



# Radxa ROCK 3C schematic

V1.31

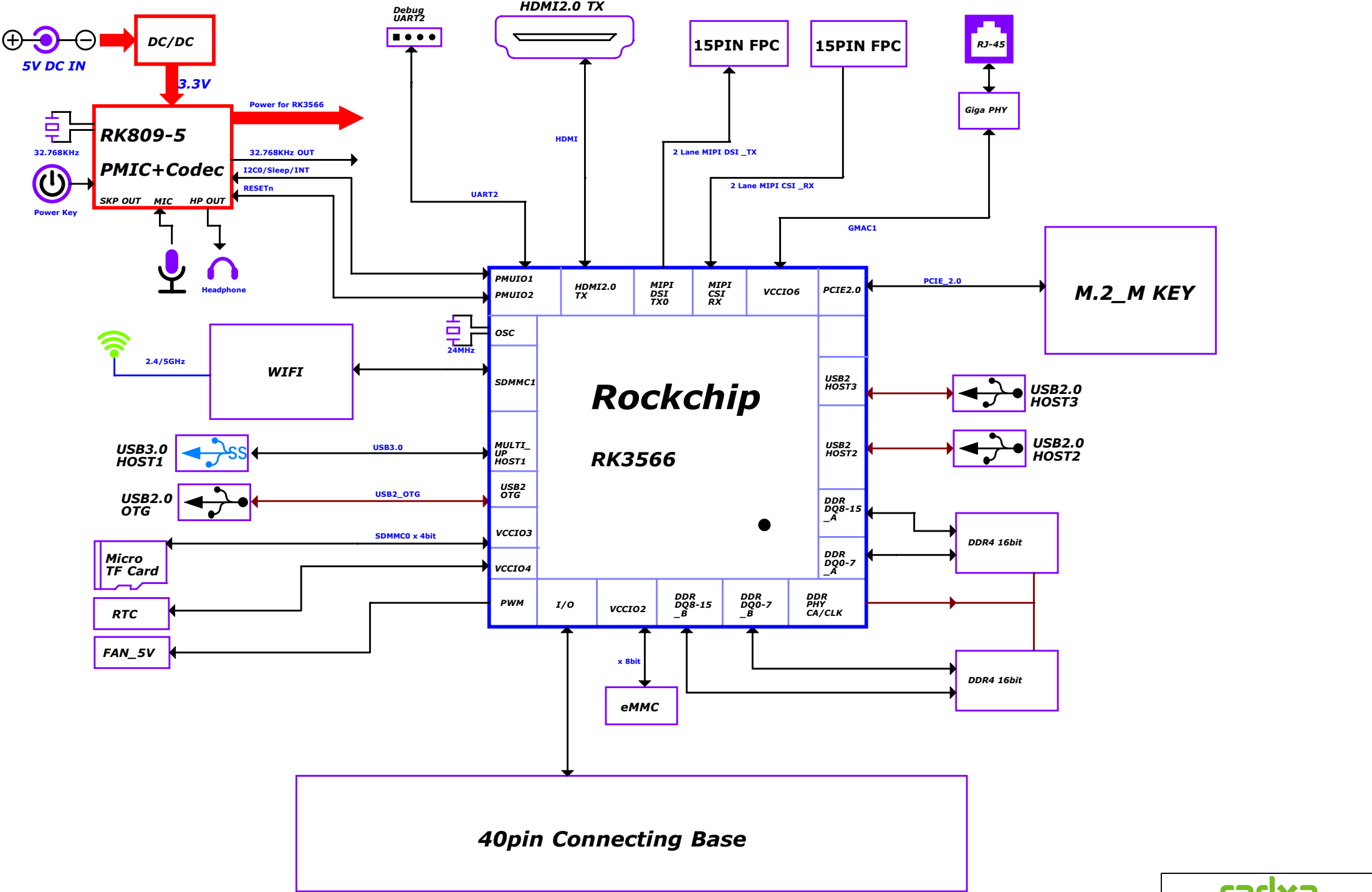
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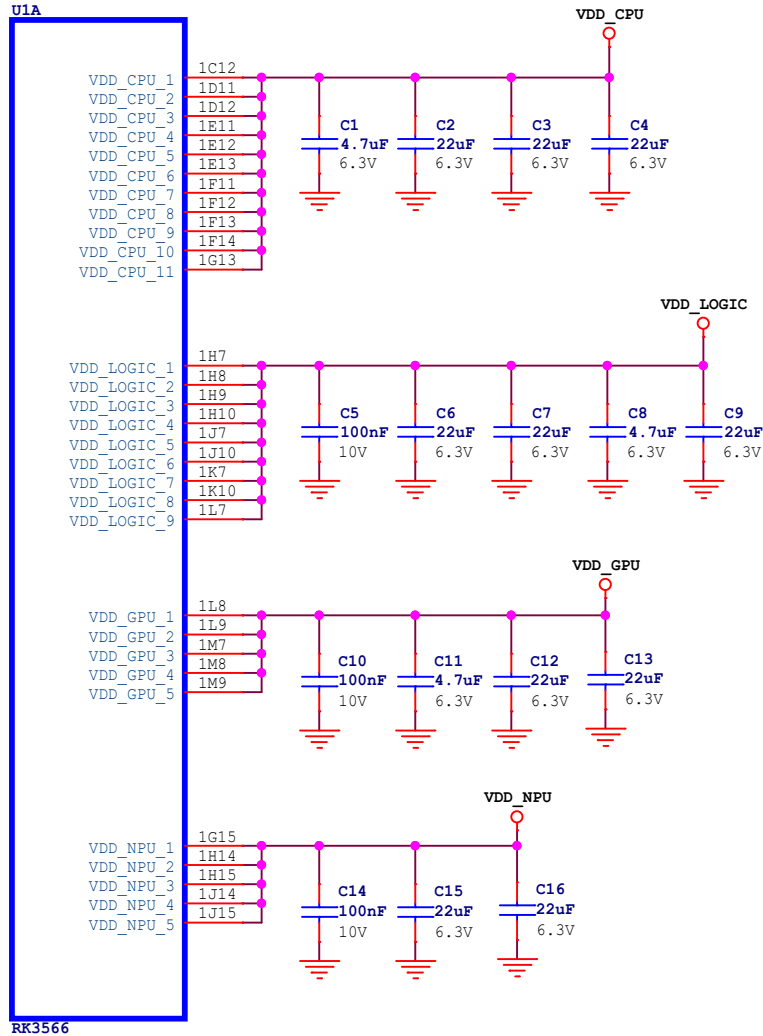


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# ROCK 3C Ref Block Diagram



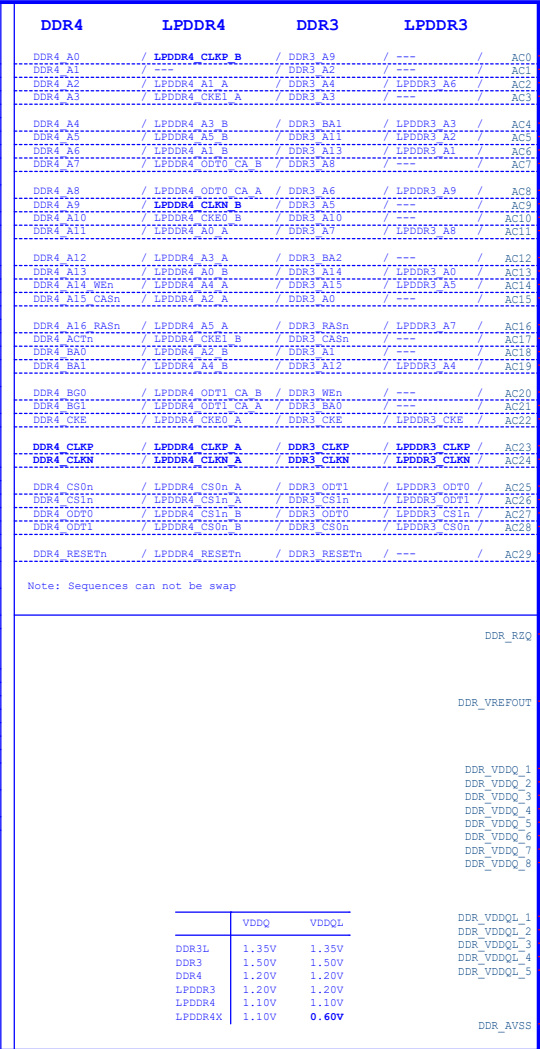
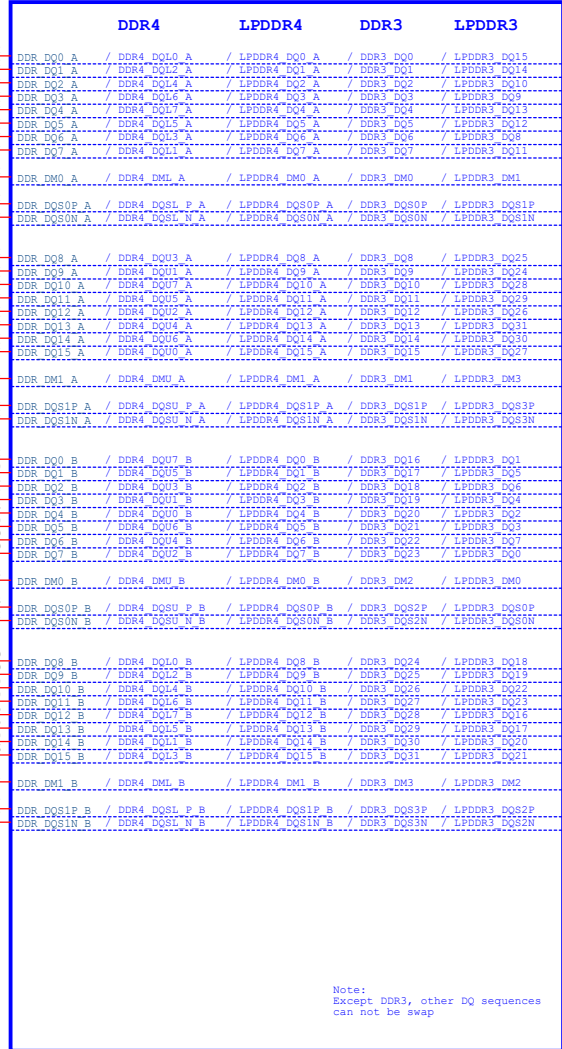
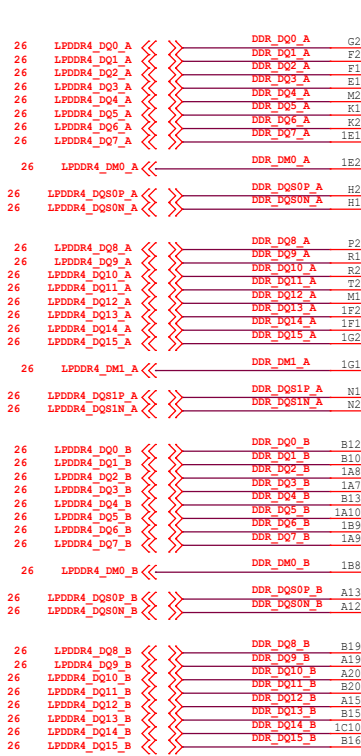
# RK3566\_ABCDE (Power&GND)



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# RK3566\_F (DDR PHY)

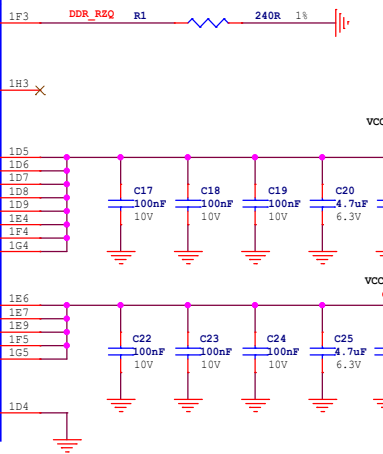
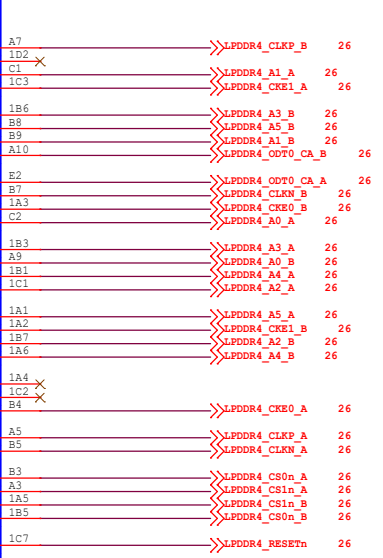
UIF



