



Radxa ZERO 3E schematic

V1.2



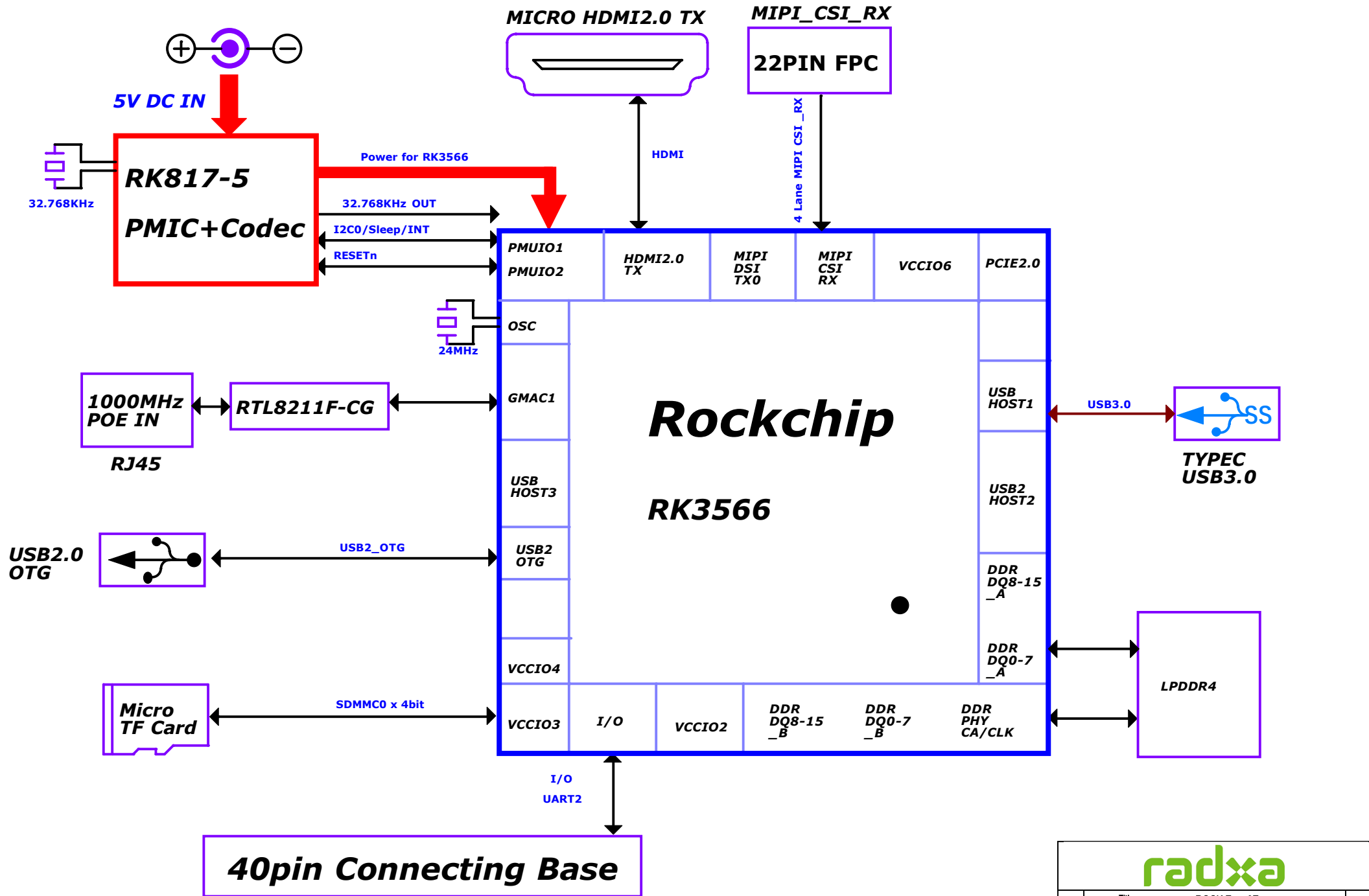
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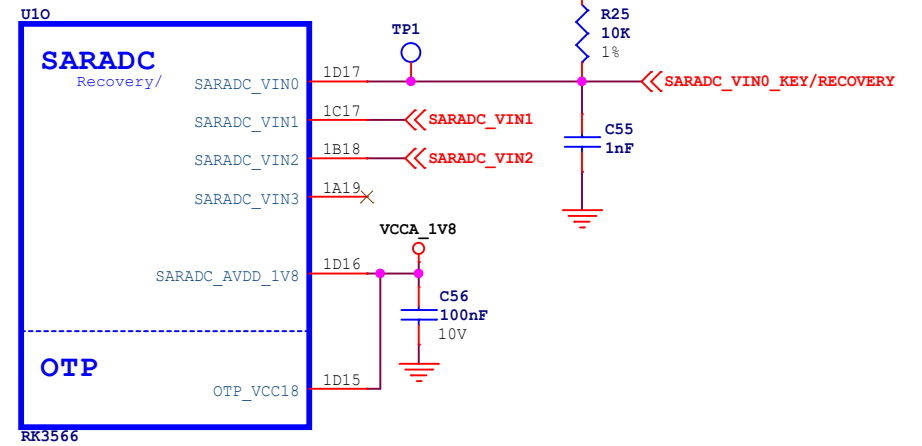
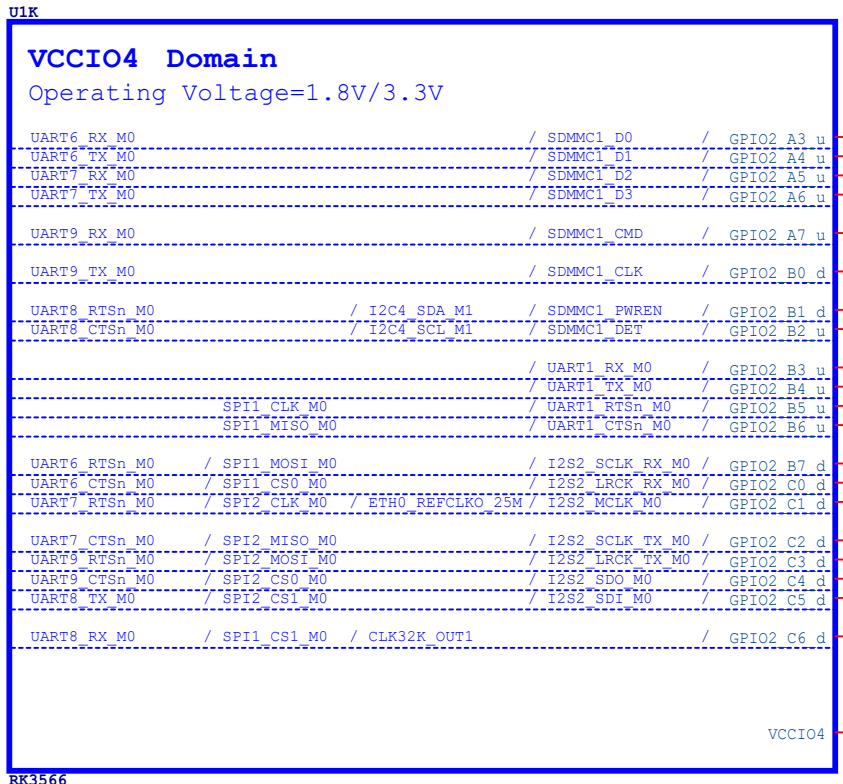
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ROCK Zero 3E Ref Block Diagram

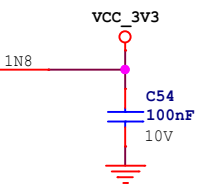
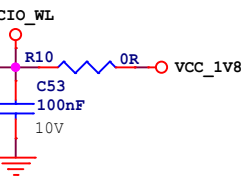
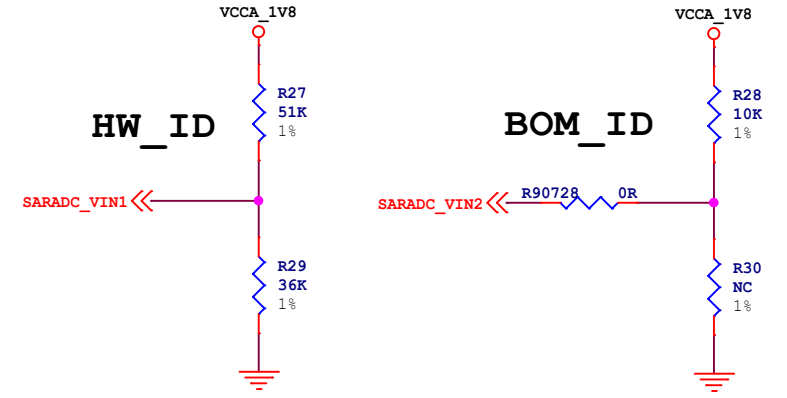
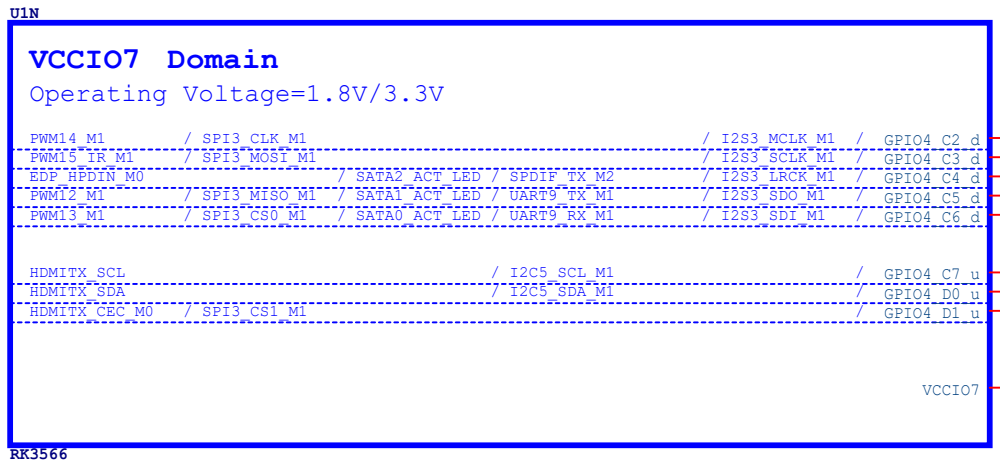


RK3566_K (VCCIO4 Domain)

RK3566_O (SARADC/OTP)

