CSn0\_u  
GPIO3\_A4/MAC\_TXD0/SP0\_RXD\_d  
GPIO3\_A5/MAC\_TXD1/SP0\_TXD\_d  
GPIO3\_A6/MAC\_RXD0/SP0\_CLK\_u  
GPIO3\_A7/MAC\_RXD1/SP0\_CSn0\_u

F24 >>MAC\_TXD2  
H23 >>MAC\_TXD3  
E25 >>MAC\_RXD2  
D26 >>MAC\_TXD0  
G23 >>MAC\_TXD1  
E26 >>MAC\_RXD0  
F27 >>MAC\_RXD1

GPIO3\_B0/MAC\_MDC/SP0\_CSn1\_u  
GPIO3\_B1/MAC\_RXDV\_d  
GPIO3\_B2/MAC\_RXSER/2C5\_SDA\_u  
GPIO3\_B3/MAC\_CLK/2C5\_SCL\_u  
GPIO3\_B4/MAC\_TXEN/UART1\_RX\_u  
GPIO3\_B5/MAC\_MDI/UART1\_TX\_u  
GPIO3\_B6/MAC\_RXCLK/UART3\_RX\_u  
GPIO3\_B7/MAC\_CRS/CIF\_CLK/OUT/UART3\_TX\_u

E29 >>MAC\_MDC  
C27 >>MAC\_RXDV  
F23 >>MAC\_RXDV  
G24 >>MAC\_RXSER  
H22 >>MAC\_MCLK  
G26 >>MAC\_TXEN  
F25 >>MAC\_MDI  
B27 >>MAC\_RXCLK  
B27 >>MAC\_CRS

GPIO3\_C0/MAC\_COL/UART3\_CTSn/SPDIF\_TX\_u  
GPIO3\_C1/MAC\_TXCLK/UART3\_RTSn\_u

D27 >>MAC\_COL  
E28 >>MAC\_TXCLK

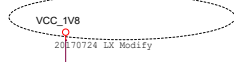
API01\_VDDPST

API01\_VDD

J22 >>VCC\_1V8

J23 >>VCC3V3\_S3

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U1000E  
RK3399-Socket

GPIO1\_A0/ISPO\_SHUTTER\_EN/ISPI\_SHUTTER\_EN/TCPD\_VBUS\_SINK\_EN\_d  
GPIO1\_A1/ISPO\_SHUTTER\_TRIG/ISPI\_SHUTTER\_TRIG/TCPD\_CC0\_VCONN\_EN\_d  
GPIO1\_A2/ISPO\_FLASHTRIGIN/ISPI\_FLASHTRIGIN/TCPD\_CC1\_VCONN\_EN\_d  
GPIO1\_A3/ISPO\_FLASHTRIGOUT/ISPI\_FLASHTRIGOUT\_d  
GPIO1\_A4/ISPO\_PRELIGHT\_TRIG/ISPI\_PRELIGHT\_TRIG\_d  
GPIO1\_A5/AP\_PWROFF\_d  
GPIO1\_A6/TSADC\_INT\_z  
GPIO1\_A7/SP1\_RXD/UART4\_RX\_u

R25 >>CHG\_I2C\_INT\_L  
T31 >>TYPECC0\_CC\_INT\_L  
R26 >>VCCSV0\_TYPECC0\_EN  
R27 >>VCCSV0\_TYPECC1\_EN  
R28 >>PMIC\_SLEEP\_H  
R30 >>OTP\_OUT\_H  
P26 >>GPIO1\_A7

GPIO1\_B0/SP1\_TXD/UART4\_TX\_u  
GPIO1\_B1/SP1\_CLK/PMCU\_JTAG\_TCK\_u  
GPIO1\_B2/SP1\_CSn0/PMCU\_JTAG\_TMS\_u  
GPIO1\_B3/I2C4\_SDA\_u  
GPIO1\_B4/I2C4\_SCL\_u  
GPIO1\_B5\_d  
GPIO1\_B6/PWM3\_IR\_d  
GPIO1\_B7/SP3\_RXD/I2C0\_SDA\_u

R31 >>GPIO1\_B0  
P28 >>GPIO1\_B1  
P29 >>GPIO1\_B2  
P31 >>I2C\_SDA\_MEMS  
P30 >>I2C\_SCL\_MEMS  
M24 >>GPU\_SLEEP  
M25 >>I2C\_SDA\_PMC  
M26 >>I2C\_SDA\_PMC