Note: Sequences can not be swap

Note:  
Except DDR3, other DQ sequences  
can not be swap

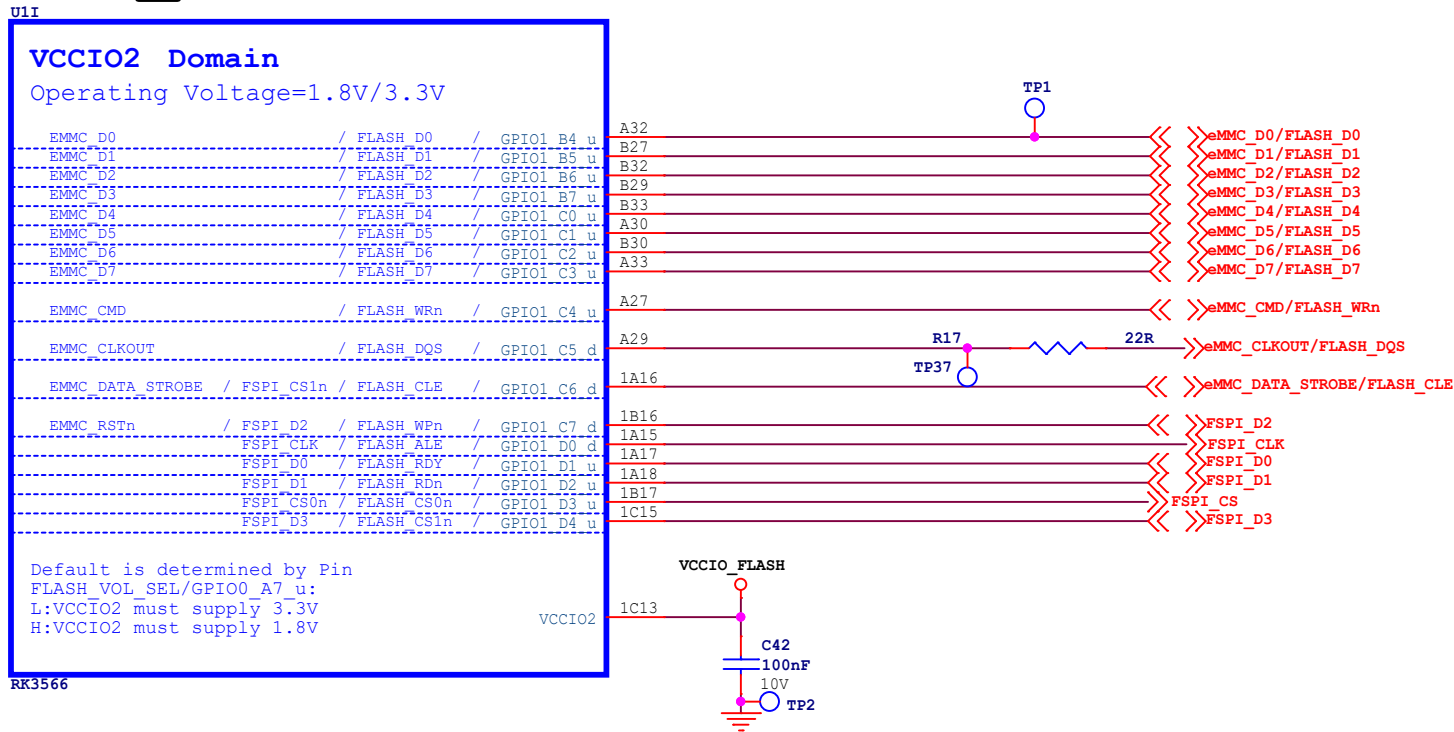
RK3566



	VDDQ	VDDQL
DDR3L	1.35V	1.35V
DDR3	1.50V	1.50V
DDR4	1.20V	1.20V
LPDDR3	1.20V	1.20V
LPDDR4	1.10V	1.10V
LPDDR4X	1.10V	0.60V

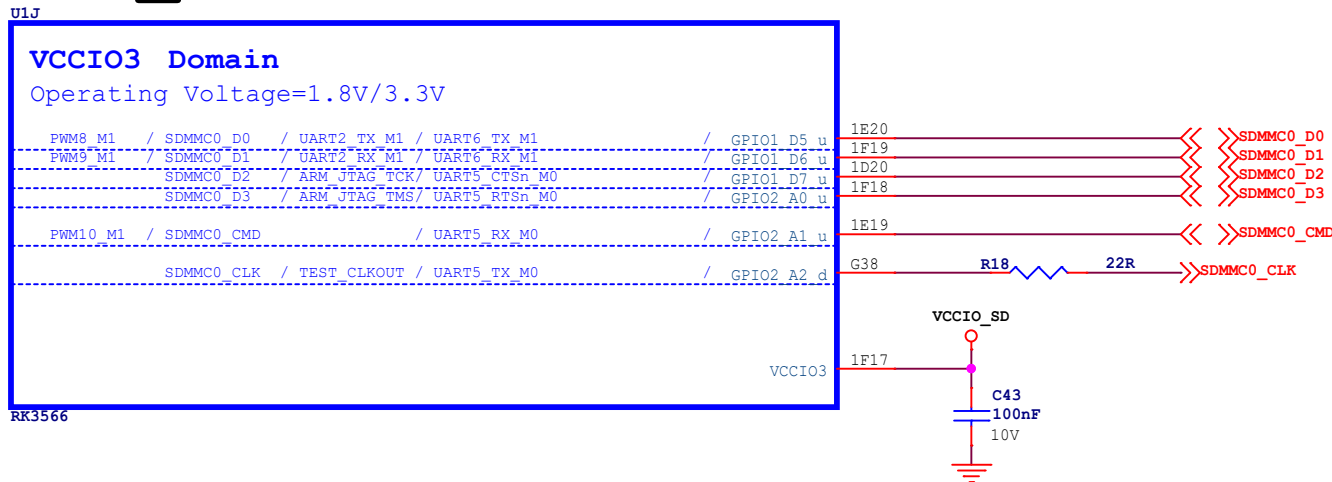


# RK3566\_I (VCCIO2 Domain)



RK3566

# RK3566\_J (VCCIO3 Domain)

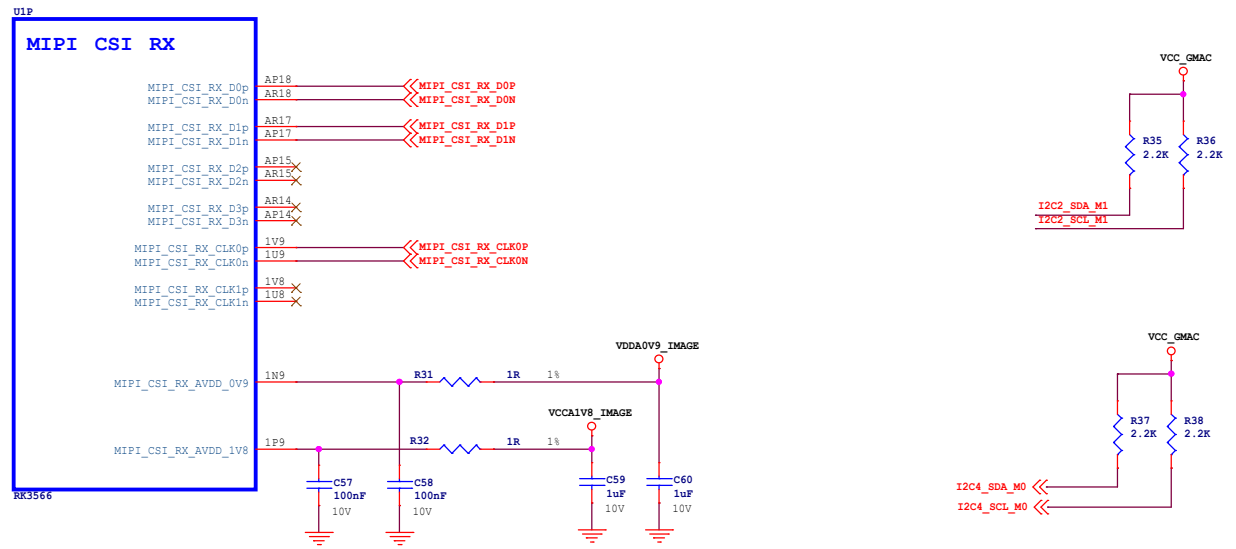


RK3566

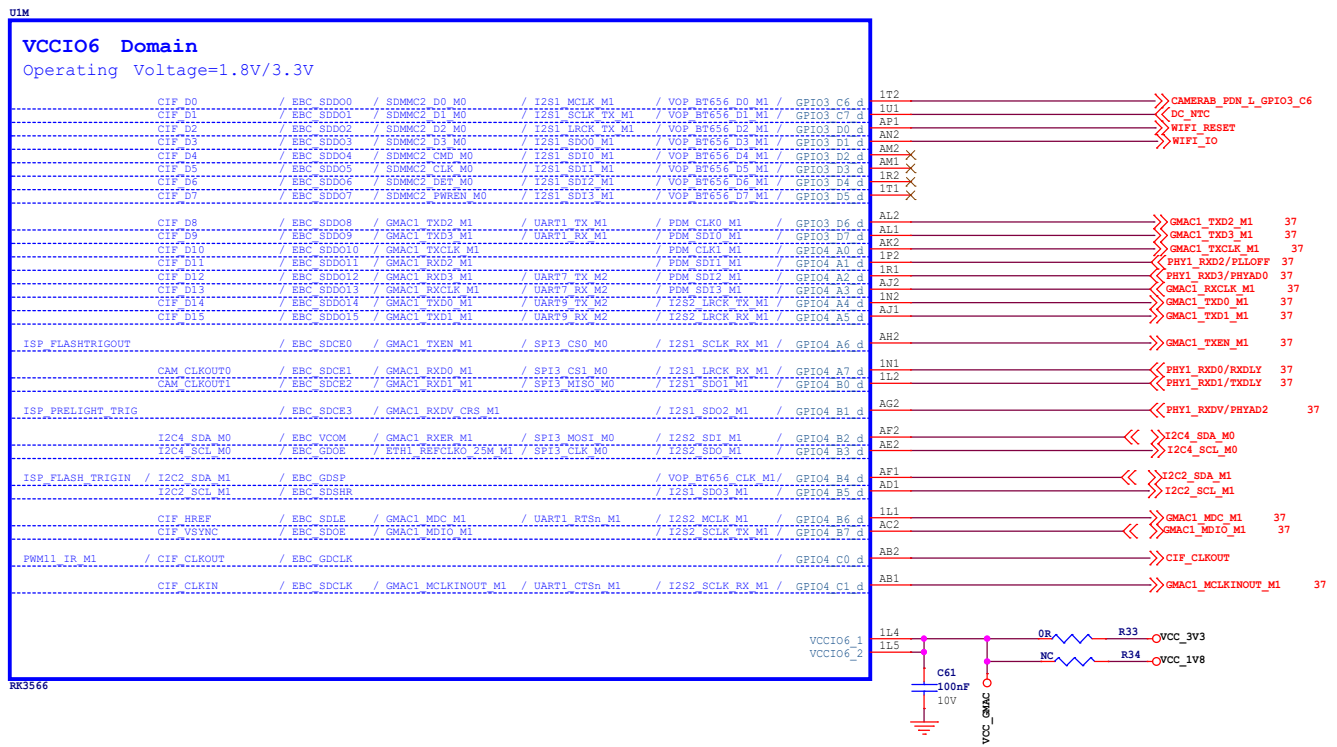



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# RK3566\_P (MIPI\_CSI\_RX)



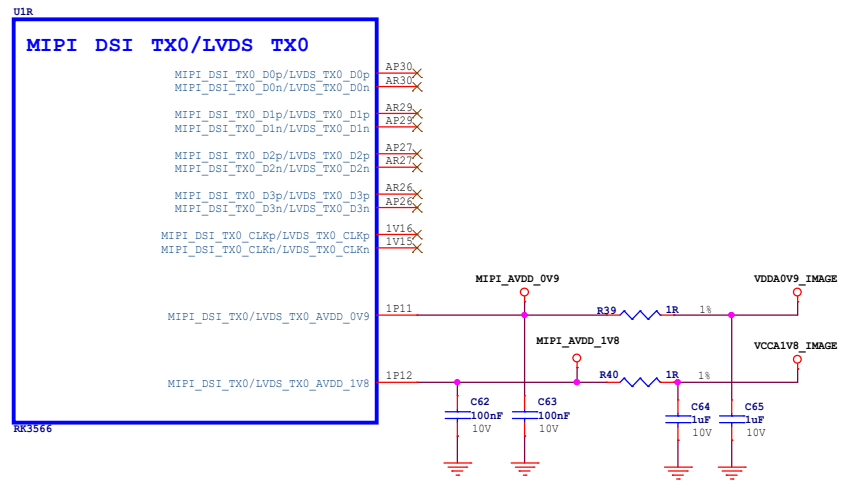
# RK3566\_M (VCCIO6 Domain)



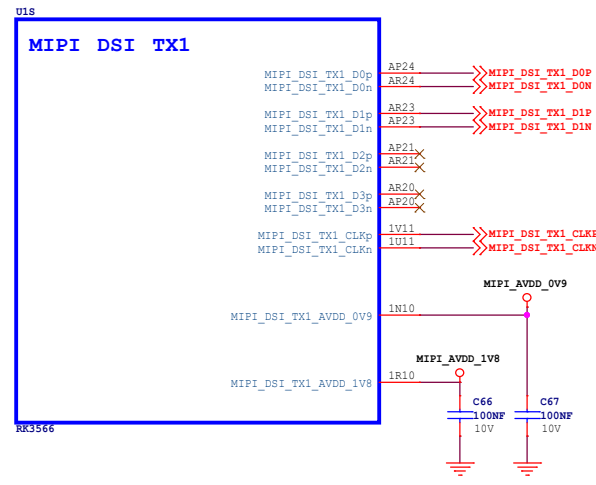


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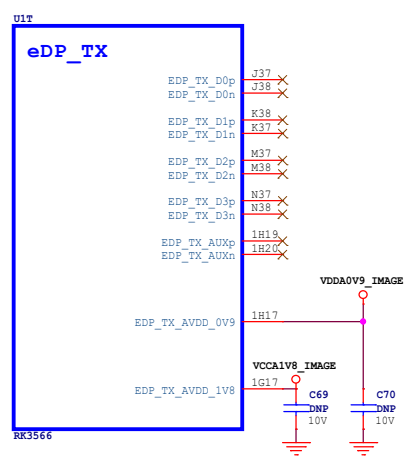
# RK3566\_R (MIPI\_DSI\_TX0/LVDS\_TX0)



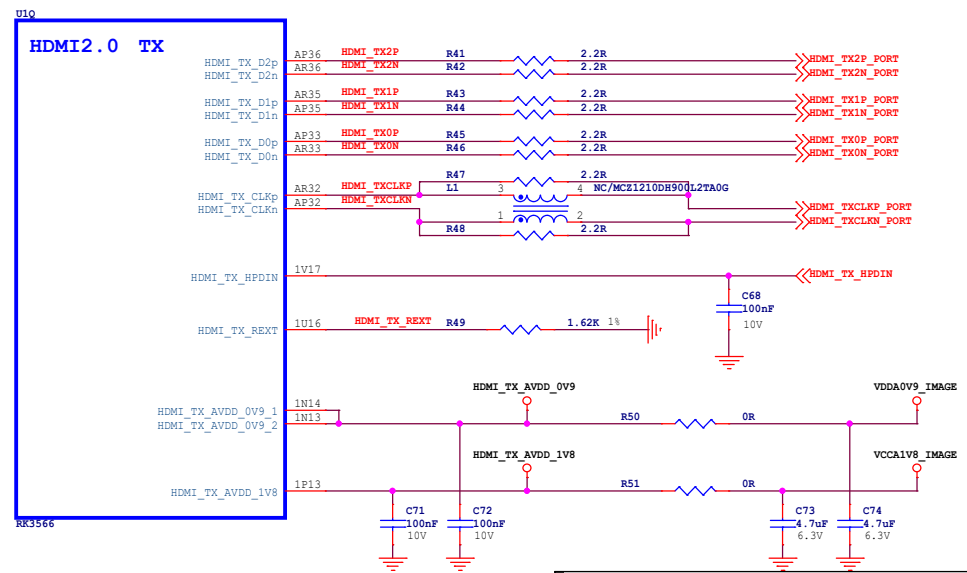
# RK3566\_S (MIPI\_DSI\_TX1/LVDS\_TX1)