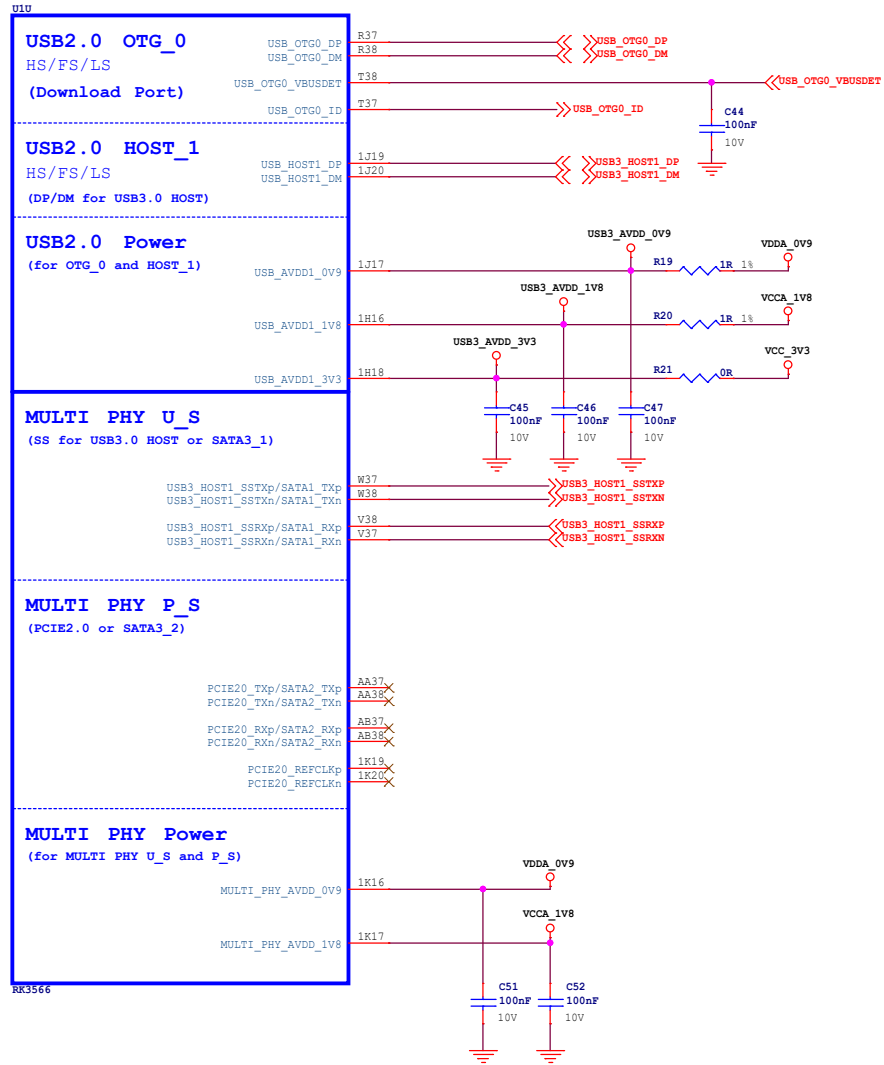


RK3566_N (VCCIO7 Domain)

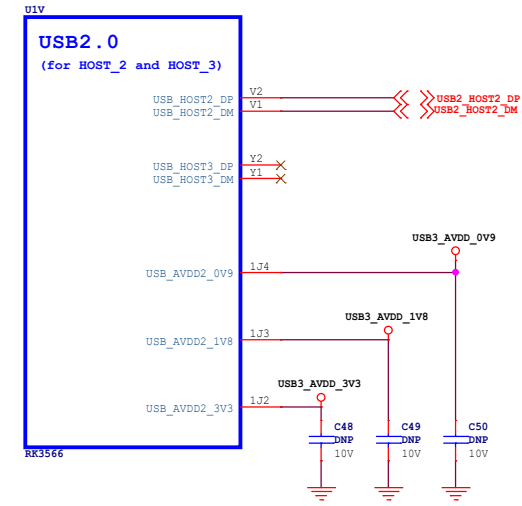


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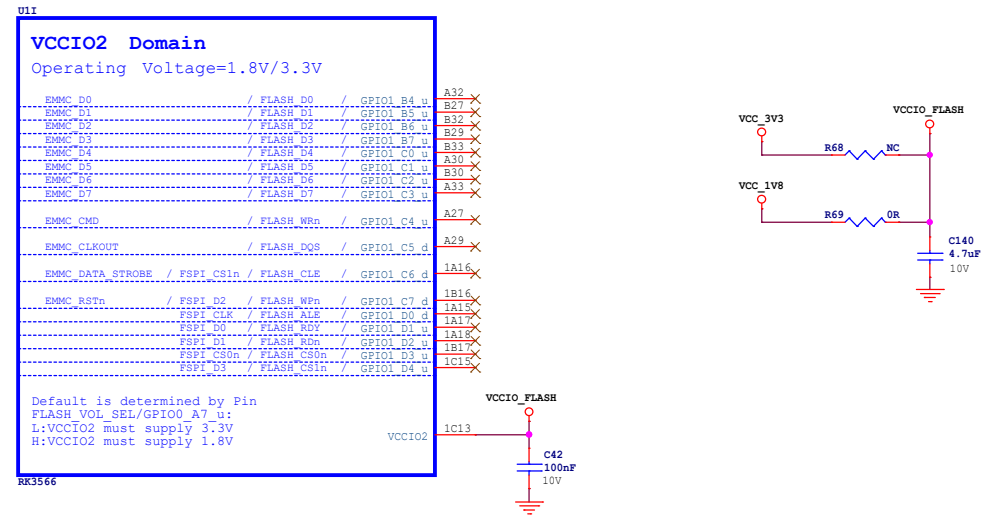
RK3566_U (USB3.0/SATA/QSGMII/PCIe2.0 x1)



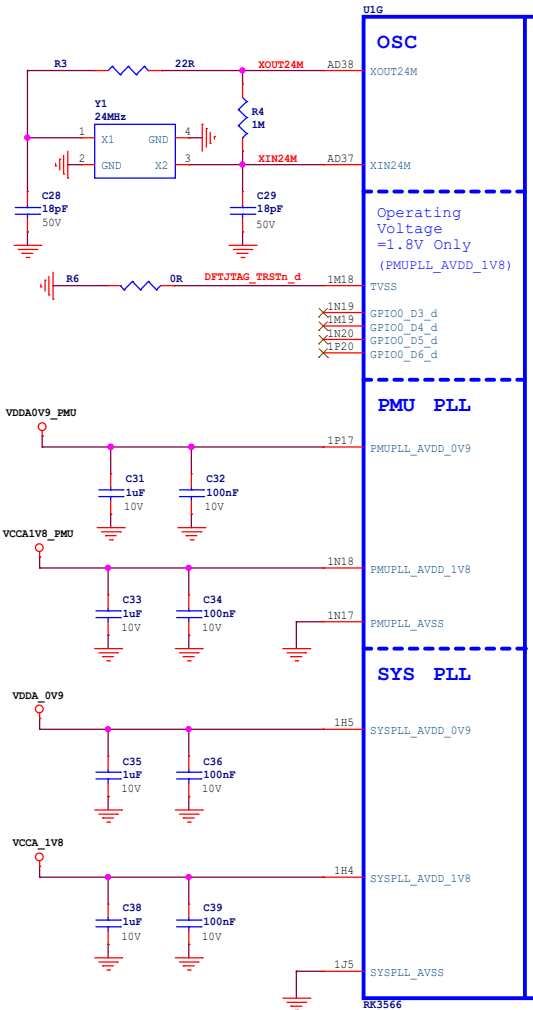
RK3566_V (USB2.0 HOST)



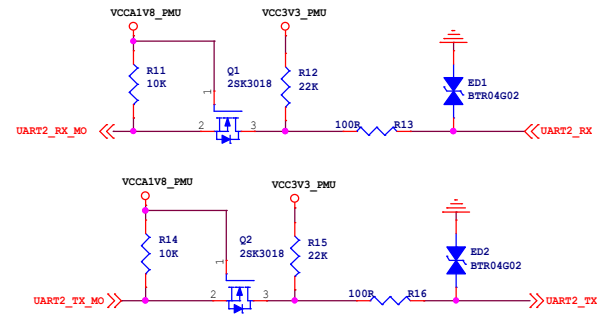
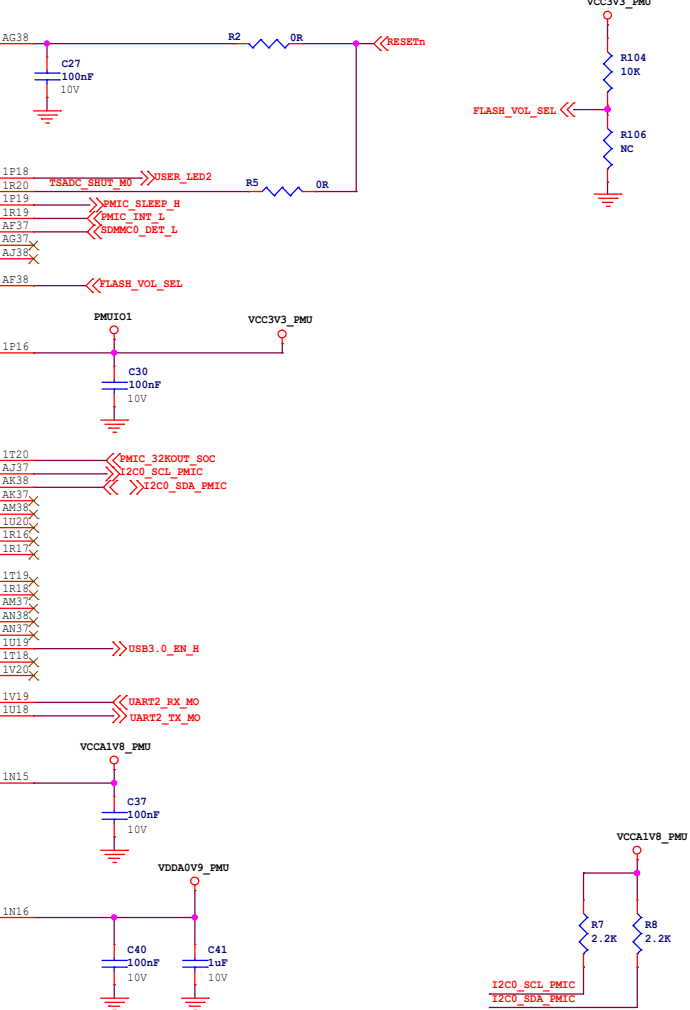
RK3566_I (VCCIO2 Domain)




RK3566 (OSC/PLL/PMUIO1/2)



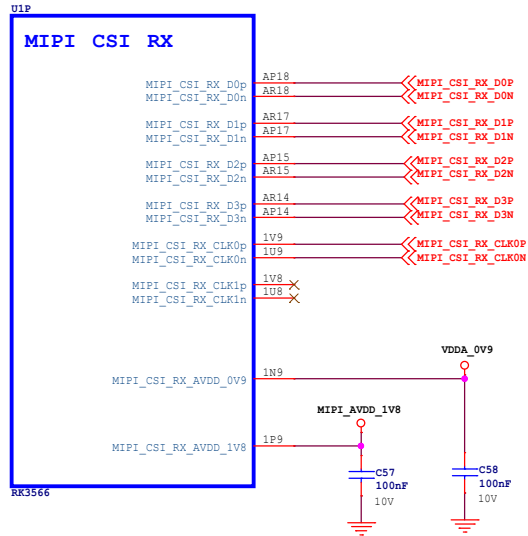
PMUIO1 Domain	
Operating Voltage=3.3V Only	
REFCLK_OUT	GPIO0 A0 H
TSADC_SHUT_WD	GPIO0 A1 H
PMIC_SLEEP	GPIO0 A2 H
TSADC_SHUT_WI	GPIO0 A3 H
SIMMCO_DET	GPIO0 A4 H
SIMMCO_PWREN	GPIO0 A5 H
GPU_PWREN	GPIO0 A6 H
FLASH_VOL_SEL	GPIO0 A7 H
CLK32K_IN	GPIO0 B0 H
I2C0_SCL	GPIO0 B1 H
I2C0_SDA	GPIO0 B2 H
I2C1_SCL	GPIO0 B3 H
I2C1_SDA	GPIO0 B4 H
PWM1_M0	GPIO0 C3 H
PWM2_M0	GPIO0 C4 H
PWM3_IR	GPIO0 C5 H
PWM4	GPIO0 C6 H
PWM5	GPIO0 C7 H
PWM6	GPIO0 D0 H
PWM7_IR	GPIO0 D1 H
PWM0_M1	GPIO0 D1 H



