

Modify note

Version	Date	Author	Change Note	Approved
V00	20180428	WXZ	First edictor	



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Title: Modify note

File: ROC_3399_PC

REV: 00

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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 VCC3V0_IO	I2C0_SDA_PMIC I2C0_SCL_PMIC	VCC3V0	TT8563	0xA2,0xA3	RTC	
					Rockchip RK808	0x1b	PMIC	
I2C1	GPIO4_A1/I2C1_SDA GPIO4_A2/I2C1_SCL	APIO5 VCC1V8_IO	I2C1_SDA_PCIE I2C1_SCL_PCIE	VCCA1V8_CODEC				
			I2C1_SDA_AUDIO I2C1_SCL_AUDIO	VCCA1V8_CODEC	ALC5640	0x38h	Audio codec	
			I2C1_SDA_CAM I2C1_SCL_CAM	VCCA1V8_CODEC	Omnivision OV13850	0x6c0,0x6D	MIPI Camera	
				VCCA1V8_CODEC	S5K4ECGX	0x78	DVP Camera	
	Other pin function	VCCA1V8_CODEC						
I2C2	GPIO2_A0/VOP_D0/CIF_D0/I2C2_SDA GPIO2_A1/VOP_D1/CIF_D1/I2C2_SCL	APIO2 VCC1V8_IO	Other pin function	VCC1V8_DVP				
I2C3	GPIO4_C0/I2C3_SDA/UART2B_RX GPIO4_C1/I2C3_SCL/UART2B_TX	APIO4 VCC3V0_IO	I2C3_SDA_HDMI I2C3_SCL_HDMI	VCC_3V0				
I2C4	GPIO1_B3/I2C4_SDA GPIO1_B4/I2C4_SCL	PMUIO2 VCC3V0_IO	I2C4_SDA_TYPEC I2C4_SCL_TYPEC	VCC_3V0	Fairchild FUSB302B	0x44,0x46	USB-TypeC Mux	100kHz,400KHz,1MHz fast mode+
			I2C4_SDA_TP I2C4_SCL_TP	VCC_3V0	Silead GSL3680	0x40	Touch panel	
			AT18_SDA AT18_SCL	VCC_3V0	AT18		Encryption	
			Other pin function	VCC_3V0				
I2C5	GPIO3_B2/MAC_RXER/I2C5_SDA GPIO3_B3/MAC_CLK/I2C5_SCL	APIO1 VCC3V3_LAN	Other pin function	VCC3V3_S3				
I2C6	GPIO2_B1/SPI2_RXD/CIF_HREF/I2C6_SDA GPIO2_B2/SPI2_TXD/CIF_CLKIN/I2C6_SCL	APIO2 VCC1V8_IO	Other pin function	VCC1V8_DVP				
I2C7	GPIO2_A7/VOP_D7/CIF_D7/I2C7_SDA GPIO2_B0/VOP_CLK/CIF_VSYNC/I2C7_SCL	APIO2 VCC1V8_IO	Other pin function					
I2C8	GPIO1_C4/I2C8_SDA GPIO1_C5/I2C8_SCL	PMUIO2 VCC3V0_IO	Other pin function					



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RK3399 Power Domain Map

Part Port	Domain	Pin name in datasheet	I/O type	Power supply	Power source
Part C	PMUIO1	pmuiol_gpio0ab	1.8V only	VCC1V8_FMUPLL	RK808 VLDO3
Part E	PMUIO2	pmu1830_gpiolabcd	1.8V(Default) 3.0V	VCC_1V5 VCC_3V0	RK808 VLDO6 RK808 VLDO8
Part I	APIO1	gmac_gpio3abc	3.3V only	VCC3V3_S3	RK808 VSW1
Part L	APIO2	bt656_gpio2ab	1.8V(Default) 3.0V	VCC1V8_DVP	RK808 VLDO1
Part G	APIO3	wifi/bt_gpio2cd	1.8V only	VCC1V8_S3	RK808 Buck4
Part K	APIO4	gpio1830_gpio4cd	1.8V 3.0V(Default)	VCC_1V5 VCC3V0_IO	RK808 VLDO6 RK808 VLDO8
Part J	APIO5	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



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Title: Power Domain Map

File: ROC_3399_PC

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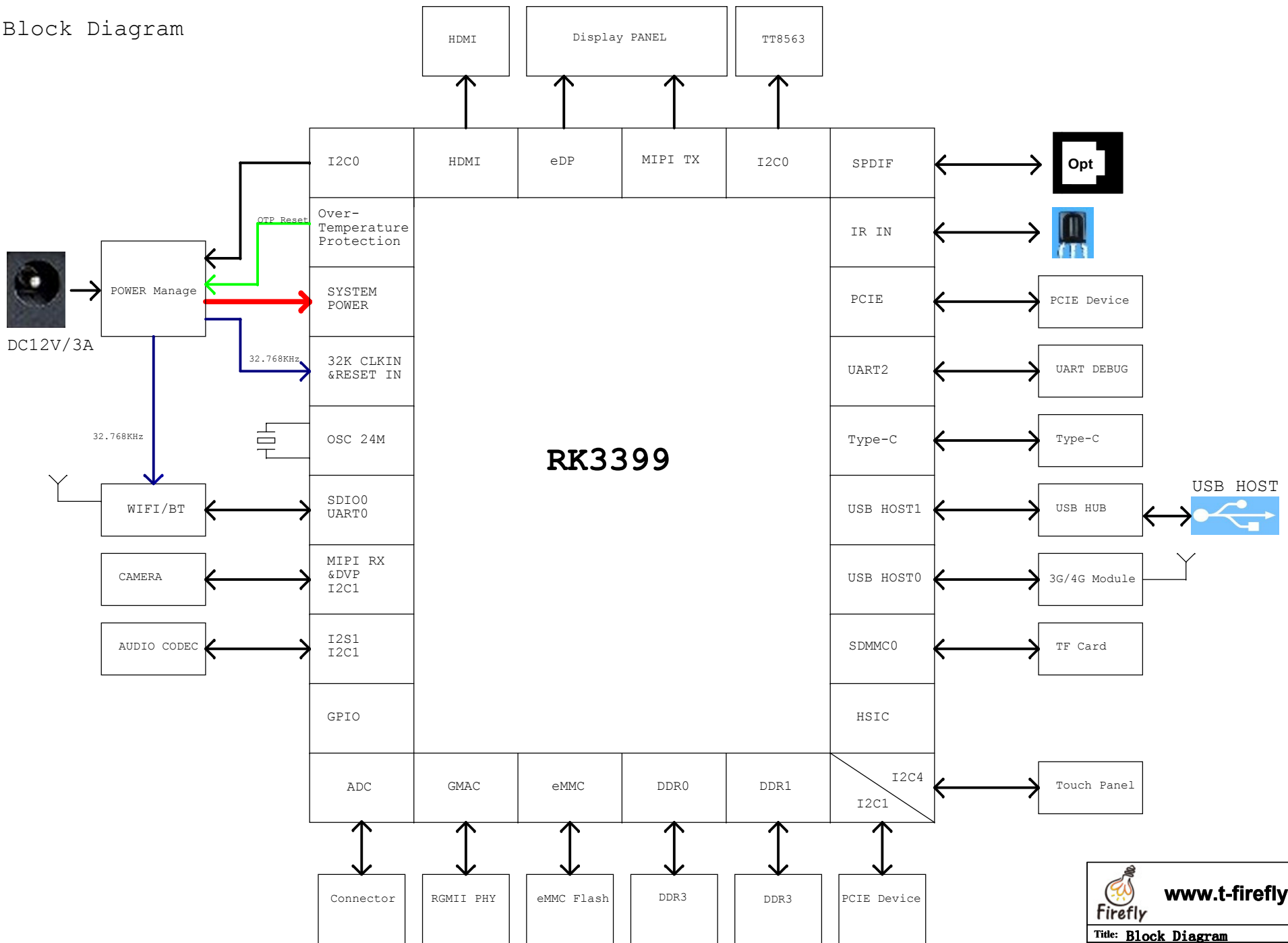
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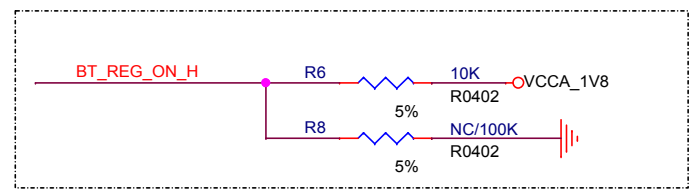
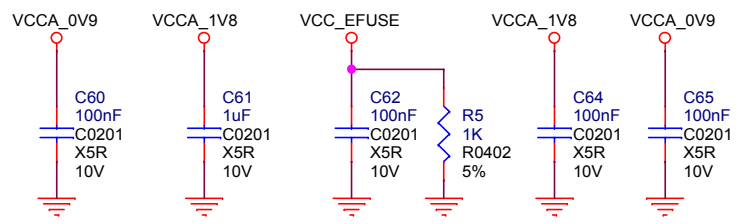
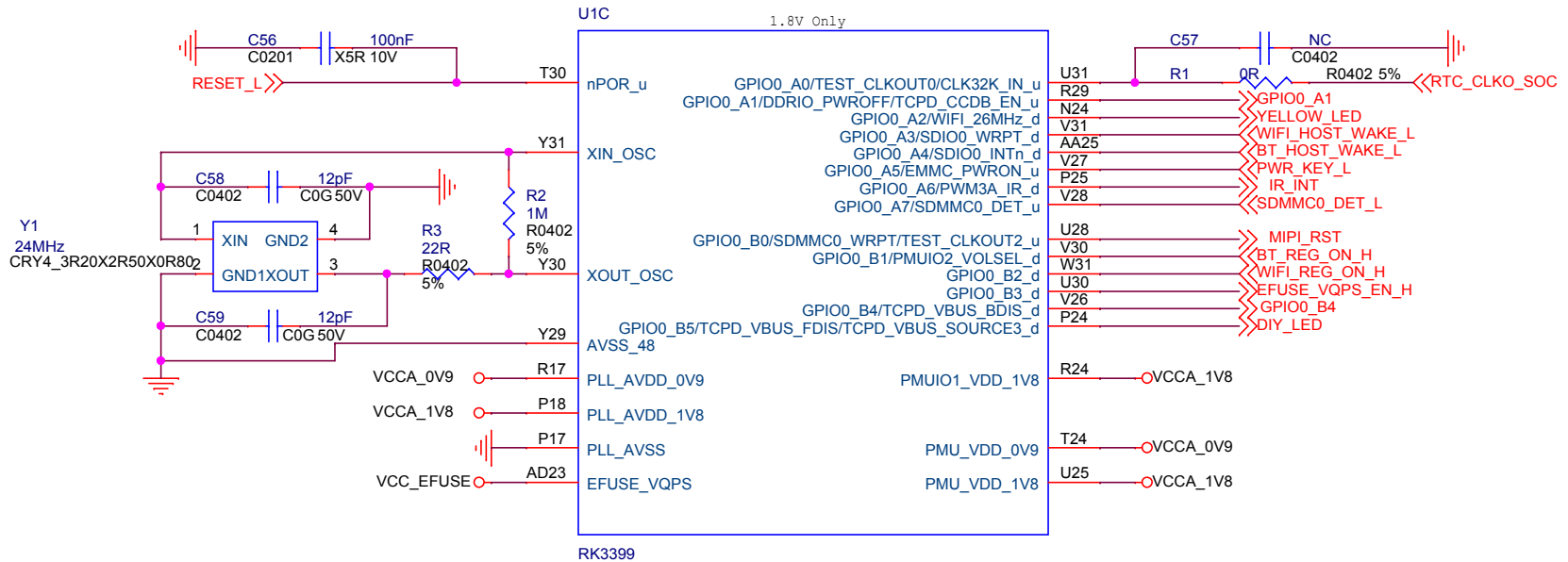
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Block Diagram