# RK3566\_T (eDP/DP TX)



# RK3566\_Q (HDMI2.0 TX)



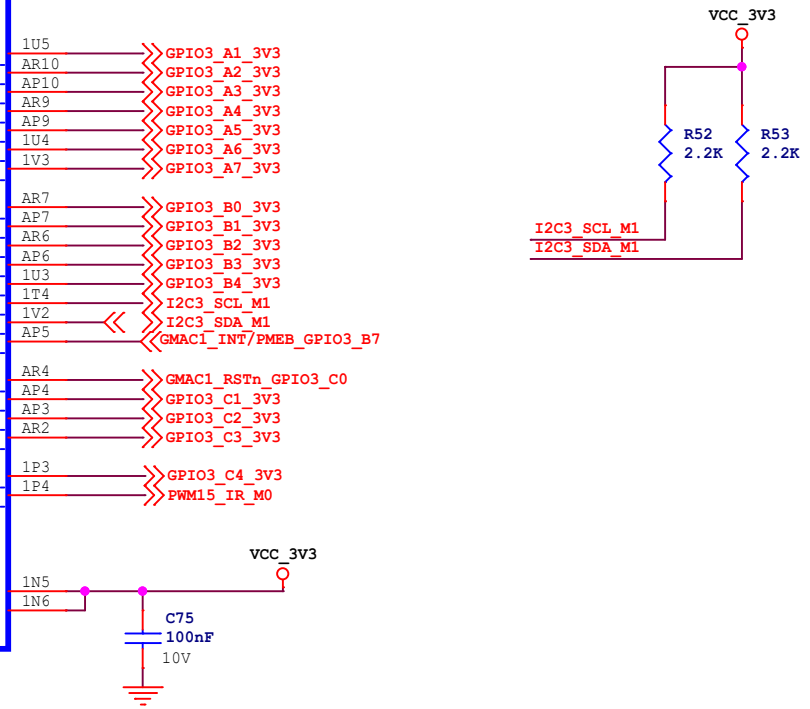


# RK3566\_L (VCCIO5 Domain)

U1L

VCCIO5 Domain					
Operating Voltage=1.8V/3.3V					
VOP_BT1120_D0	/ SPI1_CS0_M1		/ SDMMC2_D0_M1	/ GPIO3_A1_d	
VOP_BT1120_D1		/ GMAC1_TXD2_M0	/ I2S3_MCLK_M0	/ SDMMC2_D1_M1	/ GPIO3_A2_d
VOP_BT1120_D2		/ GMAC1_TXD3_M0	/ I2S3_SCLK_M0	/ SDMMC2_D2_M1	/ GPIO3_A3_d
VOP_BT1120_D3		/ GMAC1_RXD2_M0	/ I2S3_LRCK_M0	/ SDMMC2_D3_M1	/ GPIO3_A4_d
VOP_BT1120_D4		/ GMAC1_RXD3_M0	/ I2S3_SDO_M0	/ SDMMC2_CMD_M1	/ GPIO3_A5_d
VOP_BT1120_CLK		/ GMAC1_TXCLK_M0	/ I2S3_SDI_M0	/ SDMMC2_CLK_M1	/ GPIO3_A6_d
VOP_BT1120_D5		/ GMAC1_RXCLK_M0		/ SDMMC2_DET_M1	/ GPIO3_A7_d
VOP_BT1120_D6		/ ETH1_REFCLK0_25M_M0		/ SDMMC2_PWREN_M1	/ GPIO3_B0_d
PWM8_M0	/ VOP_BT1120_D7	/ GMAC1_RXD0_M0	/ UART4_RX_M1		/ GPIO3_B1_d
PWM9_M0	/ VOP_BT1120_D8	/ GMAC1_RXD1_M0	/ UART4_TX_M1		/ GPIO3_B2_d
VOP_BT1120_D9	/ I2C5_SCL_M0	/ GMAC1_RXDV_CRS_M0		/ PDM_SDI0_M2	/ GPIO3_B3_d
VOP_BT1120_D10	/ I2C5_SDA_M0	/ GMAC1_RXER_M0		/ PDM_SDI1_M2	/ GPIO3_B4_d
PWM10_M0	/ VOP_BT1120_D11	/ I2C3_SCL_M1	/ GMAC1_TXD0_M0		/ GPIO3_B5_d
PWM11_IR_M0	/ VOP_BT1120_D12	/ I2C3_SDA_M1	/ GMAC1_TXD1_M0		/ GPIO3_B6_d
PWM12_M0		/ GMAC1_TXEN_M0	/ UART3_TX_M1	/ PDM_SDI2_M2	/ GPIO3_B7_d
PWM13_M0		/ GMAC1_MCLKINOUT_M0	/ UART3_RX_M1	/ PDM_SDI3_M2	/ GPIO3_C0_d
VOP_BT1120_D13	/ SPI1_MOSI_M1		/ PCIE20_PERSTn_M1	/ I2S1_SDO2_M2	/ GPIO3_C1_d
VOP_BT1120_D14	/ SPI1_MISO_M1		/ UART5_TX_M1	/ I2S1_SDO3_M2	/ GPIO3_C2_d
VOP_BT1120_D15	/ SPI1_CLK_M1		/ UART5_RX_M1	/ I2S1_SCLK_RX_M2	/ GPIO3_C3_d
PWM14_M0	/ VOP_PWM_M1	/ GMAC1_MDC_M0	/ UART7_TX_M1	/ PDM_CLK1_M2	/ GPIO3_C4_d
PWM15_IR_M0	/ SPDIF_TX_M1	/ GMAC1_MDIO_M0	/ UART7_RX_M1	/ I2S1_LRCK_RX_M2	/ GPIO3_C5_d

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# RK3566\_H (VCCIO1 Domain)

U1H

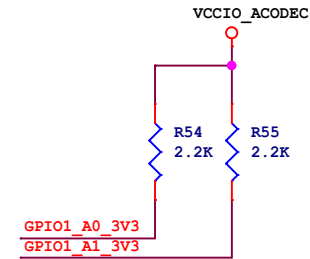
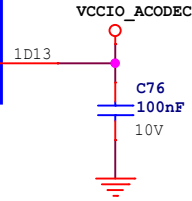
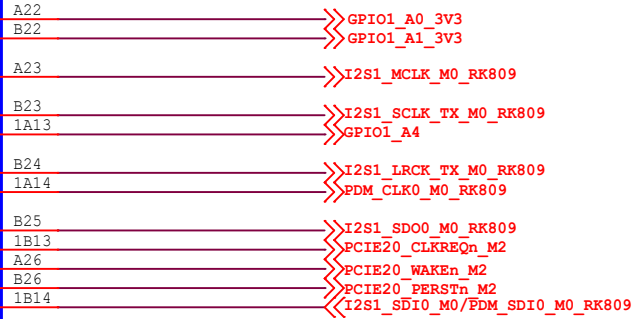
## VCCIO1 Domain

Operating Voltage=1.8V/3.3V

/ I2C3 SDA M0	/ UART3 RX M0	/ AUDIOPWM LOUT p	/ GPIO1 A0 u
/ I2C3 SCL M0	/ UART3 TX M0	/ AUDIOPWM LOUT r	/ GPIO1 A1 u
SCR CLK	/ I2S1 MCLK M0	/ UART3 RTSn M0	/ GPIO1 A2 d
SCR IO	/ I2S1 SCLK TX M0	/ UART3 CTSn M0	/ GPIO1 A3 d
	I2S1 SCLK RX M0	/ UART4 RX M0	/ PDM CLR1 M0
		/ SPDIF TX M0	/ GPIO1 A4 d
SCR RST	/ I2S1 LRCK TX M0	/ UART4 RTSn M0	/ GPIO1 A5 d
	I2S1 LRCK RX M0	/ UART4 TX M0	/ PDM CLR0 M0
		/ AUDIOPWM ROUT p	/ GPIO1 A6 d
SCR DET	/ I2S1 SDO0 M0	/ UART4 CTSn M0	/ AUDIOPWM ROUT n
	I2S1 SDO1 M0	/ I2S1 SDI3 M0	/ PDM SDI3 M0
		/ PCIE20 CLKREQn M2	/ GPIO1 B0 d
	I2S1 SDO2 M0	/ I2S1 SDI2 M0	/ PDM SDI2 M0
		/ PCIE20 WAKEn M2	/ GPIO1 B1 d
	I2S1 SDO3 M0	/ I2S1 SDI1 M0	/ PDM SDI1 M0
		/ PCIE20 PERSTn M2	/ GPIO1 B2 d
		/ I2S1 SDI0 M0	/ PDM SDI0 M0
			/ GPIO1 B3 d

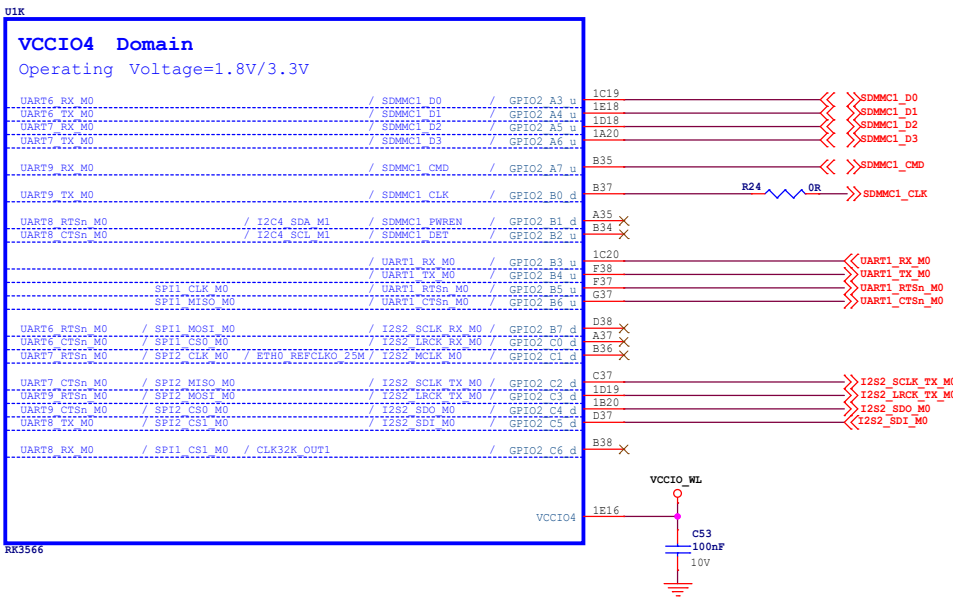
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VCCIO1

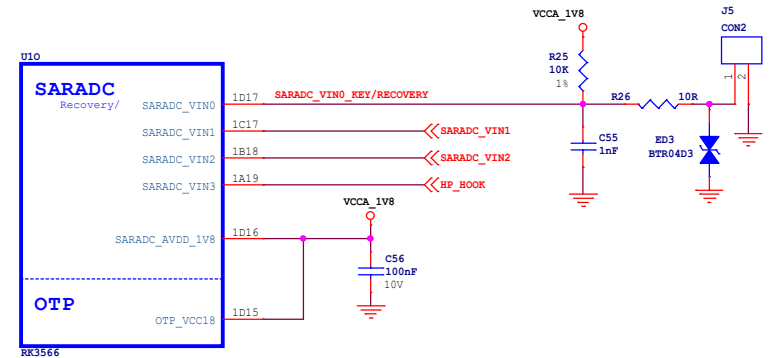


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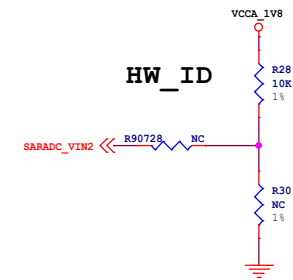
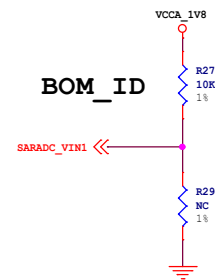
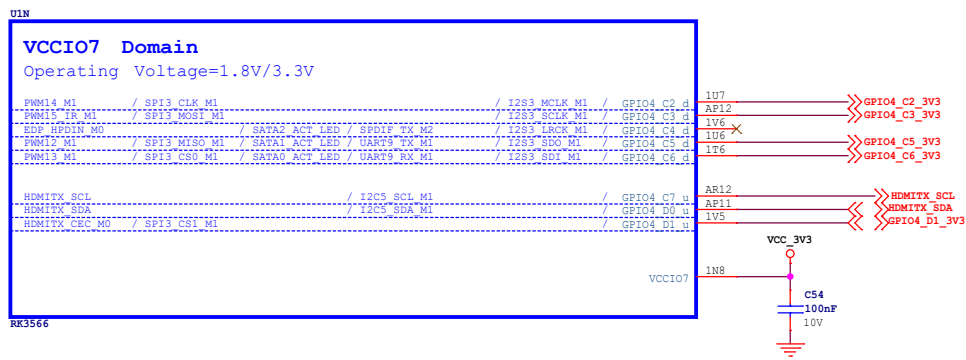
# RK3566\_K (VCCIO4 Domain)