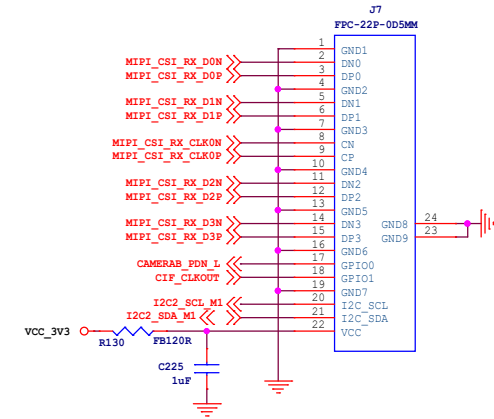


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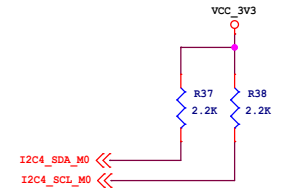
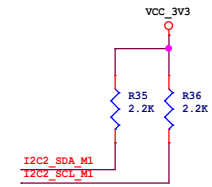
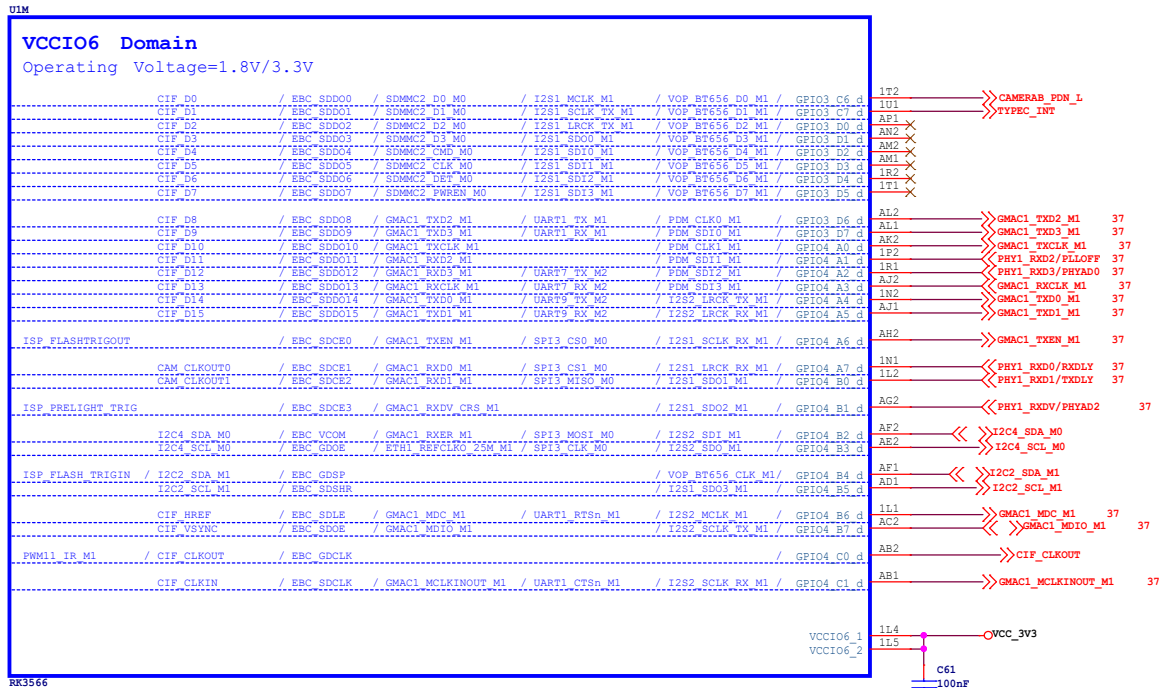
RK3566_P (MIPI_CSI_RX)



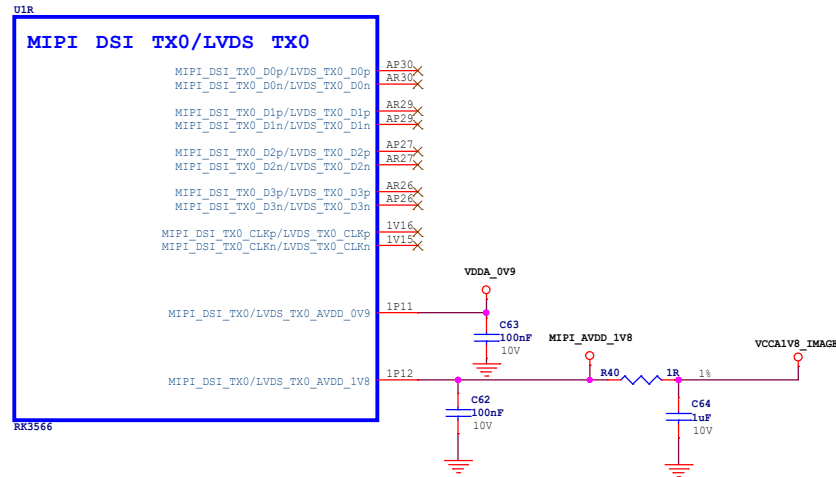
MIPI_CSI_RX 4Lanes_0



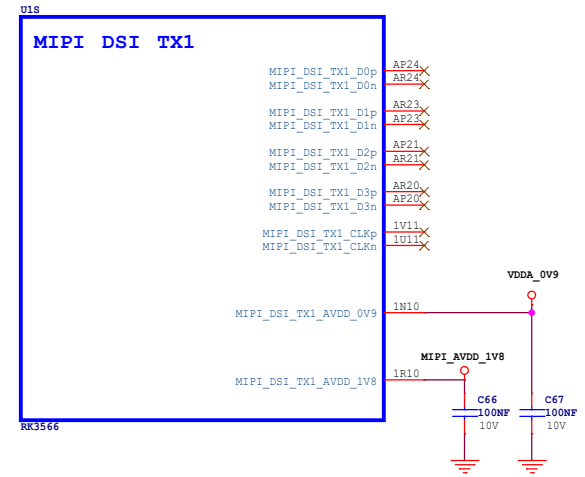
RK3566_M (VCCIO6 Domain)



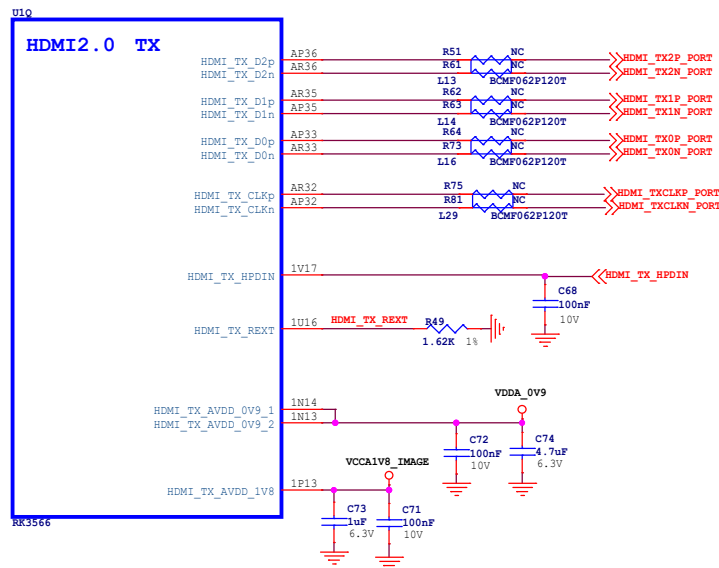
RK3566_R(MIPI_DSI_TX0/LVDS_TX0)



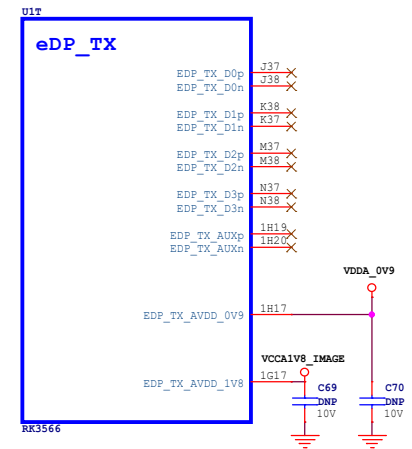
RK3566_S(MIPI_DSI_TX1/LVDS_TX1)



RK3566_Q(HDMI2.0 TX)



RK3566_L(VCCIO5 Domain)



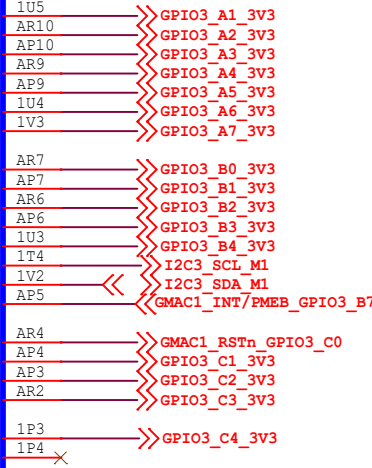
RK3566_L (VCCIO5 Domain)

U1L

VCCIO5 Domain

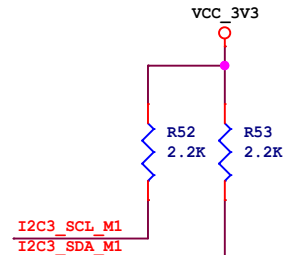
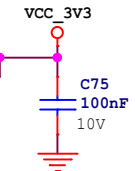
Operating Voltage=1.8V/3.3V

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 TXER 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



RK3566

VCCIO5_1
VCCIO5_2



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RK3566_H (VCCIO1 Domain)

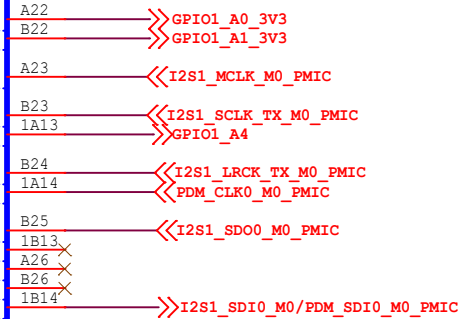
U1H

VCCIO1 Domain

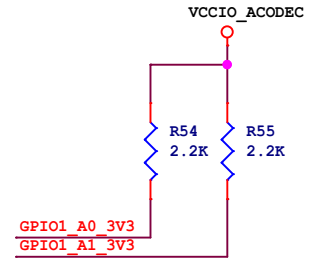
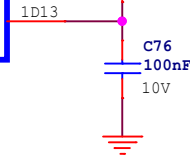
Operating Voltage=1.8V/3.3V

