



Radxa ROCK 3 Model A schematic

V1.31

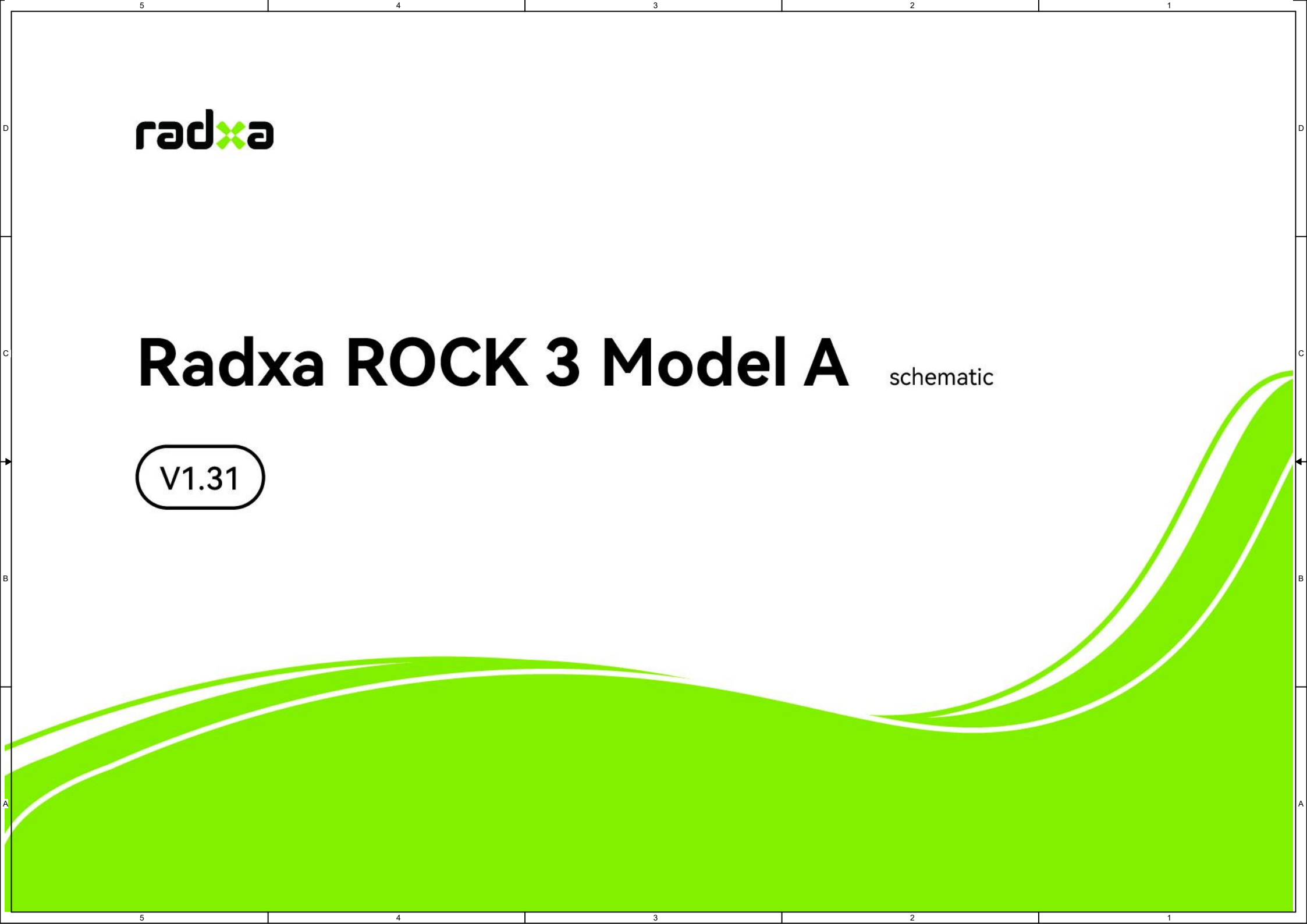


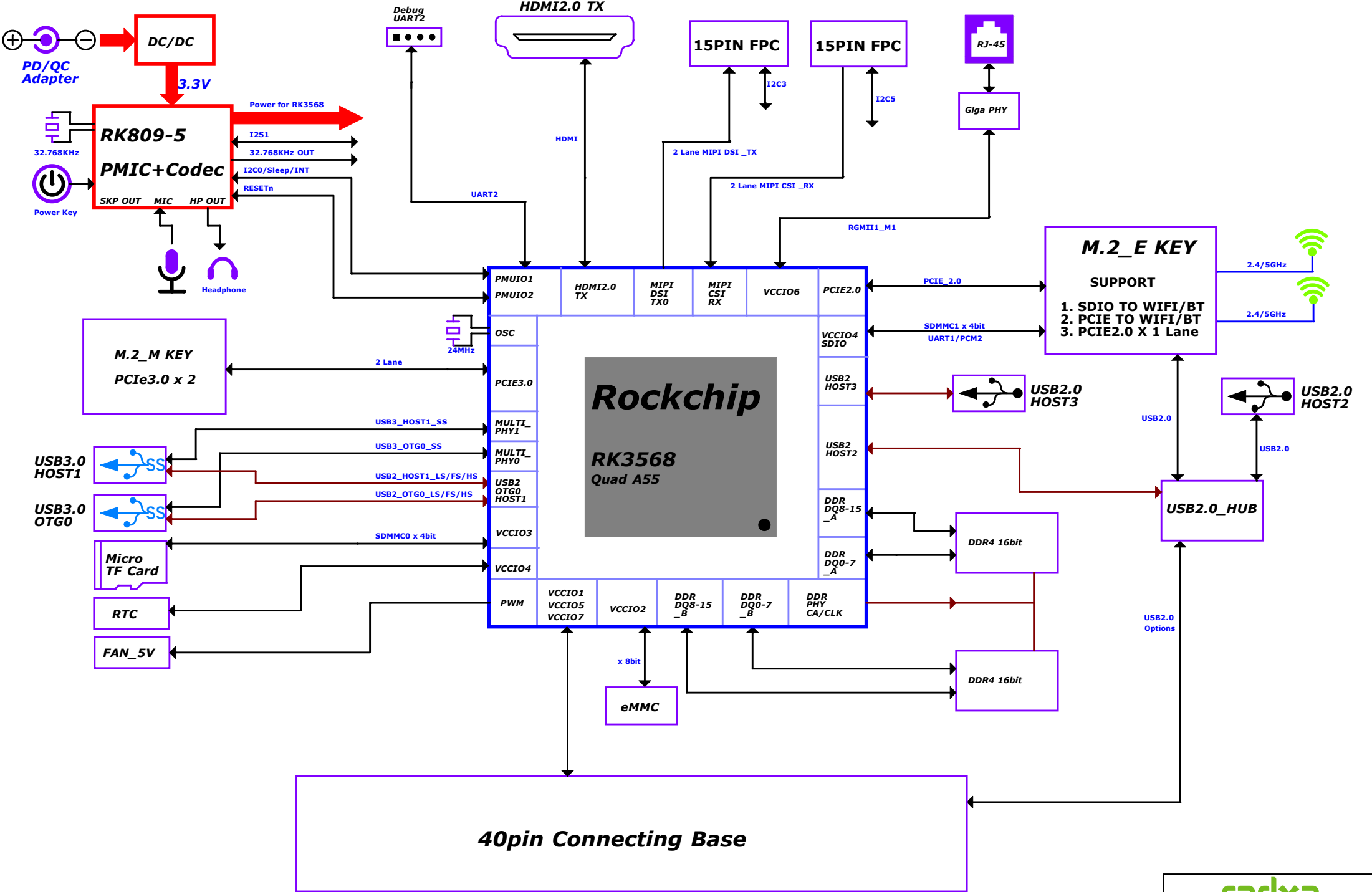
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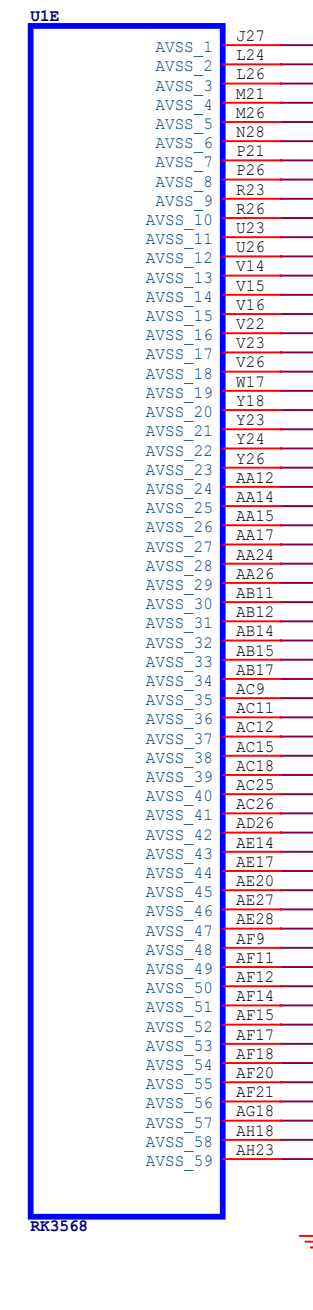
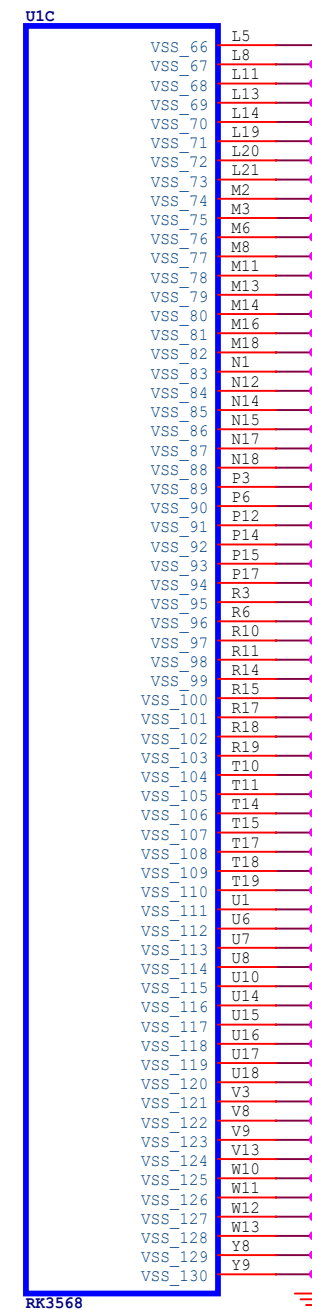
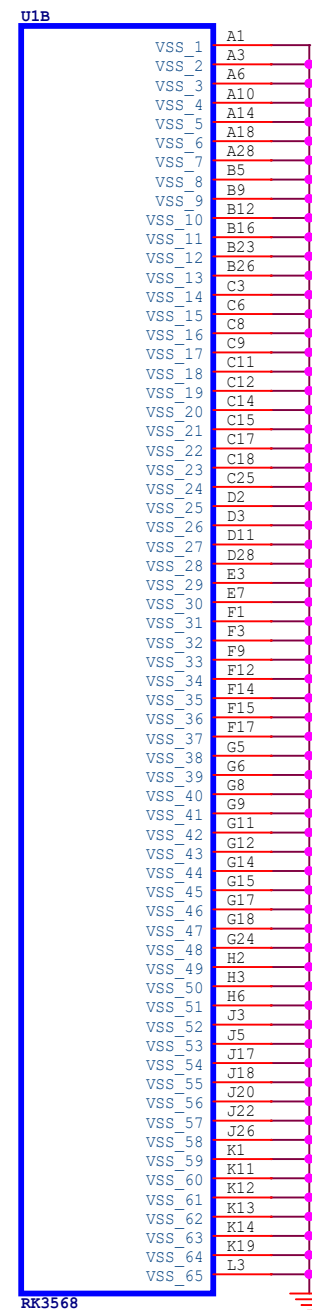
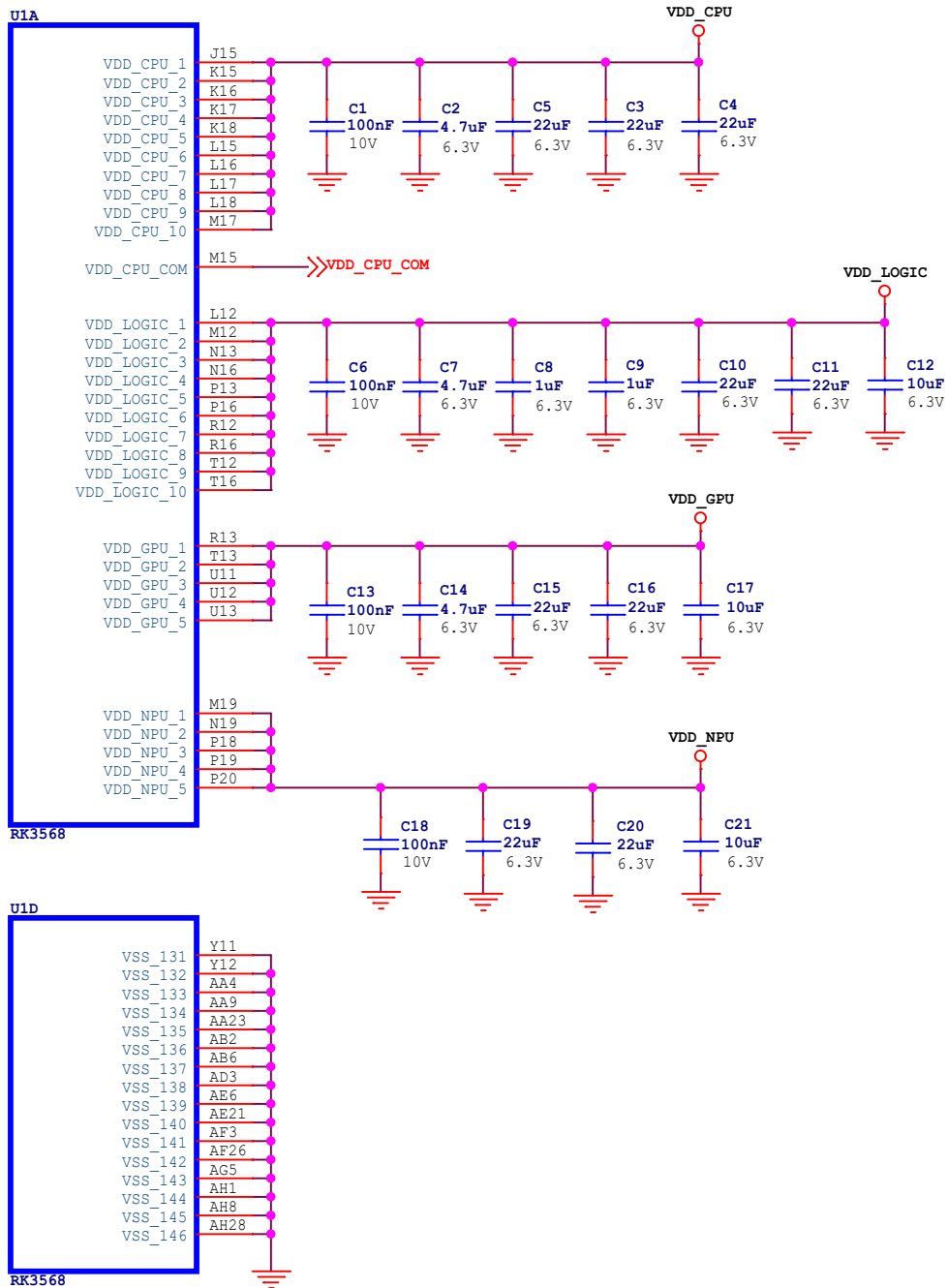