GPIO1\_C0/SP3\_TXD/I2C0\_SCL\_u  
GPIO1\_C1/SP3\_CLK\_u  
GPIO1\_C2/SP3\_CSn0\_u  
GPIO1\_C3/PWM2\_d  
GPIO1\_C4/I2C8\_SDA\_u  
GPIO1\_C5/I2C8\_SCL\_u  
GPIO1\_C6/TCPD\_VBUS\_SOURCE0\_d  
GPIO1\_C7/TCPD\_VBUS\_SOURCE1\_d

N30 >>I2C\_SCL\_PMC  
M27 >>CPU\_B\_SLEEP  
N31 >>TYPECC\_OFLAG\_L  
M28 >>CENTER\_OG\_DIV5\_PWM  
M29 >>TOUCH\_INT\_L  
L25 >>PMIC\_INT\_L  
M31 >>DC\_DET\_L

GPIO1\_D0/TCPD\_VBUS\_SOURCE2\_d

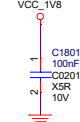
L26 >>TYPECC1\_CC\_INT\_L

DFTJTAG\_TMS\_u  
DFTJTAG\_TRStn\_d

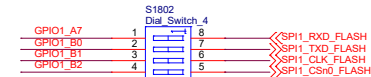
AA24 >>AB24

PMUIO2\_VDDPST  
PMUIO2\_VDD

N23 >>VCC\_1V8  
P23 >>VCC\_1V8



1.8V Only	VDDPST=VDDIO=1.8V
3.3V Only	VDDPST=1.8V, VDDIO=3.3V
other	3.0V mode: VDDPST=1.5V, VDDIO=3.0V 1.8V mode: VDDPST=1.8V, VDDIO=1.8V



U1000G  
RK3399-Socket

1.8V Only

GPIO2\_C0/UART0\_RX\_u  
GPIO2\_C1/UART0\_TX\_u  
GPIO2\_C2/UART0\_CTSn\_u  
GPIO2\_C3/UART0\_RTSn\_u  
GPIO2\_C4/SDIO0\_D0/SP0\_RXD\_u  
GPIO2\_C5/SDIO0\_D1/SP0\_TXD\_u  
GPIO2\_C6/SDIO0\_D2/SP0\_CLK\_u  
GPIO2\_C7/SDIO0\_D3/SP0\_CSn0\_u

AE9 >>UART0\_RXD  
AH8 >>UART0\_TXD  
AG8 >>UART0\_CTS  
AL5 >>UART0\_RTS  
AD8 >>SDIO0\_D0  
AK5 >>SDIO0\_D1  
AE8 >>SDIO0\_D2  
AE8 >>SDIO0\_D3

GPIO2\_D0/SDIO0\_CMD\_u  
GPIO2\_D1/SDIO0\_CLKOUT/TEST\_CLKOUT1\_u  
GPIO2\_D2/SDIO0\_DET/POE\_CLKREQn\_u  
GPIO2\_D3/SDIO0\_PWREN\_d  
GPIO2\_D4/SDIO0\_BKUPWR\_d

AH6 >>SDIO0\_CMD  
AF7 >>SDIO0\_CLK  
AL4 >>SDIO0\_CLK  
AD9 >>MEMS\_INT\_L  
AF8 >>MEMS\_INT\_L

API03\_VDD\_1V8

AB8 >>VCC\_1V8

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U1000J  
RK3399-Socket

GPIO3\_D0/I2S0\_SCL\_d  
GPIO3\_D1/I2S0\_LRCK\_RX\_d  
GPIO3\_D2/I2S0\_LRCK\_TX\_d  
GPIO3\_D3/I2S0\_SDIO\_d  
GPIO3\_D4/I2S0\_SDIO0\_D3\_d  
GPIO3\_D5/I2S0\_SDIO2\_D2\_d  
GPIO3\_D6/I2S0\_SDIO3\_D1\_d  
GPIO3\_D7/I2S0\_SDIO0\_d

AG3 >>I2S0\_SCL  
AF4 >>I2S0\_LRCK\_RX  
AJ2 >>I2S0\_LRCK\_TX  
Y7 >>I2S0\_SDIO  
AE5 >>I2S0\_SDIO1  
AA6 >>I2S0\_SDIO2  
AH2 >>I2S0\_SDIO3  
AH1 >>I2S0\_SDIO0