/ 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
	I2S1 SDO2 M0	/ I2S1 SDI2 M0	/ PDM SDI2 M0
	I2S1 SDO3 M0	/ I2S1 SDI1 M0	/ PDM SDI1 M0
		/ I2S1 SDI0 M0	/ PDM SDI0 M0

RK3566



VCCIO_ACODEC



RK3566_J (VCCIO3 Domain)

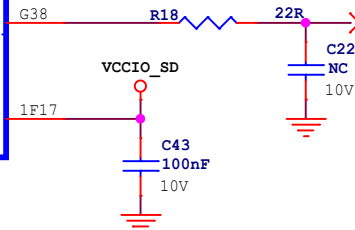
U1J

VCCIO3 Domain

Operating Voltage=1.8V/3.3V

PWM8 M1	/ SDMMC0 D0	/ UART2 TX M1	/ UART6 TX M1	/ GPIO1 D5 u
PWM9 M1	/ SDMMC0 D1	/ UART2 RX M1	/ UART6 RX M1	/ GPIO1 D6 u
	SDMMC0 D2	/ ARM JTAG TCK	/ UART5 CTSn M0	/ GPIO1 D7 u
	SDMMC0 D3	/ ARM JTAG TMS	/ UART5 RTSn M0	/ GPIO2 A0 u
PWM10 M1	/ SDMMC0 CMD	/ UART5 RX M0	/ GPIO2 A1 u	
	SDMMC0 CLK	/ TEST CLKOUT	/ UART5 TX M0	/ GPIO2 A2 d

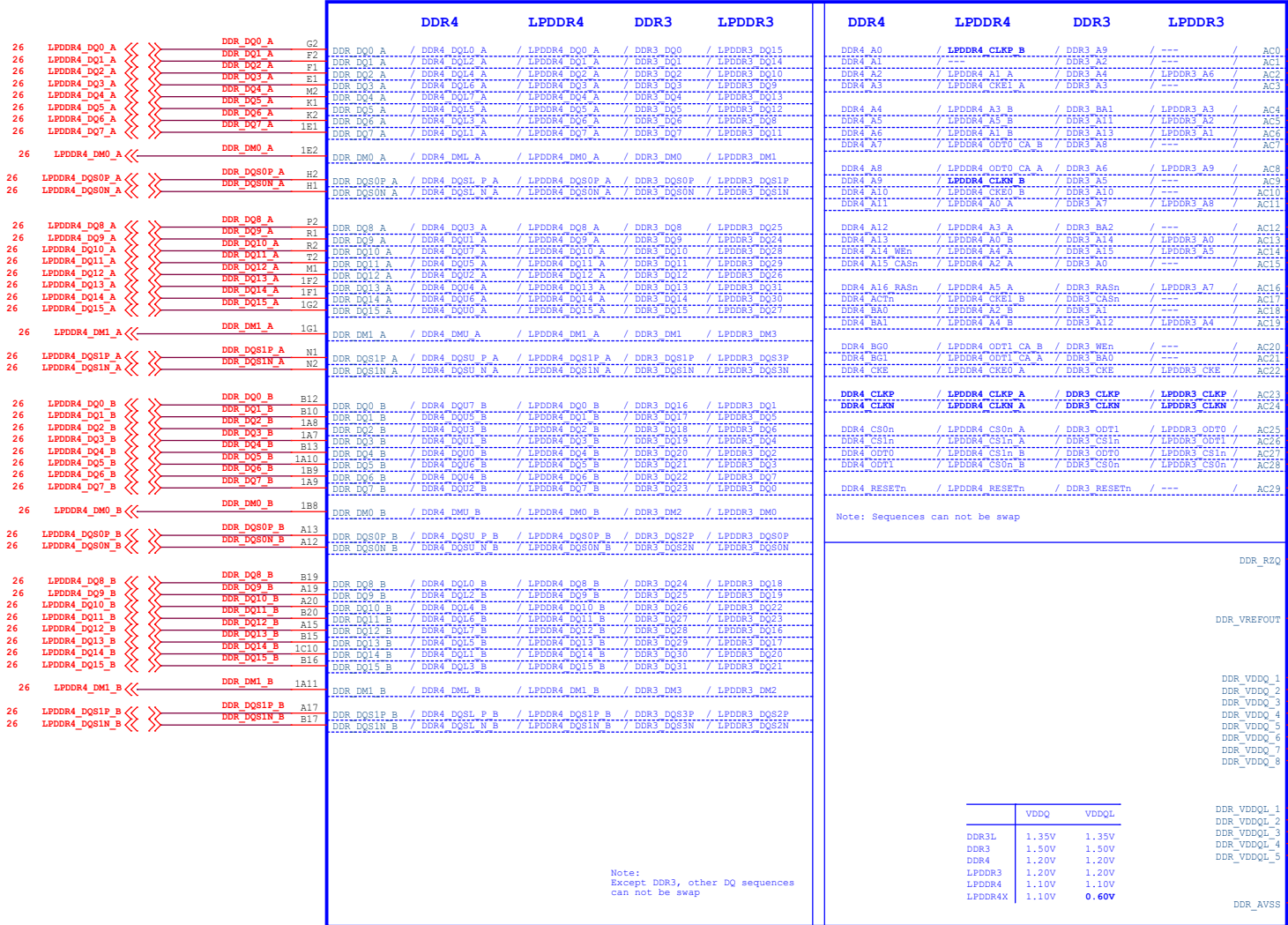
RK3566



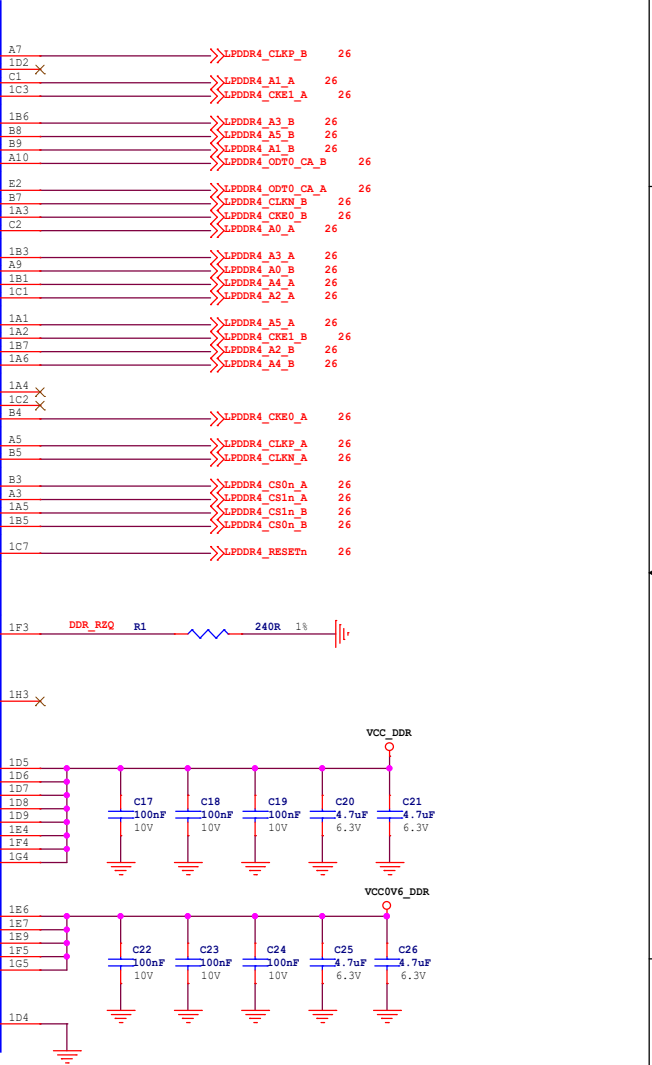
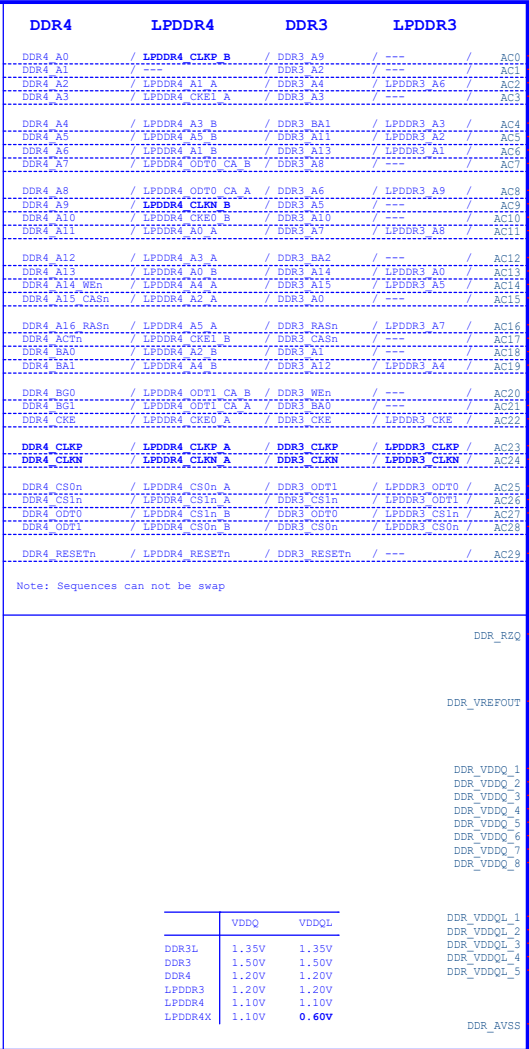
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RK3566_F (DDR PHY)