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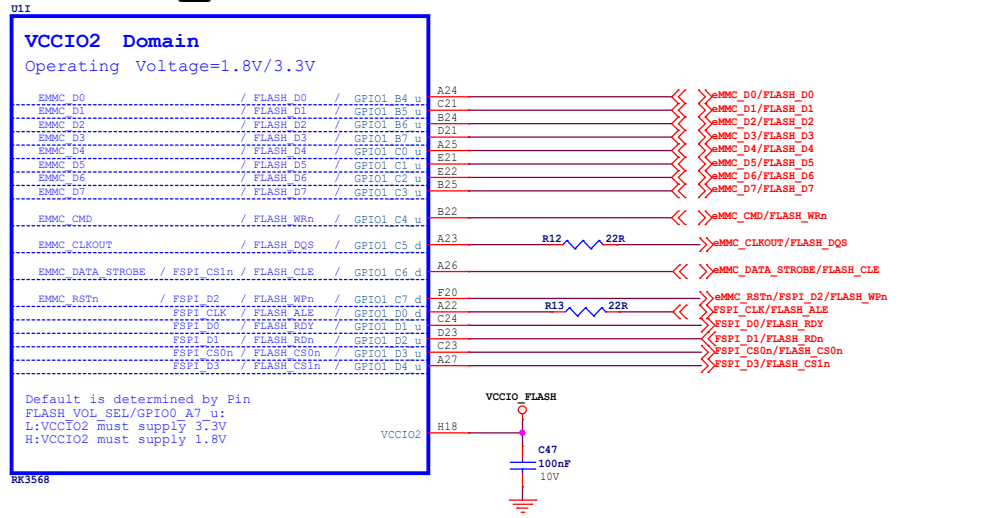
Gong Le Ref Block Diagram



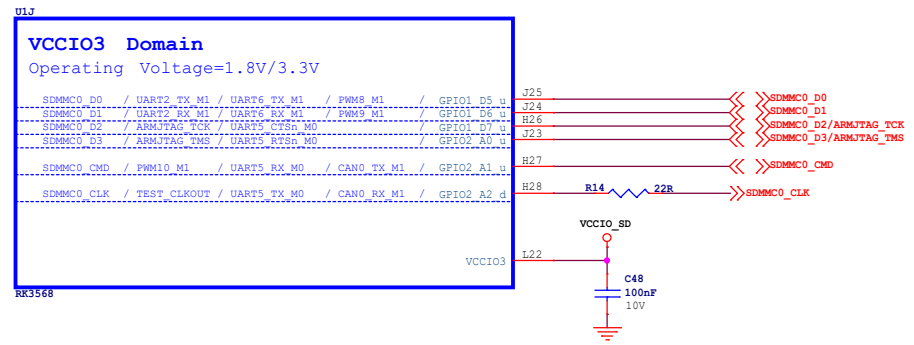
RK3568_ABCDE (Power&Gnd)



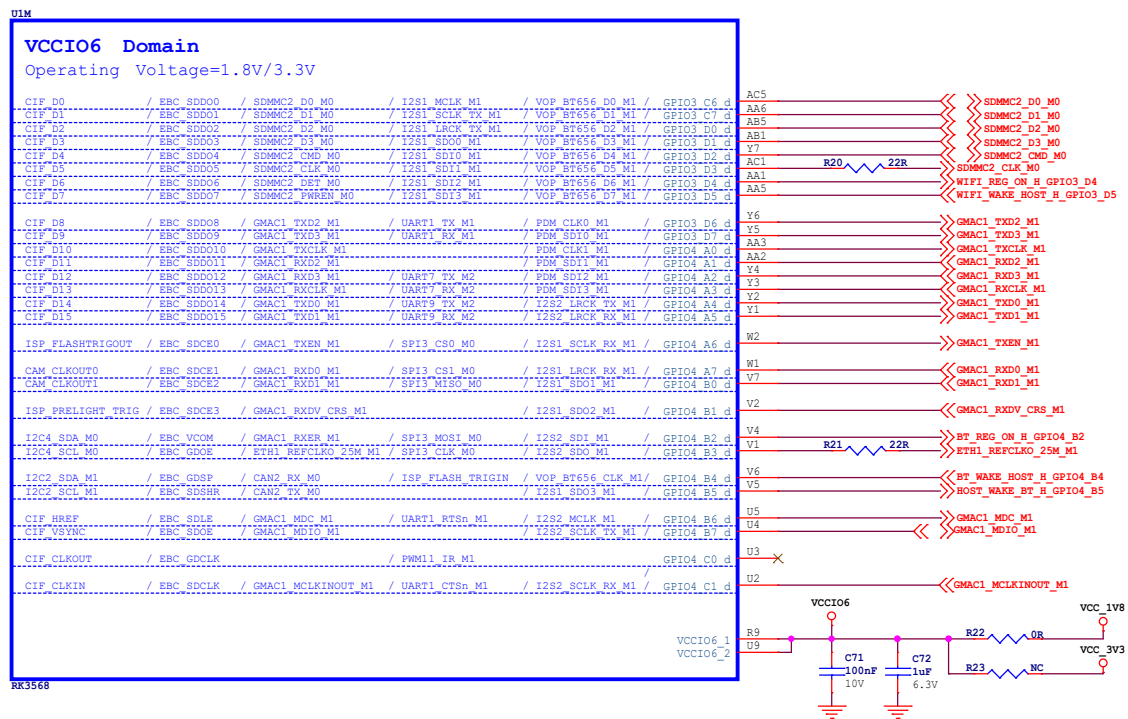
RK3568_I (VCCIO2 Domain)



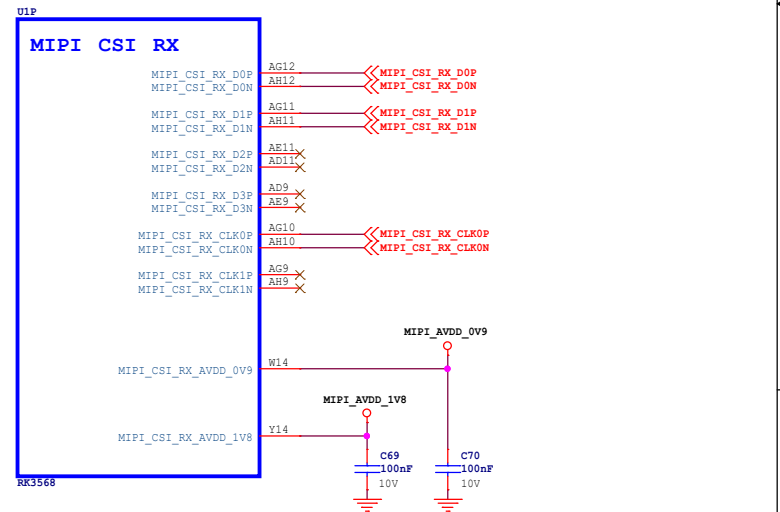
RK3568_J (VCCIO3 Domain)



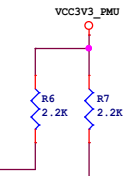
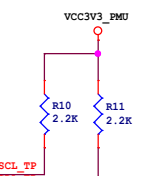
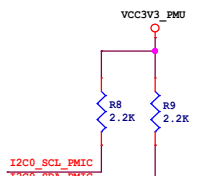
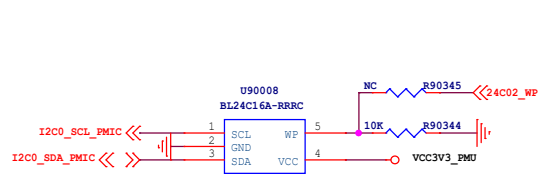
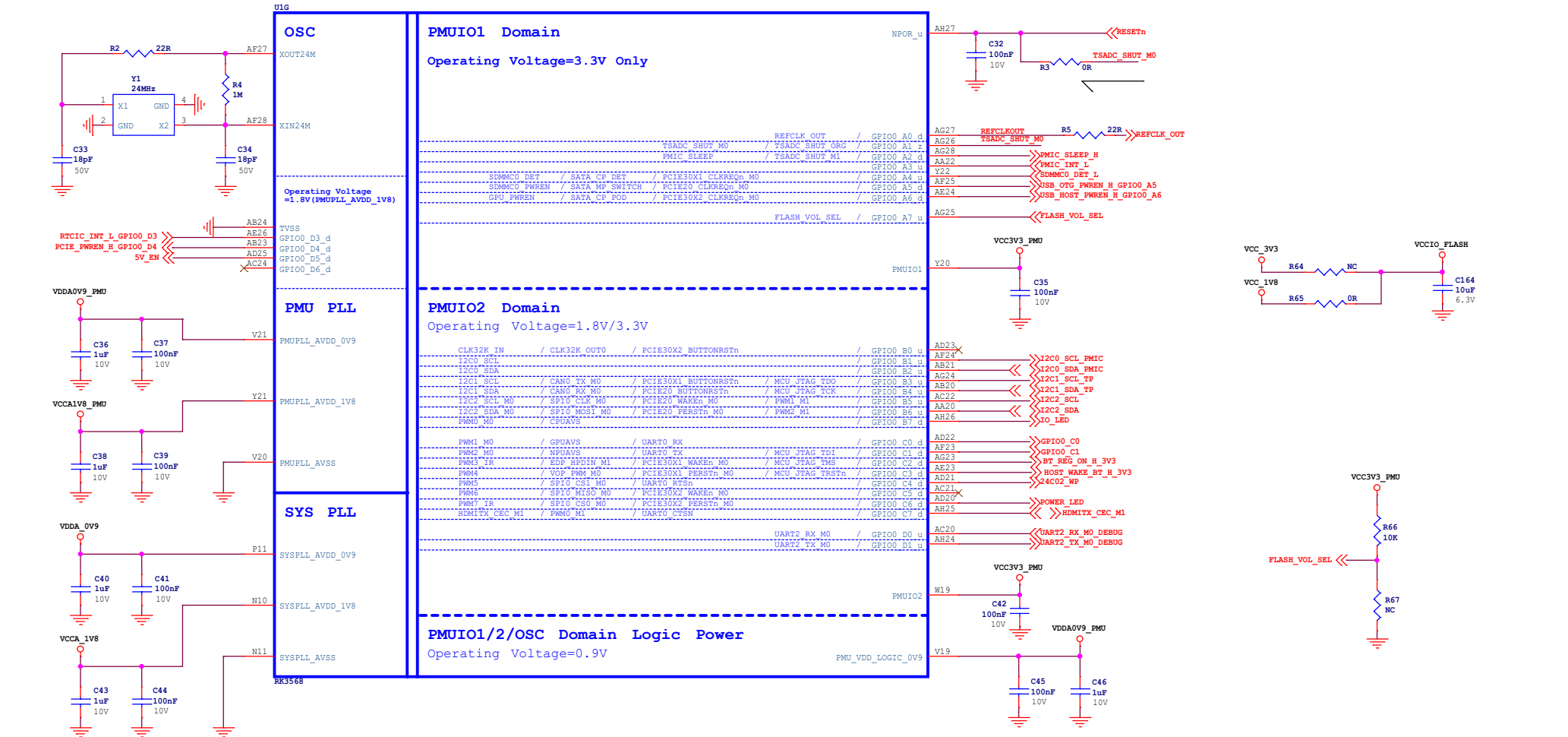
RK3568_M (VCCIO6 Domain)