GPIO4\_A0/I2S1\_CLK\_d  
GPIO4\_A1/I2C1\_SDA\_u  
GPIO4\_A2/I2C1\_SCL\_u  
GPIO4\_A3/I2S1\_SCL\_d  
GPIO4\_A4/I2S1\_LRCK\_RX\_d  
GPIO4\_A5/I2S1\_LRCK\_TX\_d  
GPIO4\_A6/I2S1\_SDIO\_d  
GPIO4\_A7/I2S1\_SDIO0\_d

AC7 >>I2S1\_CLK  
AG1 >>I2C1\_SDA\_AUDIO  
Y6 >>I2C1\_SCL\_AUDIO  
AF3 >>I2S1\_SCL\_BT\_PCM  
AA7 >>I2S1\_LRCK\_BT\_PCM  
AJ1 >>I2S1\_LRCK\_RX\_BT\_PCM  
AD6 >>I2S1\_SDIO\_BT\_PCM  
AC6 >>I2S1\_SDIO0\_BT\_PCM

API05\_VDDPST

API05\_VDD

AA8 >>VCC\_1V8

Y8 >>VCC\_1V8

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U1000K  
RK3399-Socket

GPIO4\_C0/I2C3\_SDA/UART2B\_RX\_u  
GPIO4\_C1/I2C3\_SCL/UART2B\_TX\_u  
GPIO4\_C2/PWM0/VOP0\_PWM/VOP1\_PWM\_d  
GPIO4\_C3/UART2C\_RX\_u  
GPIO4\_C4/UART2C\_TX\_u  
GPIO4\_C5/SPDIF\_TX\_d  
GPIO4\_C6/PWM1\_d  
GPIO4\_C7/HDMI\_CECIN/OUT/EDP\_HOTPLUG\_u

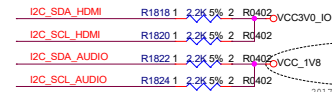
AG6 >>I2C\_SDA\_HDMI  
AL2 >>I2C\_SCL\_HDMI  
AF5 >>LCD\_BL\_PWM  
AK2 >>UART2DBG\_RX  
AJ4 >>UART2DBG\_TX  
AK1 >>SPDIF\_TX  
AL3 >>TOUCH\_RST\_L  
AD7 >>HDMI\_CEC

GPIO4\_D0/PCIE\_CLKREQn\_u  
GPIO4\_D1/DP\_HOTPLUG\_d  
GPIO4\_D2\_d  
GPIO4\_D3\_d  
GPIO4\_D4\_d  
GPIO4\_D5\_d  
GPIO4\_D6\_d

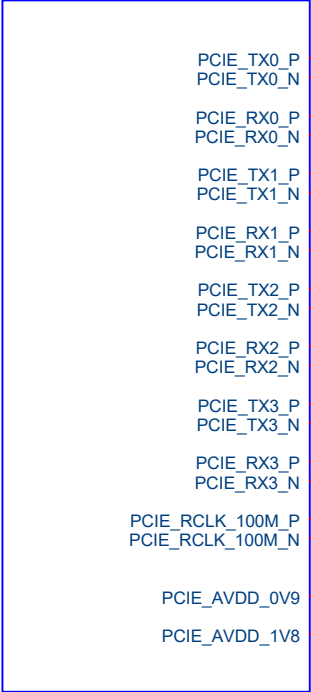
AE6 >>LIGHT\_INT\_L  
AK4 >>R1813 1 100K 5% 2 R0402  
AH3 >>EFUSE\_VOPS\_EN\_H  
AK3 >>HP\_DET\_H  
AH5 >>VCCSV0\_HOST\_EN  
AJ9 >>P1803