UIF



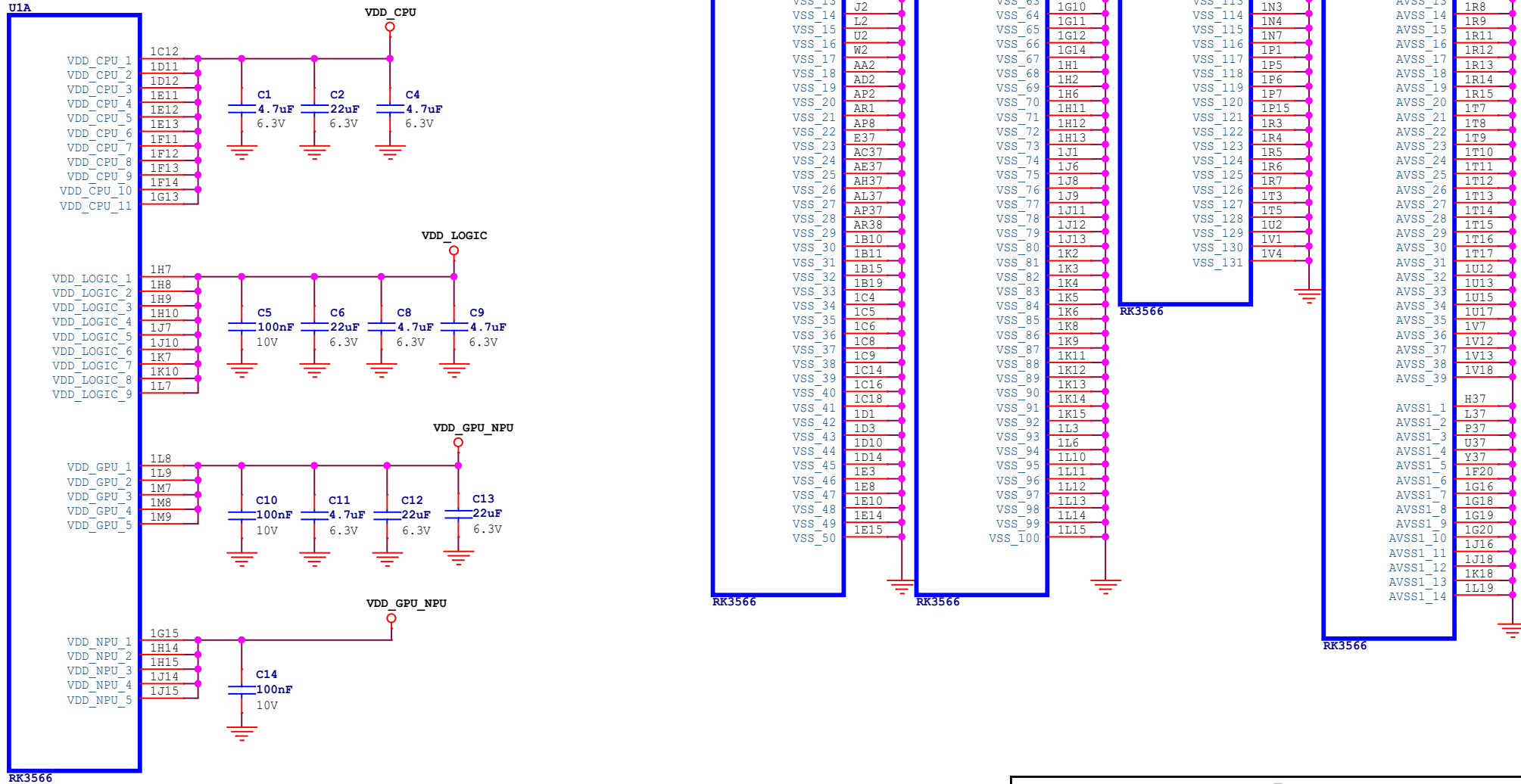
Note:
Except DDR3, other DQ sequences
can not be swap



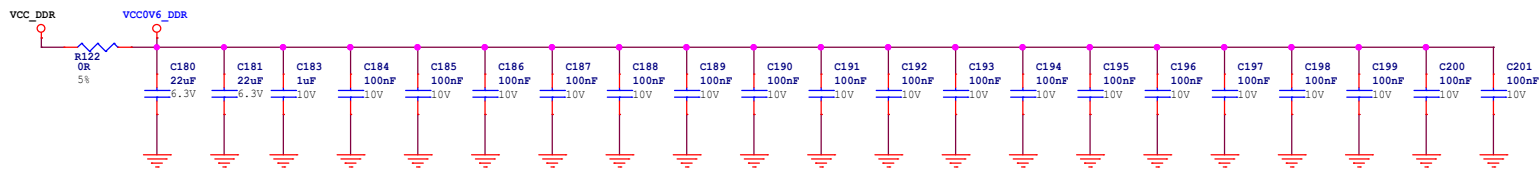
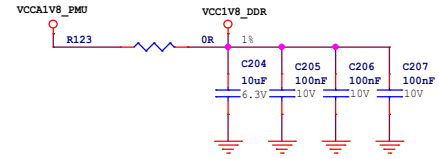
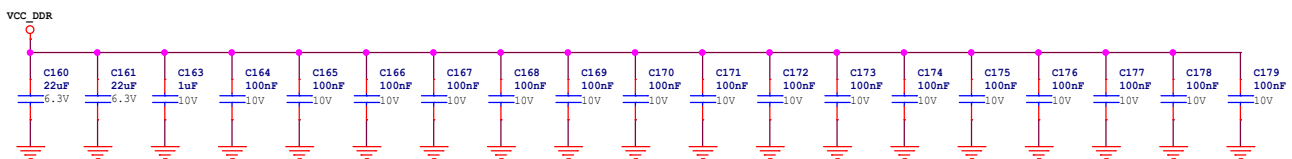
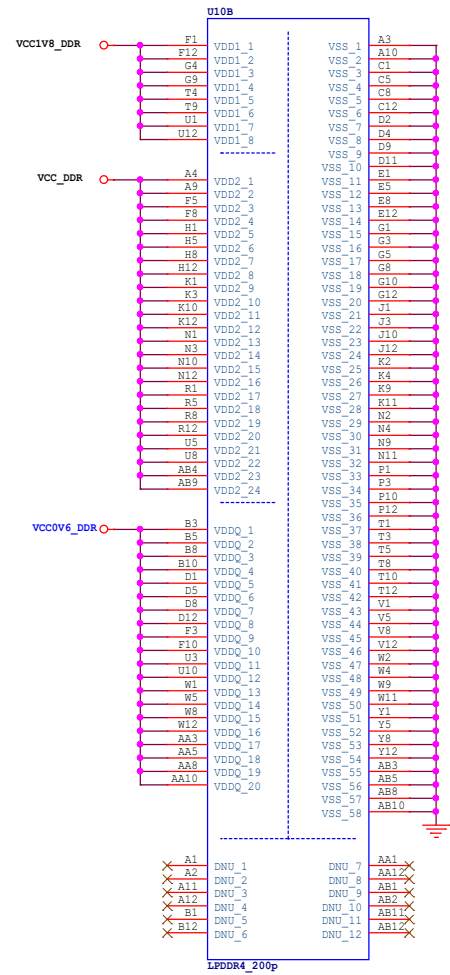
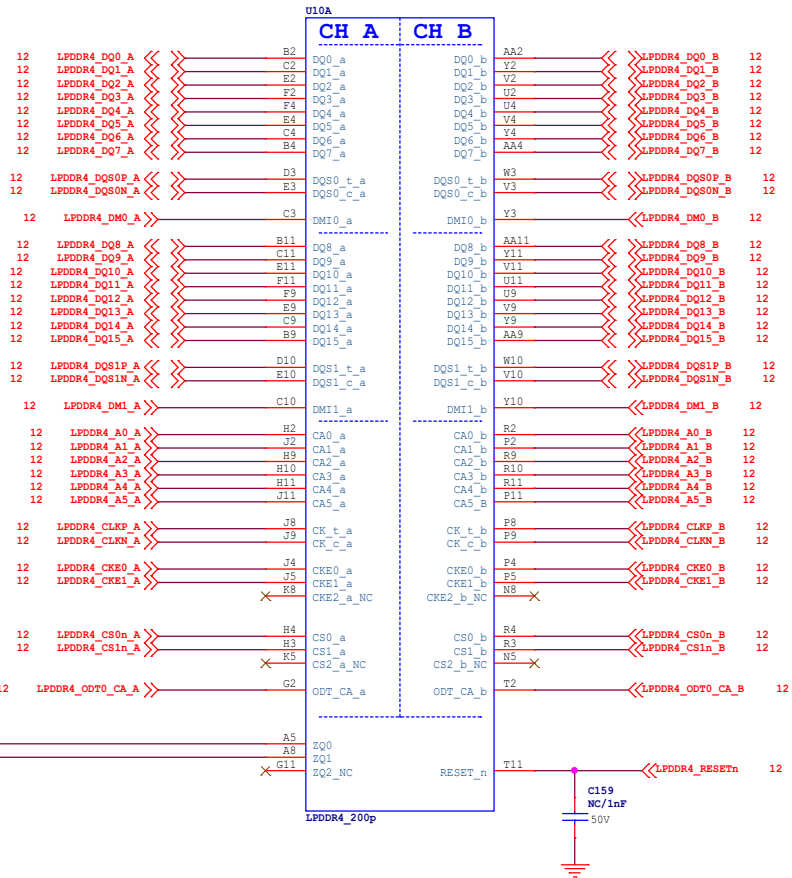


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RK3566_ABCDE (Power&GND)