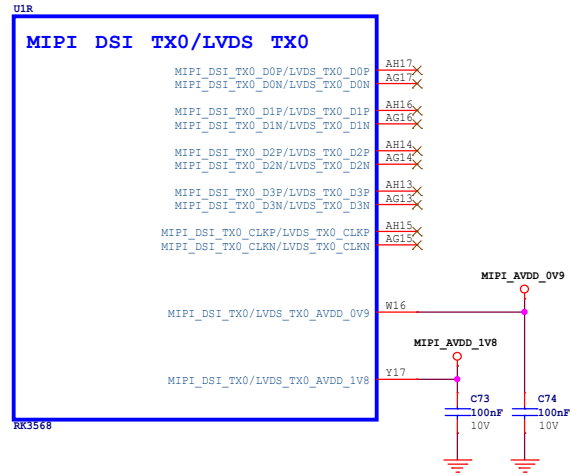
RK3568_P (MIPI CSI_RX)



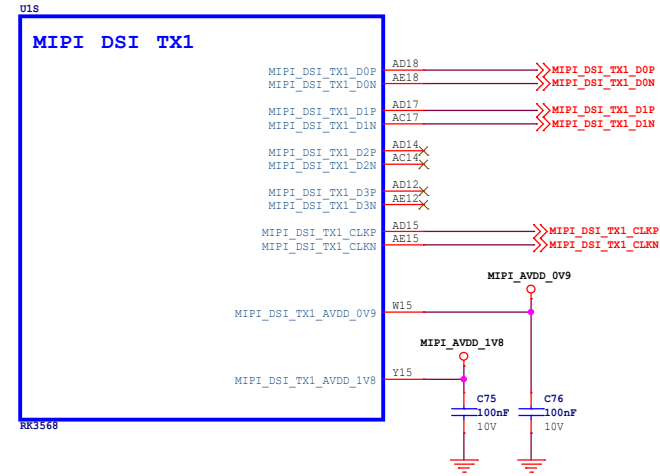
RK3568_G (OSC/PLL/PMUIO1/2)



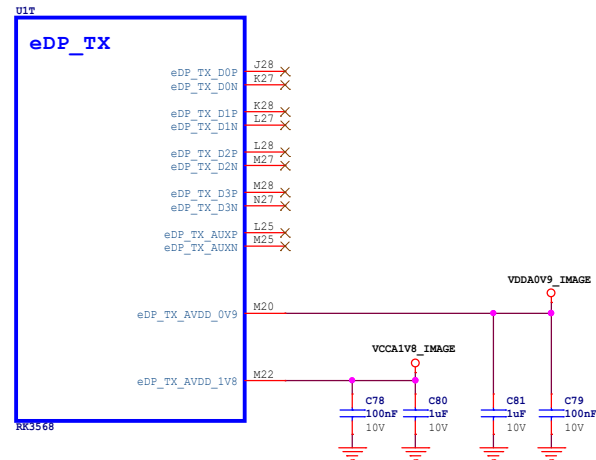
RK3568_R (MIPI_DSI_TX0/LVDS_TX0)



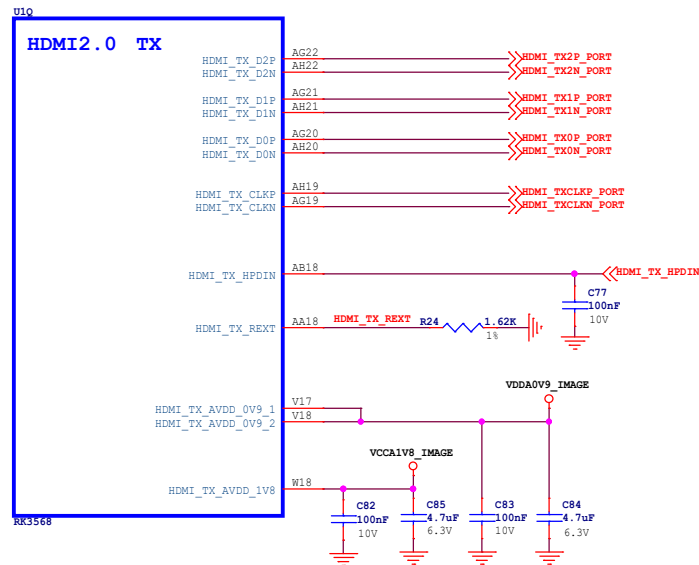
RK3568_S (MIPI_DSI_TX1)



RK3568_T (eDP TX)



RK3568_Q (HDMI2.0 TX)



RK3568_L (VCCIO5 Domain)

U1L

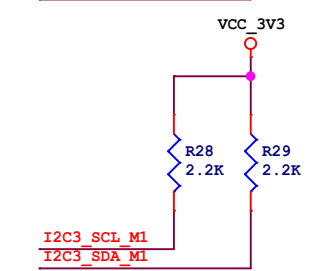
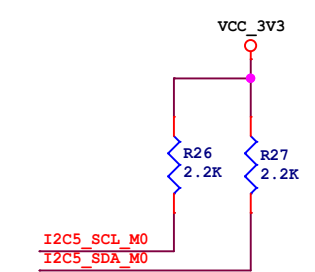
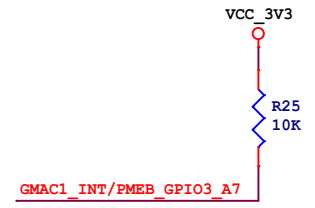
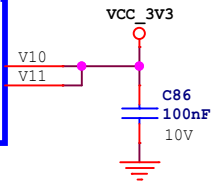
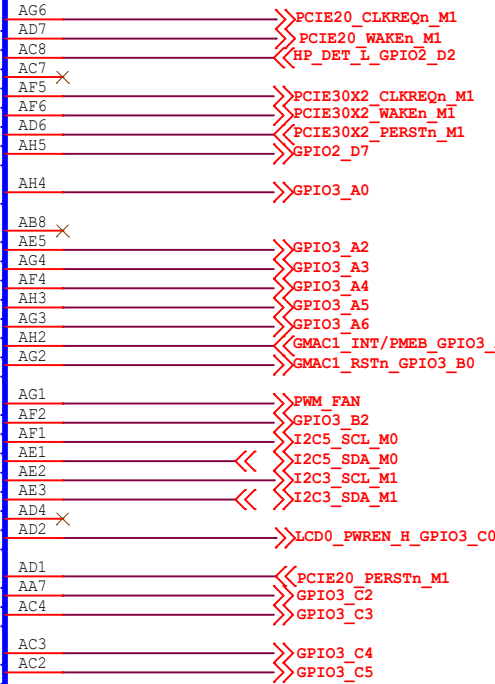
VCCIO5 Domain

Operating Voltage=1.8V/3.3V

LCDC_D0	/ VOP_BT656_D0_M0	/ SPI0_MISO_M1	/ PCIE20_CLKREQn_M1	/ I2S1_MCLK_M2	/ GPIO2_D0_d
LCDC_D1	/ VOP_BT656_D1_M0	/ SPI0_MOSI_M1	/ PCIE20_WAKEn_M1	/ I2S1_SCLK_TX_M2	/ GPIO2_D1_d
LCDC_D2	/ VOP_BT656_D2_M0	/ SPI0_CS0_M1	/ PCIE30X1_CLKREQn_M1	/ I2S1_LRCK_TX_M2	/ GPIO2_D2_d
LCDC_D3	/ VOP_BT656_D3_M0	/ SPI0_CLK_M1	/ PCIE30X1_WAKEn_M1	/ I2S1_SDI0_M2	/ GPIO2_D3_d
LCDC_D4	/ VOP_BT656_D4_M0	/ SPI2_CS1_M1	/ PCIE30X2_CLKREQn_M1	/ I2S1_SDI1_M2	/ GPIO2_D4_d
LCDC_D5	/ VOP_BT656_D5_M0	/ SPI2_CS0_M1	/ PCIE30X2_WAKEn_M1	/ I2S1_SDI2_M2	/ GPIO2_D5_d
LCDC_D6	/ VOP_BT656_D6_M0	/ SPI2_MOSI_M1	/ PCIE30X2_PERSTn_M1	/ I2S1_SDI3_M2	/ GPIO2_D6_d
LCDC_D7	/ VOP_BT656_D7_M0	/ SPI2_MISO_M1	/ UART8_TX_M1	/ I2S1_SDO0_M2	/ GPIO2_D7_d
LCDC_CLK	/ VOP_BT656_CLK_M0	/ SPI2_CLK_M1	/ UART8_RX_M1	/ I2S1_SDO1_M2	/ GPIO3_A0_d
LCDC_D8	/ VOP_BT1120_D0	/ SPI1_CS0_M1	/ PCIE30X1_PERSTn_M1	/ SDMMC2_D0_M1	/ GPIO3_A1_d
LCDC_D9	/ VOP_BT1120_D1	/ GMAC1_TXD2_M0	/ I2S3_MCLK_M0	/ SDMMC2_D1_M1	/ GPIO3_A2_d
LCDC_D10	/ VOP_BT1120_D2	/ GMAC1_TXD3_M0	/ I2S3_SCLK_M0	/ SDMMC2_D2_M1	/ GPIO3_A3_d
LCDC_D11	/ VOP_BT1120_D3	/ GMAC1_RXD2_M0	/ I2S3_LRCK_M0	/ SDMMC2_D3_M1	/ GPIO3_A4_d
LCDC_D12	/ VOP_BT1120_D4	/ GMAC1_RXD3_M0	/ I2S3_SDO_M0	/ SDMMC2_CMD_M1	/ GPIO3_A5_d
LCDC_D13	/ VOP_BT1120_CLK	/ GMAC1_TXCLK_M0	/ I2S3_SDI_M0	/ SDMMC2_CLK_M1	/ GPIO3_A6_d
LCDC_D14	/ VOP_BT1120_D5	/ GMAC1_RXCLK_M0		/ SDMMC2_DET_M1	/ GPIO3_A7_d
LCDC_D15	/ VOP_BT1120_D6	/ ETH1_REFCLKO_Z5M_M0		/ SDMMC2_PWREn_M1	/ GPIO3_B0_d
LCDC_D16	/ VOP_BT1120_D7	/ GMAC1_RXD0_M0	/ UART4_RX_M1	/ PWM8_M0	/ GPIO3_B1_d
LCDC_D17	/ VOP_BT1120_D8	/ GMAC1_RXD1_M0	/ UART4_TX_M1	/ PWM9_M0	/ GPIO3_B2_d
LCDC_D18	/ VOP_BT1120_D9	/ GMAC1_RXDV_CRS_M0	/ I2C5_SCL_M0	/ PDM_SDI0_M2	/ GPIO3_B3_d
LCDC_D19	/ VOP_BT1120_D10	/ GMAC1_RXER_M0	/ I2C5_SDA_M0	/ PDM_SDI1_M2	/ GPIO3_B4_d
LCDC_D20	/ VOP_BT1120_D11	/ GMAC1_TXD0_M0	/ I2C3_SCL_M1	/ PWM10_M0	/ GPIO3_B5_d
LCDC_D21	/ VOP_BT1120_D12	/ GMAC1_TXD1_M0	/ I2C3_SDA_M1	/ PWM11_IR_M0	/ GPIO3_B6_d
LCDC_D22	/ PWM12_M0	/ GMAC1_TXEN_M0	/ UART5_TX_M1	/ PDM_SDI2_M2	/ GPIO3_B7_d
LCDC_D23	/ PWM13_M0	/ GMAC1_MCLKINOUT_M0	/ UART5_RX_M1	/ PDM_SDI3_M2	/ GPIO3_C0_d
LCDC_HSYNC	/ VOP_BT1120_D13	/ SPI1_MOSI_M1	/ PCIE20_PERSTn_M1	/ I2S1_SDO2_M2	/ GPIO3_C1_d
LCDC_VSYNC	/ VOP_BT1120_D14	/ SPI1_MISO_M1	/ UART5_TX_M1	/ I2S1_SDO3_M2	/ GPIO3_C2_d
LCDC_DEN	/ 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	/ SPDFIF_TX_M1	/ GMAC1_MDI0_M0	/ UART7_RX_M1	/ I2S1_LRCK_RX_M2	/ GPIO3_C5_d