API04\_VDDPST  
API04\_VDD

AC8 >>VCC\_1V5  
AC9 >>VCC3V0\_IO

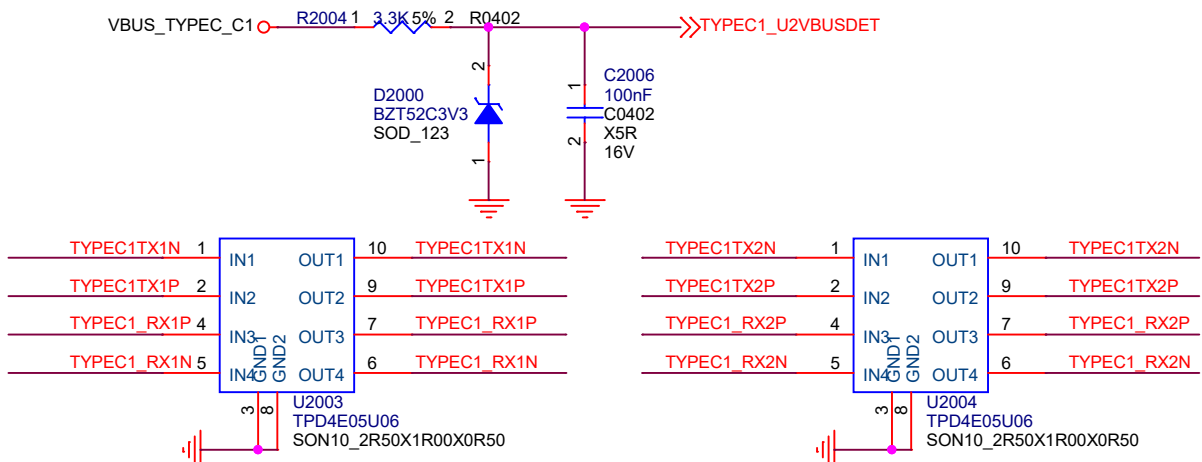
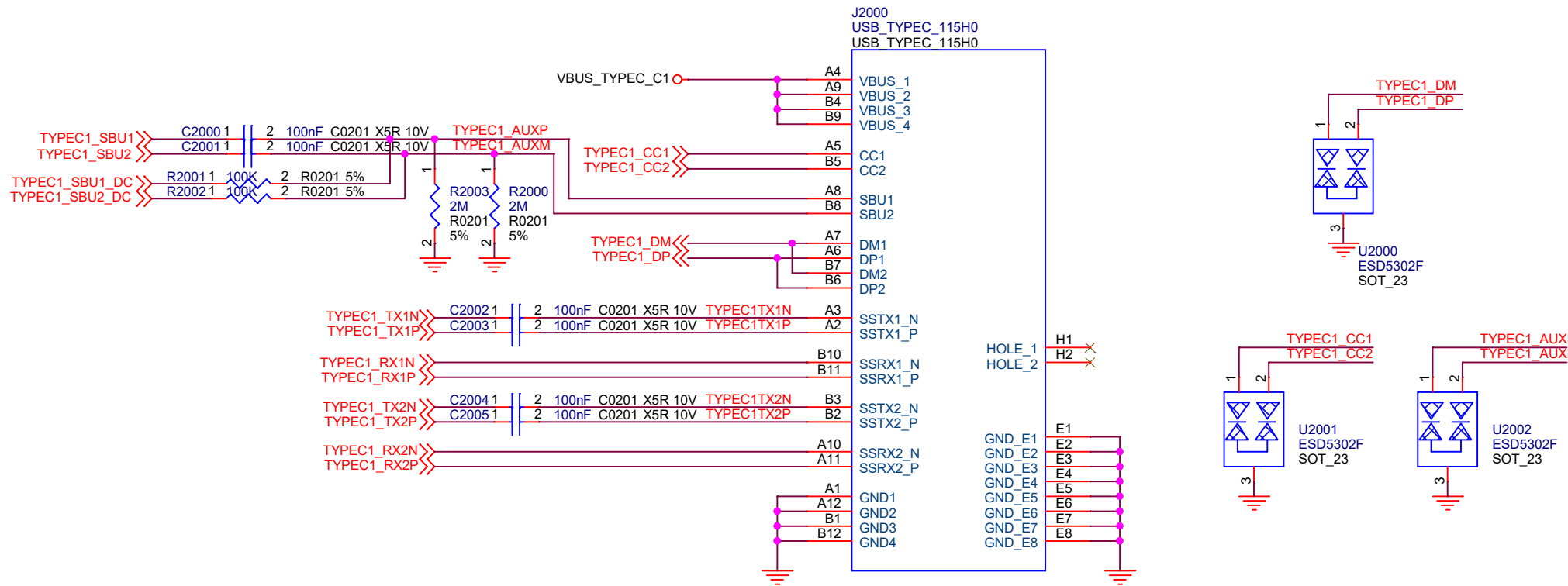