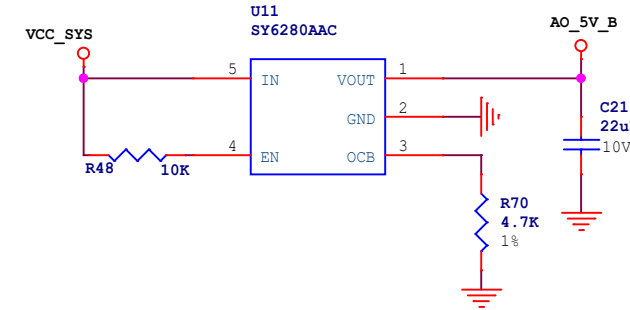
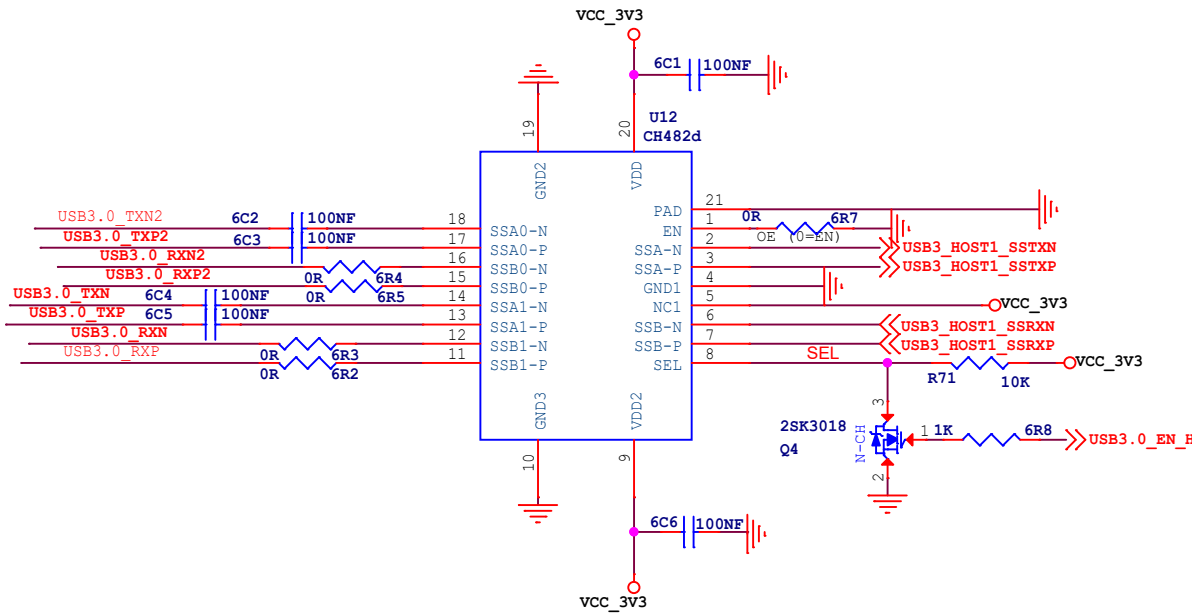
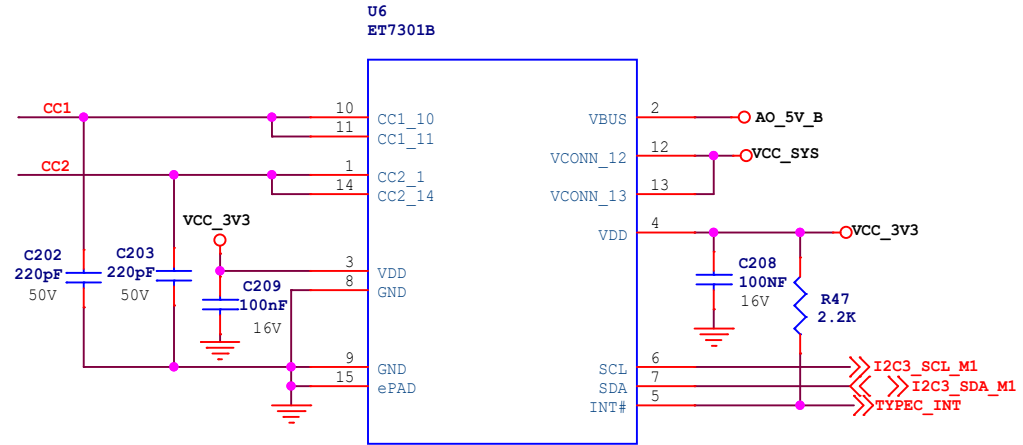
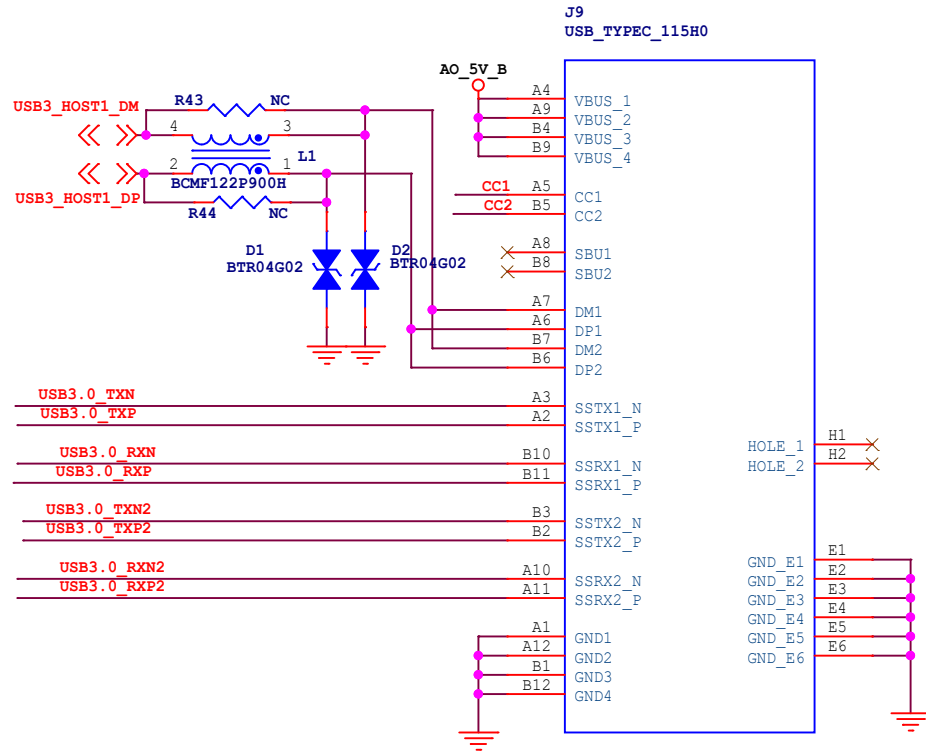


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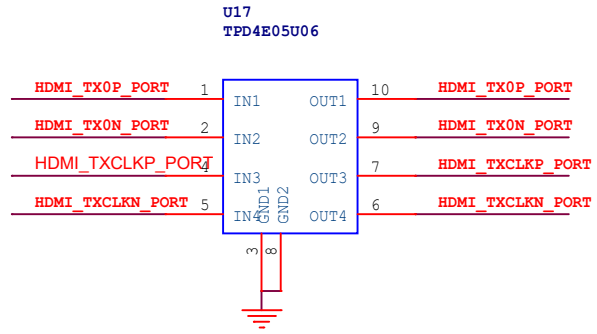
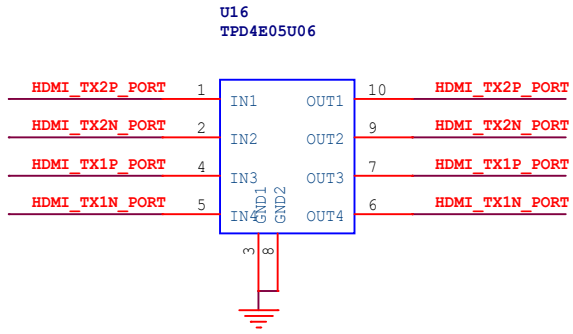
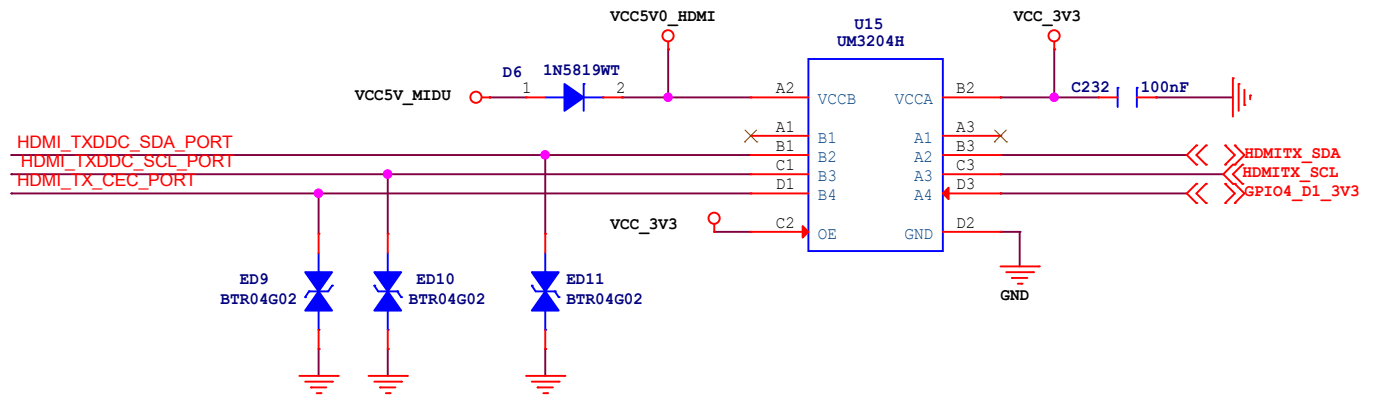
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TYPEC2 USB3.0

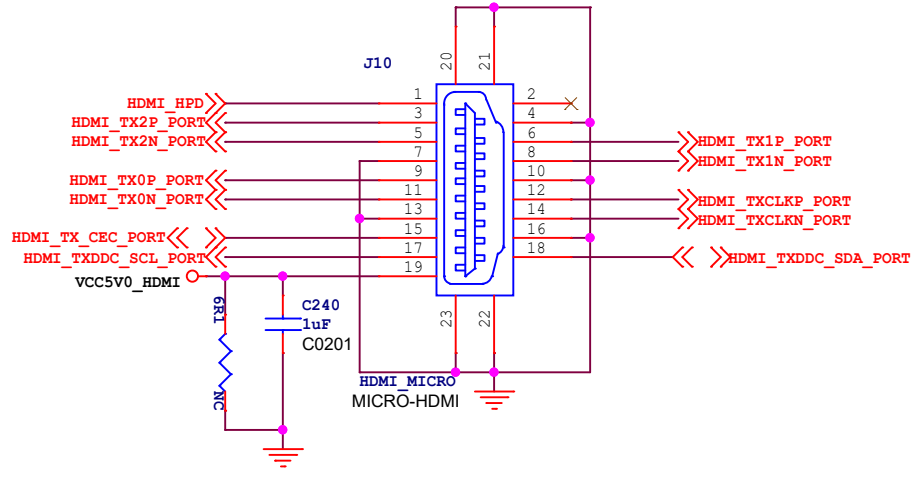


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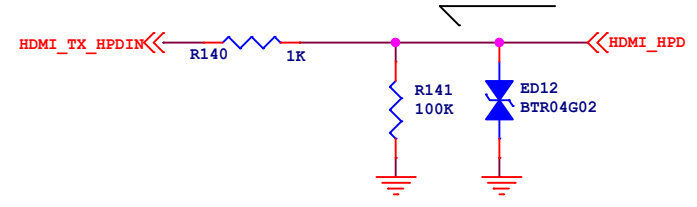
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MICRO HDMI output