VCCIO5_1
VCCIO5_2

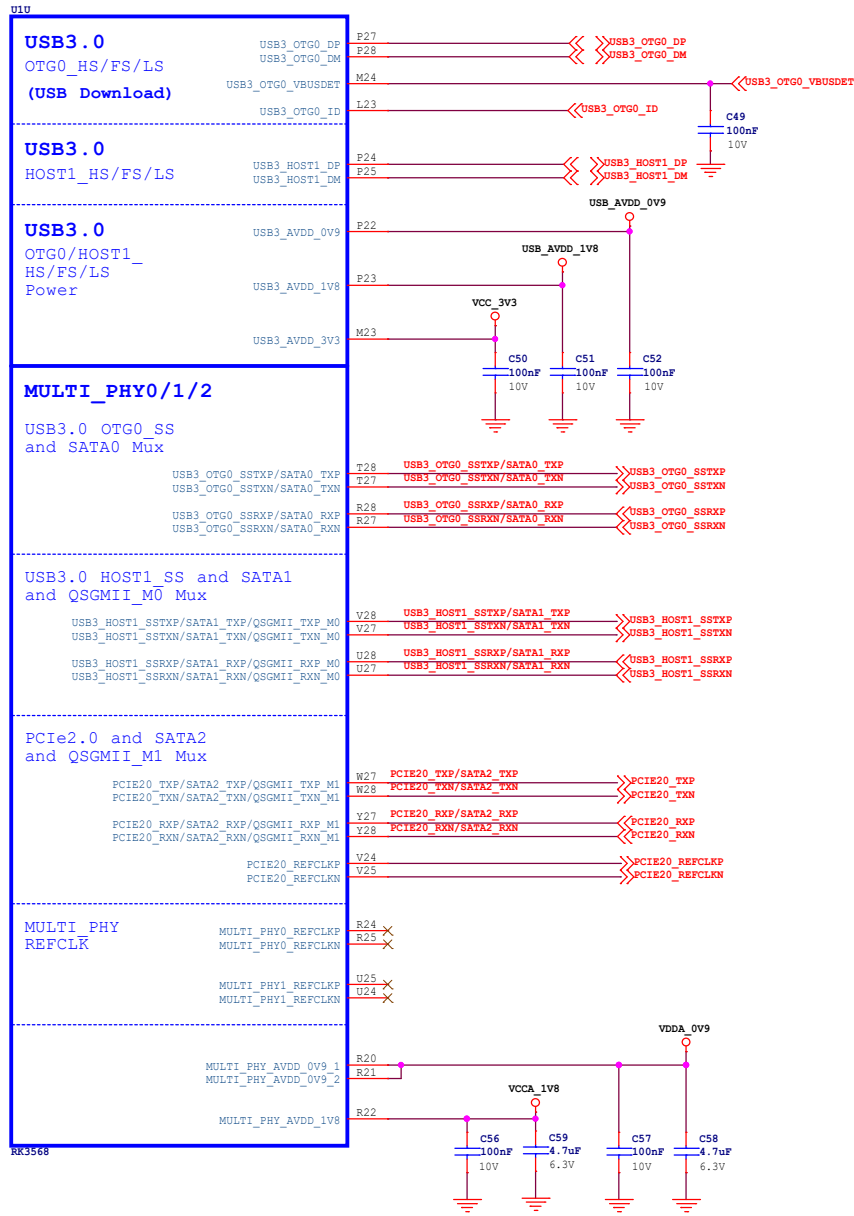
RK3568



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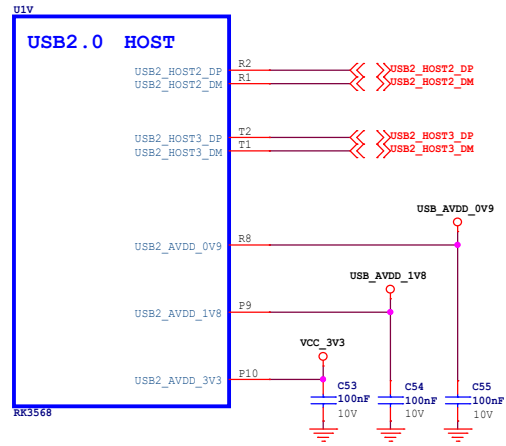
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RK3568_U (USB3.0/SATA/QSGMII/PCIE2.0 x1)



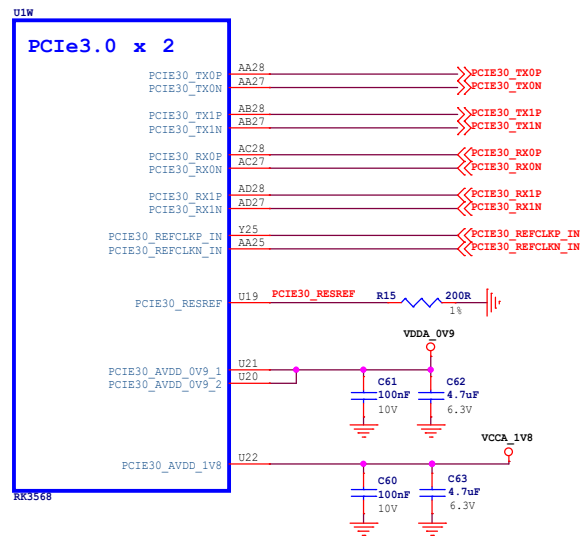
RK3568

RK3568_V (USB2.0 HOST)



RK3568

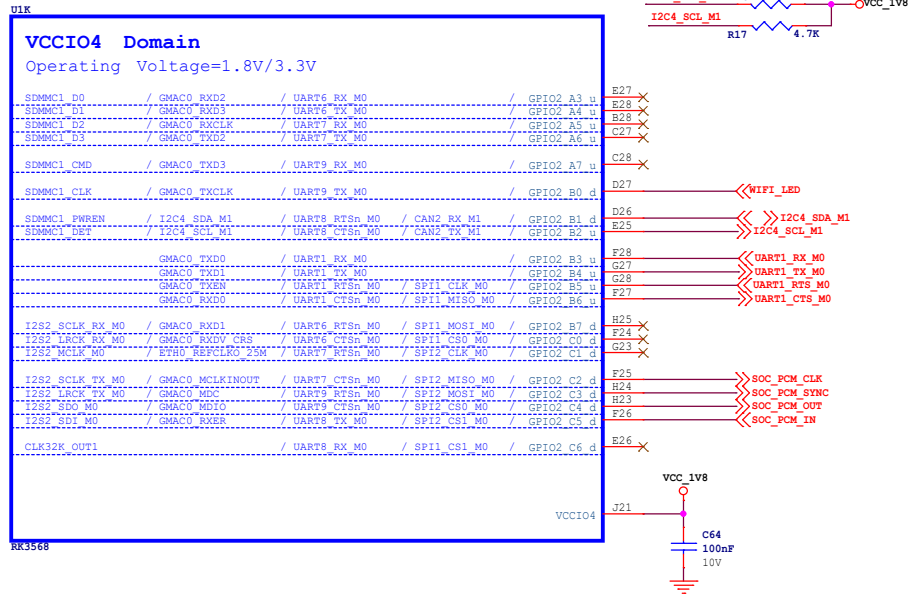
RK3568_W (PCIE3.0 x2)



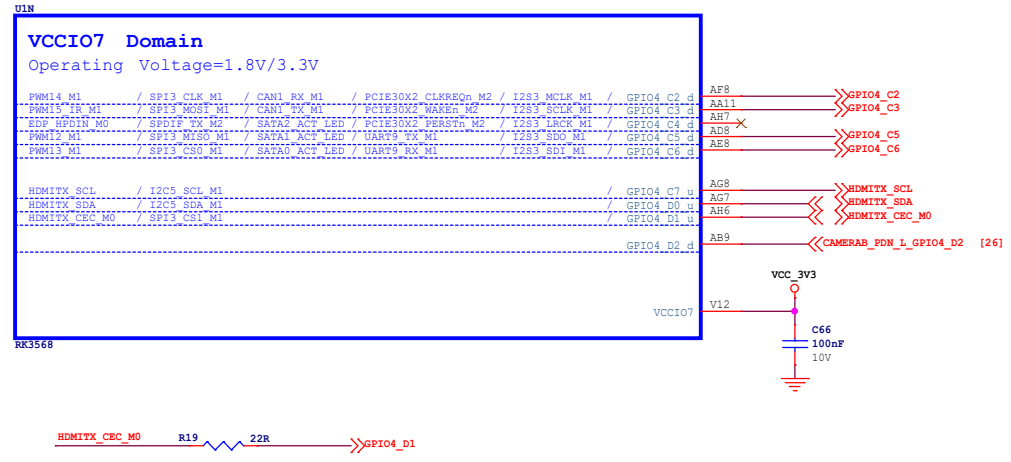
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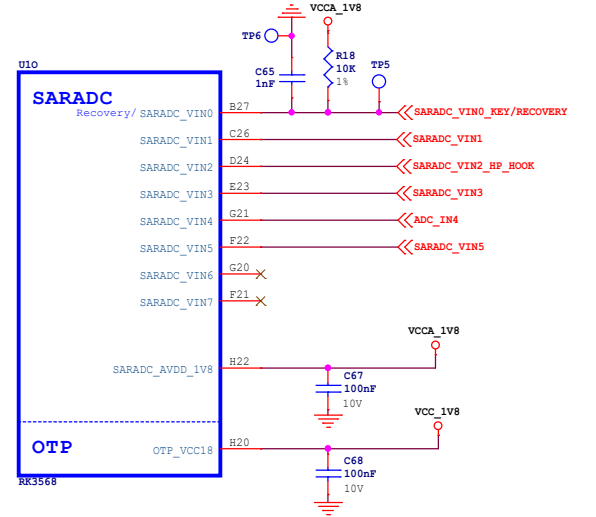
RK3568_K (VCCIO4 Domain)