U1000O  
RK3399-Socket



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Project:	RK3399_EVB_TB_LPDDR4_200P		
File:	19.RK3399 PCI-E		
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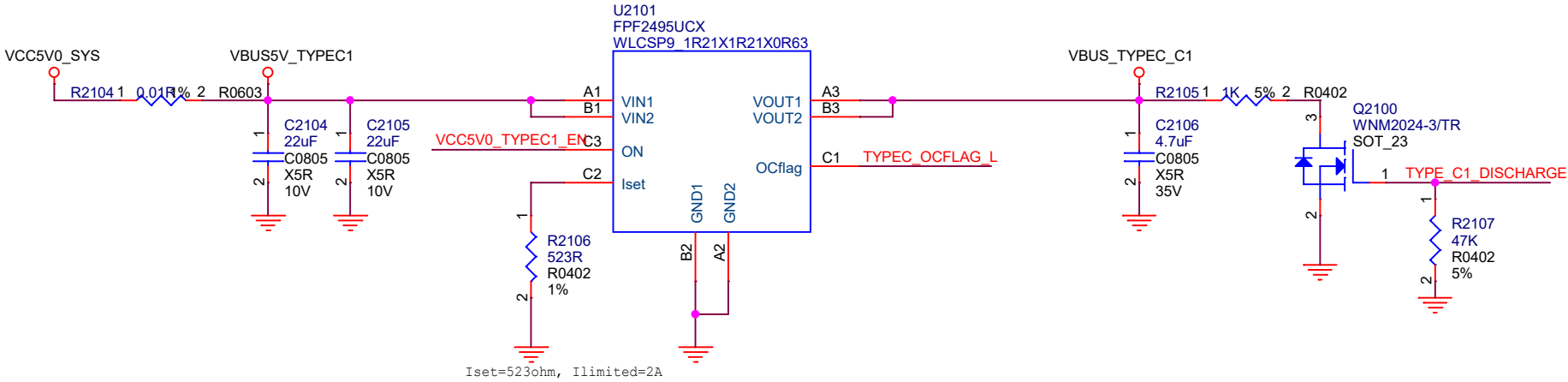
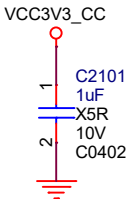
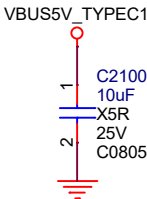
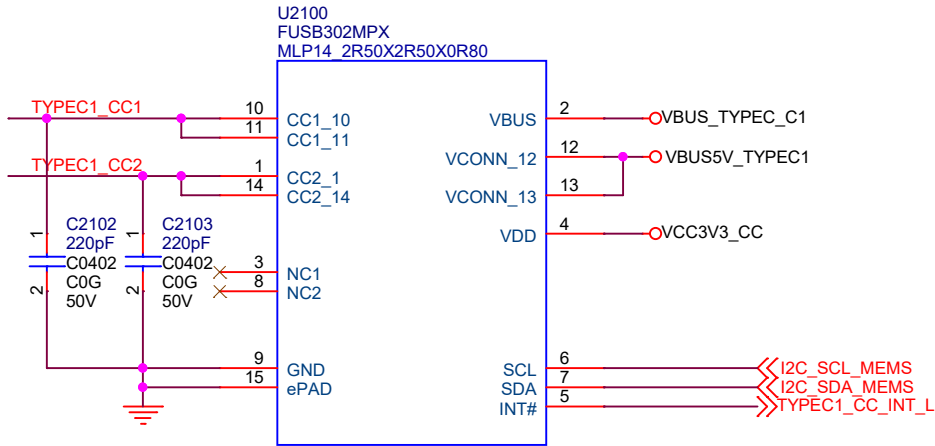
# USB Type-C Port




 瑞芯微电子		Fuzhou Rockchip Electronics	
Project:	RK3399_EVB_TB_LPDDR4_200P		
File:	20.USB Port		
Date:	Thursday, January 11, 2018	Rev:	V1.1
Designed by:	Linus	Sheet:	16 of 22