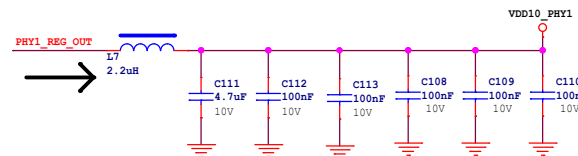
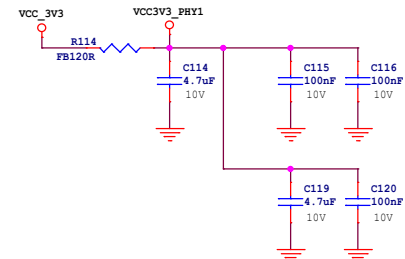
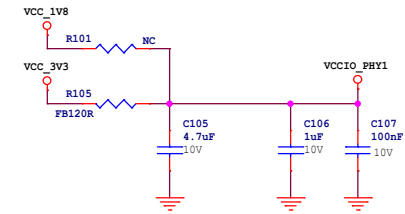
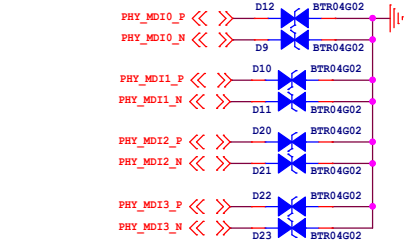
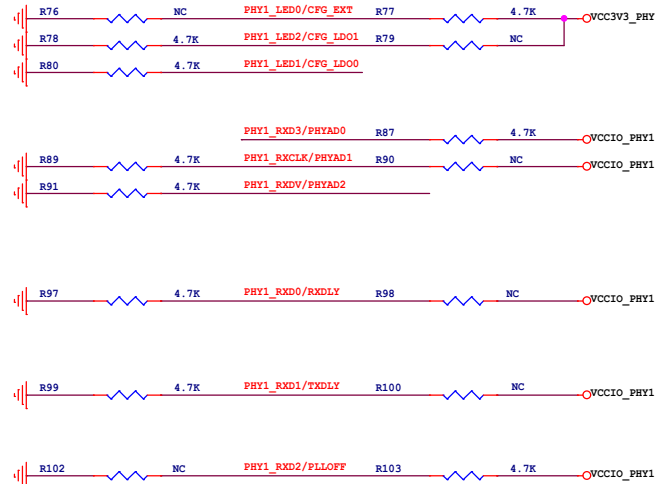
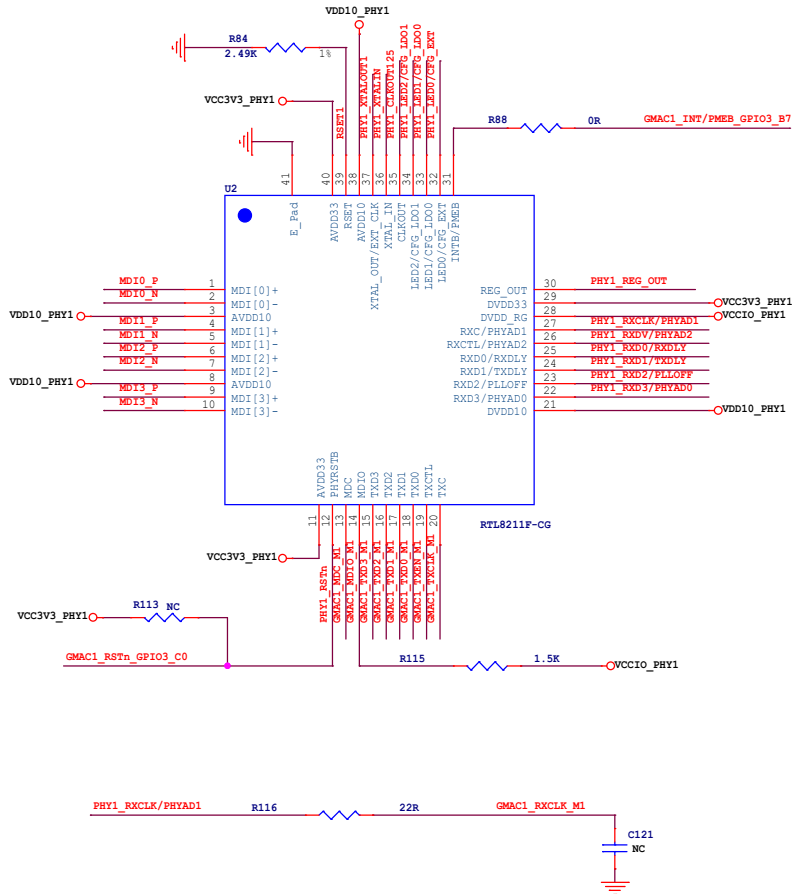
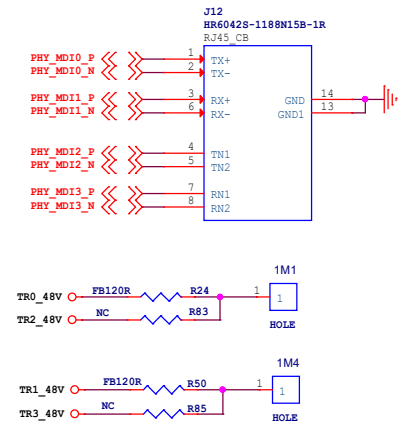
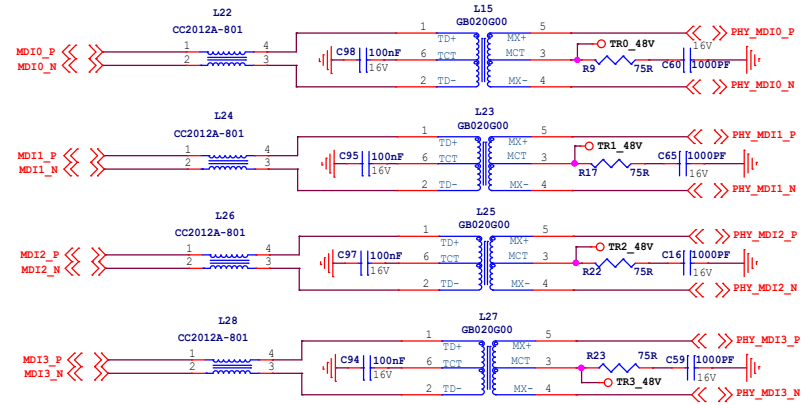
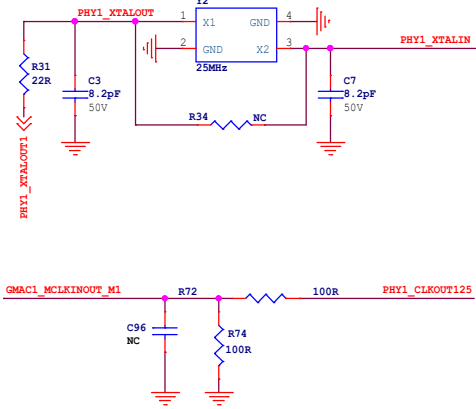
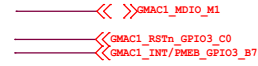
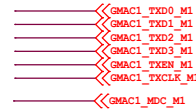
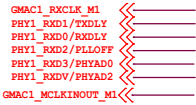
HDMI TX HPD






Size	Title: ROCK Zero 3E	REV
A4	Page Name: HDMI2.0 TX	1.2
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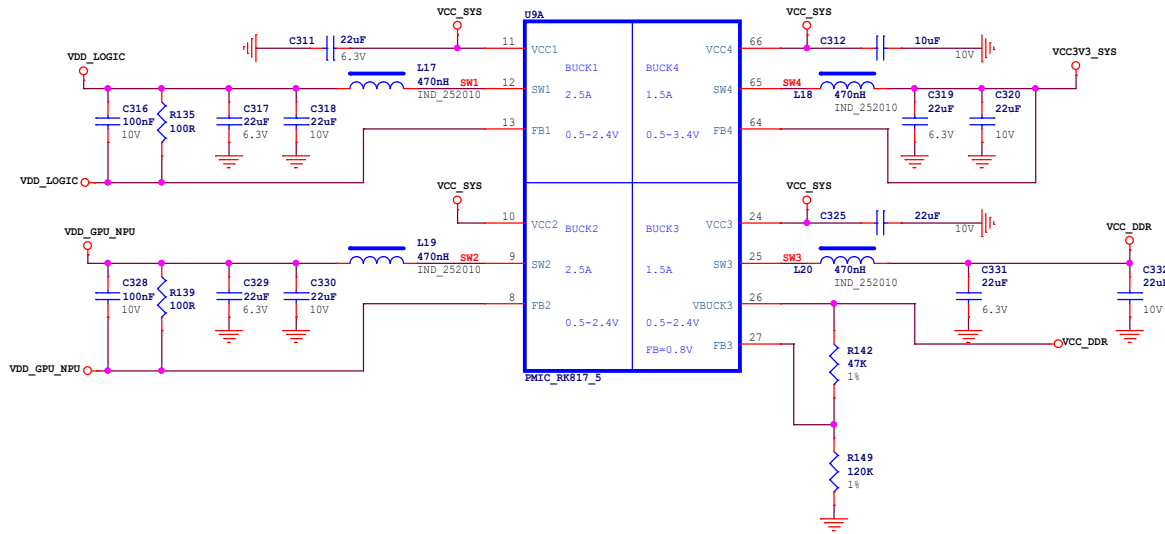
RGMI I



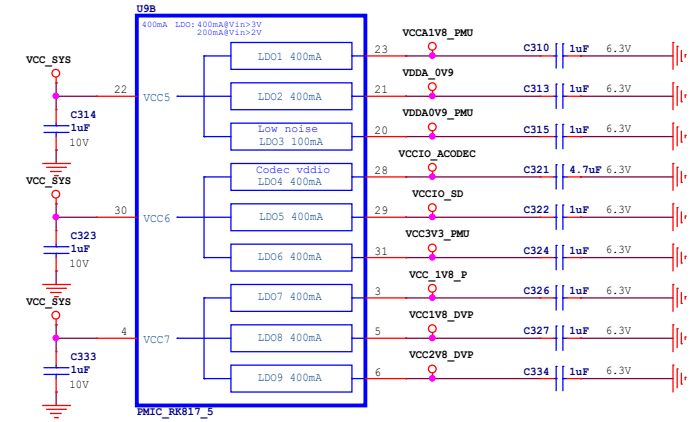


Size	Title: ROCK Zero 3E	REV
A3	Page Name: RGMI I	1.2
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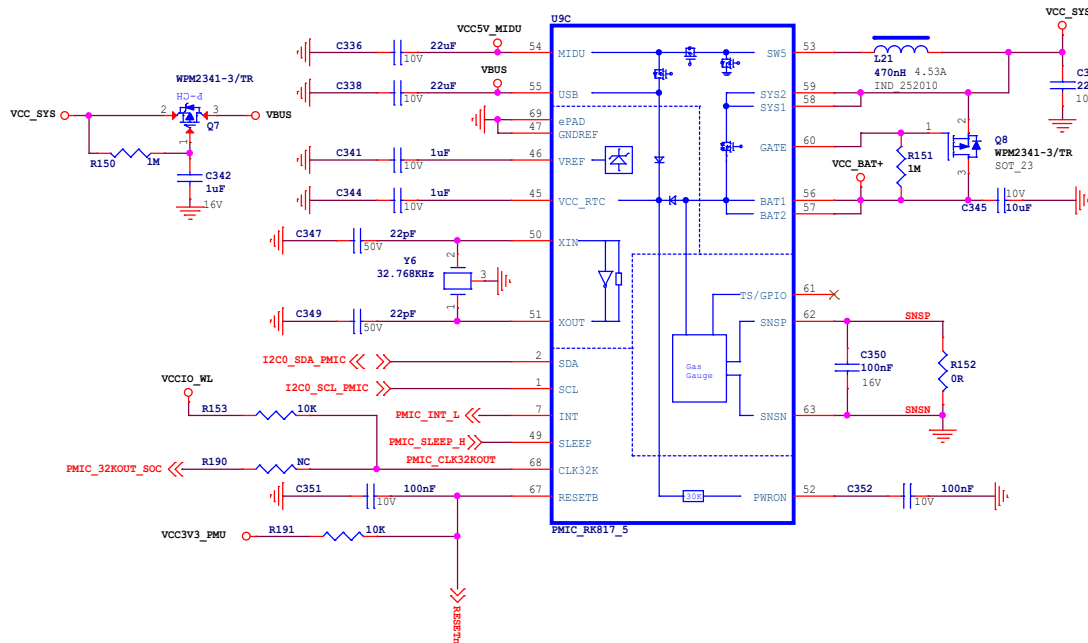
PMIC RK817 DCDC