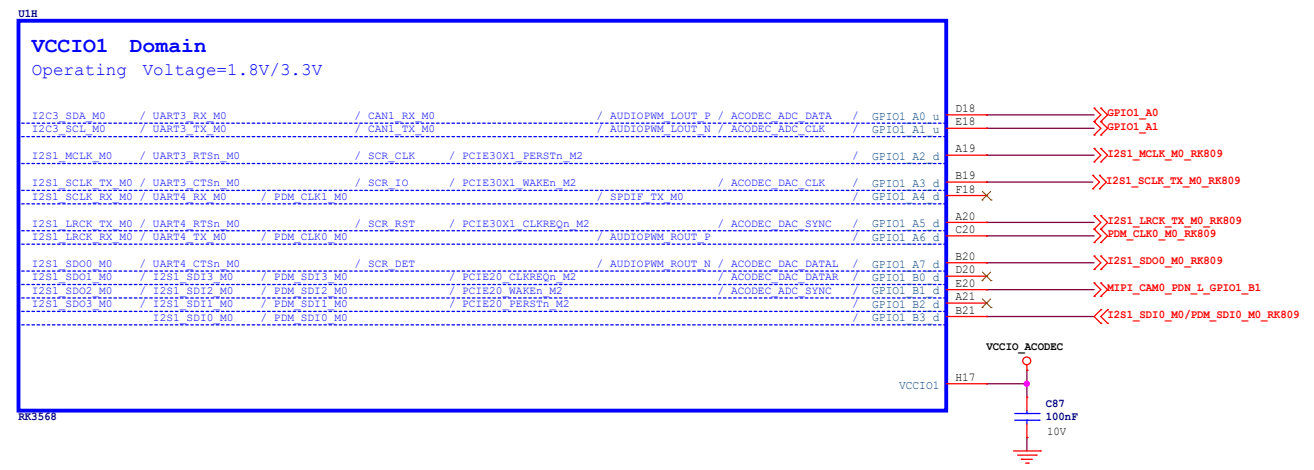
RK3568_N (VCCIO7 Domain)



RK3568_O (SARADC/OTP)

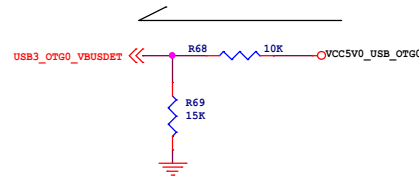
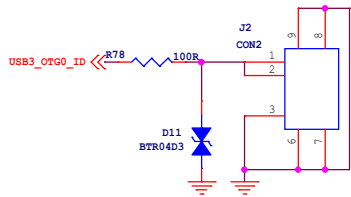
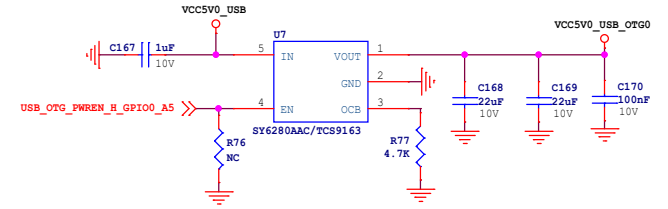
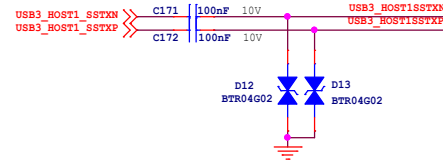
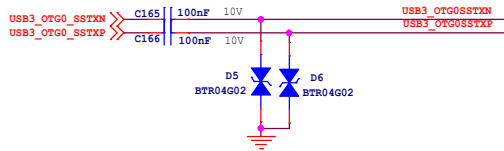
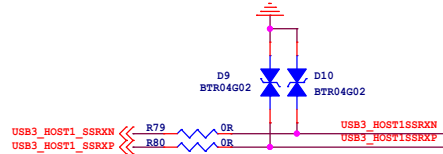
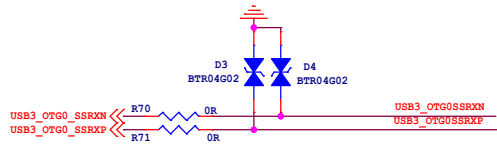
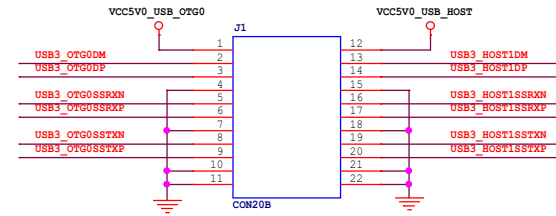
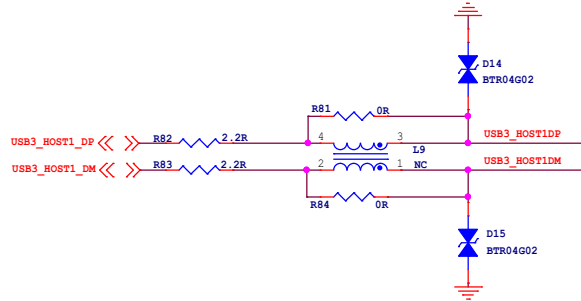
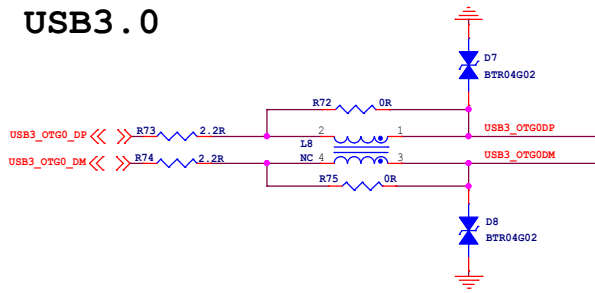


RK3568_H (VCCIO1 Domain)

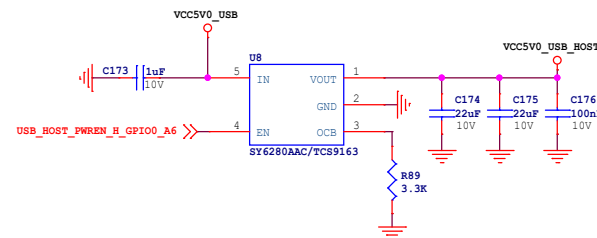
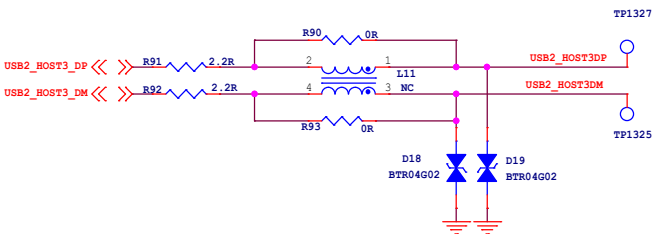
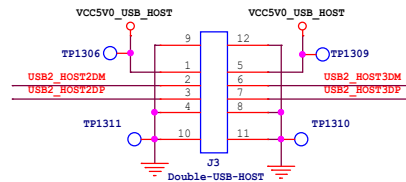
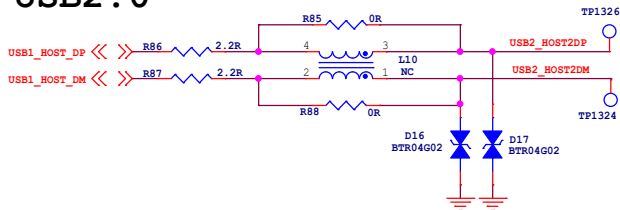


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USB3.0

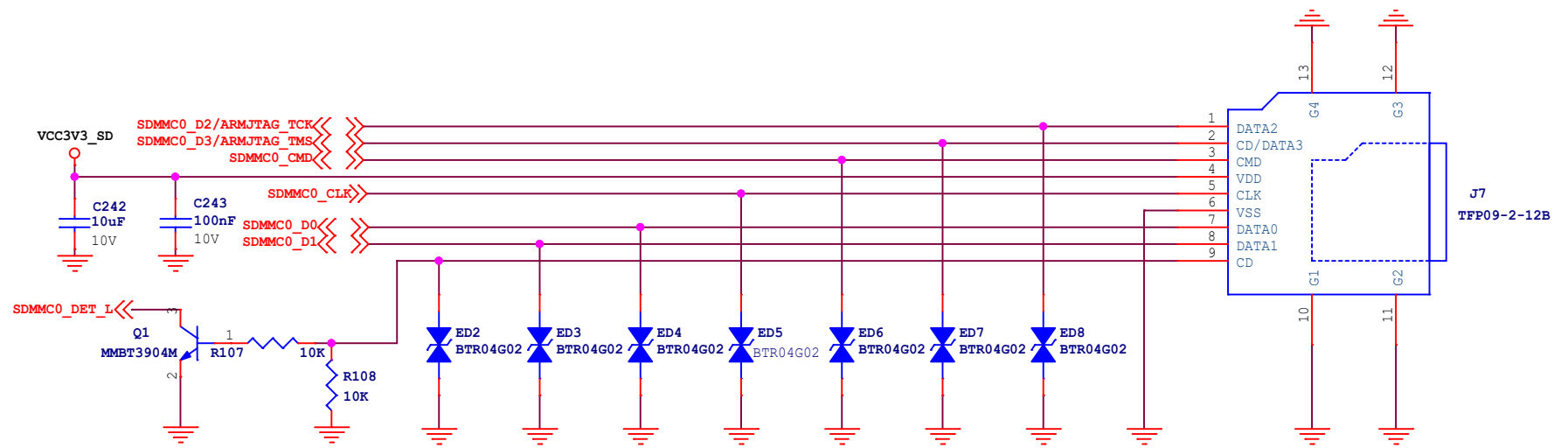


USB2.0

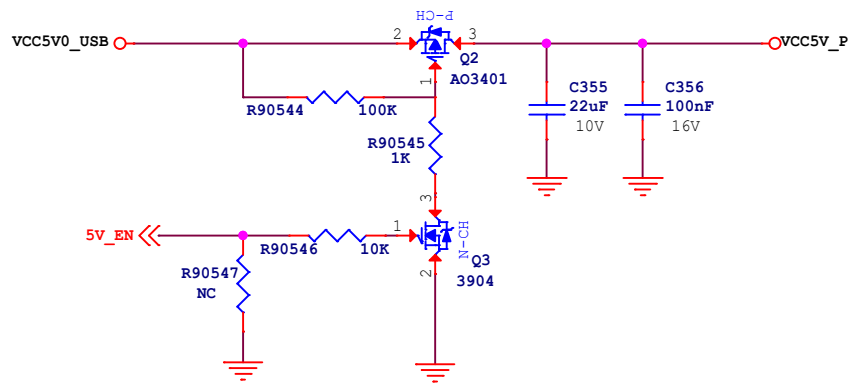
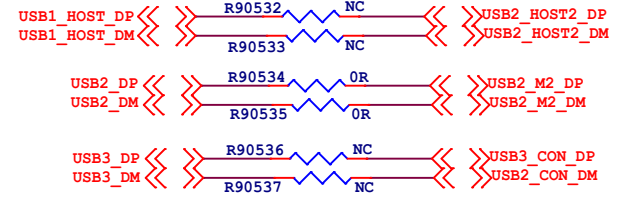
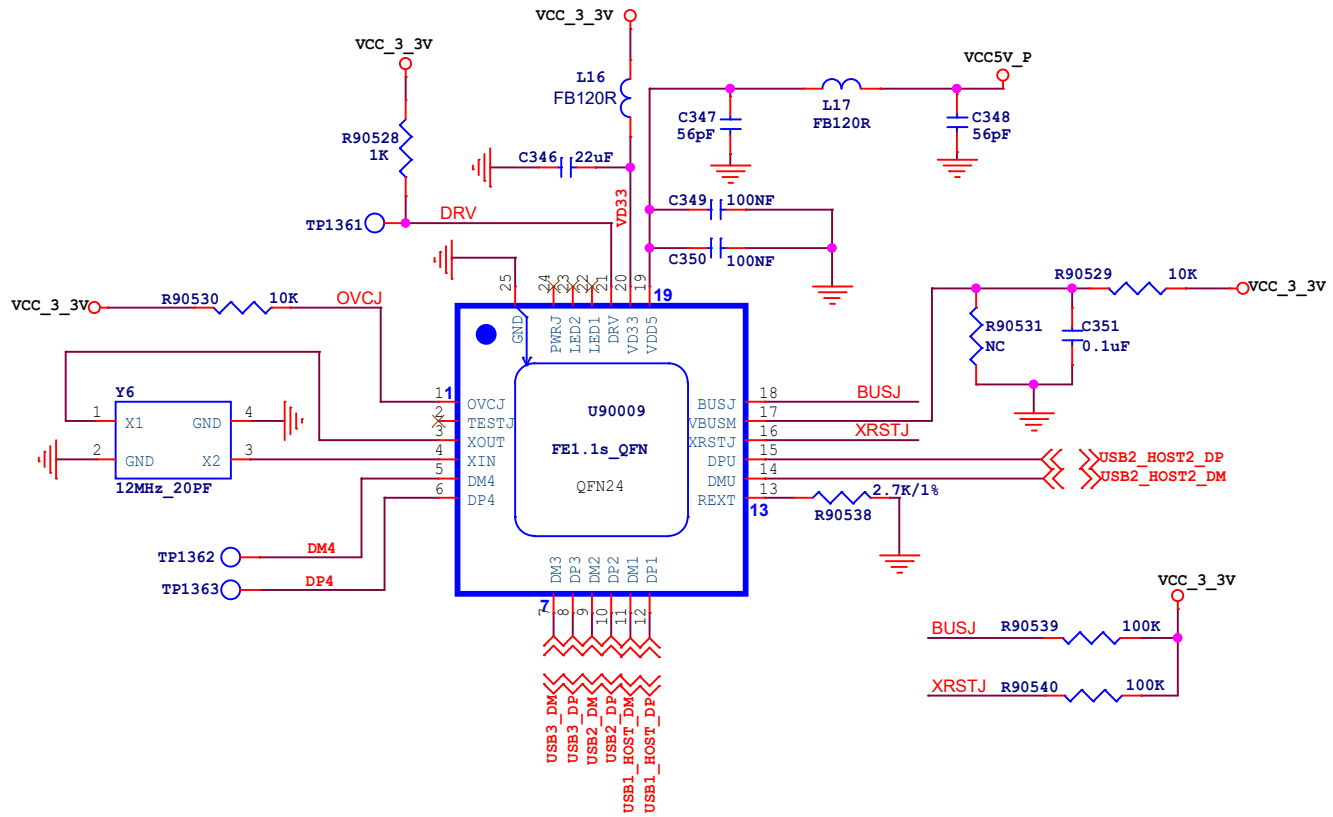