RK3399 PMU Controller



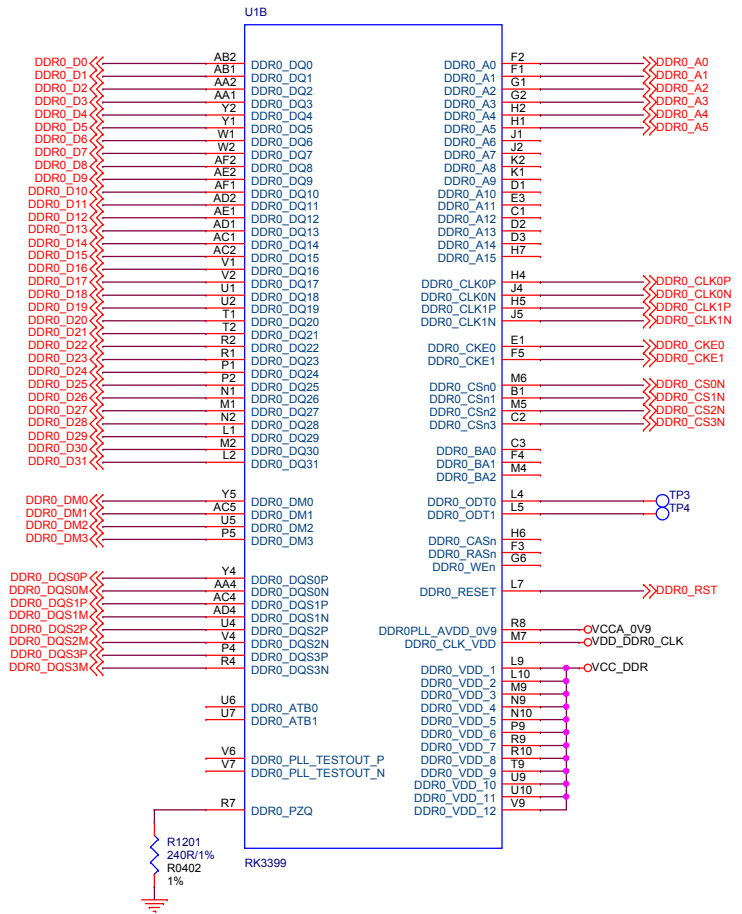
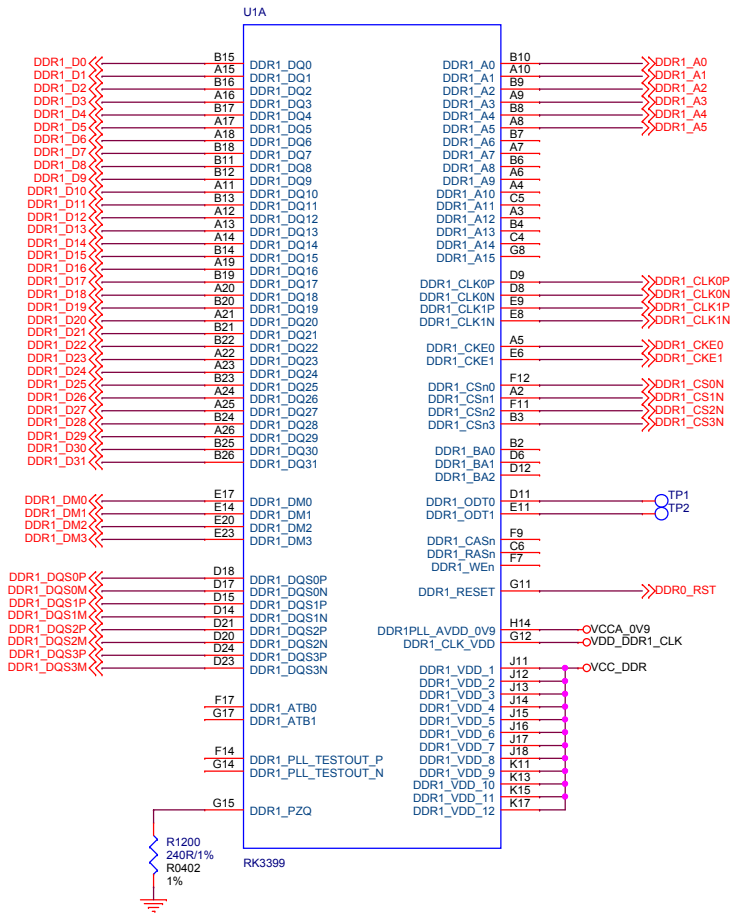
Note:
GPIO0_B1/PMUIO2_VOLSEL defined as a set pin for PMUIO2 part voltage domain after power-on reset. It is pull-down for 1.8V or pull-up for 3.0V, and later changed to output mode by software



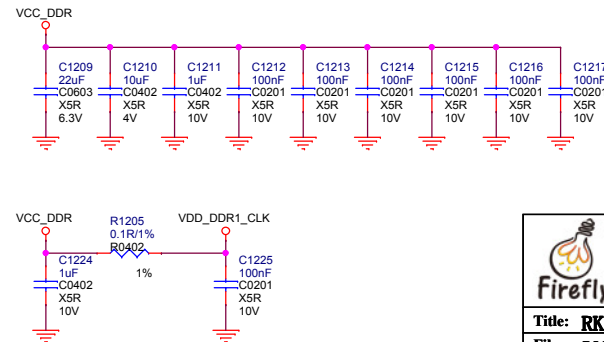
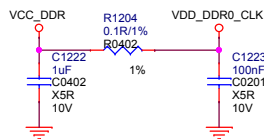
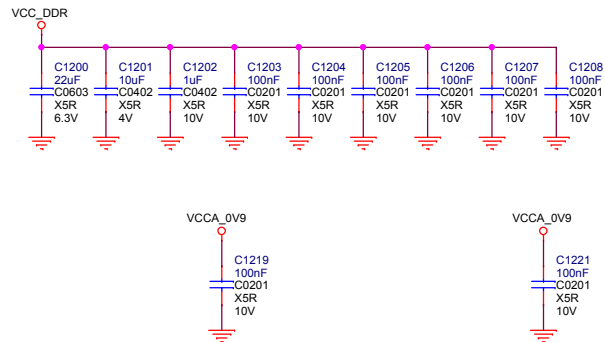
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RK3399 DDR Controller



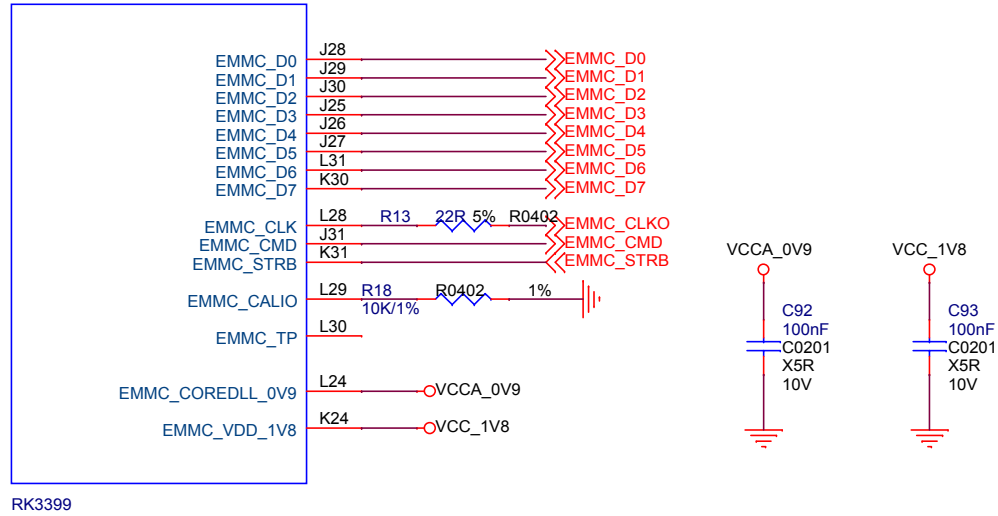
DDR FILTER



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eMMC

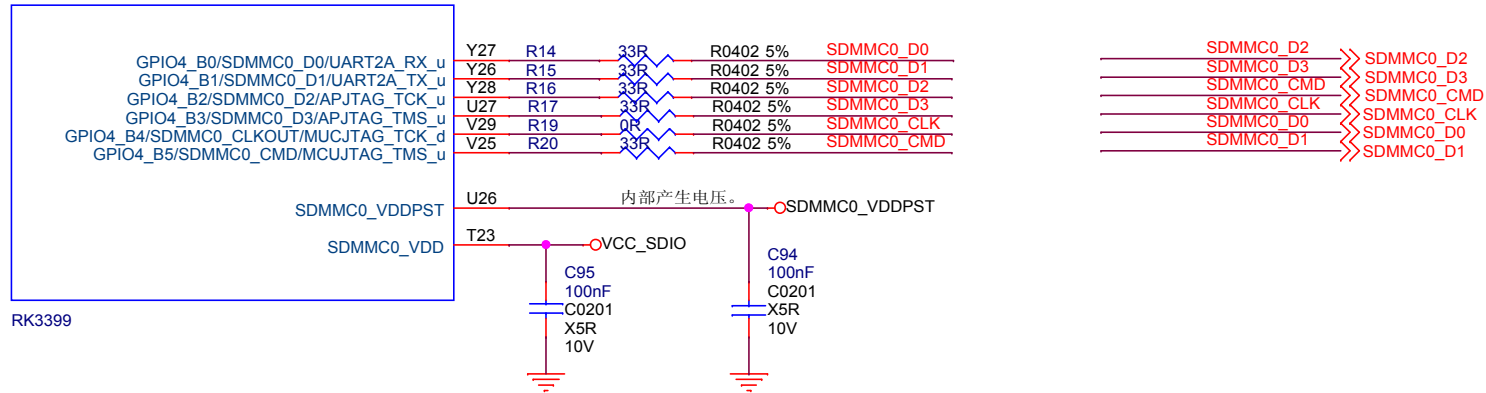
U1H




RK3399

SDIO0

U1F



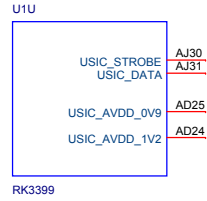
RK3399



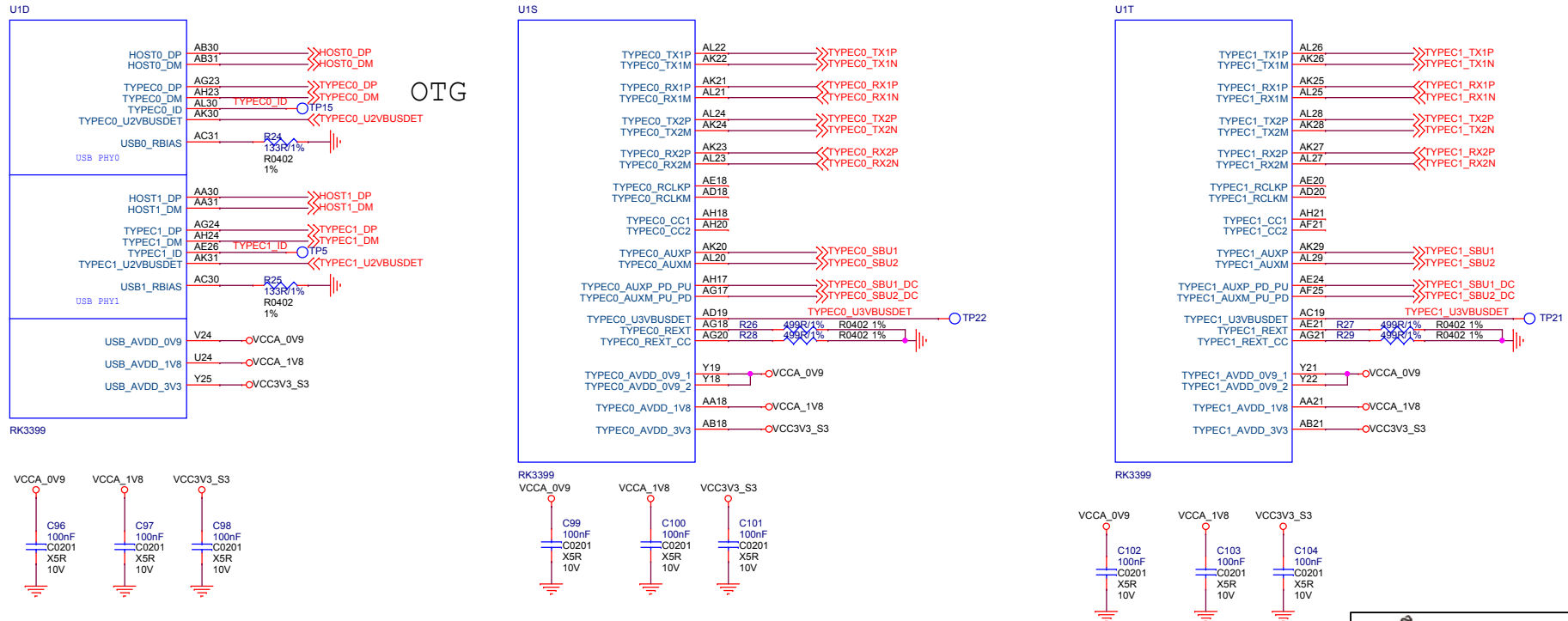
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Title: RK3399 Flash/SDMMC Controller	
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RK3399 USIC Controller



RK3399 USB Controller



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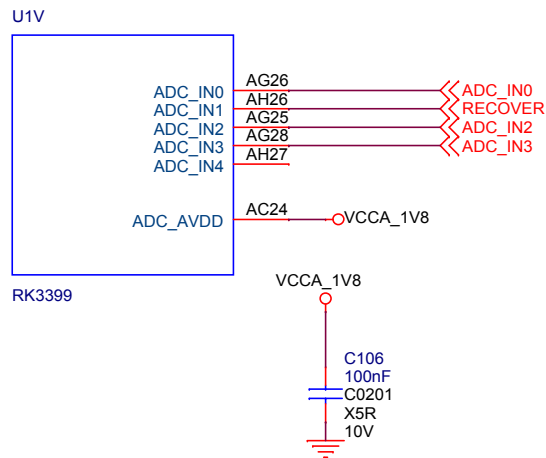
Title: RK3399 USB/USIC Controller