# RK3566\_O (SARADC/OTP)

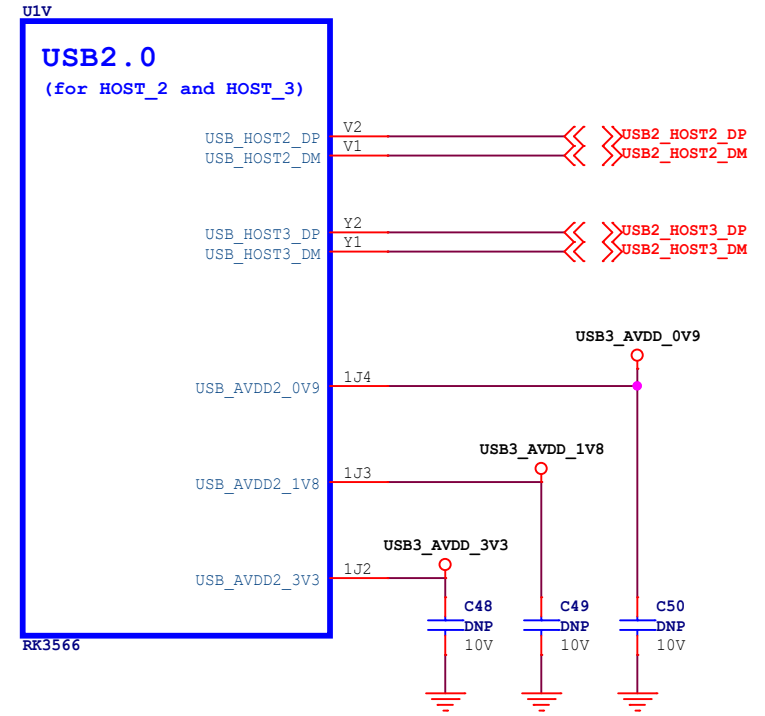
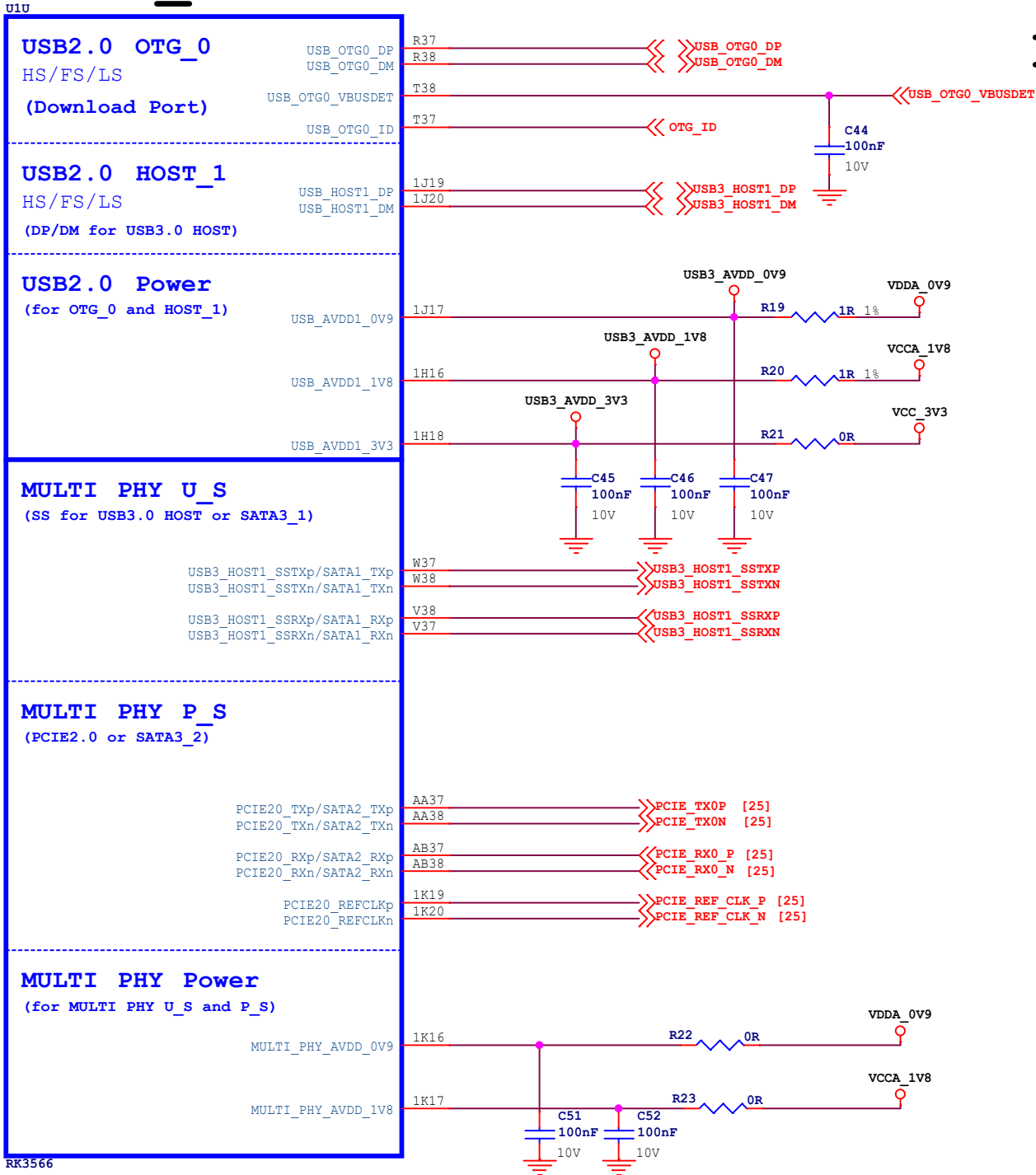


# RK3566\_N (VCCIO7 Domain)



# RK3566\_U (USB3.0/SATA/QSGMII/PCIe2.0 x1)

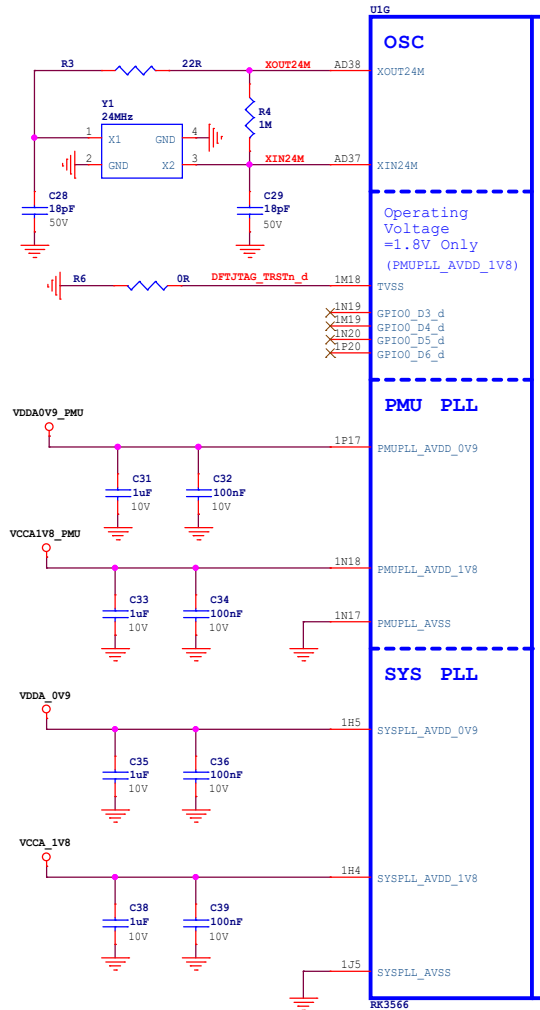
# RK3566\_V (USB2.0 HOST)



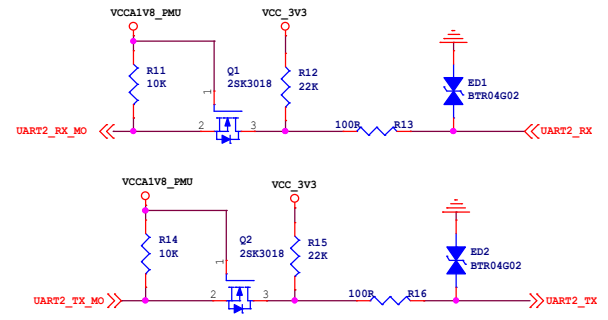
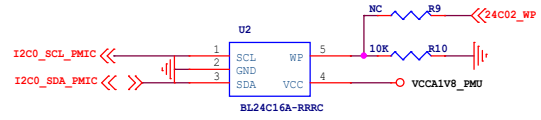
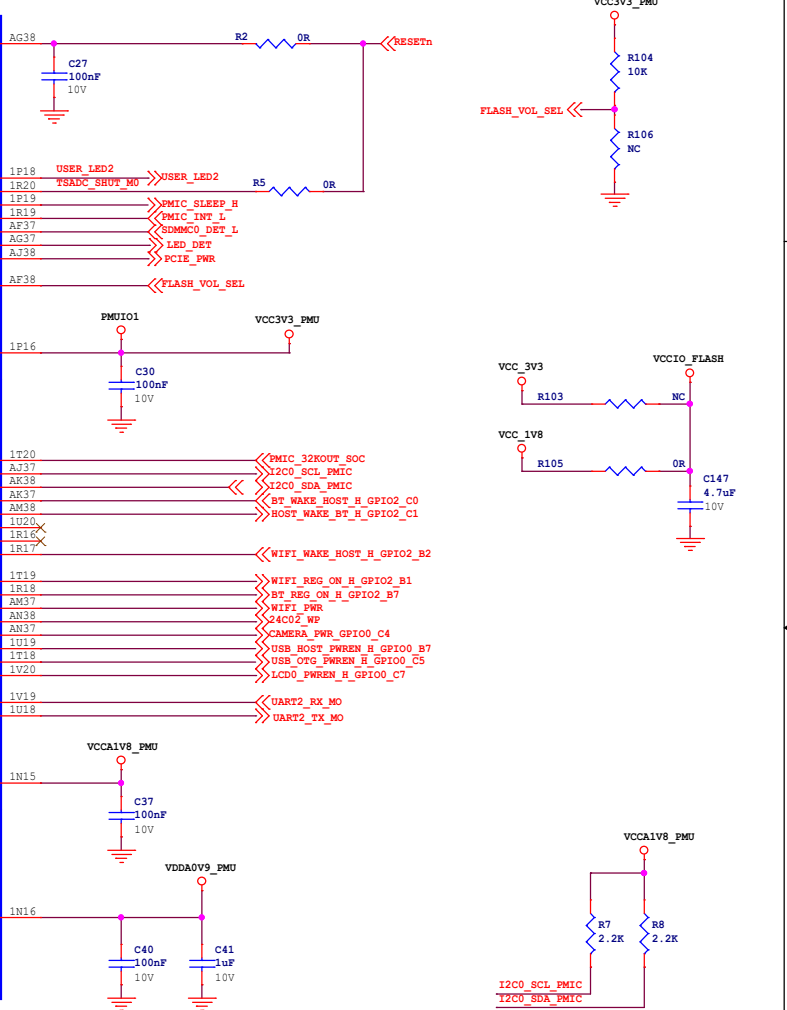
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# RK3566 (OSC/PLL/PMUIO1/2)

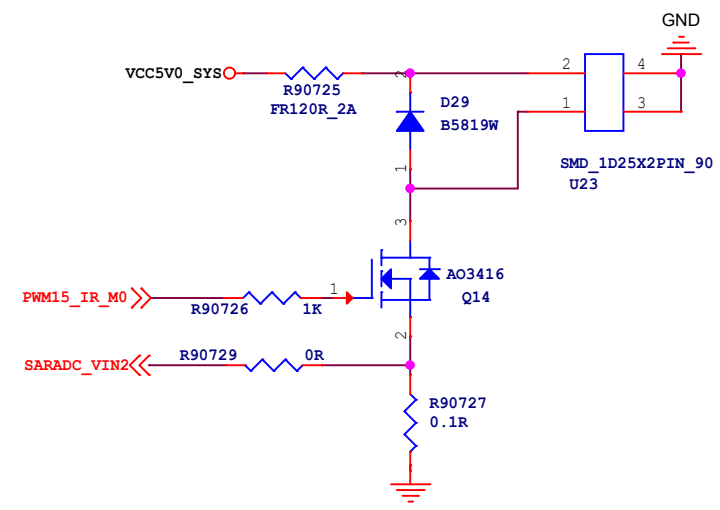
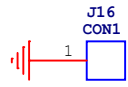
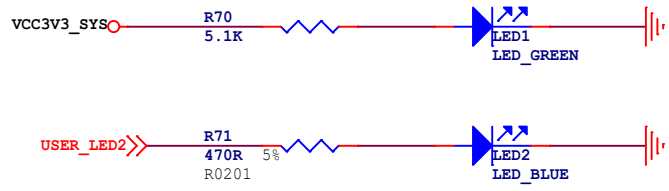
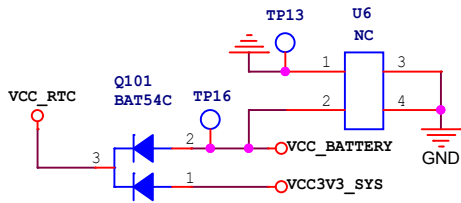


PMUIO1 Domain	
Operating Voltage=3.3V Only	
REFCLK_OUT	GPIO0 A0 H
TSADC_SHUT_W0	GPIO0 A1 H
TSADC_SHUT_W1	GPIO0 A2 H
PMIC_SLEEP	GPIO0 A3 H
SIMMCO_DET	GPIO0 A4 H
SIMMCO_PWREN	GPIO0 A5 H
GPU_PWREN	GPIO0 A6 H
SATA_CP_FOD	GPIO0 A7 H
FLASH_VOL_SEL / GPIO0 A7 H	
PMUIO2 Domain	
Operating Voltage=1.8V/3.3V	
CLK32K_IN	GPIO0 B0 H
I2C0_SCL	GPIO0 B1 H
I2C0_SDA	GPIO0 B2 H
I2C1_SCL	GPIO0 B3 H
I2C1_SDA	GPIO0 B4 H
I2C3_SCL_M0	GPIO0 B5 H
I2C3_SDA_M0	GPIO0 B6 H
I2C3_SCL_M1	GPIO0 B7 H
I2C3_SDA_M1	GPIO0 B7 H
PMU0_M0	GPIO0 B7 H
PMU0_M1	GPIO0 B7 H
PMU1_M0	GPIO0 C0 H
PMU1_M1	GPIO0 C1 H
PMU2_M0	GPIO0 C2 H
PMU2_M1	GPIO0 C3 H
PMU3_IR	GPIO0 C4 H
PMU4	GPIO0 C5 H
PMU5	GPIO0 C6 H
PMU6	GPIO0 C7 H
PMU7_IR	GPIO0 C8 H
PMU8_M1	GPIO0 C9 H
UART2_RX_M0	GPIO0 D0 H
UART2_TX_M0	GPIO0 D1 H

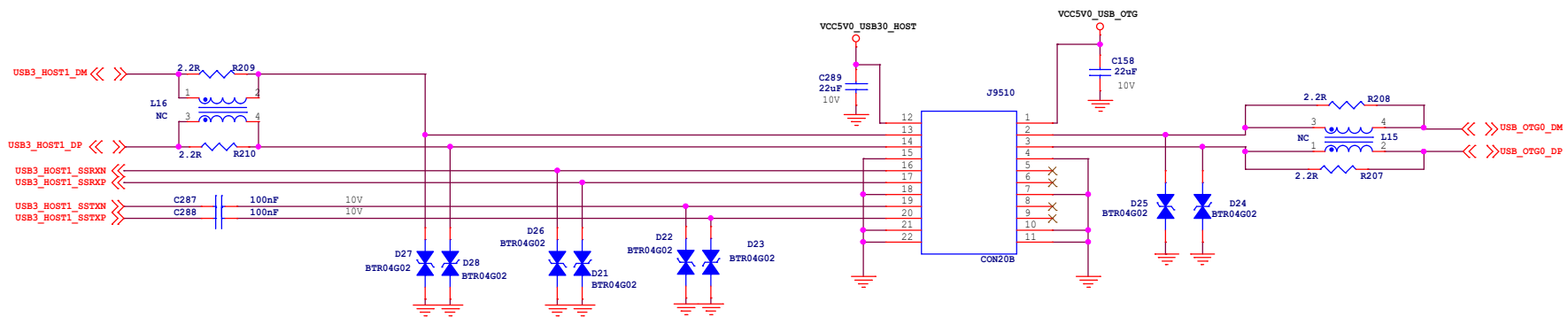
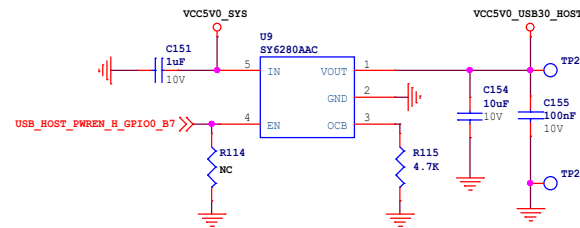
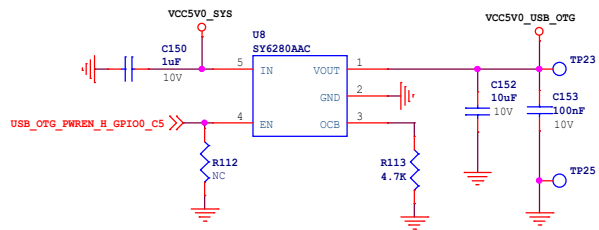
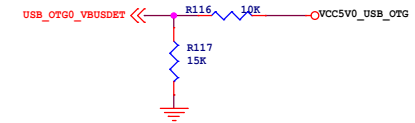
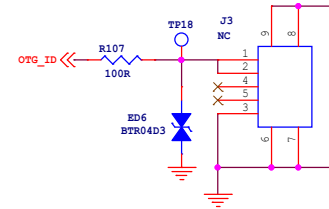
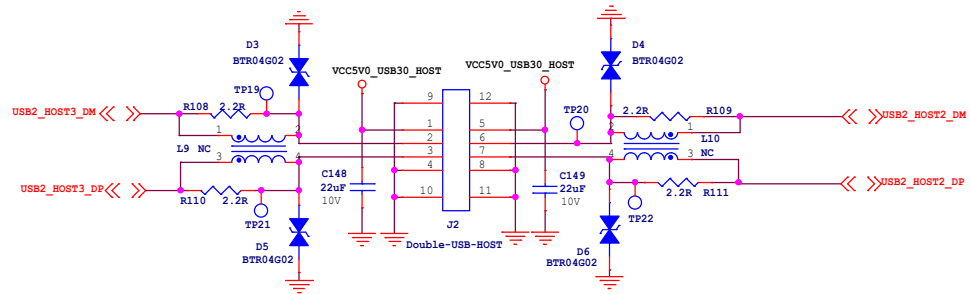