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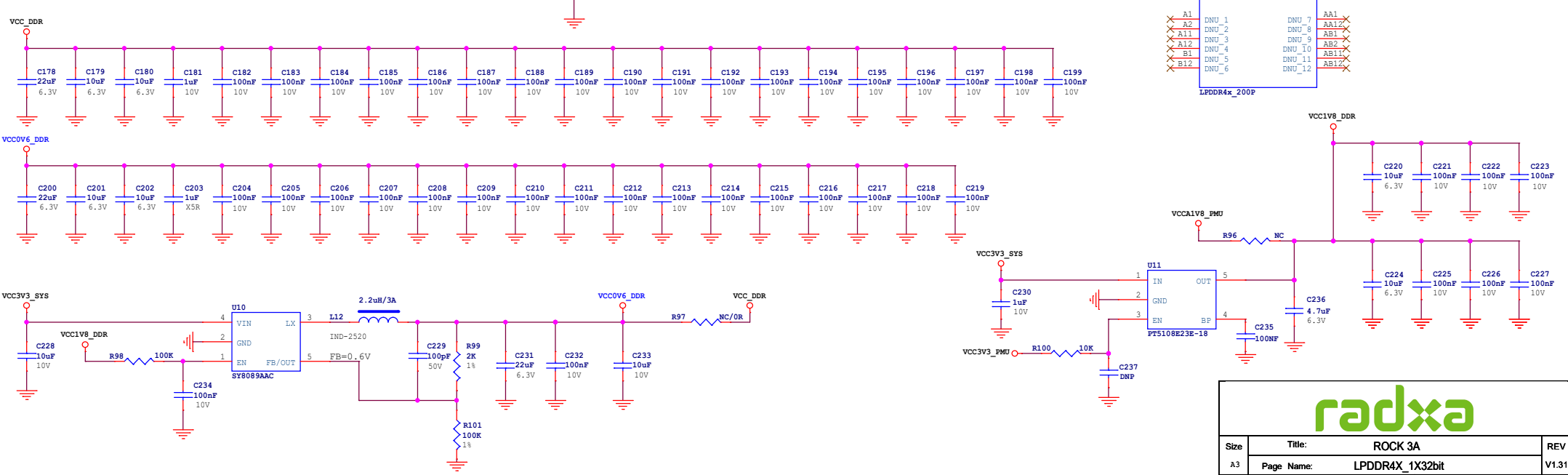
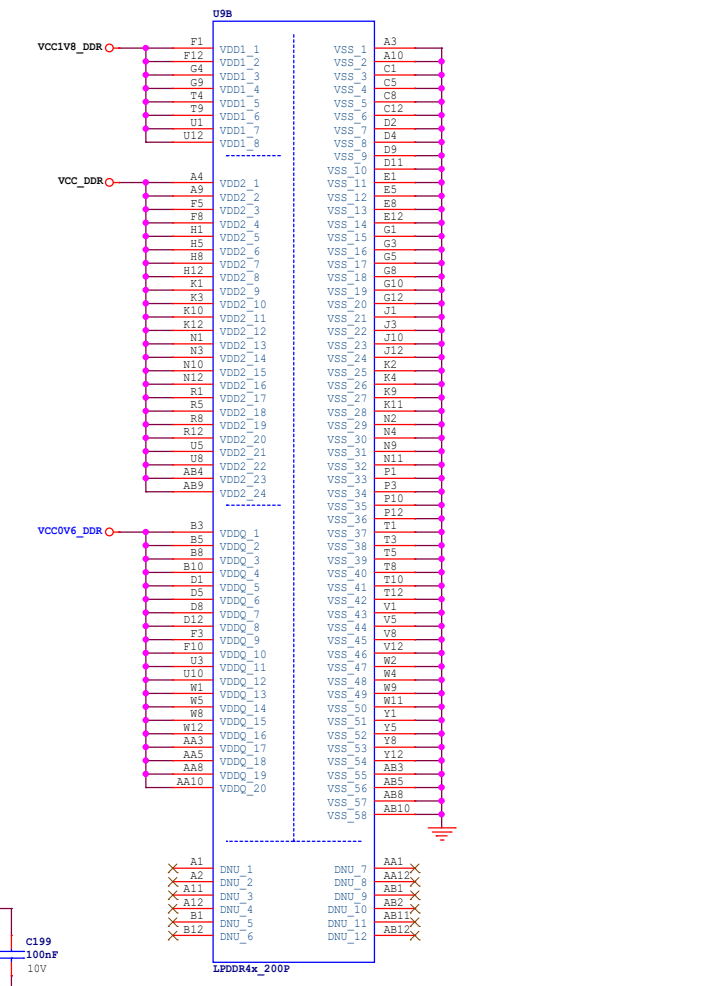
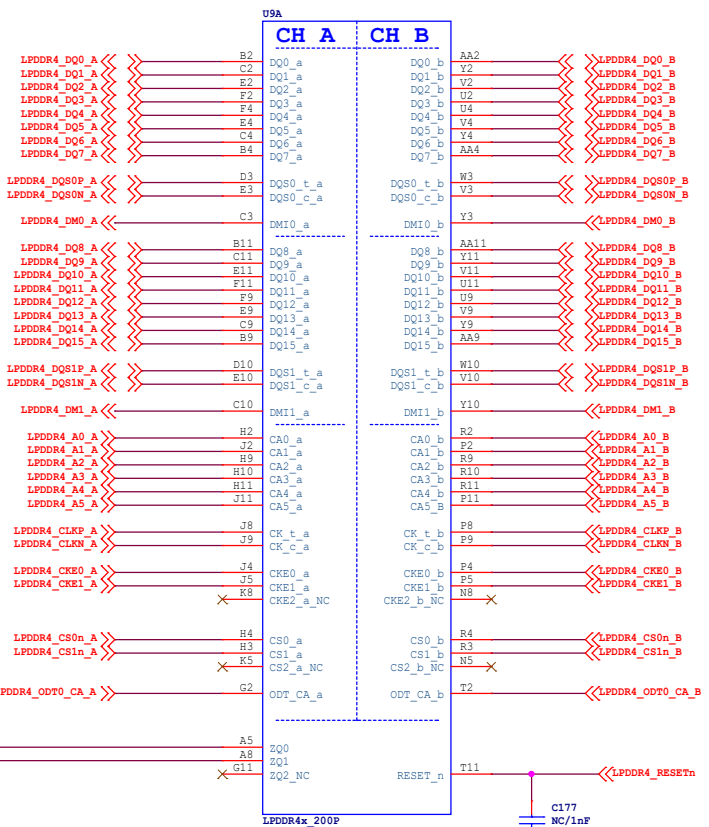
MicroSD Card



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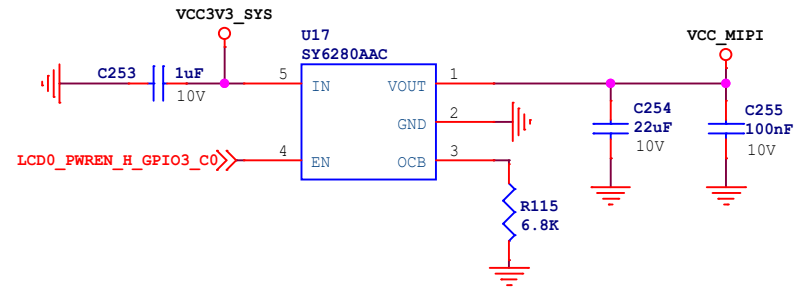
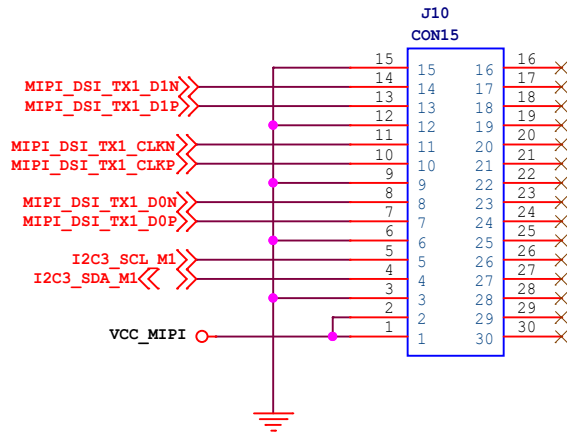


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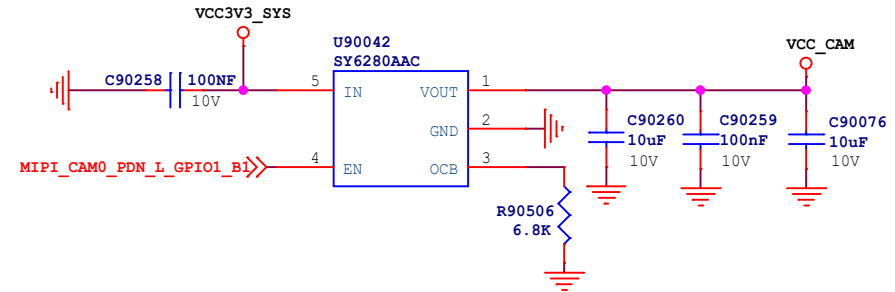
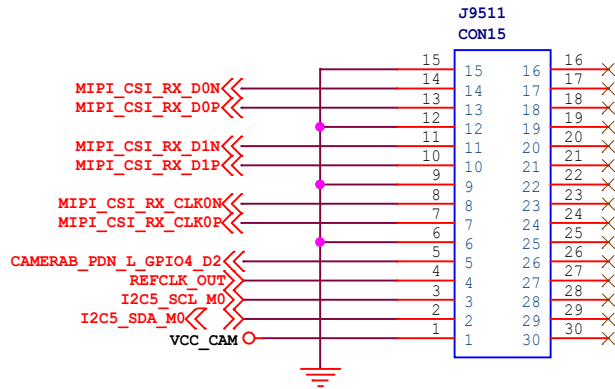