File: ROC_3399_PC REV:00

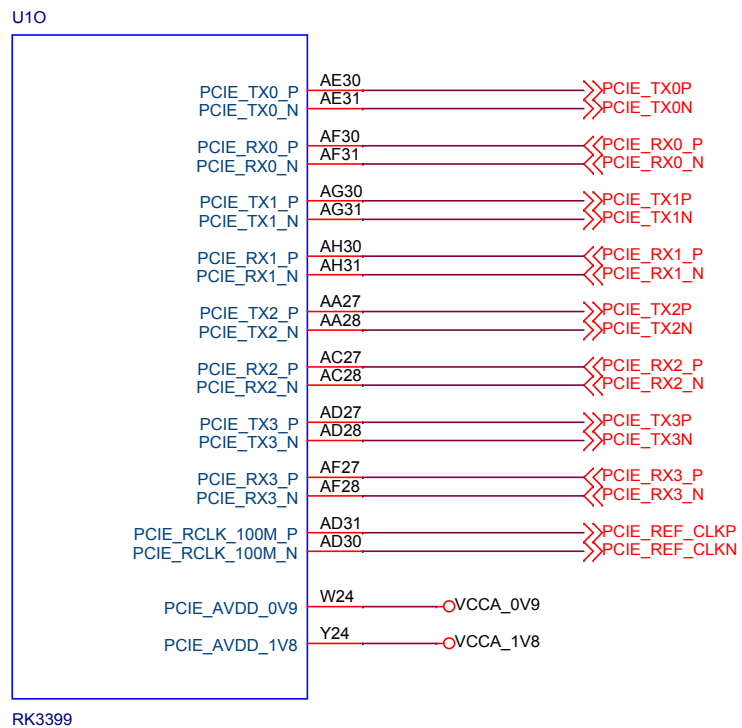

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RK3399 SARADC



RK3399 PCIE

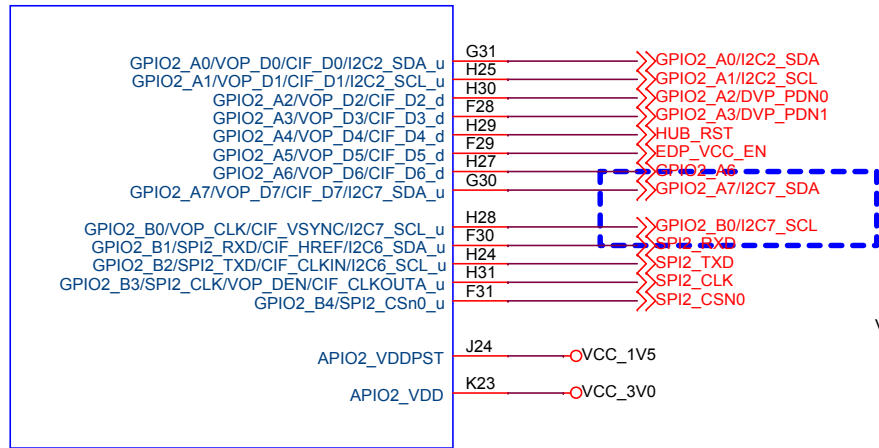



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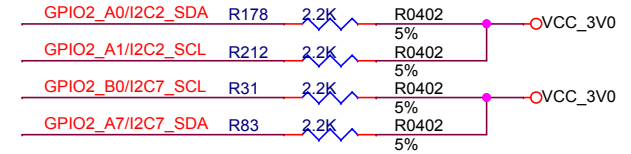
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File: ROC_3399_PC		
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RK3399 DVP

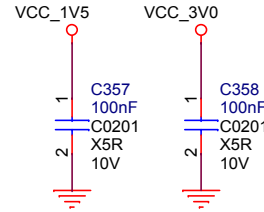
U1L



RK3399

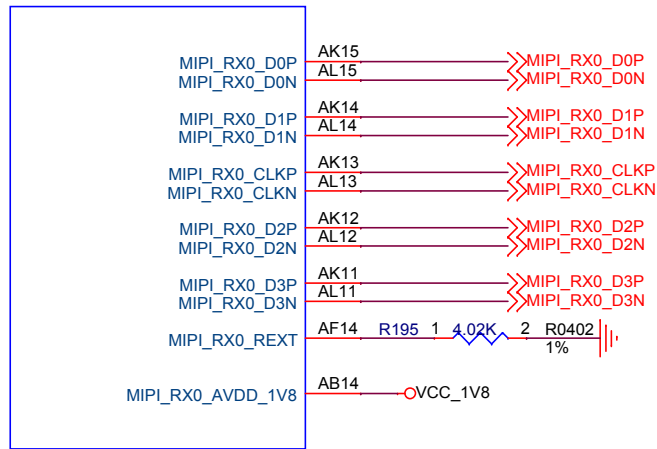


func1	func2	func3
GPIO2 A0/CIF D0		I2C2 SDA
GPIO2 A1/CIF D1		I2C2_SCL
GPIO2 A7/CIF D7		I2C7 SDA
GPIO2 B0/CIF VSYNC		I2C7_SCL
GPIO2 B1/CIF HREF	SPI2_RXD	I2C6_SDA
GPIO2 B2/CIF CLKI	SPI2_TXD	I2C6_SCL
GPIO2 B3/CIF CLKO	SPI2_CLK	
GPIO2 B4/DVP_PDN0 H	SPI2_CSN	

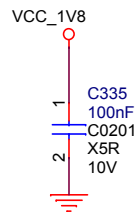


RK3399 CSI

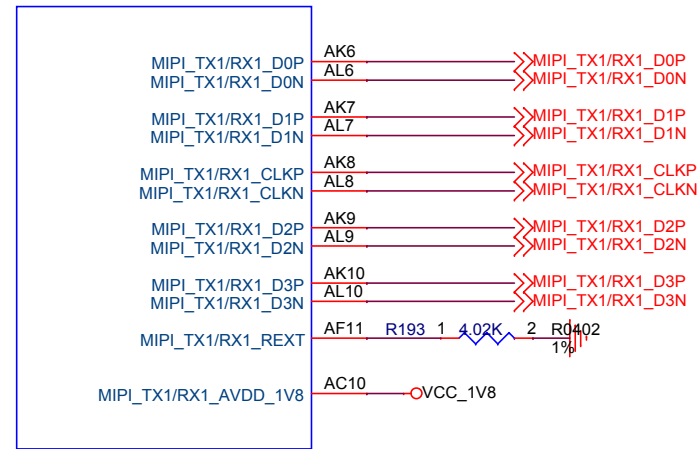
U1R



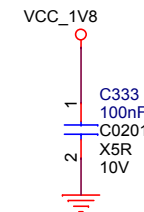
RK3399




U1P



RK3399

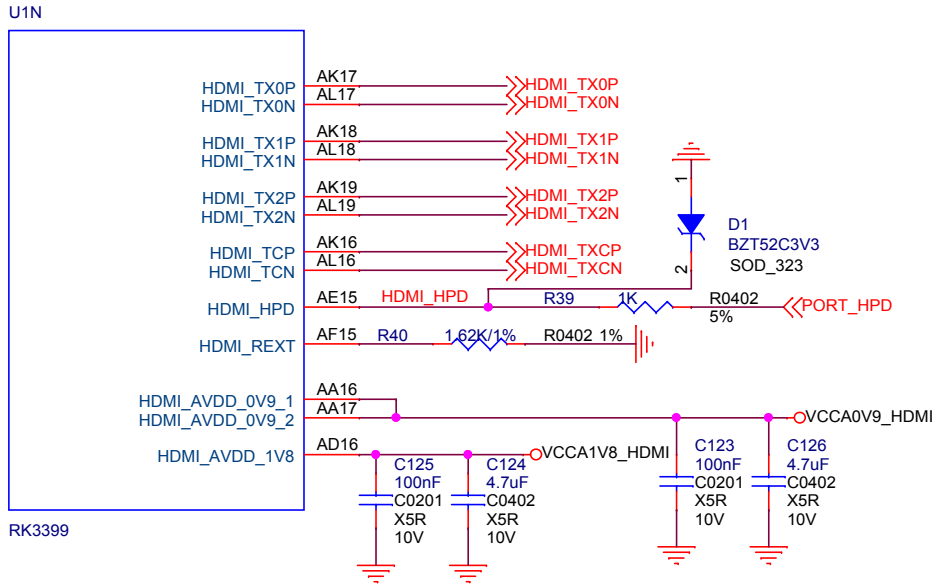




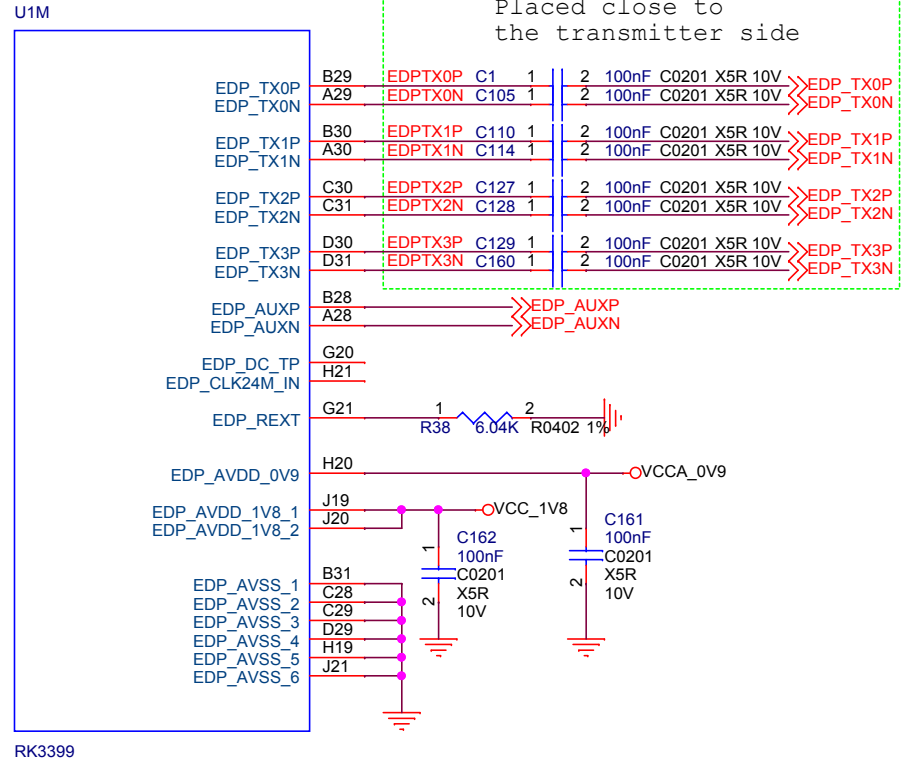
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Title: RK3399 Camera Interface		REV: 00
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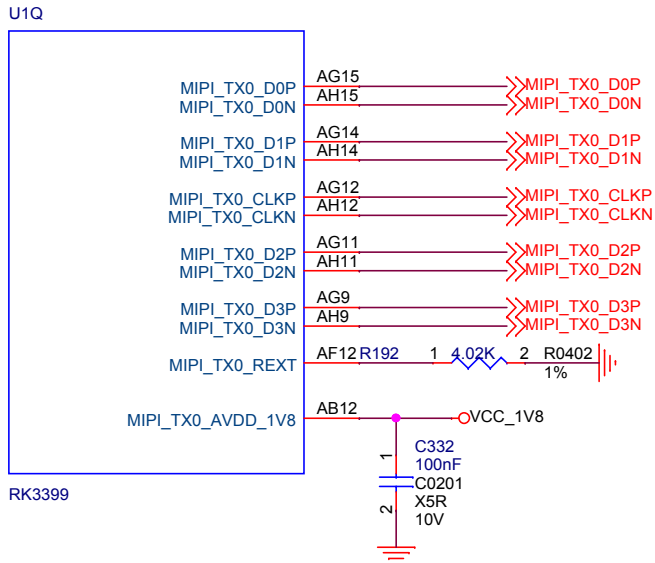