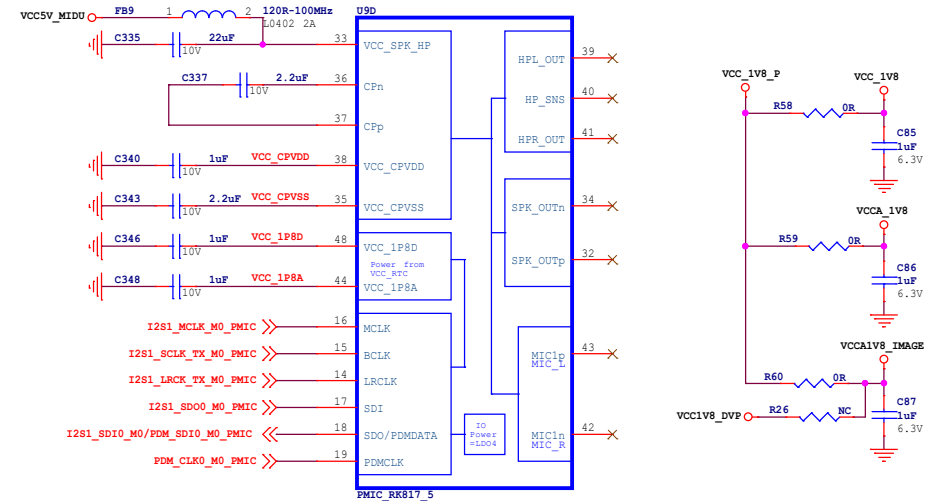
PMIC RK817 LDO



PMIC RK817 Management

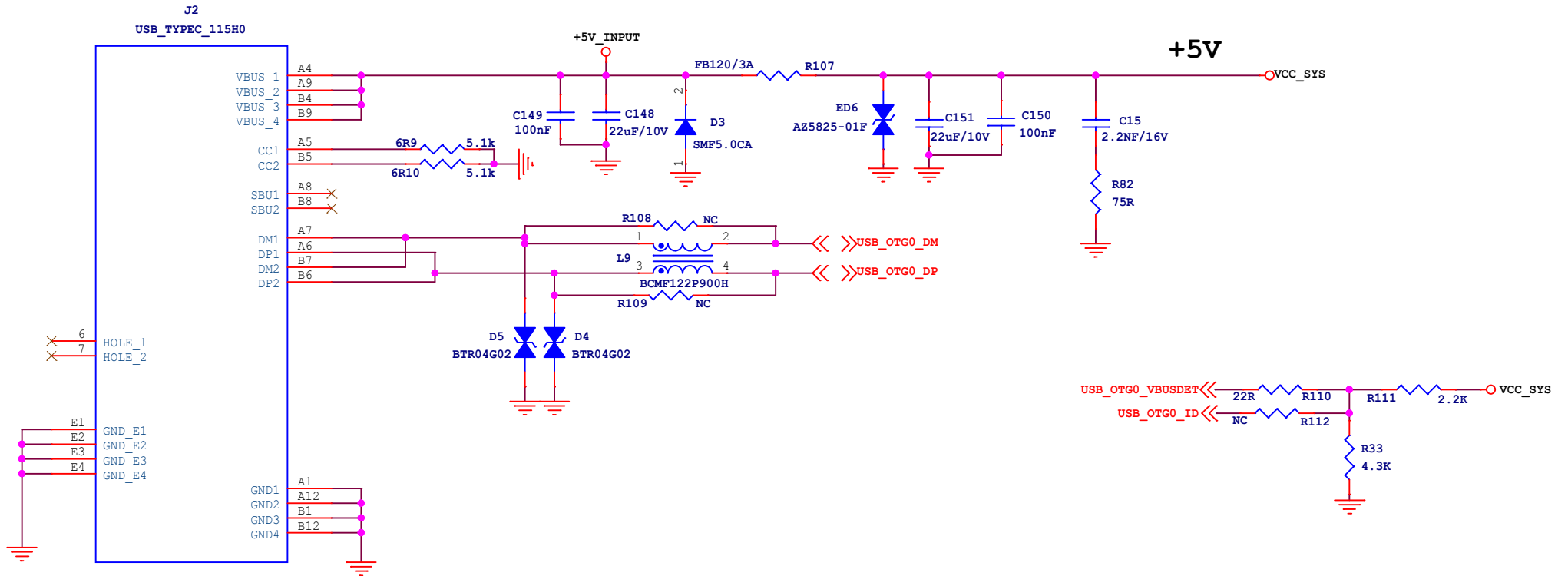


PMIC RK817 CODEC

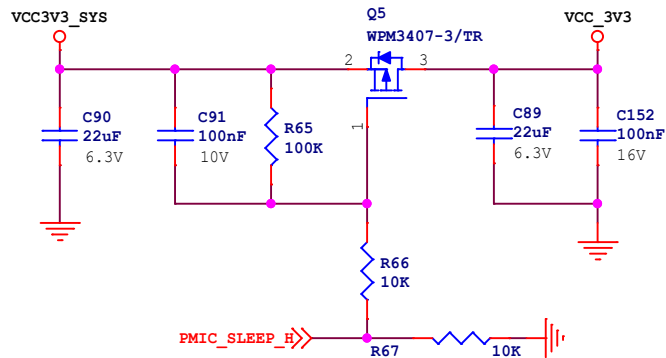


TYPEC1-5V IN

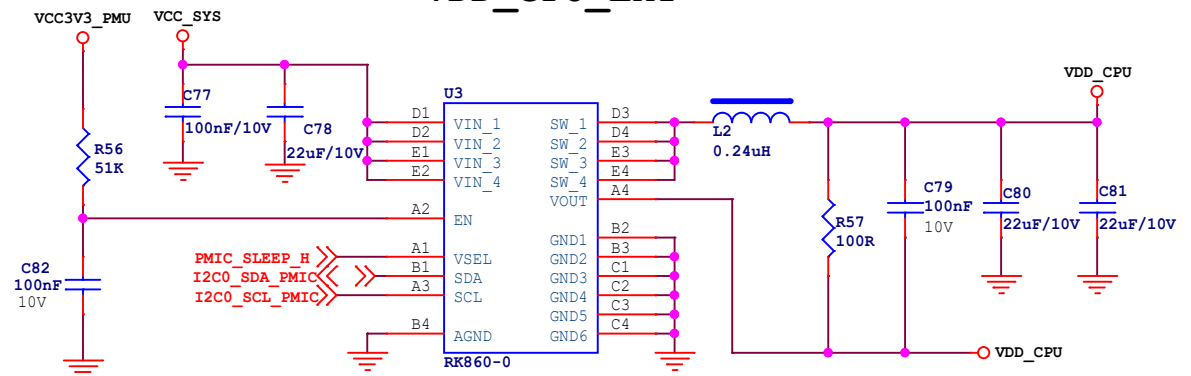
POWER/OTG



VCC_3V3 (Power OFF under SLEEP)

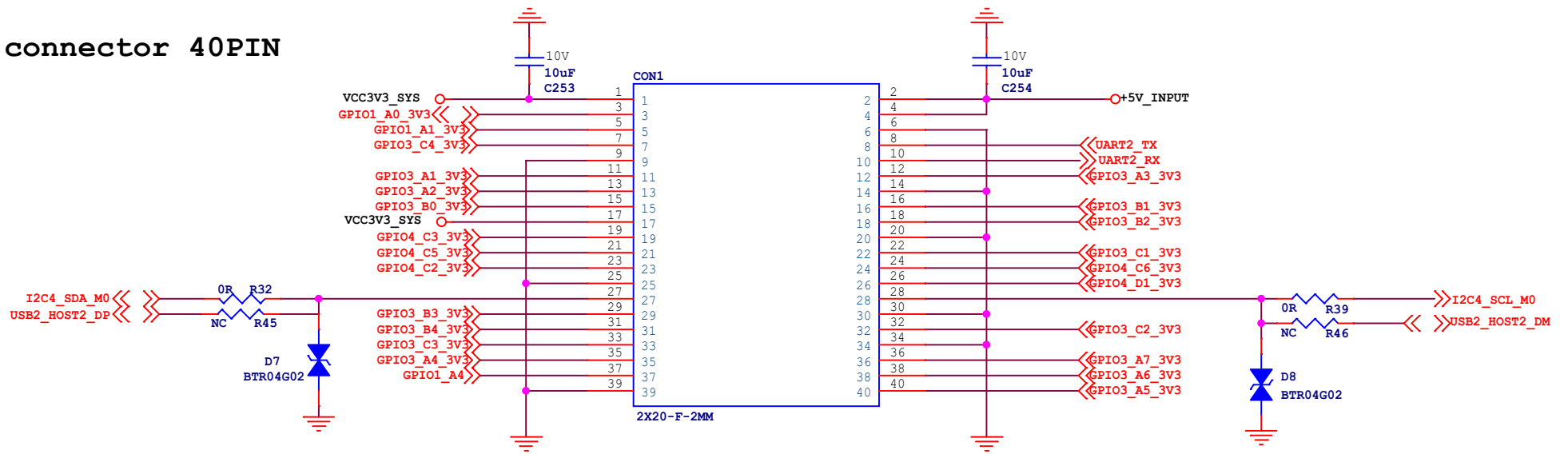


VDD_CPU_EXT

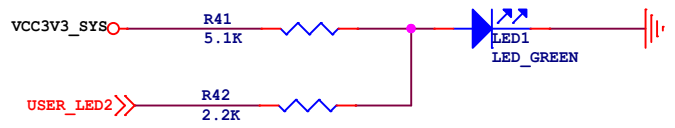
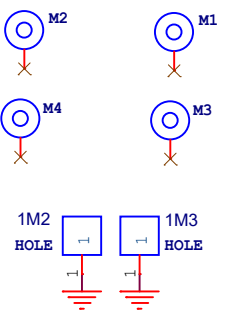
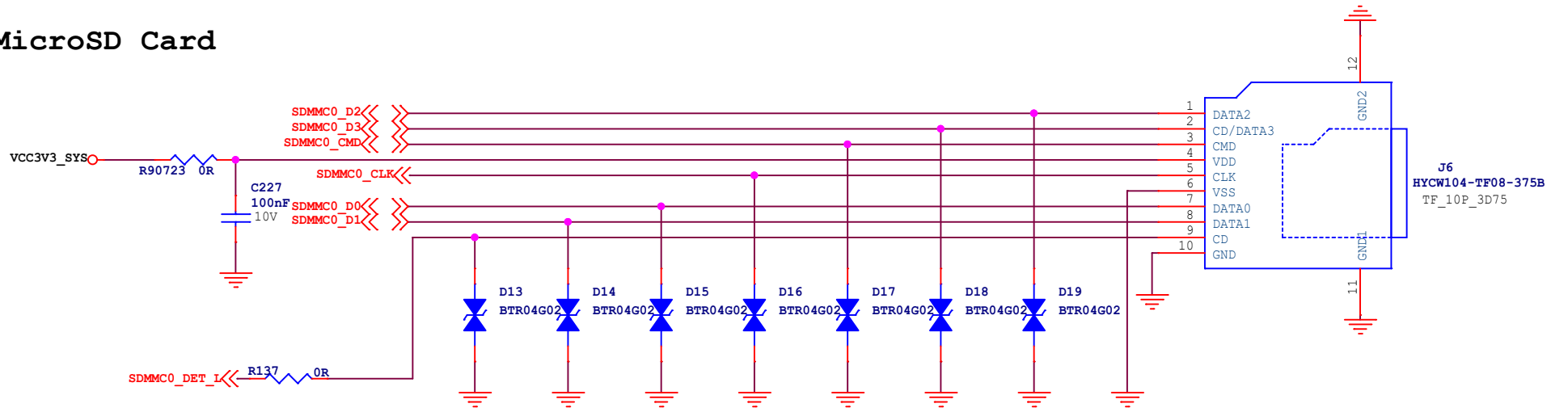



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connector 40PIN



MicroSD Card





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