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MIPI_DSI_TX 2Lanes

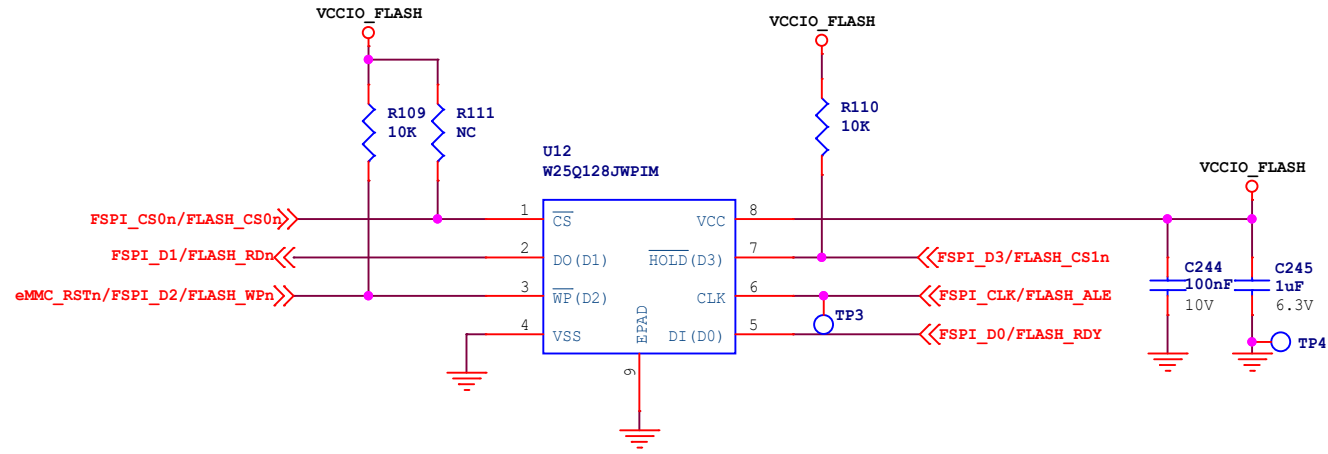


MIPI_CSI_RX 2Lanes

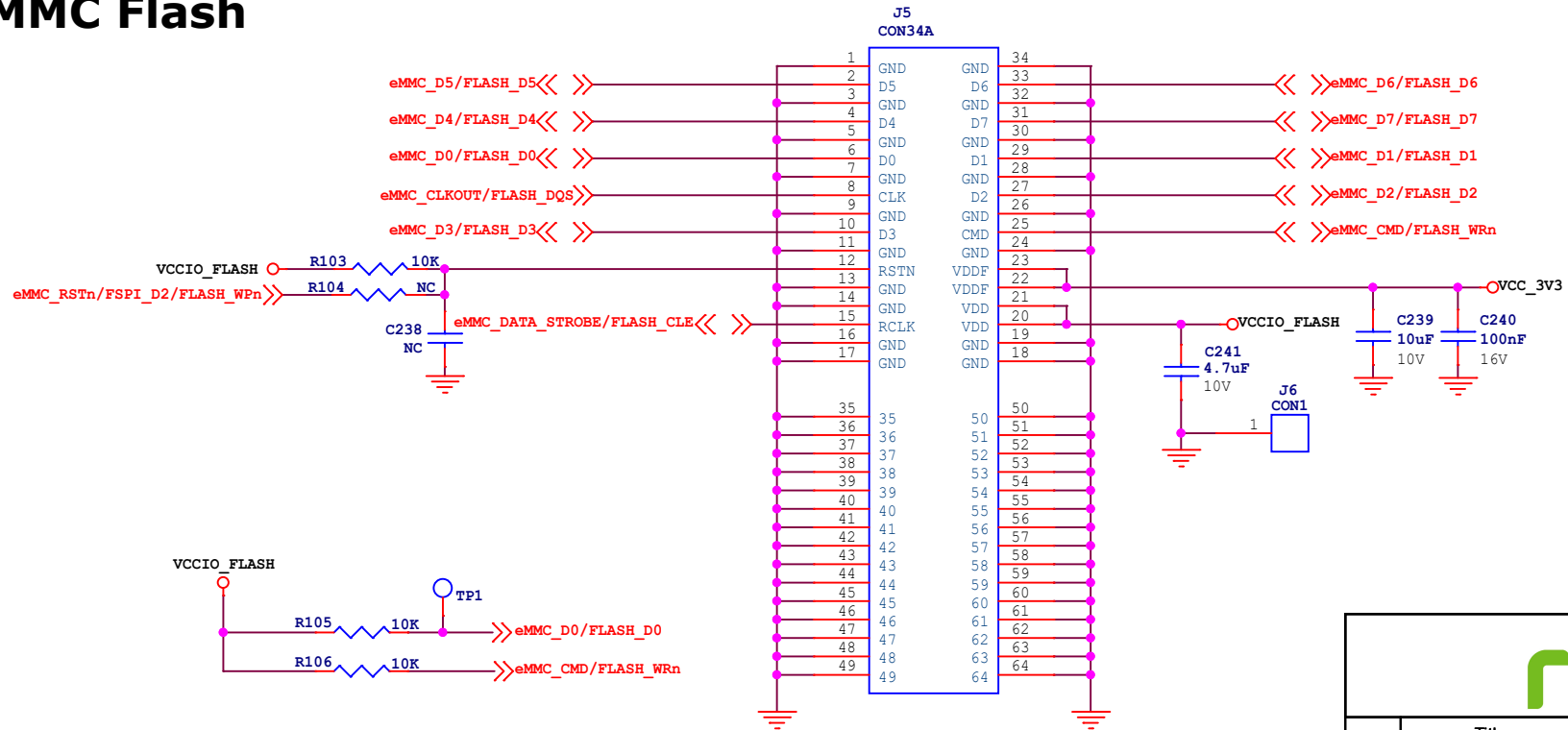


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SPI Flash

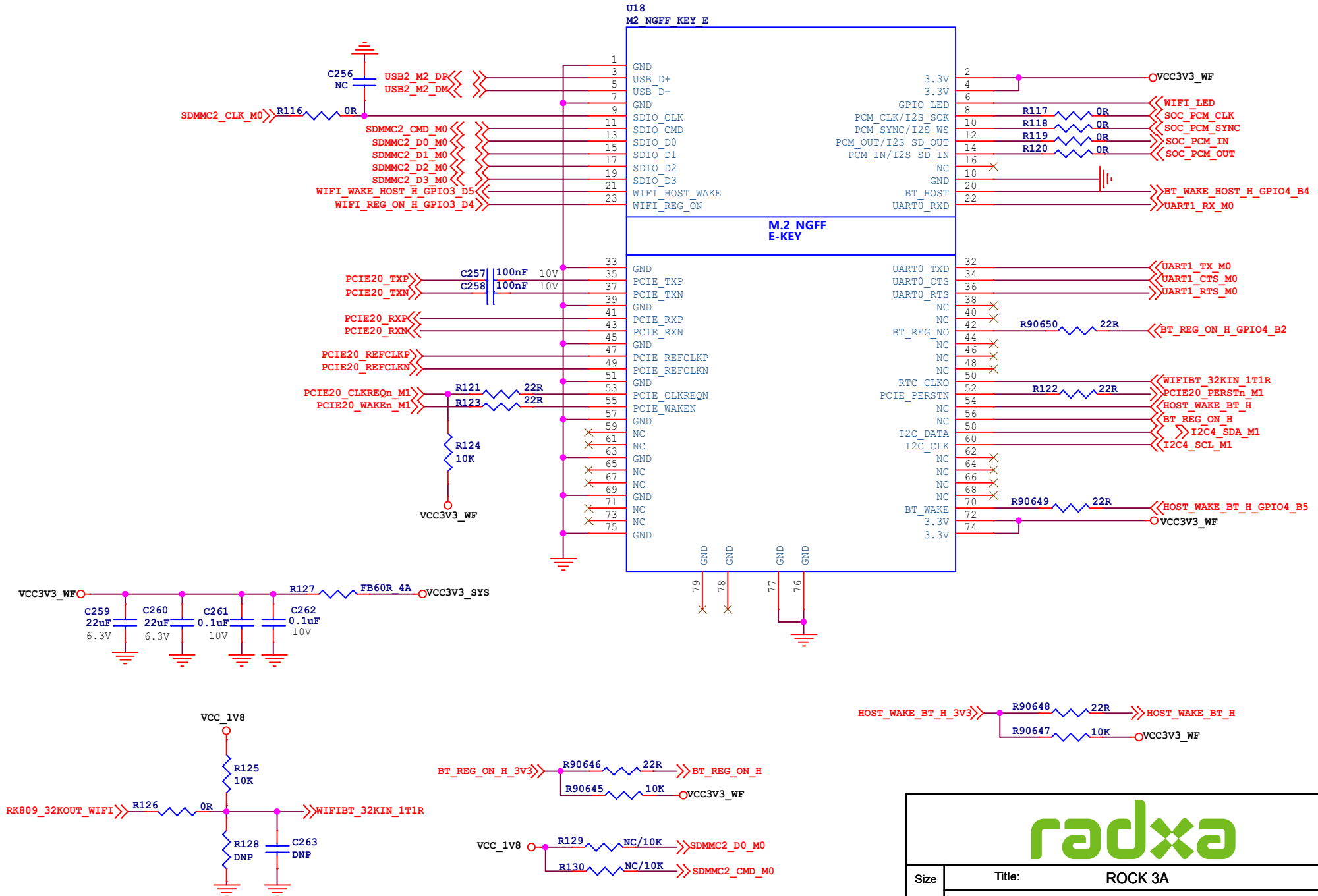


eMMC Flash



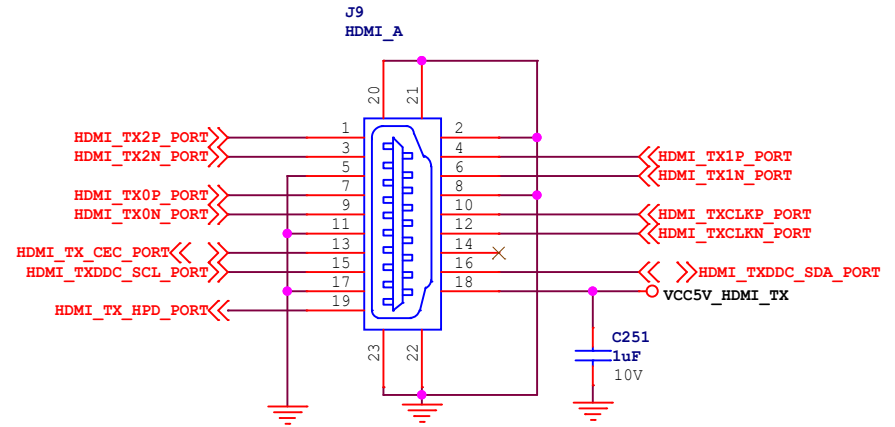
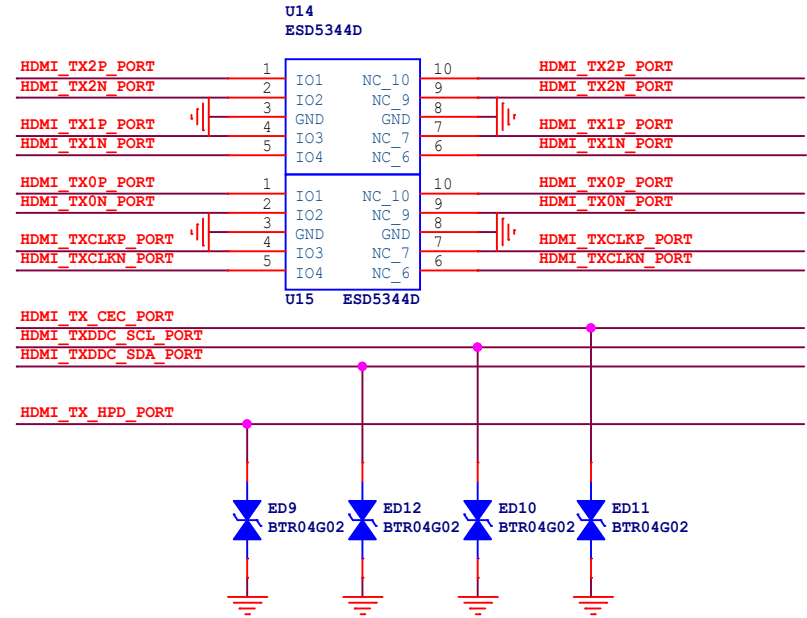
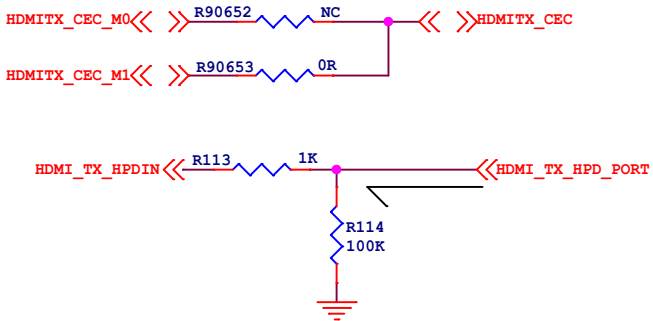
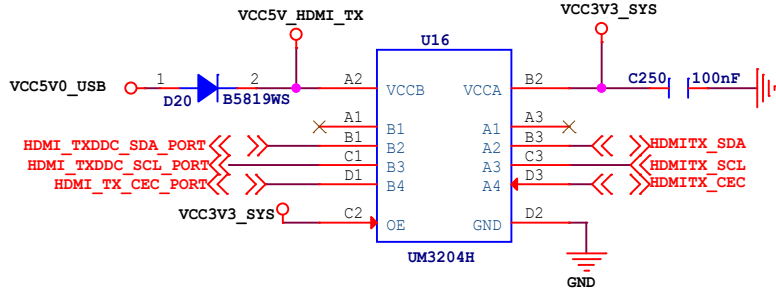
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A4	Page Name: eMMC/SPI Flash	V1.31
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E KEY_WIFI/BT_PCIE2.0