HDMI Interface



eDP Interface



MIPI Interface

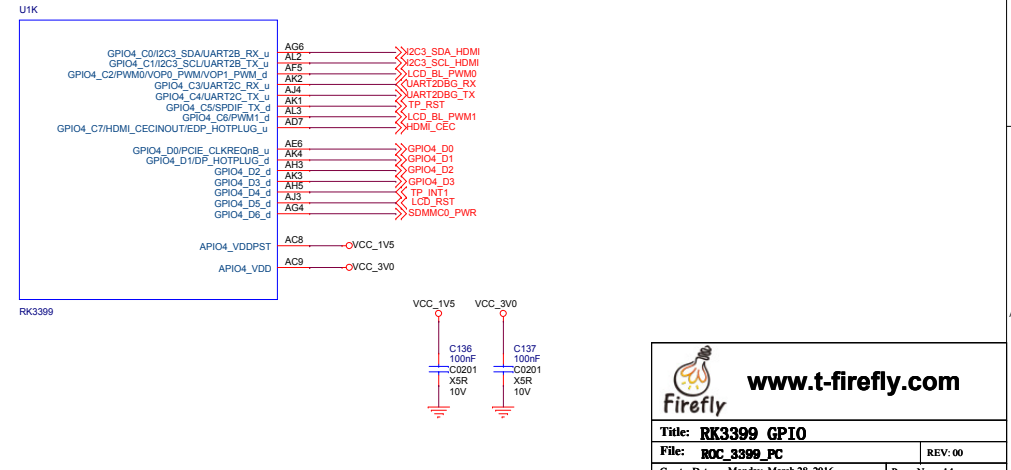
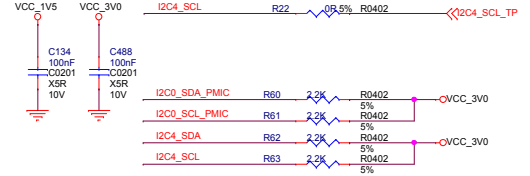
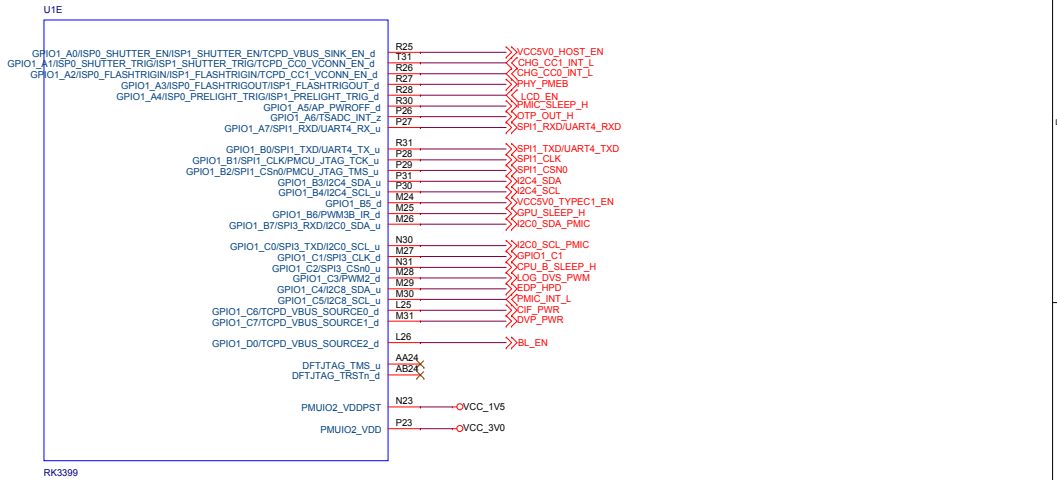
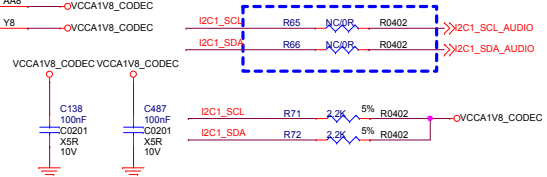
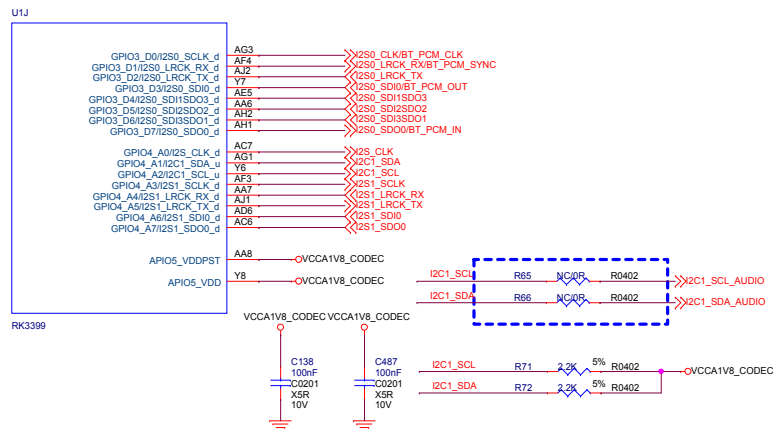
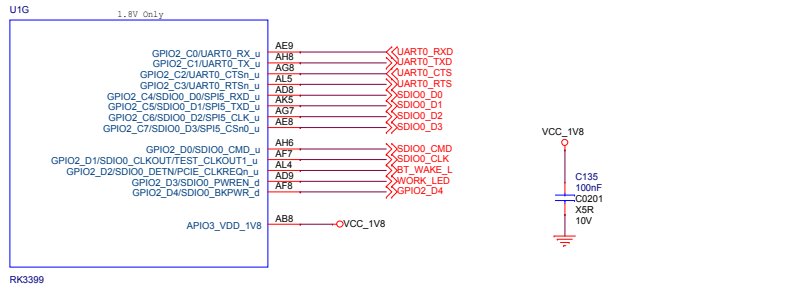
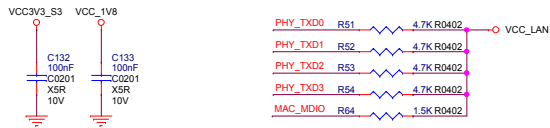
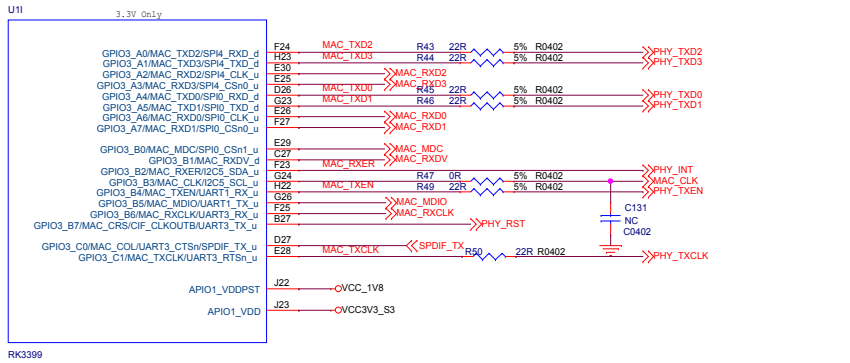
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Title: RK3399 Display Interface

File: ROC_3399_PC REV: 00

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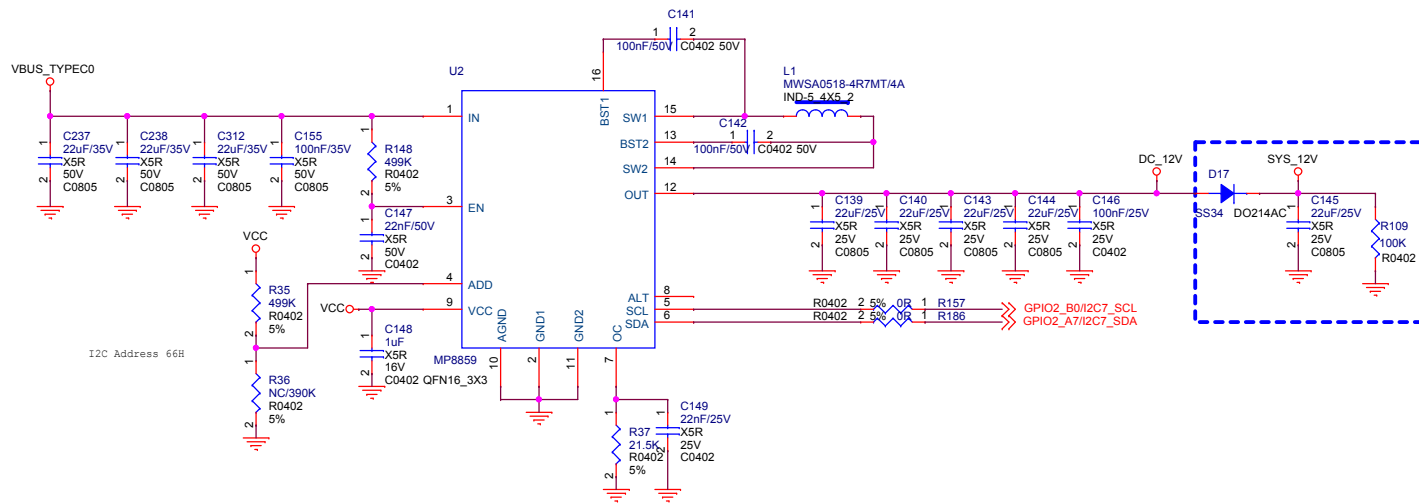
Title: **RK3399 GPIO**

File: **RK3399_PC** REV: 00

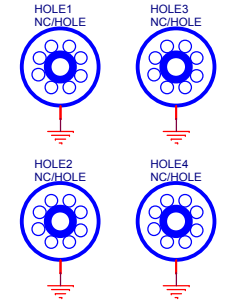
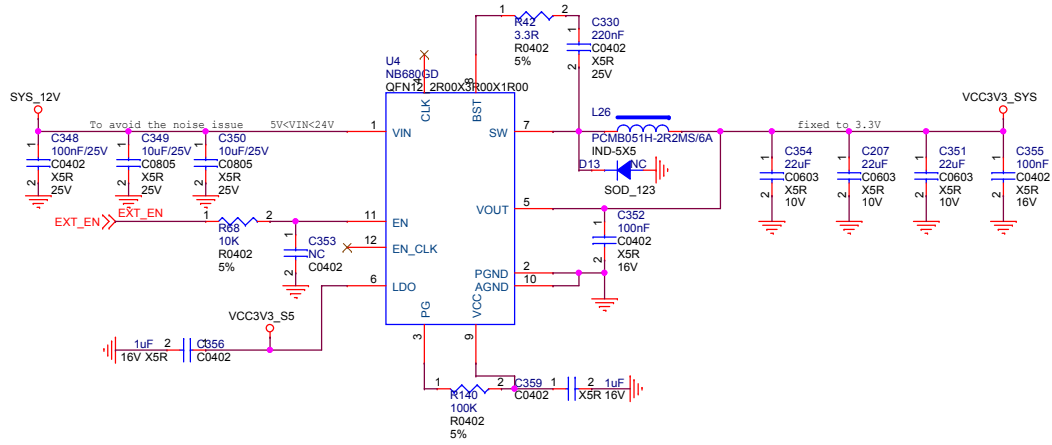
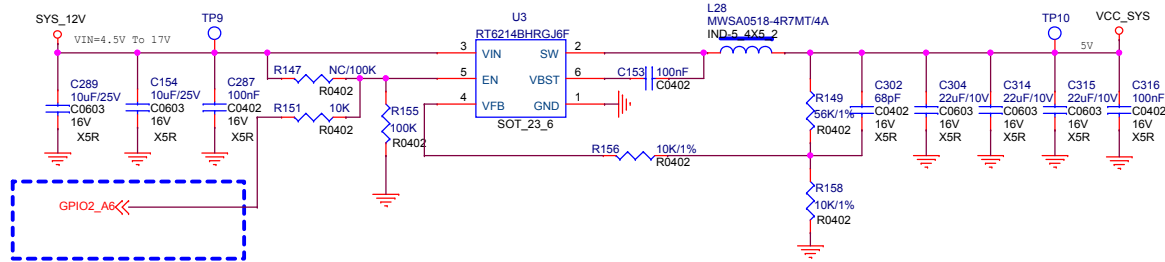
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VBUS_IN