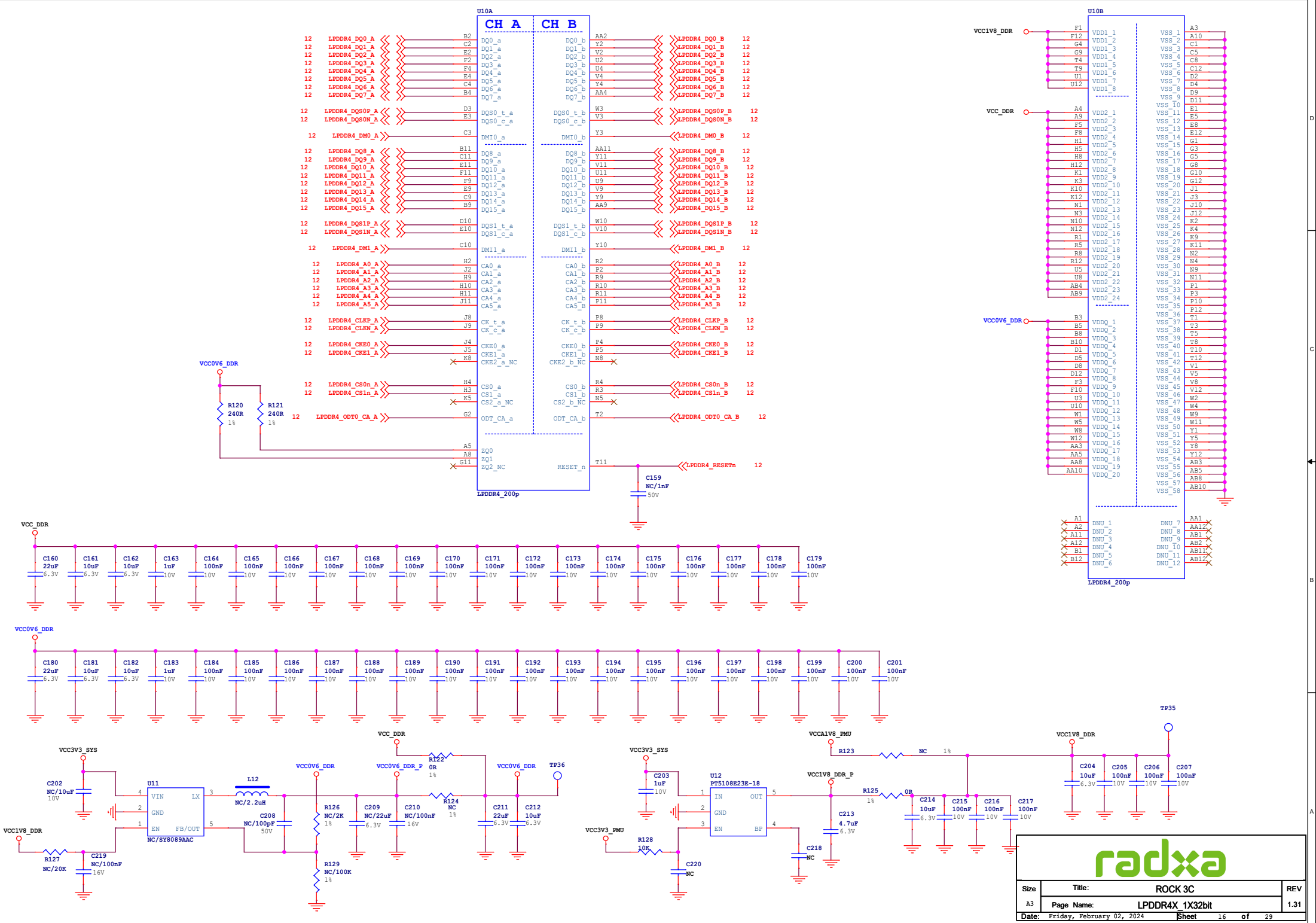


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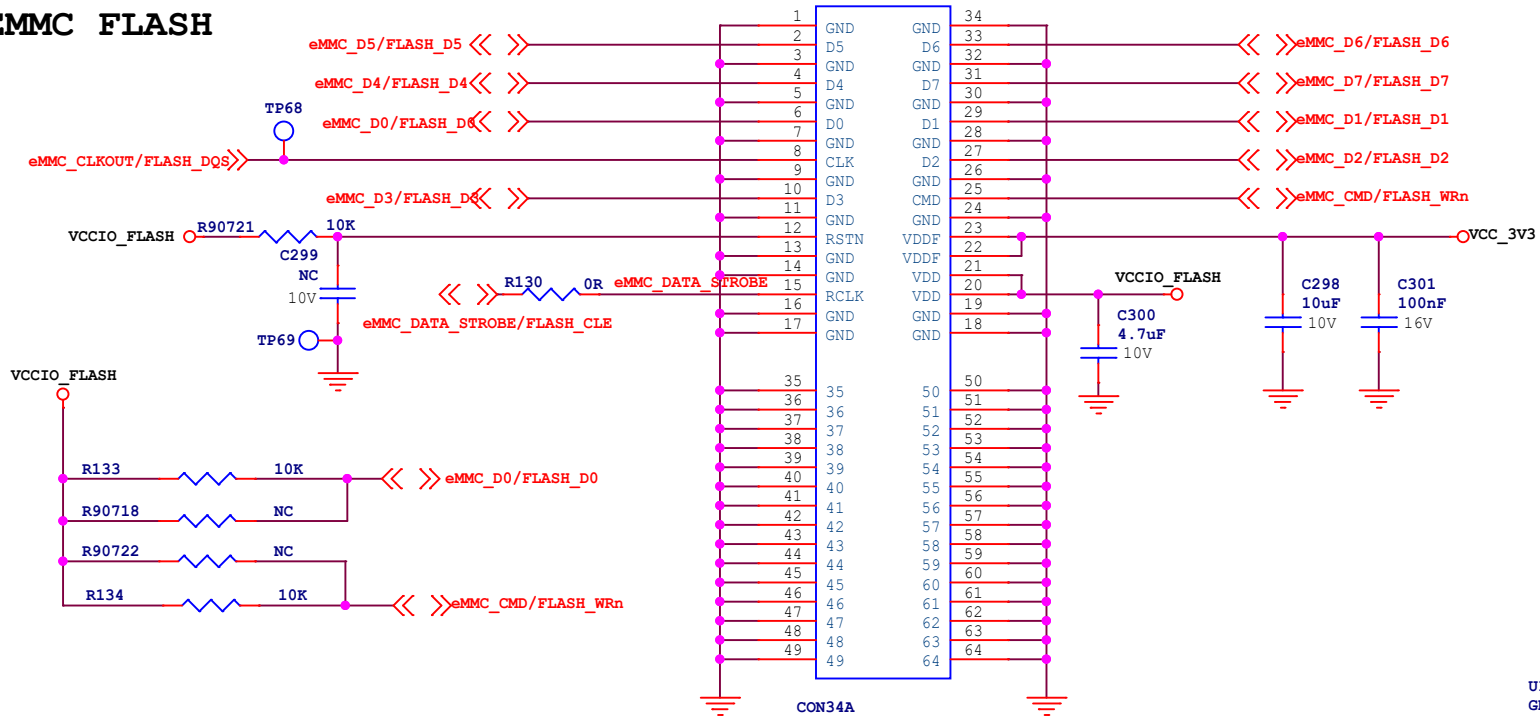




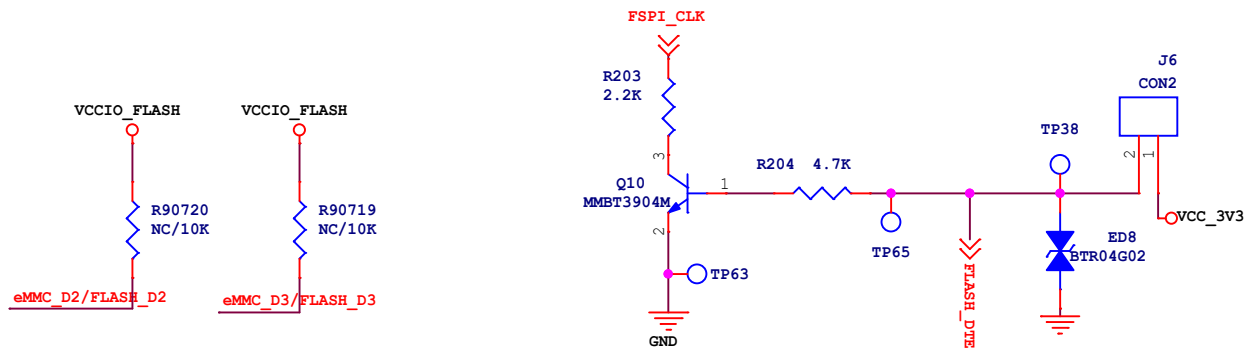
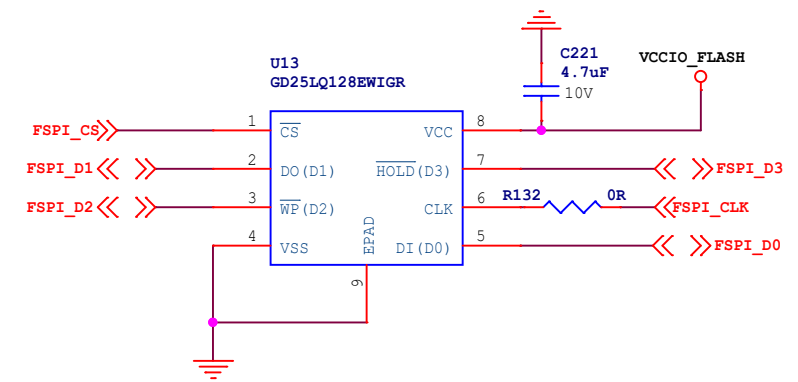
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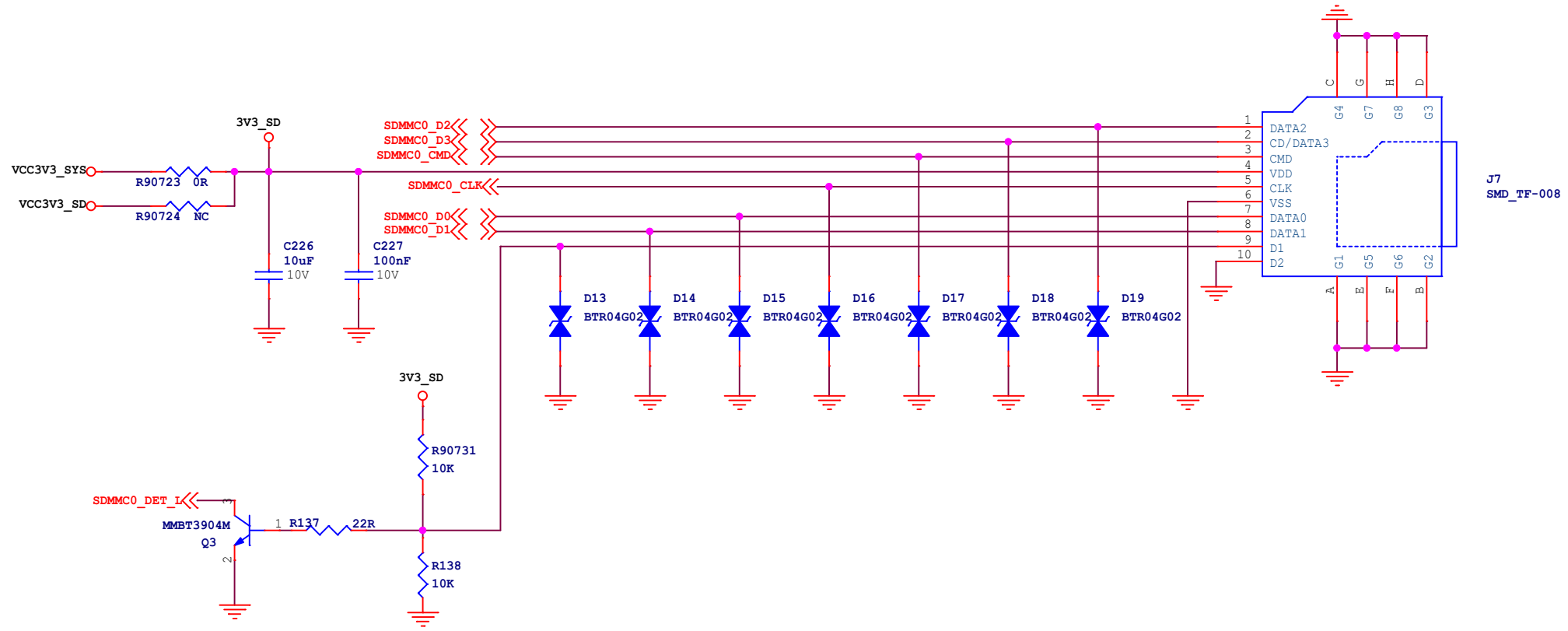
# EMMC FLASH