USB Type-C pd/cc

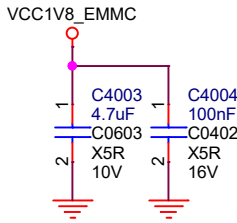
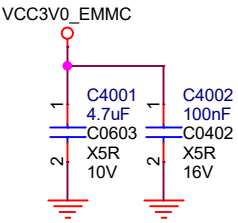
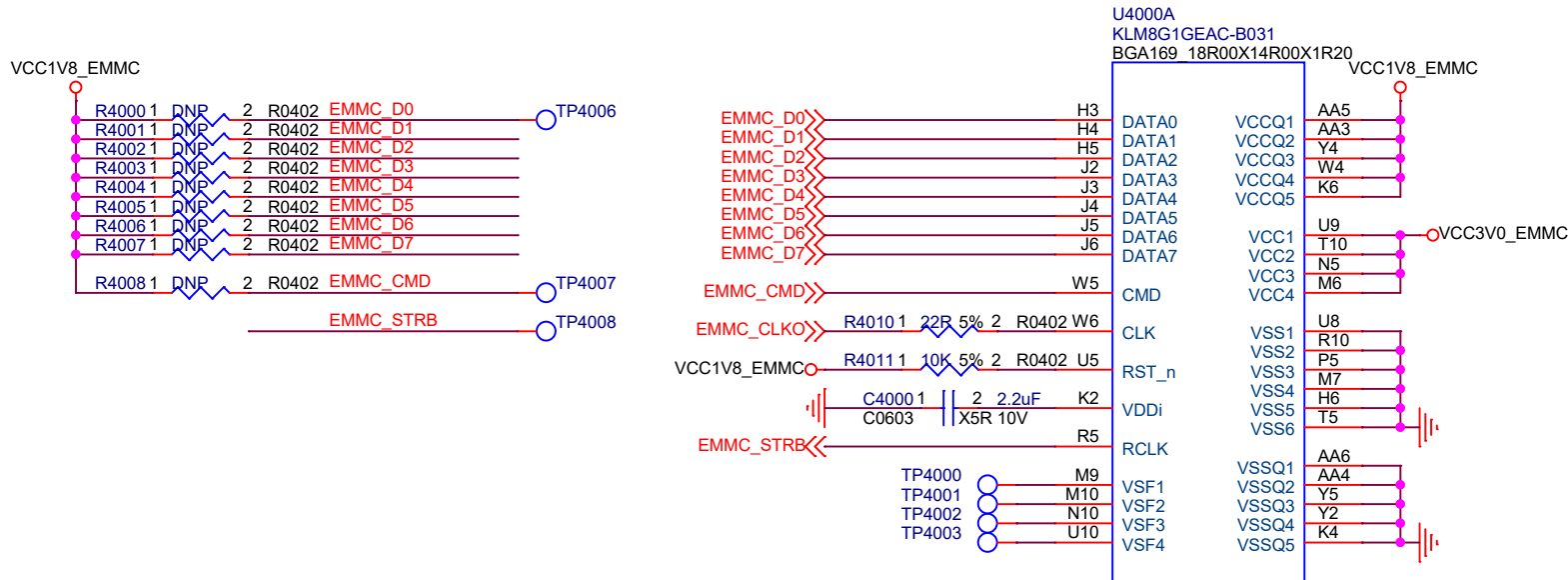


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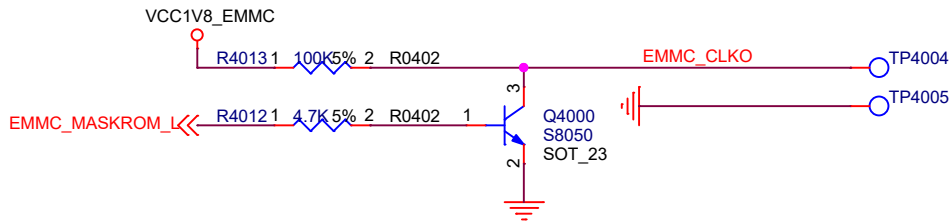
 瑞芯微电子		Fuzhou Rockchip Electronics	
Project:	RK3399_EVB_TB_LPDDR4_200P		
File:	21.USB TYPE-C PD/CC		
Date:	Thursday, January 11, 2018	Rev:	V1.1
Designed by:	Linus	Sheet:	17 of 22




eMMC FLASH



Note:  
Reserve PAD for Update.



 瑞芯微电子		Fuzhou Rockchip Electronics	
Project:	RK3399_EVB_TB_LPDDR4_200P		
File:	40.Memory-eMMC		
Date:	Thursday, January 11, 2018	Rev:	V1.1
Designed by:	Linus	Sheet:	19 of 22

## HDMI Port