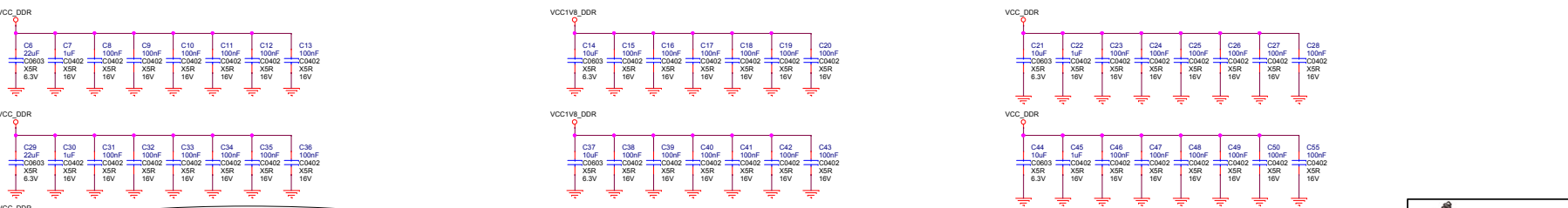
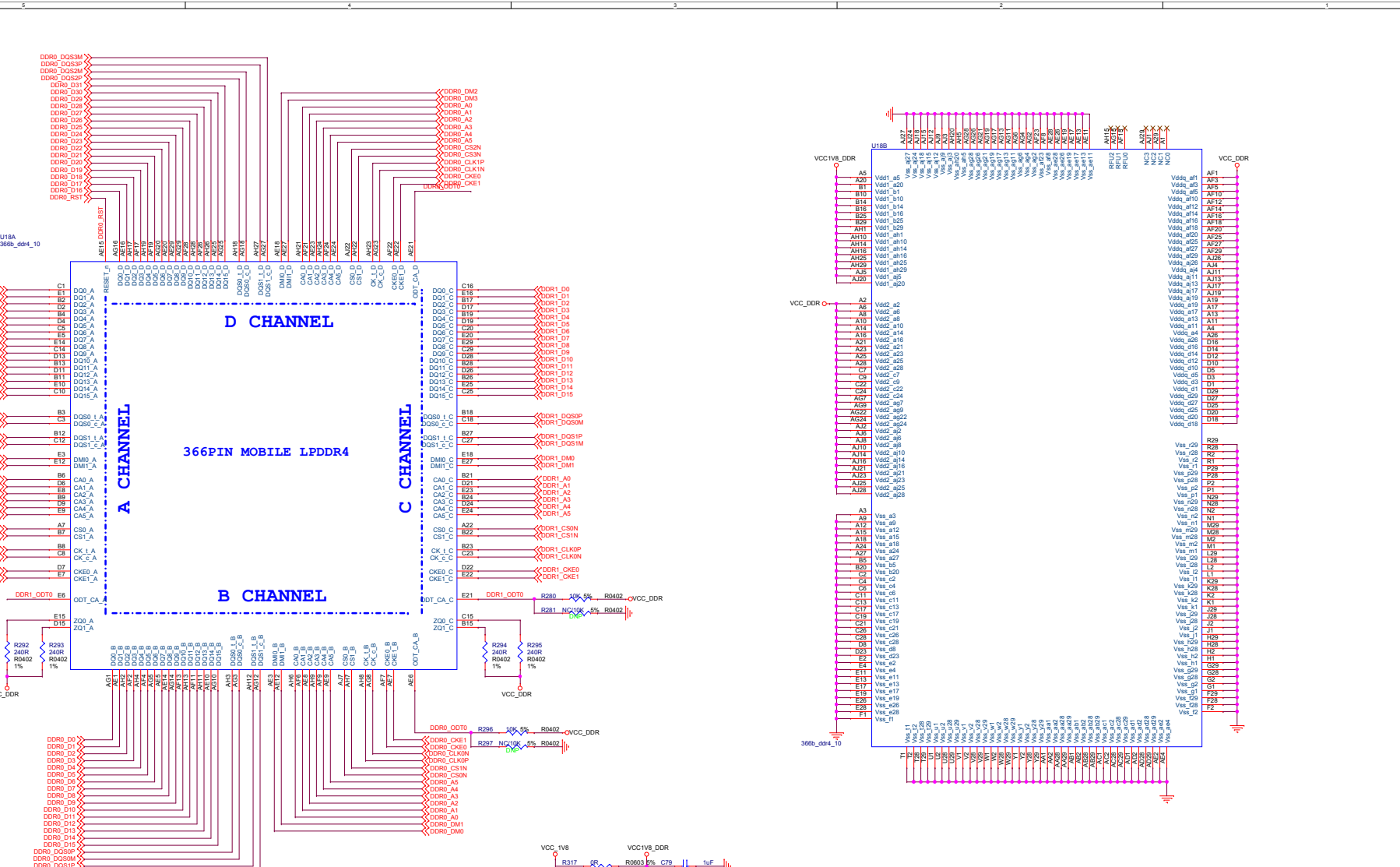
12V TO 5V




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Title: POWER IN

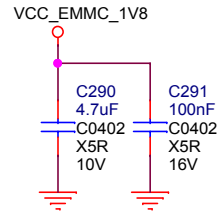
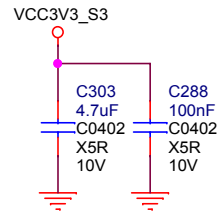
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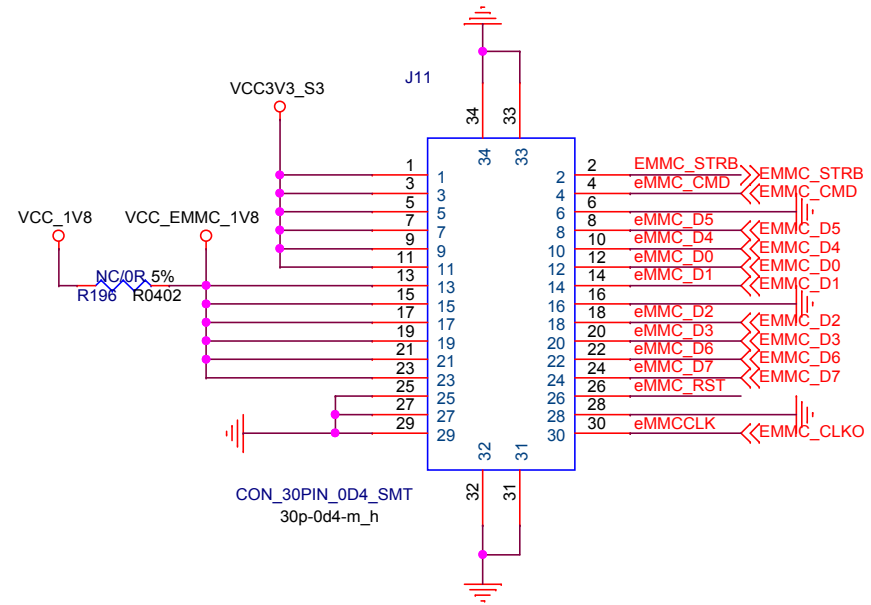
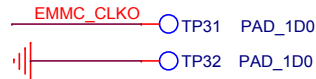

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Title: RAM-LPDDR4 (366P)	
File: BOC_3990_PC	
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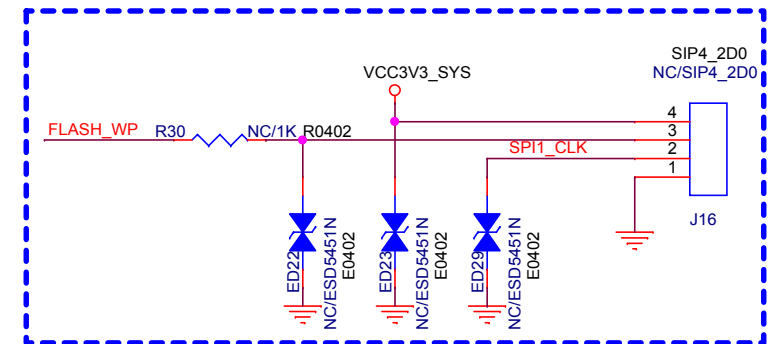
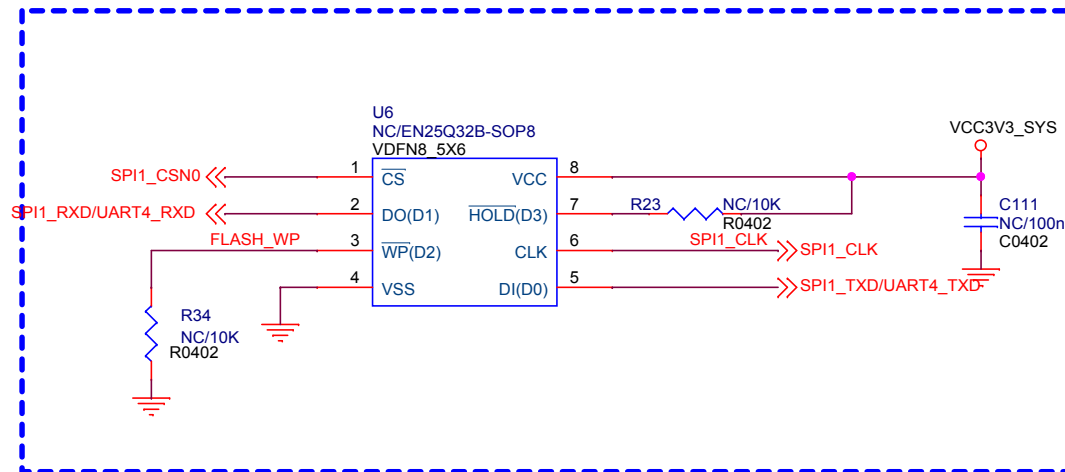
eMMC FLASH



Note:
Reserve PAD for Update.



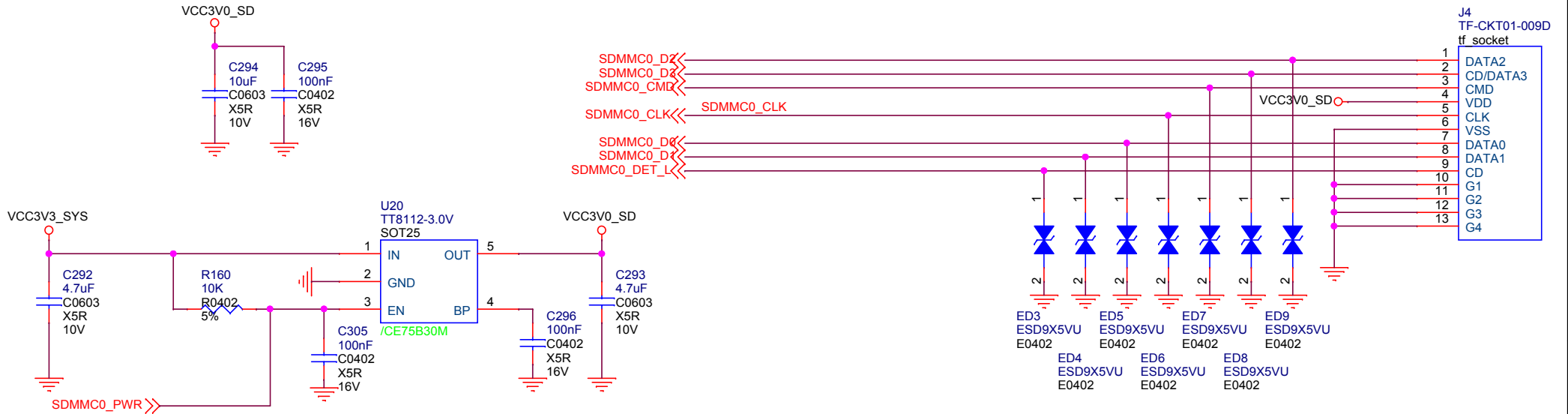
SPI FLASH



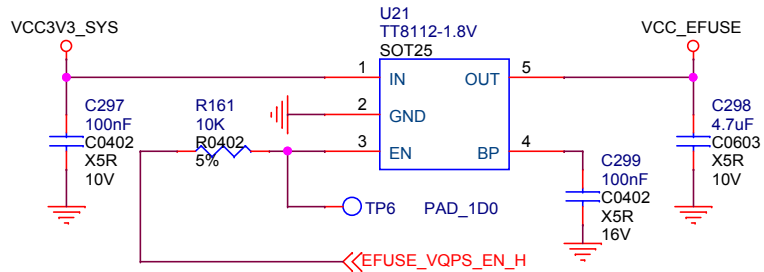
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Title: Memory-eMMC/SPI FLASH	
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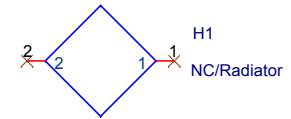
TF CARD