# SPI FLASH



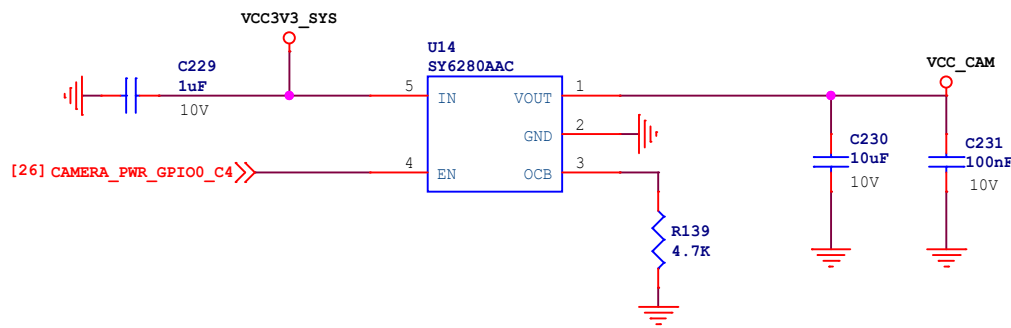
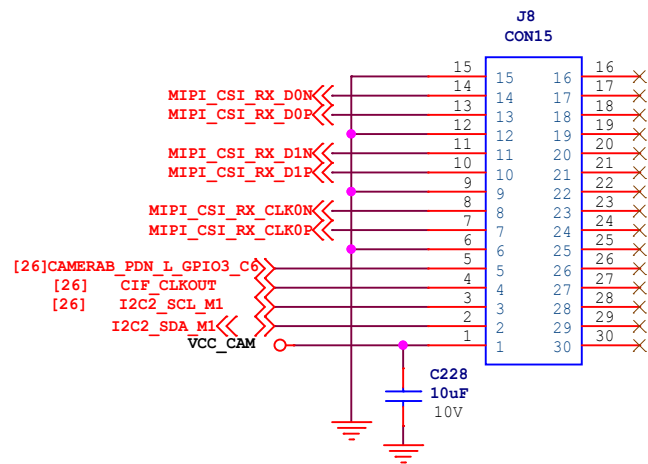
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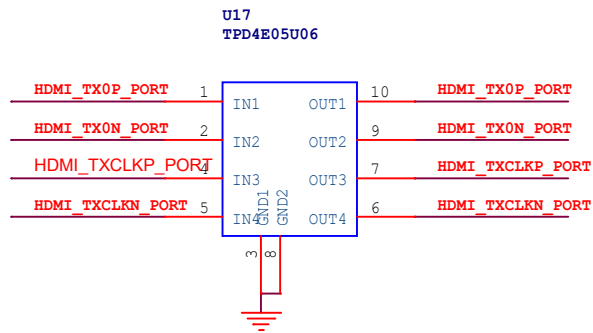
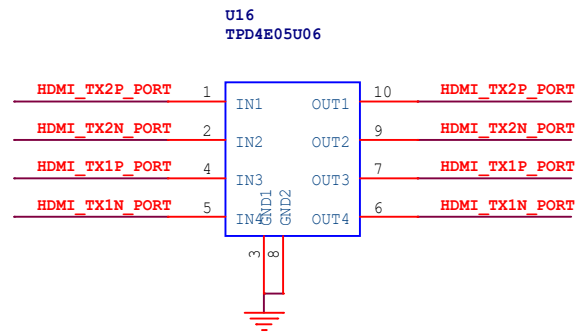
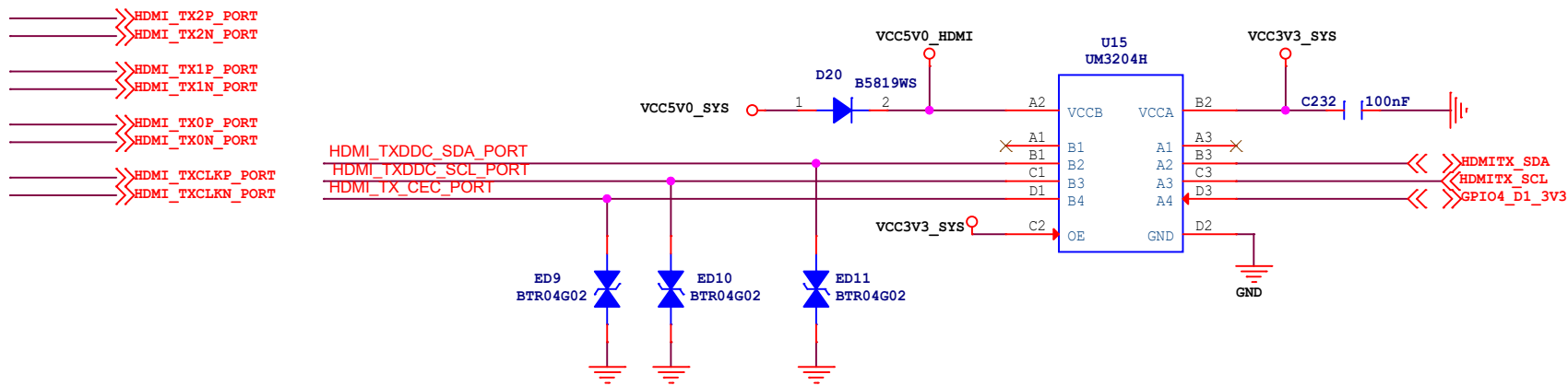
J7  
SMD\_TF-008



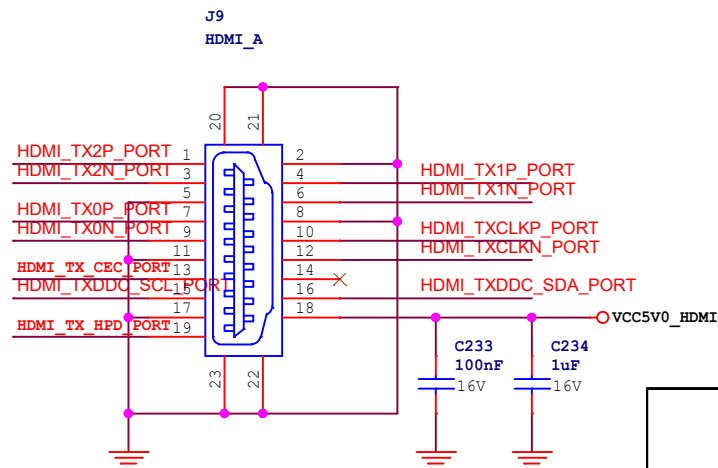
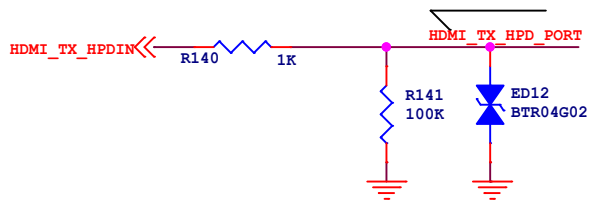
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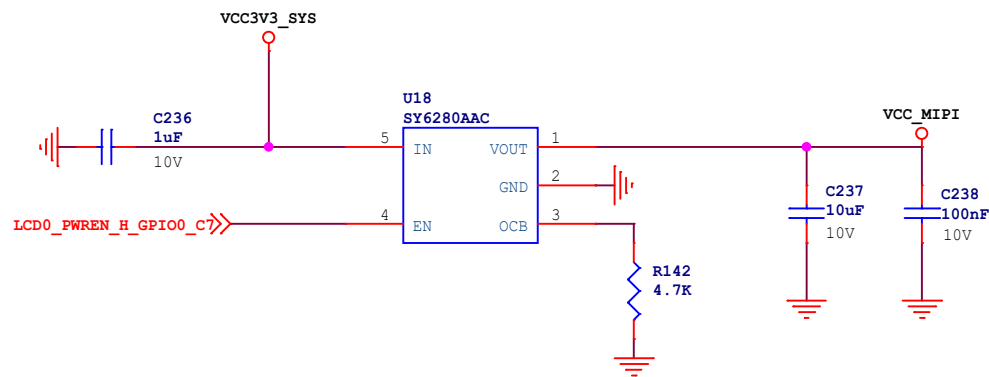
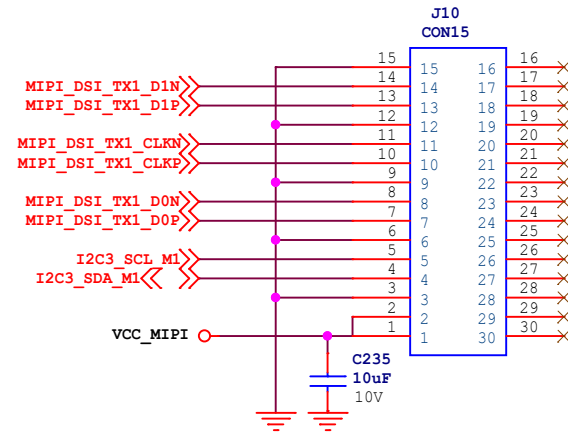
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### HDMI TX HPD

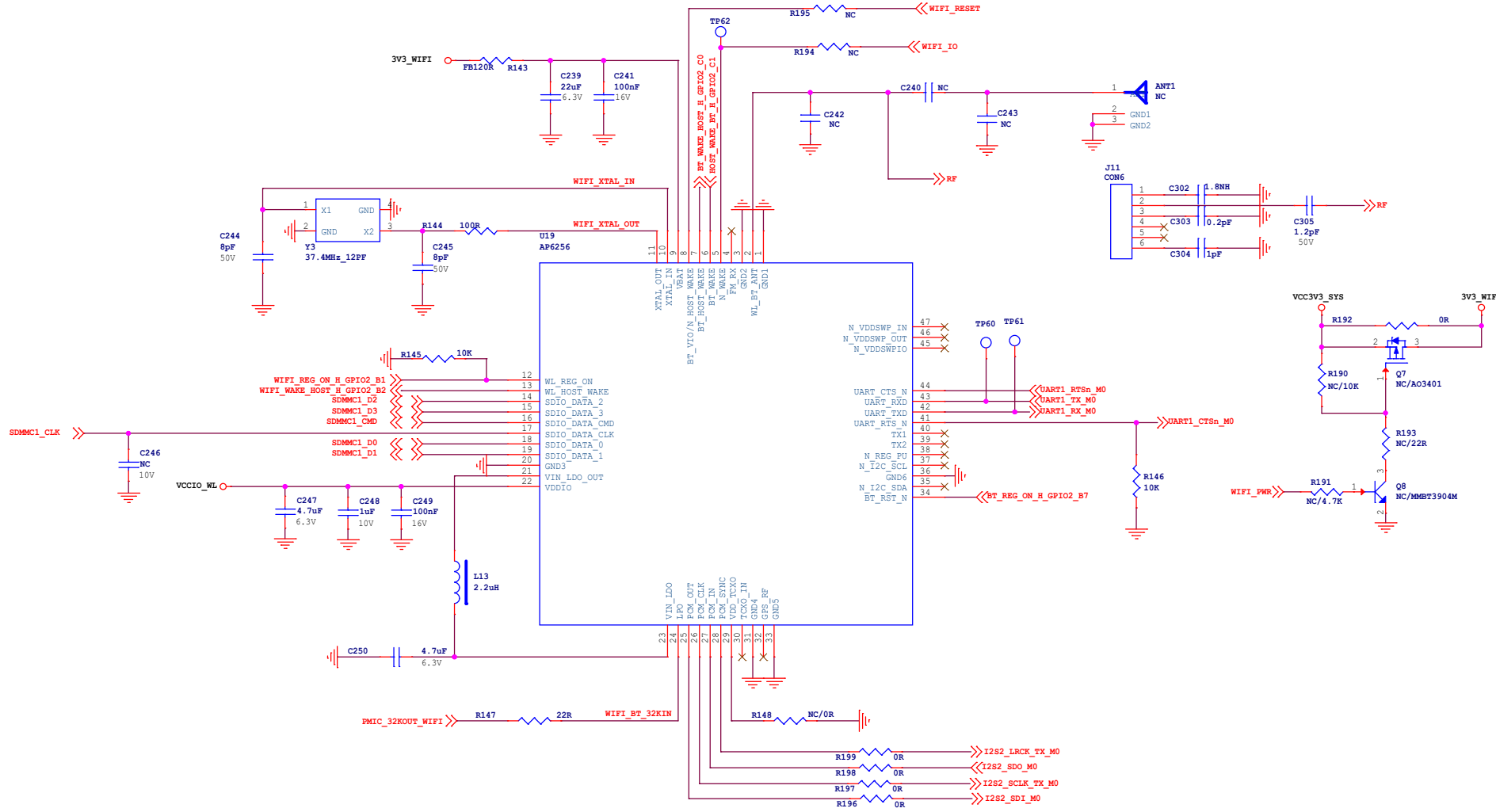


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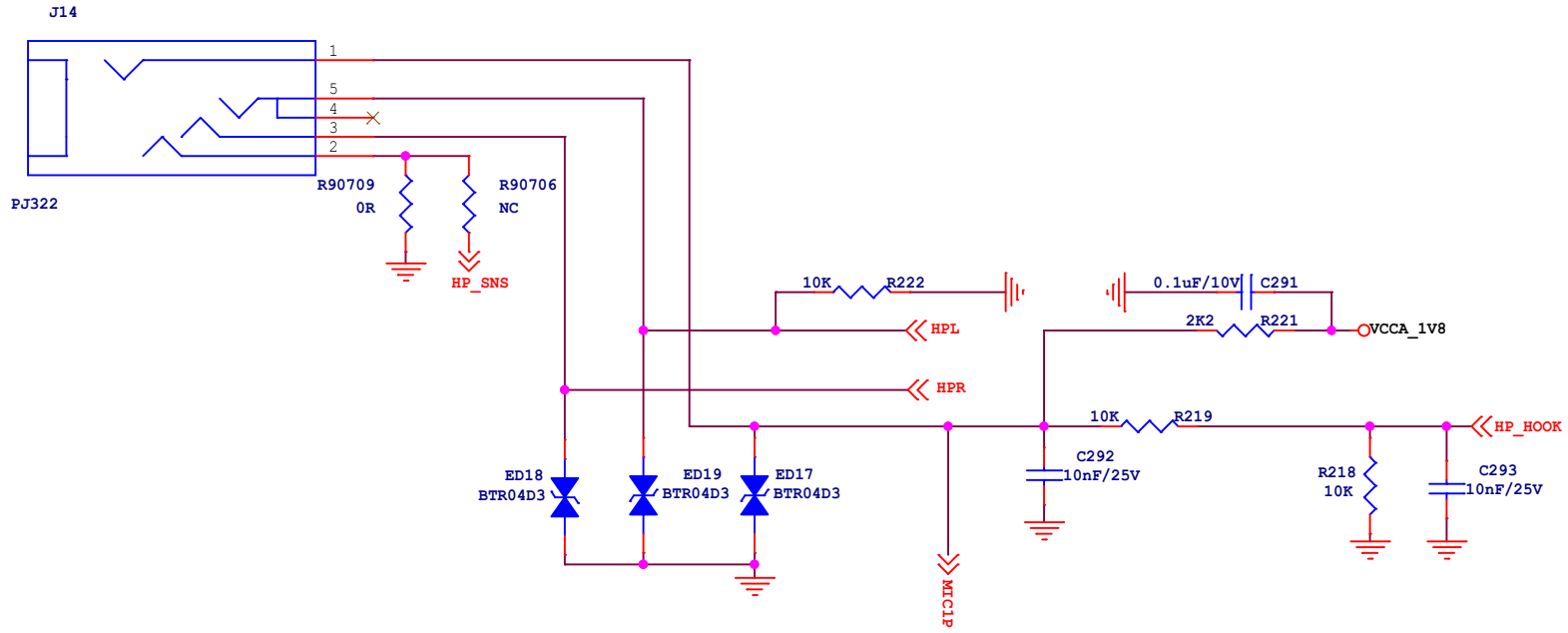