EFUSE



Radiator

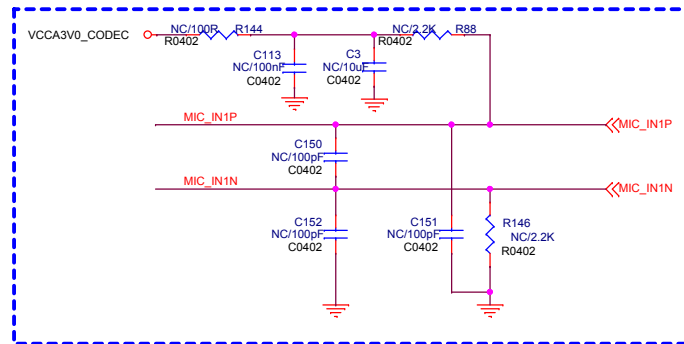
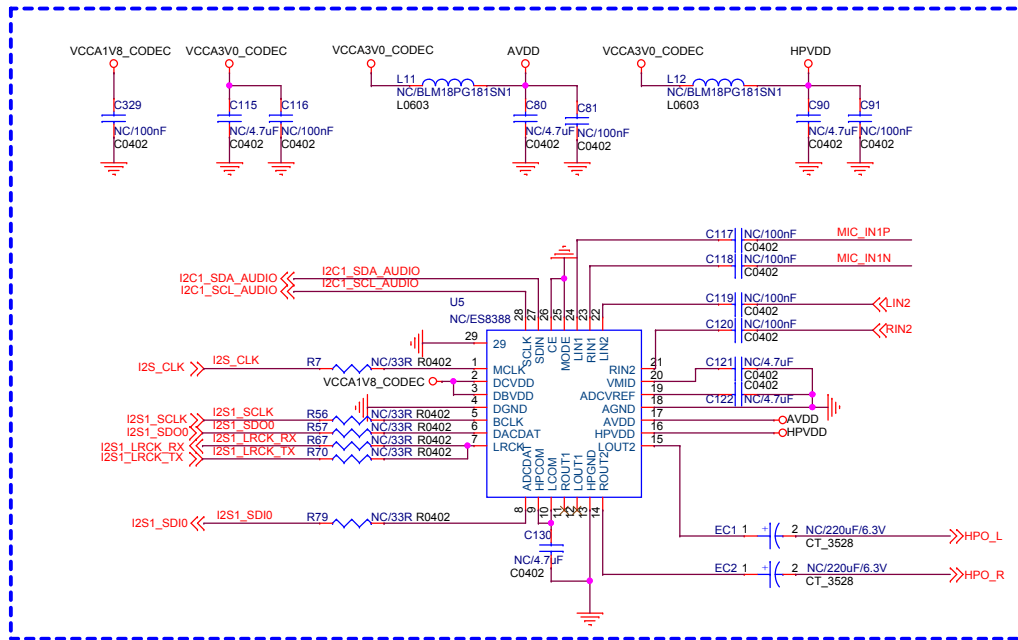


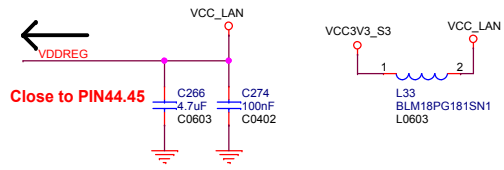
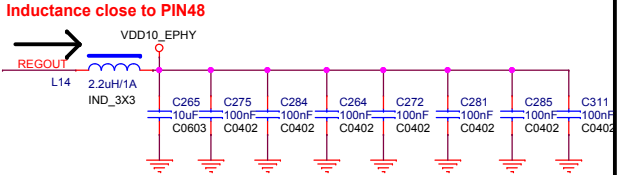
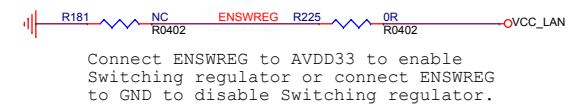
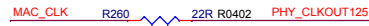
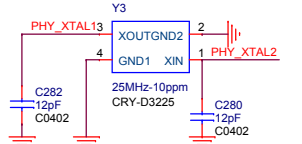
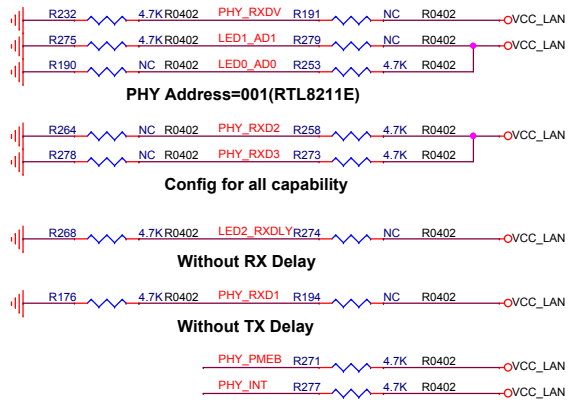
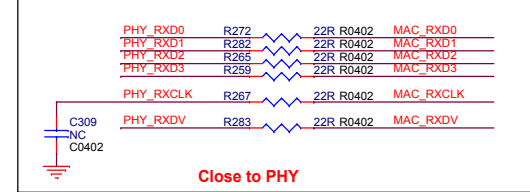
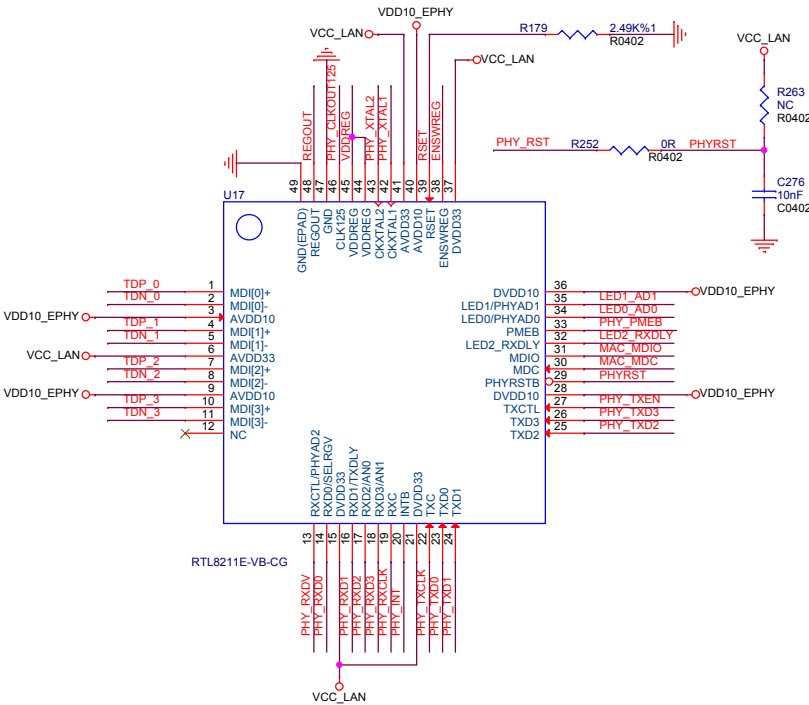
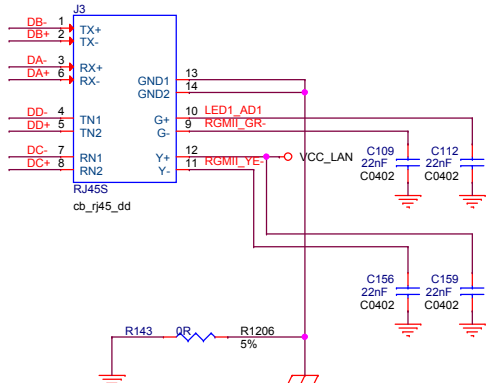
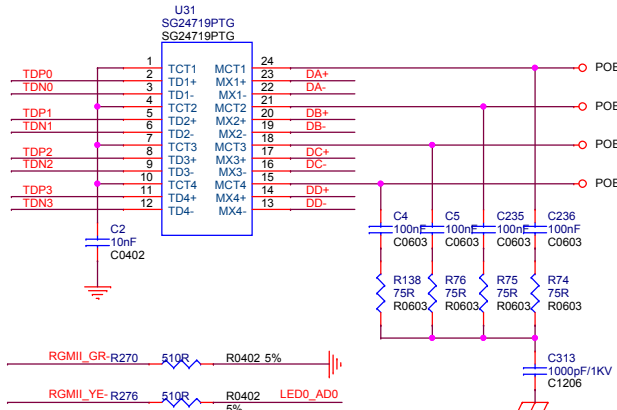
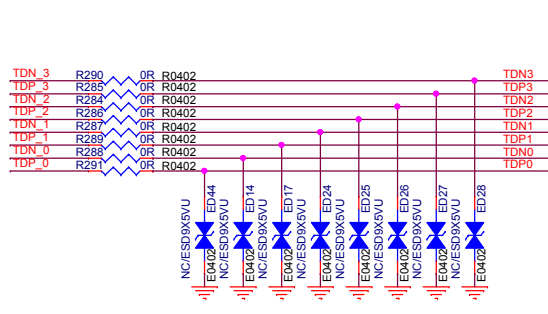
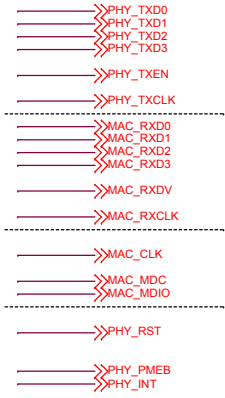


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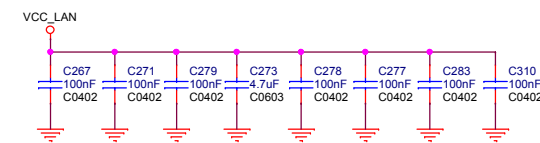
Title: TF Card/EFUSE	
File: ROC_3399_PC	REV: 00
Create Date: Wednesday, March 30, 2016	Page Num: 19
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CODEC





Pull down for 2.5V RGMII(RTL8211D/8211E)
 Pull up for 3.3V RGMII (RTL8211D/8211E)
 Pull up 1.5 / 1.8V RGMII (RTL8211E-VL only)



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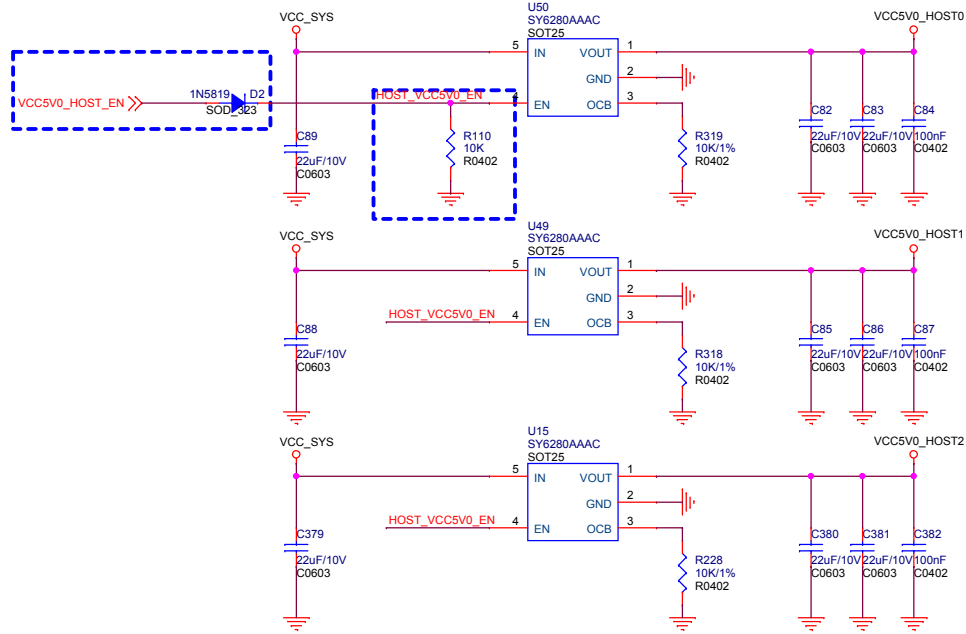
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File: ROC_3399_PC REV:00

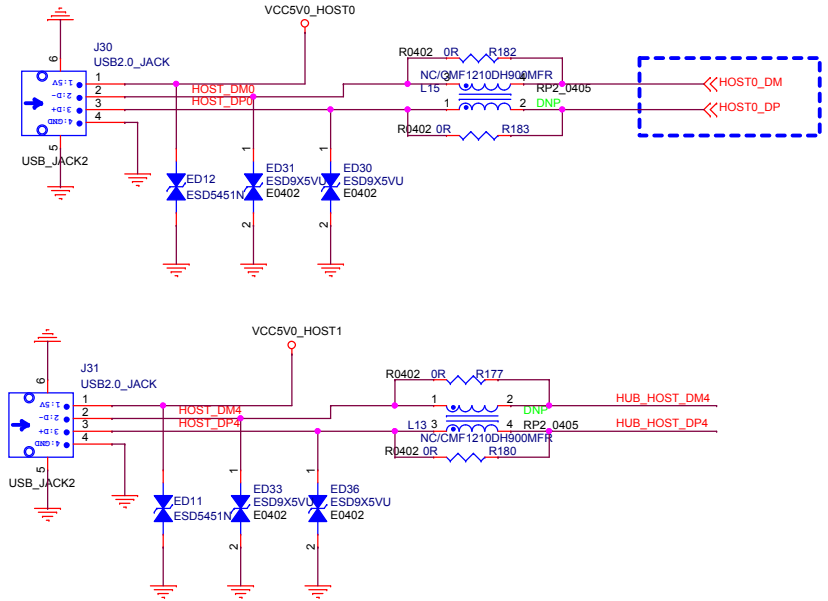
Create Date: Monday, April 18, 2016 Page Num:21

Modify Date: Saturday, August 04, 2018 Page Total: 30

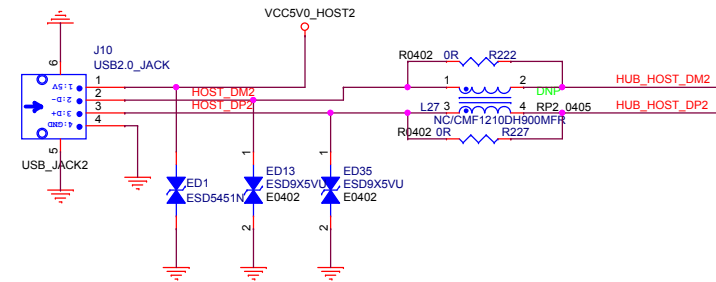
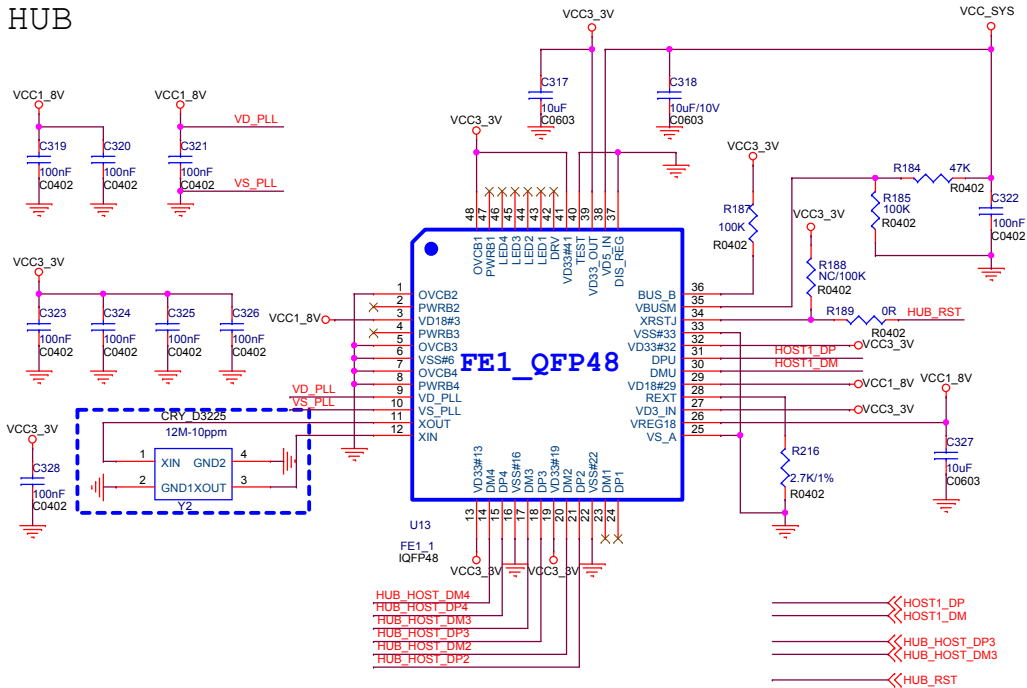
HOST POWER




USB2.0



HUB



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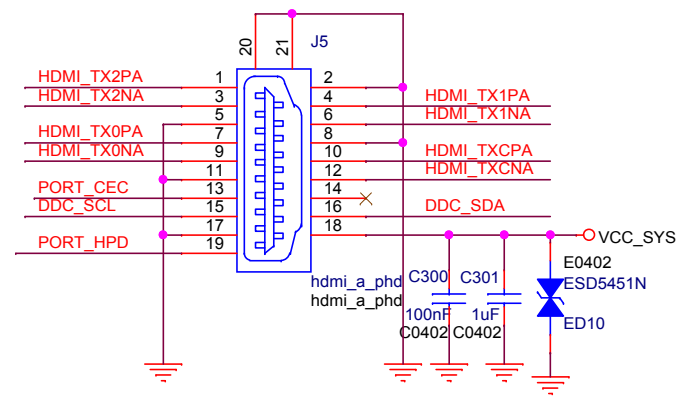
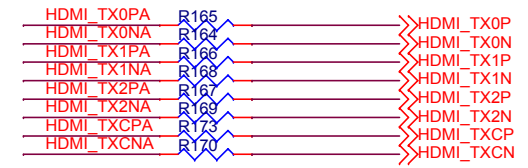
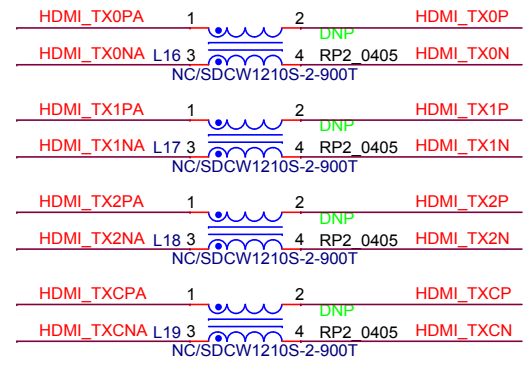
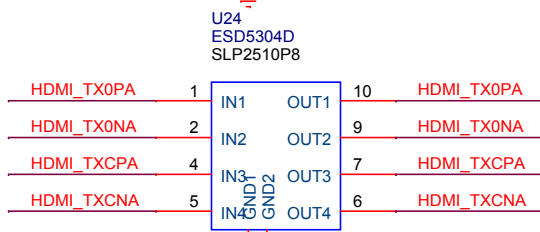
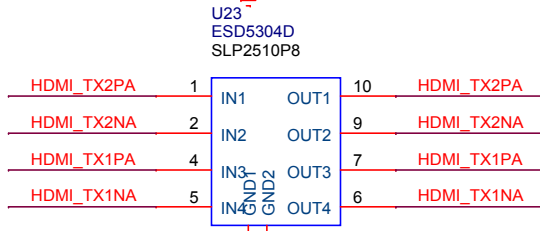
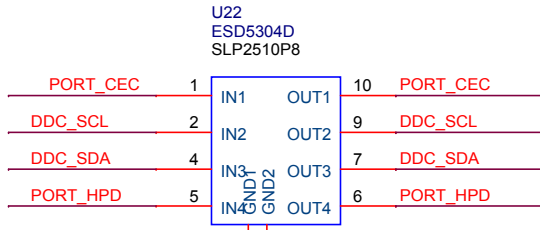
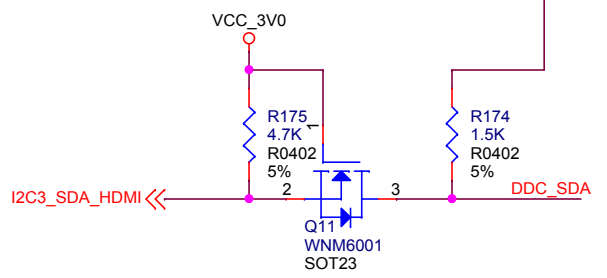
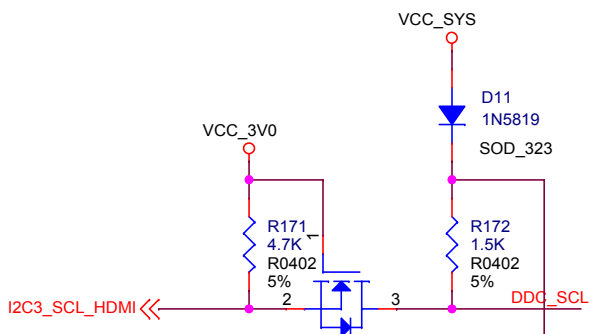
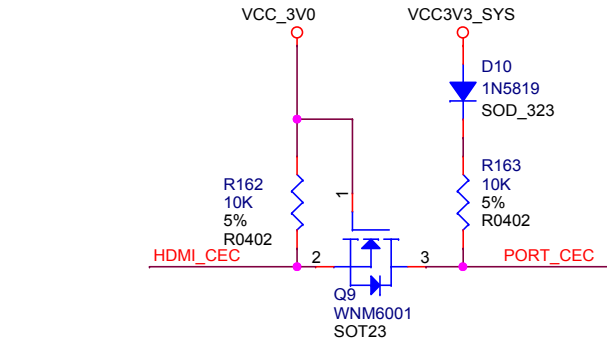
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File: ROC_3399_PC REV:00

Create Date: Friday, April 29, 2016 Page Num:22

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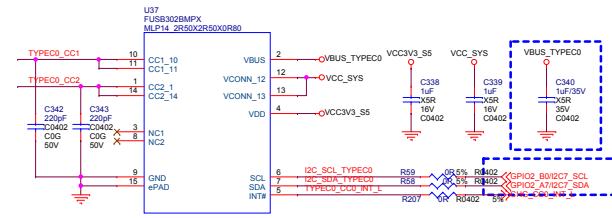
HDMI Port



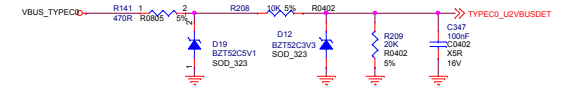
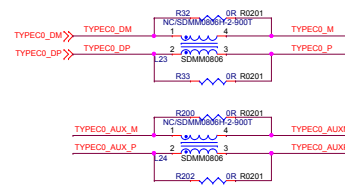
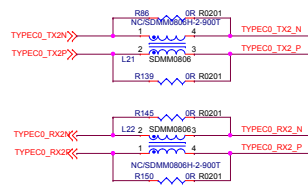
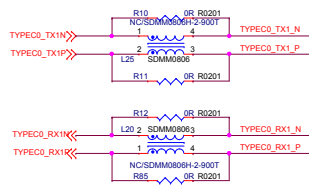
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Title: HDMI Port		REV: 00
File: ROC_3399_PC		
Create Date: Monday, March 28, 2016	Page Num: 23	
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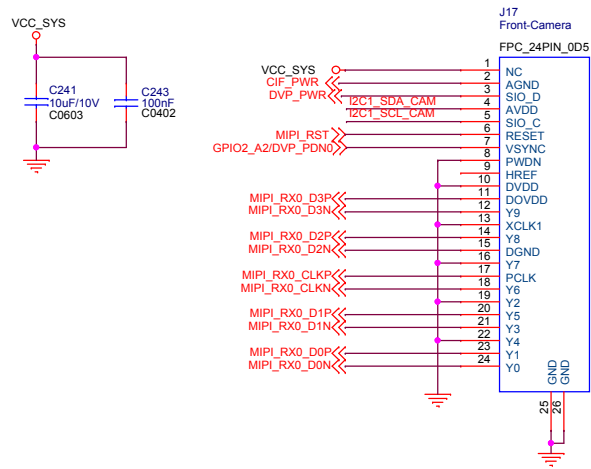
TYPECO HOST POWER



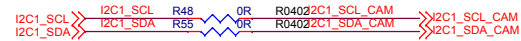
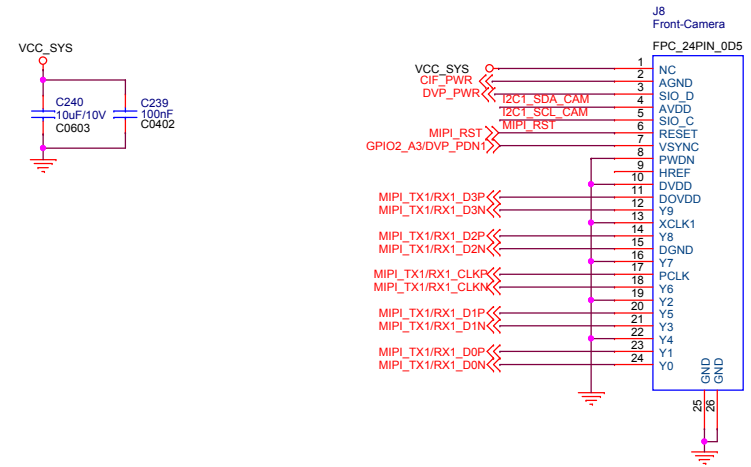
TYPECO