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SDIO WIFI/BT Module-1T1R

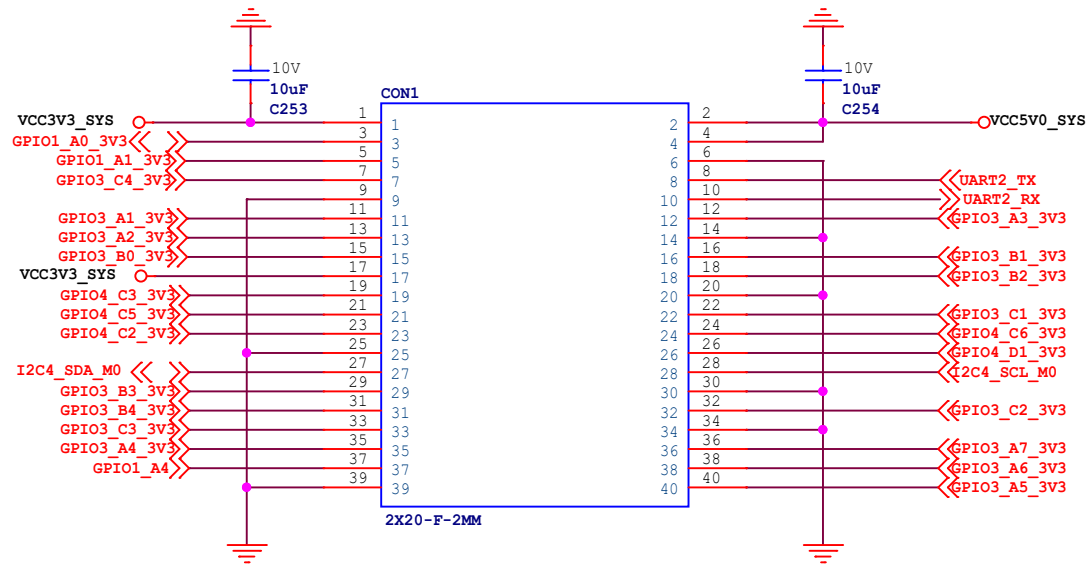


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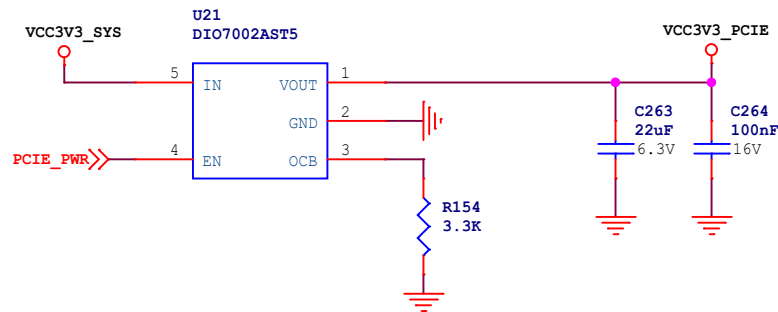
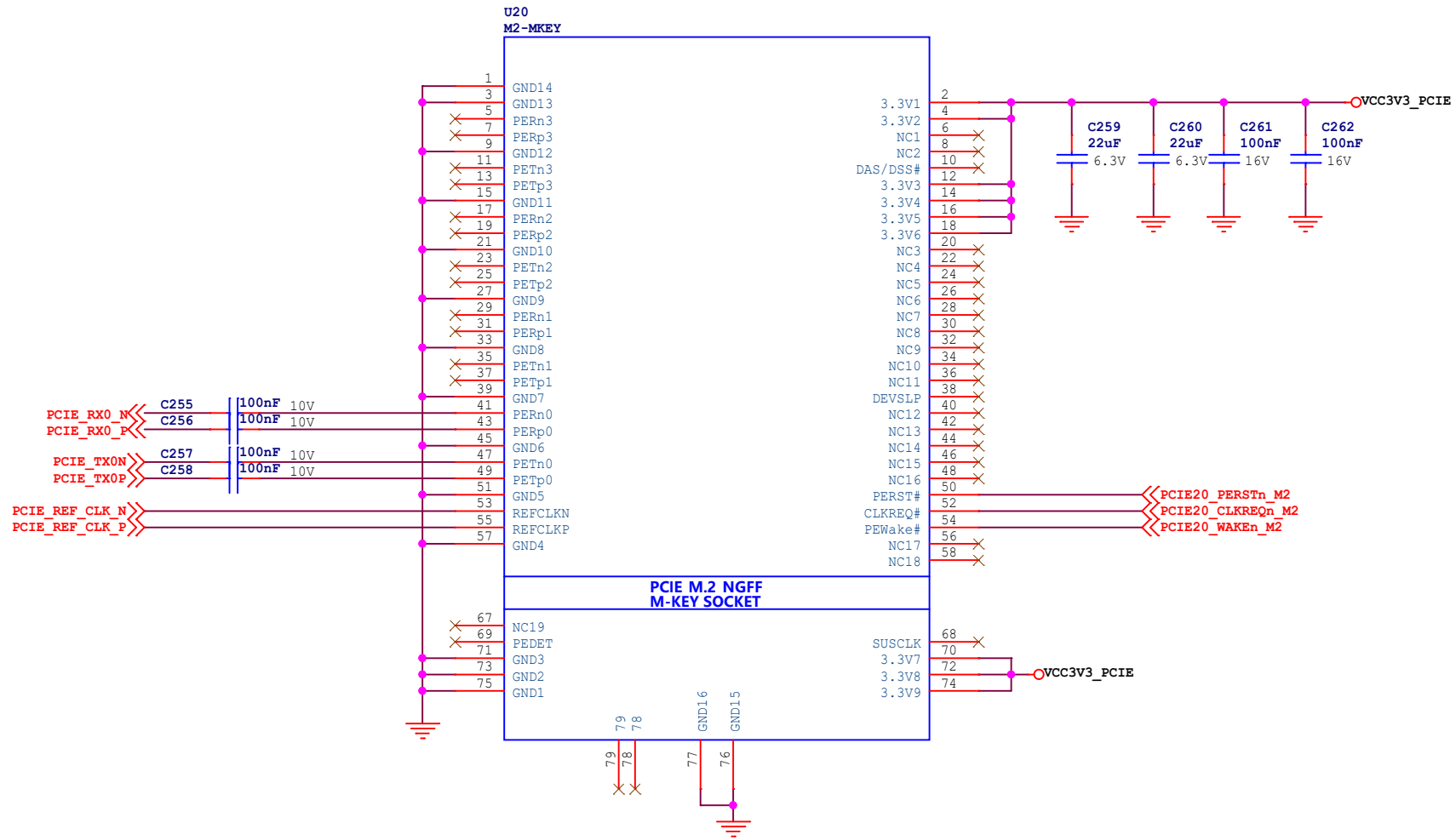
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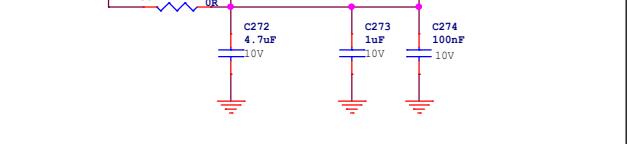
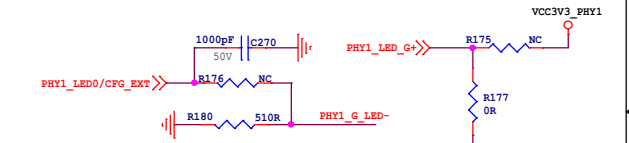
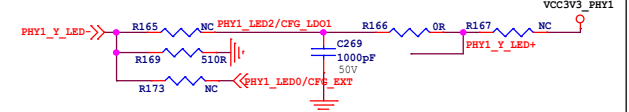
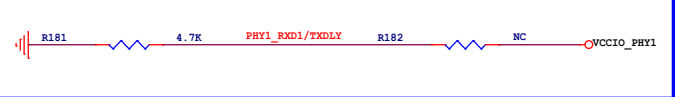
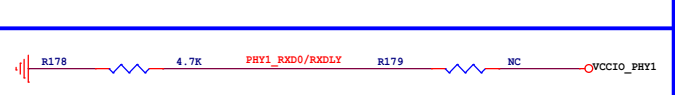
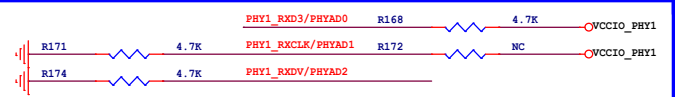
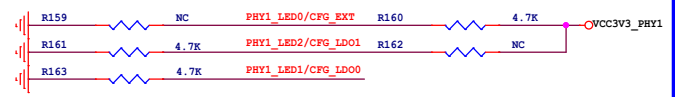
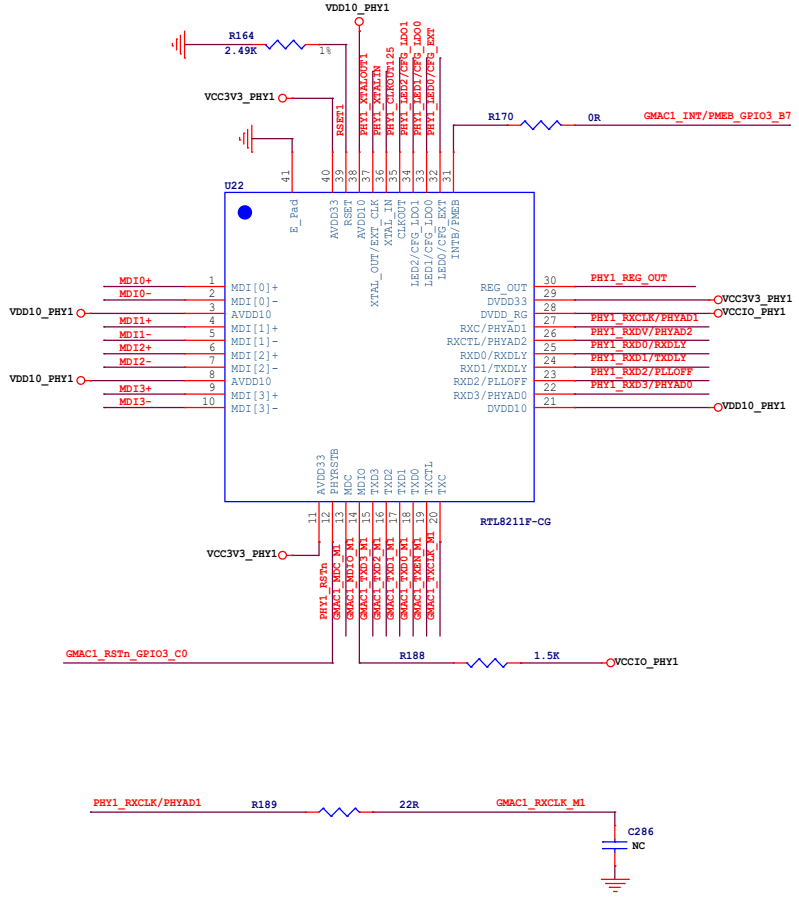
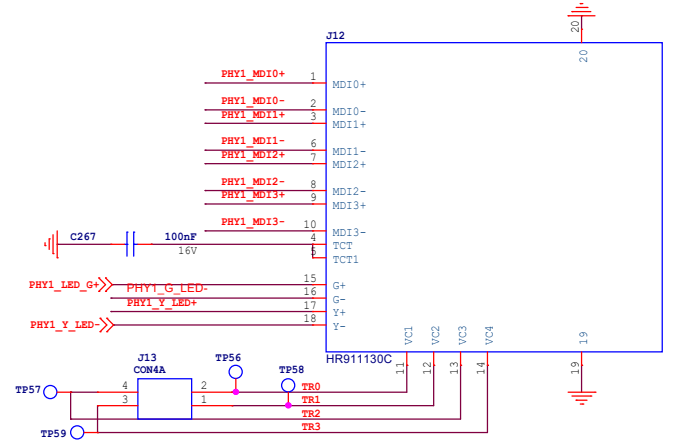
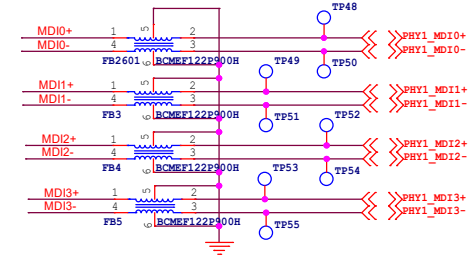
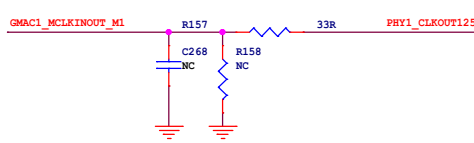
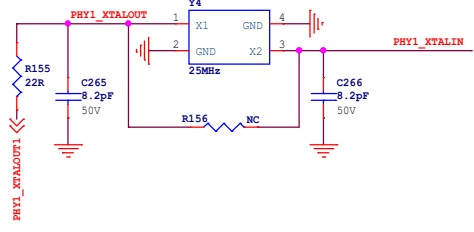
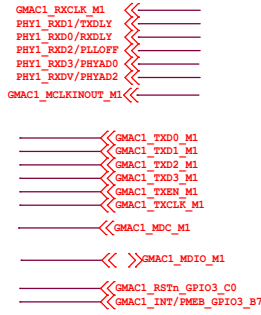
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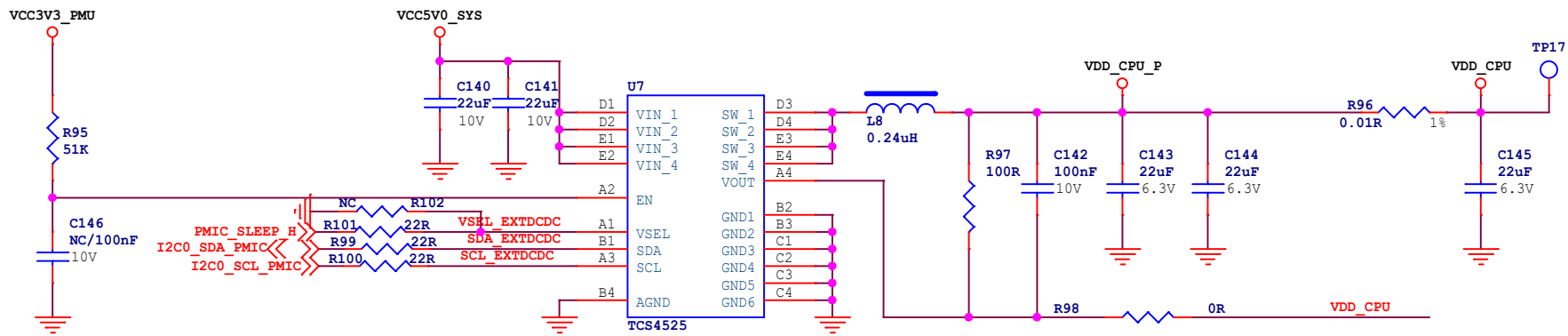
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# RGMII