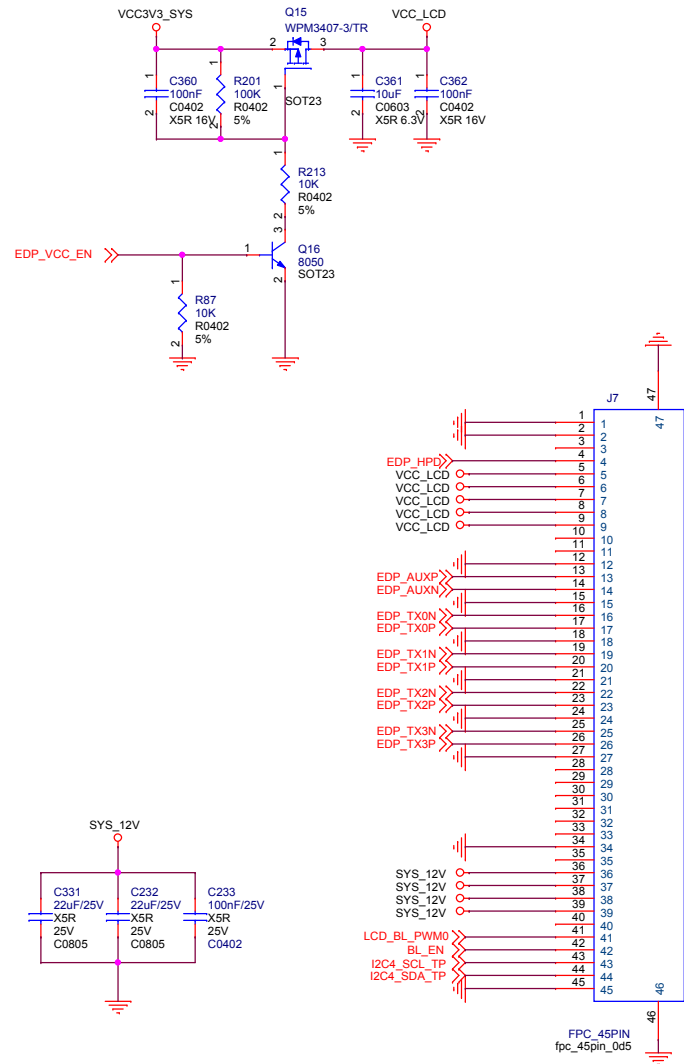
MIPI CAMERA 1



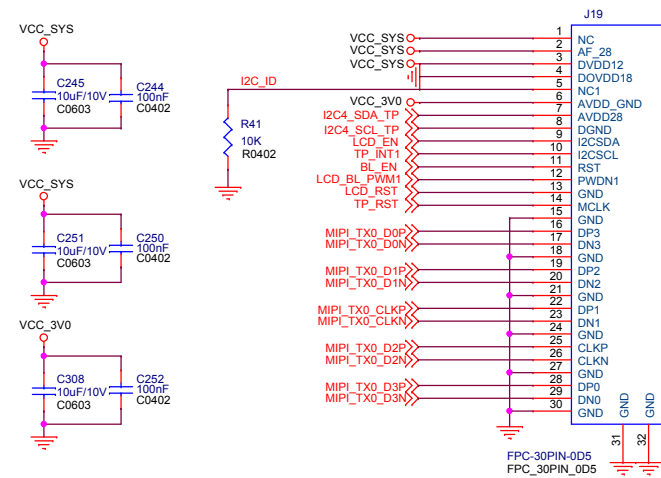
MIPI CAMERA 0

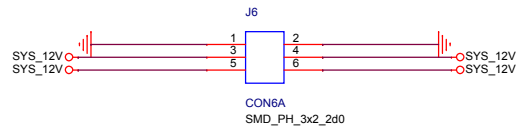


EDP Display Interface

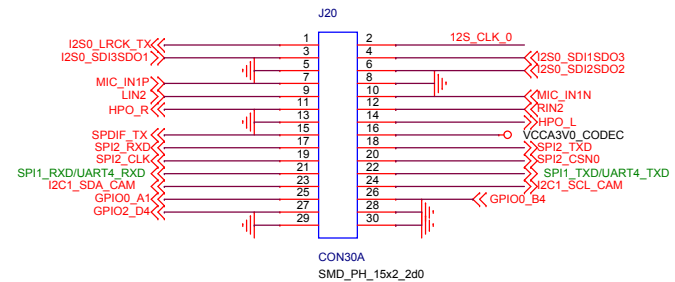
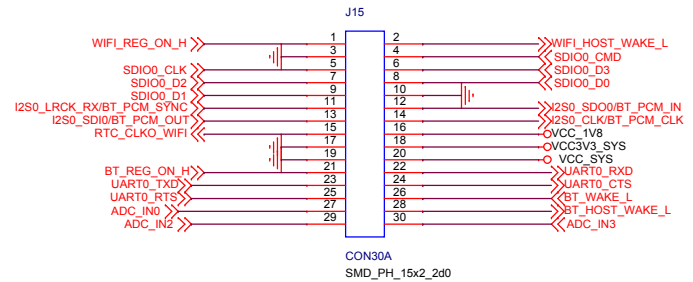
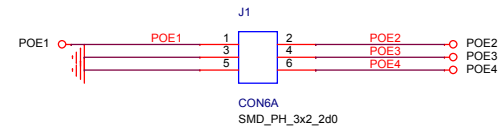
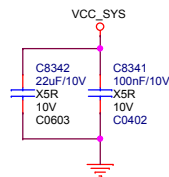
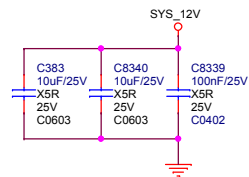
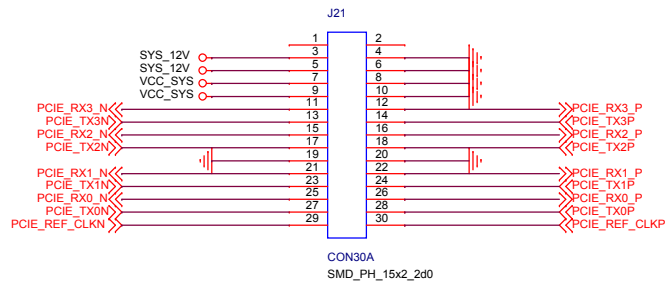
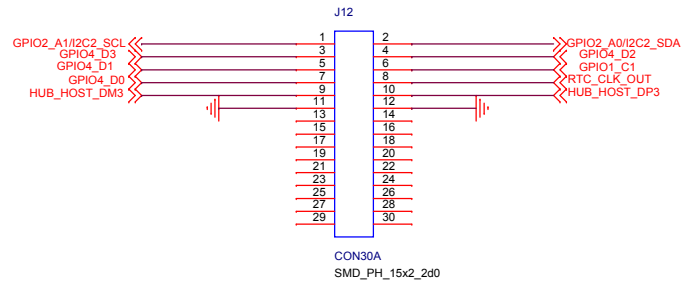


MIP Display Interface





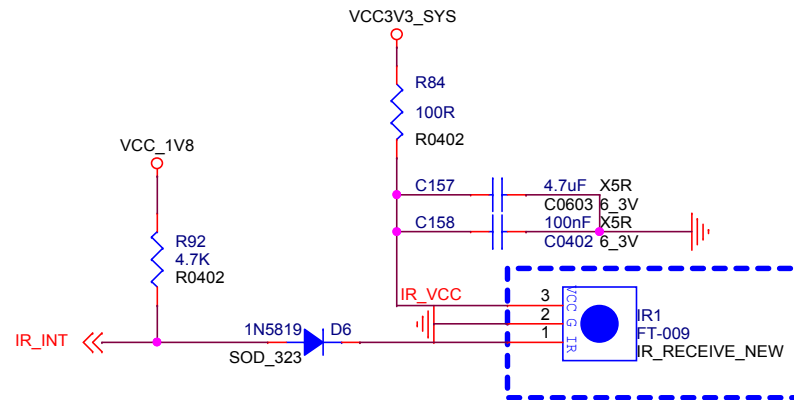
M2.NGFF




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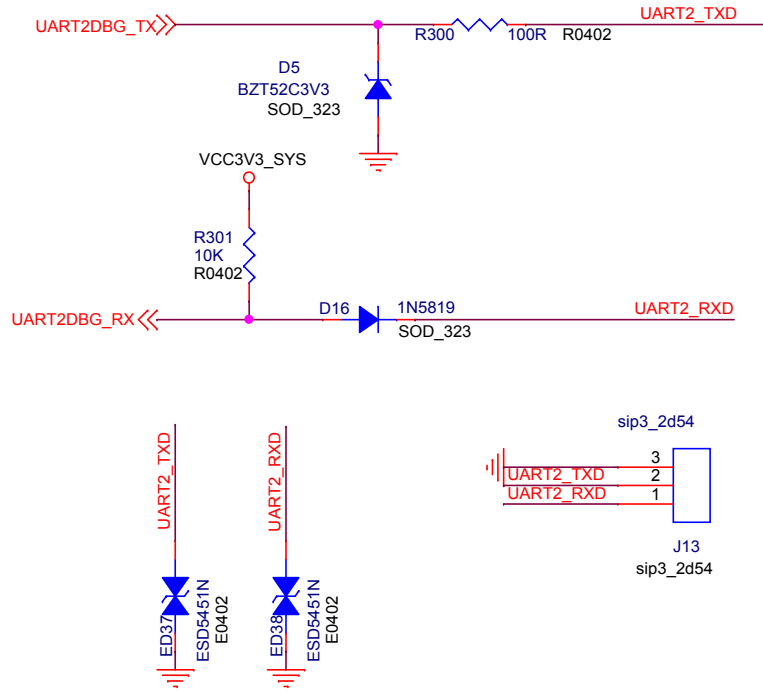
Title: Extension Interface		REV:00
File: ROC_3399_PC		
Create Date: Tuesday, July 19, 2016	Page Num:28	
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IR Receiver

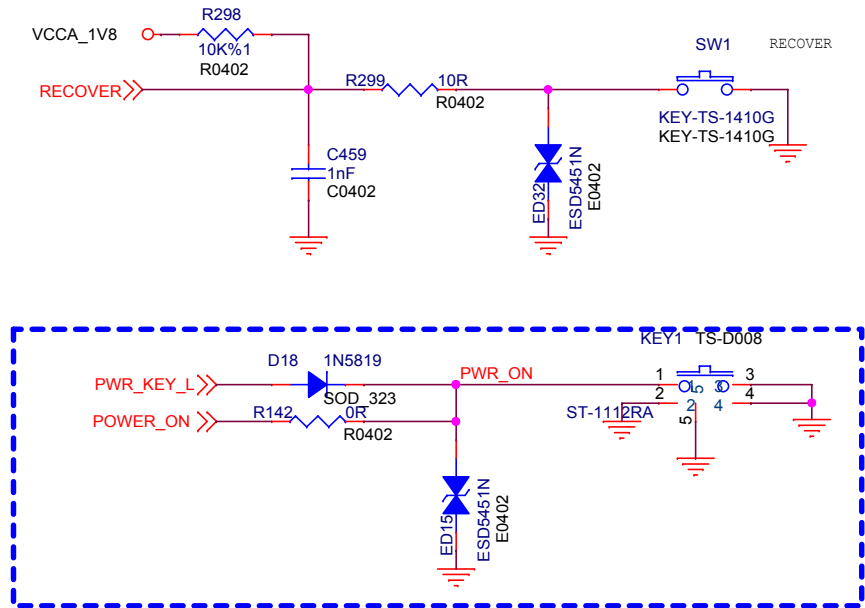


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Title: IR			
File: ROC_3399_PC			REV: 00
Create Date: Tuesday, June 21, 2016		Page Num: 29	
Modify Date: Saturday, August 04, 2018		Page Total: 30	

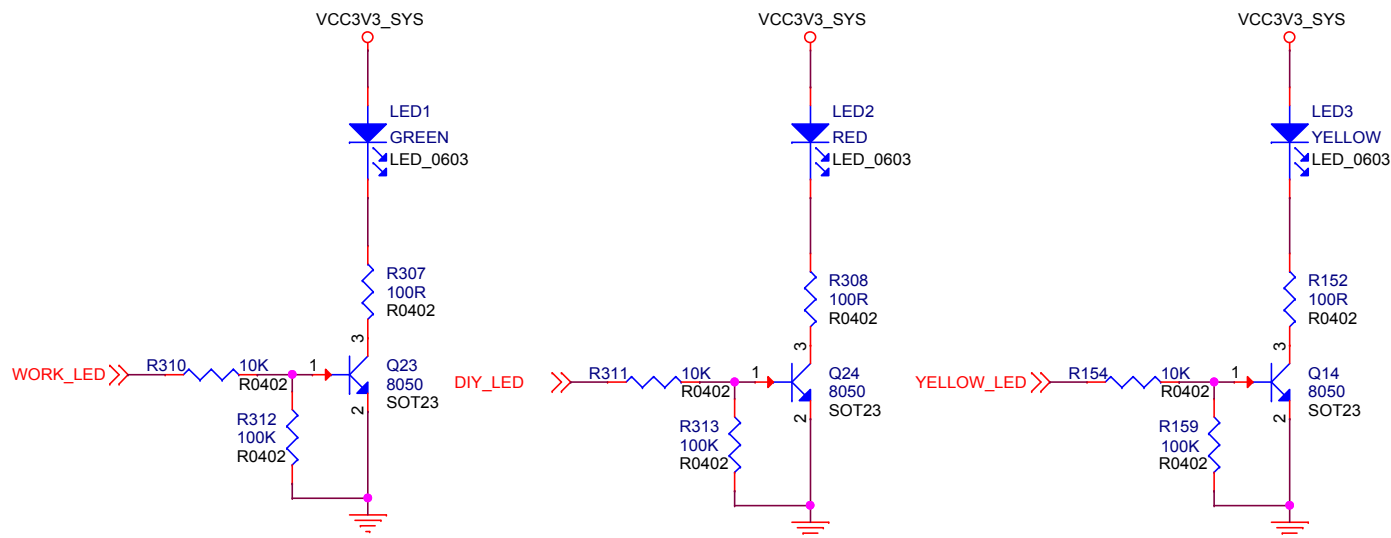
DEBUG




KEY



LED





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Title: KEY/LED/DEBUG		REV: 00
File: ROC_3399_PC		
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