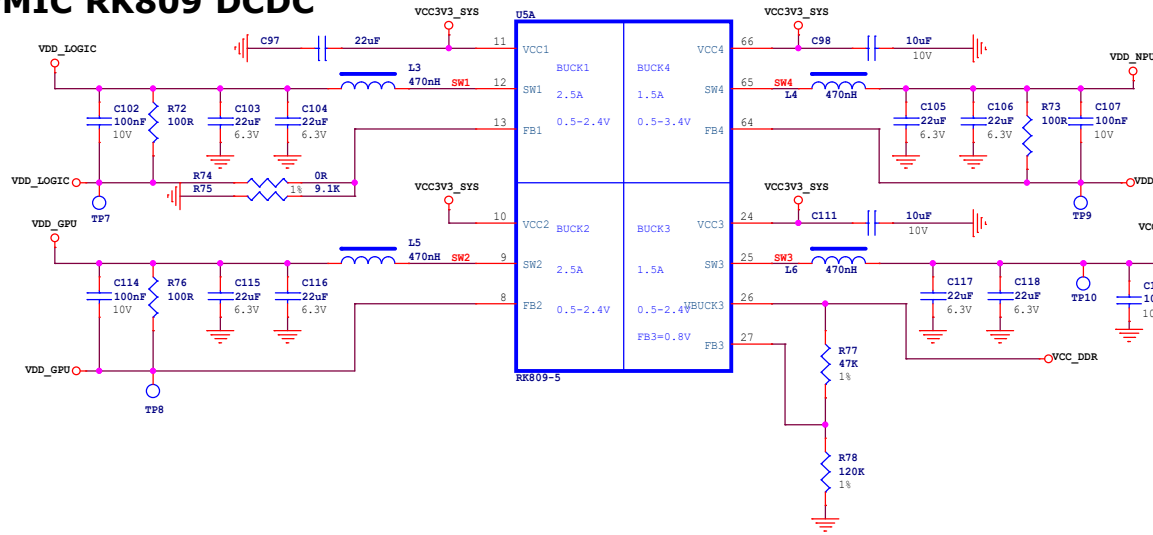
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# VDD\_CPU\_EXT

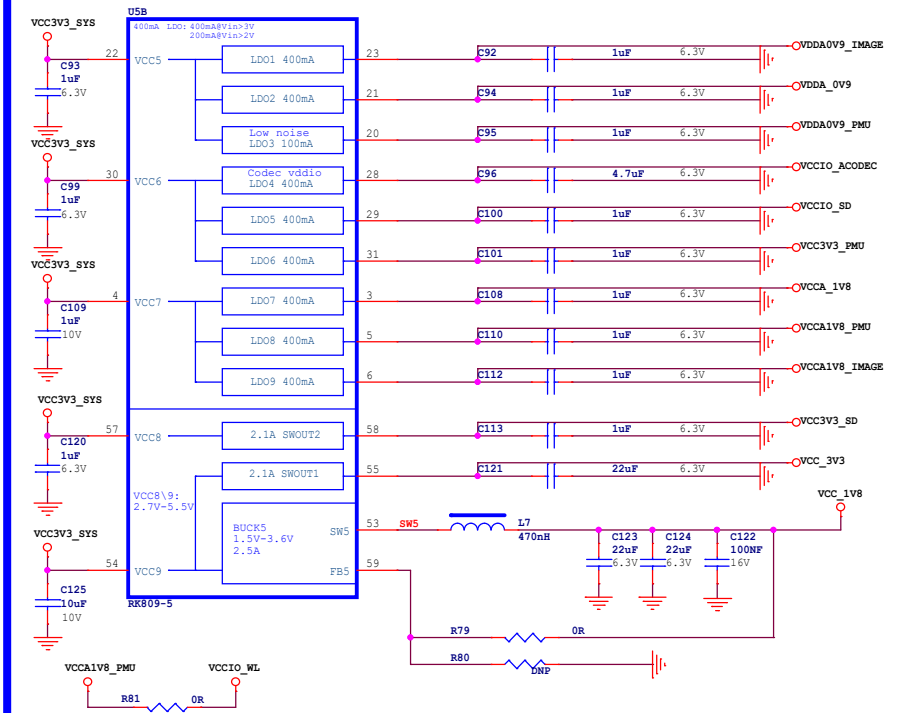


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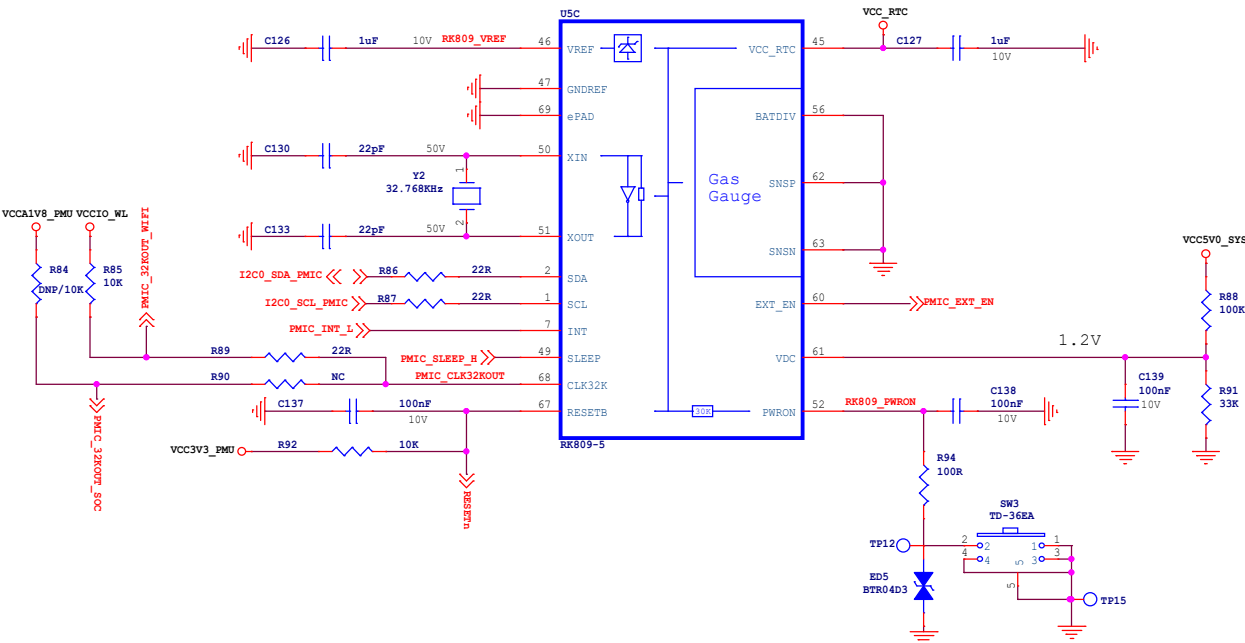
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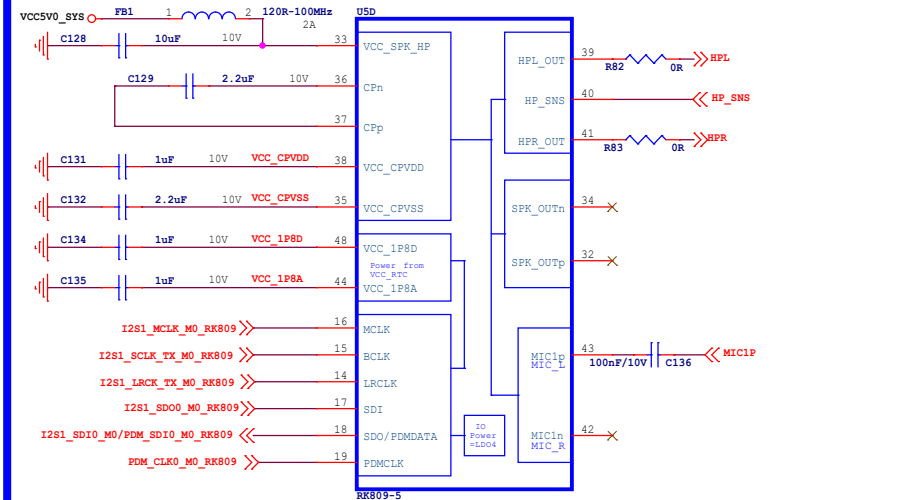
# PMIC RK809 LDO




# PMIC RK809 Management



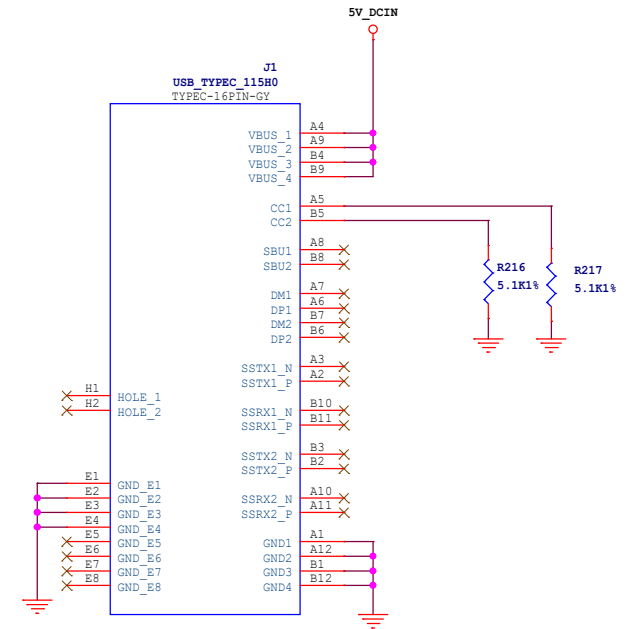
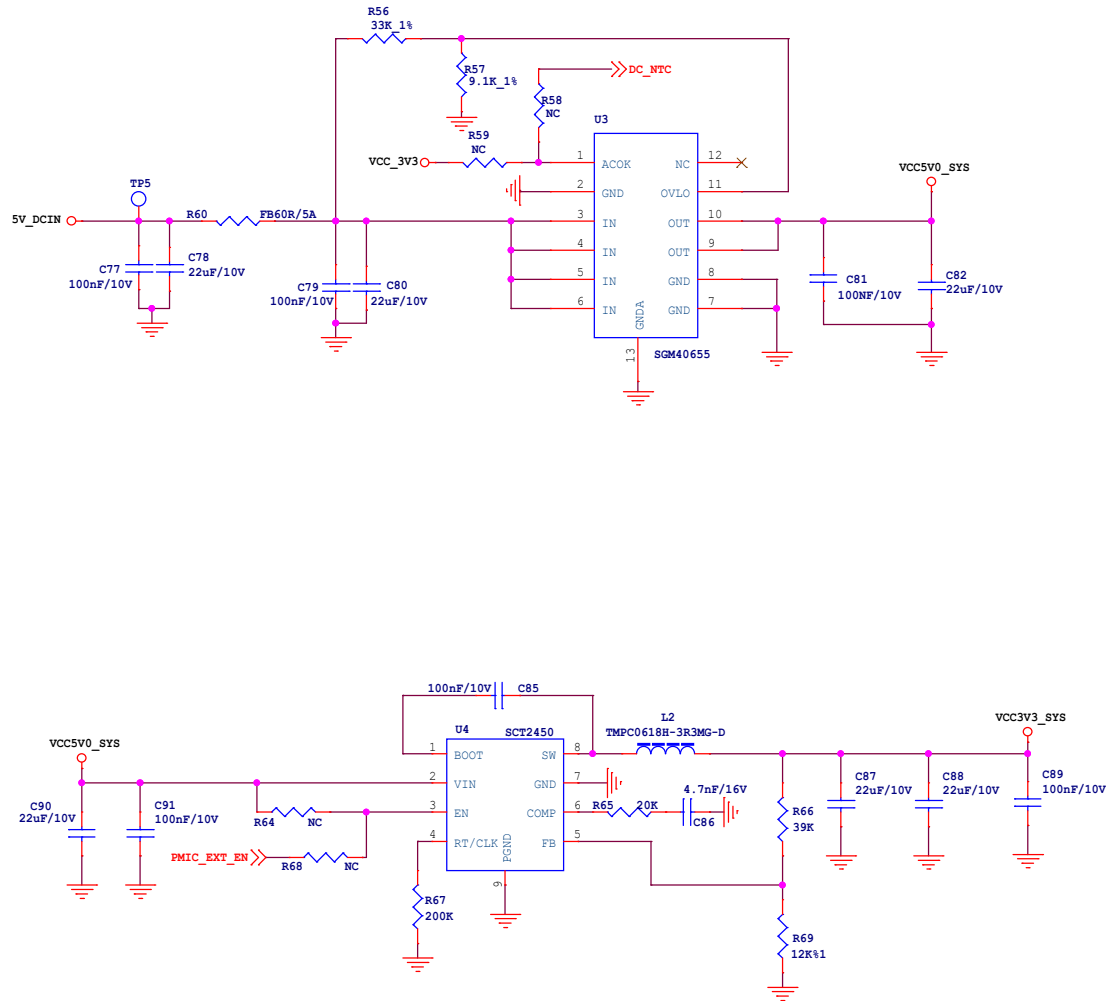
# PMIC RK809 CODEC






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# DC 5V IN





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<b>B</b>	<b>Page Name:</b> Power_DC IN	1.31
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