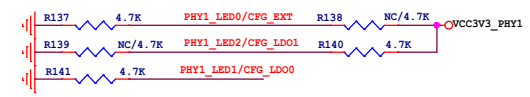
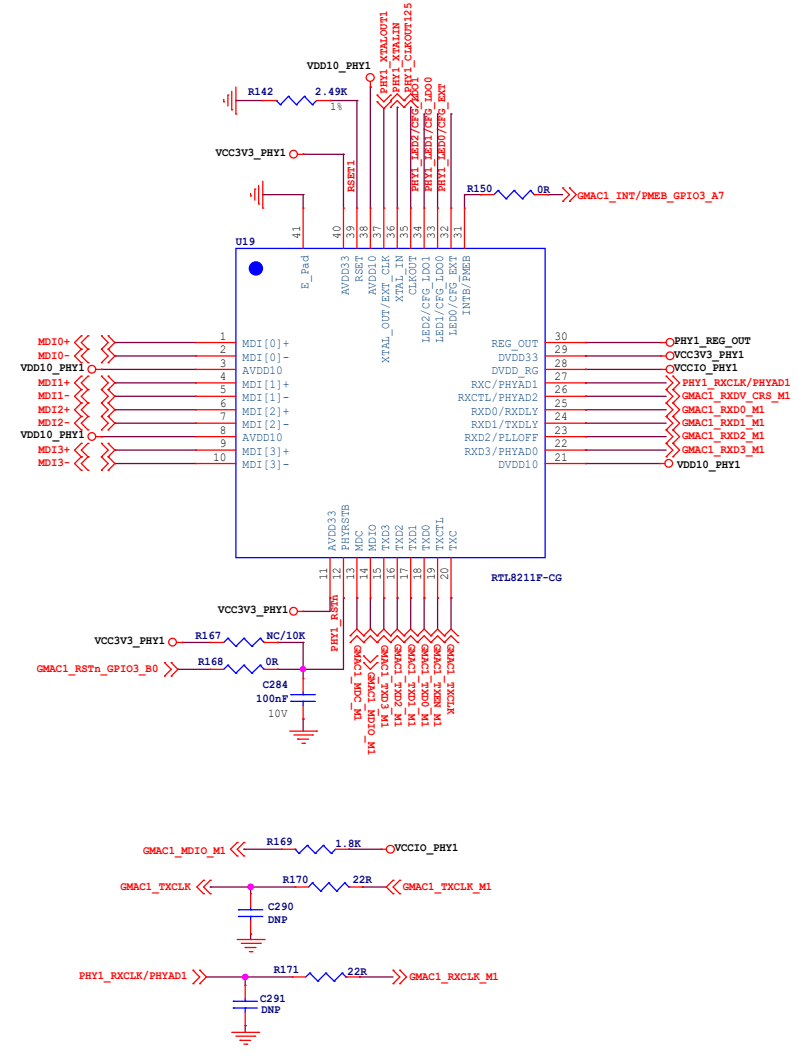
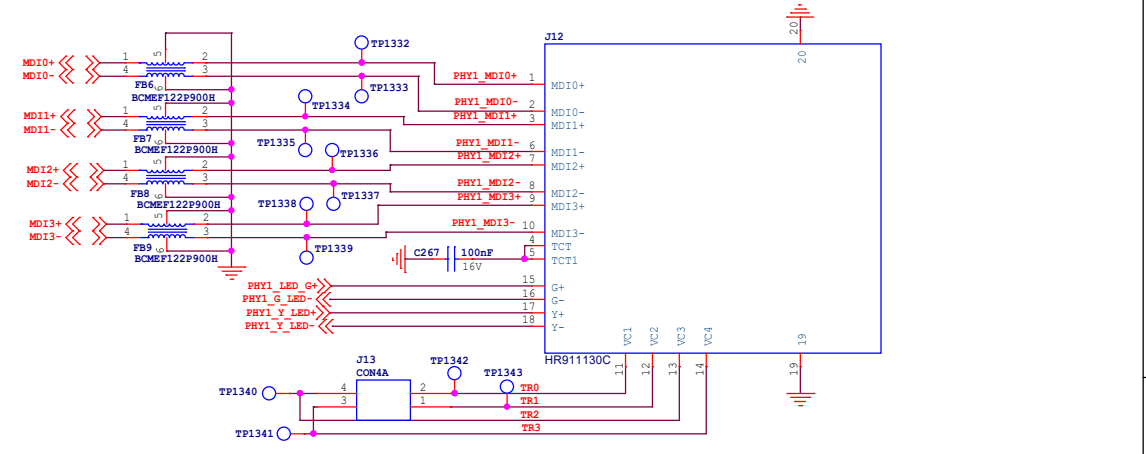
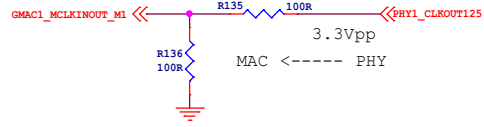
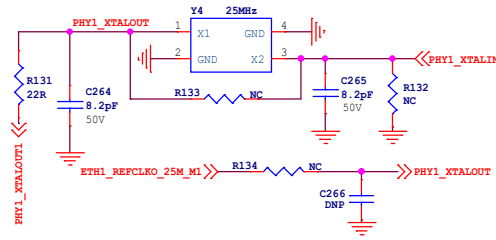


Size	Title:	ROCK 3A	REV
A4	Page Name:	E KEY_WIFI/BT/PCIE2.0	V1.31
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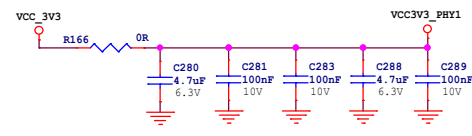
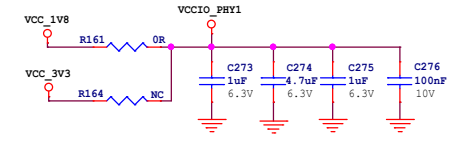
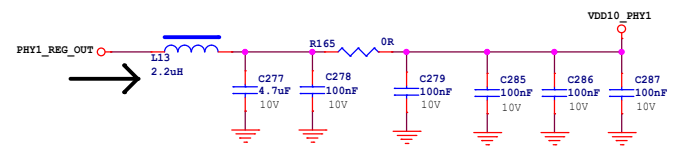
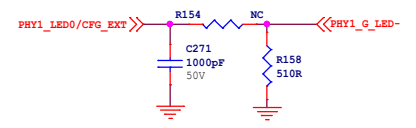
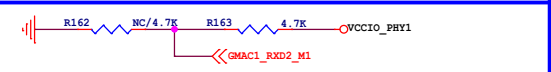
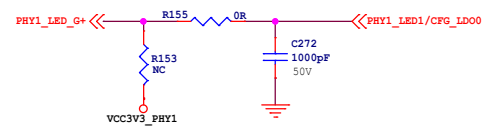
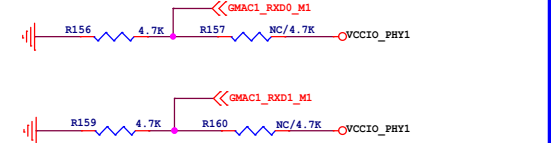
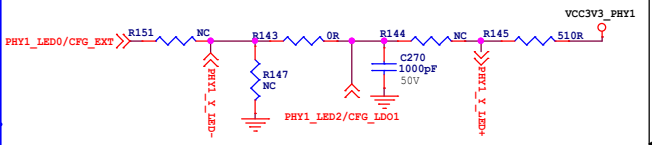
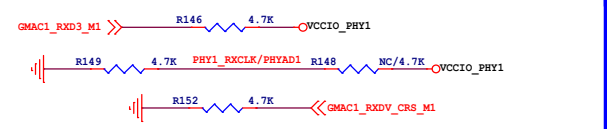
HDMI2.0 TX




Giga PHY1



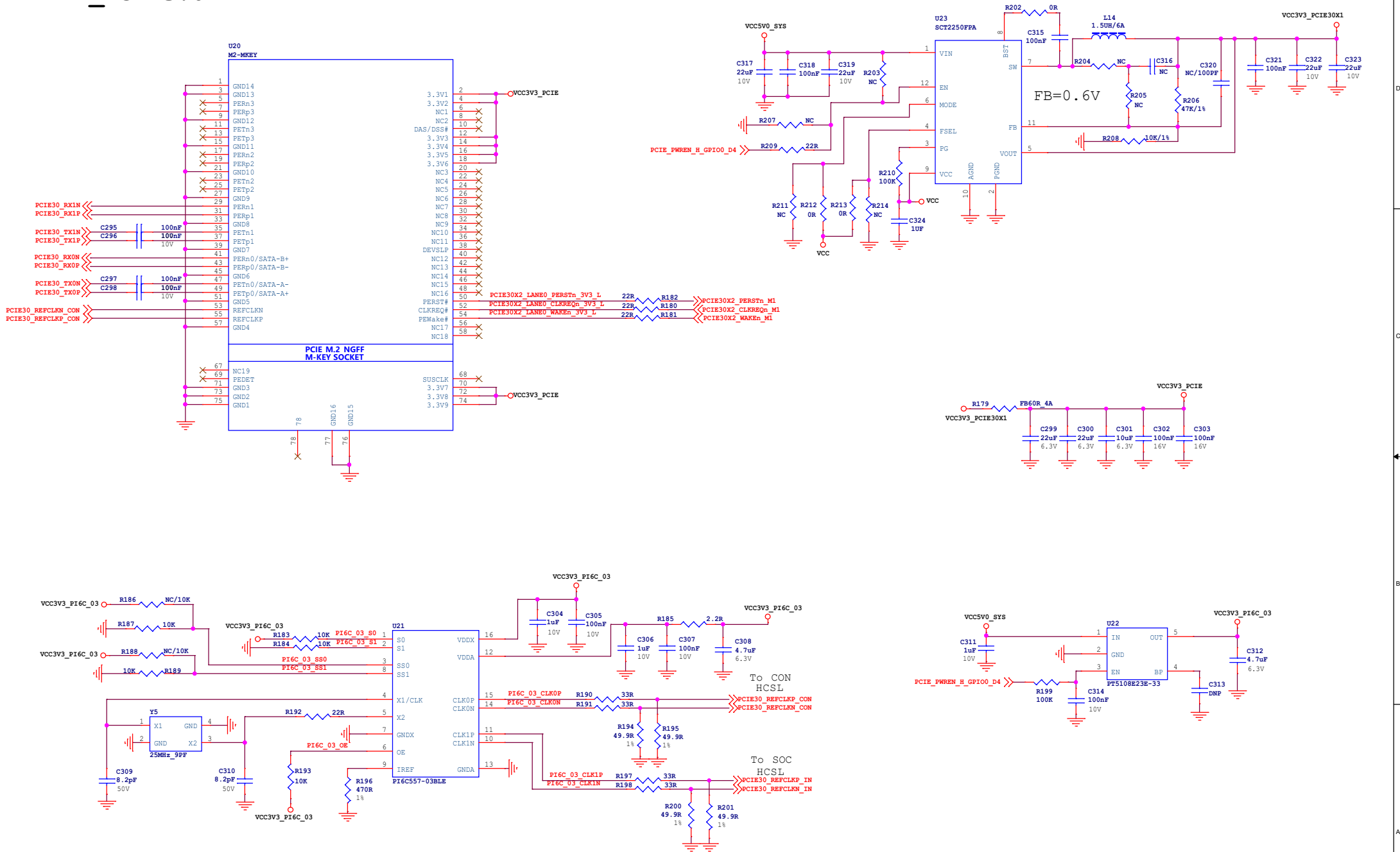
RGMIID Power Source	CFG_EXT	CFG_LDO[1:0]	
External 3.3V	1'b1	2'b00	
External 1.8V	1'b1	2'b10	
Internal 1.8V(default)	1'b0	2'b10	



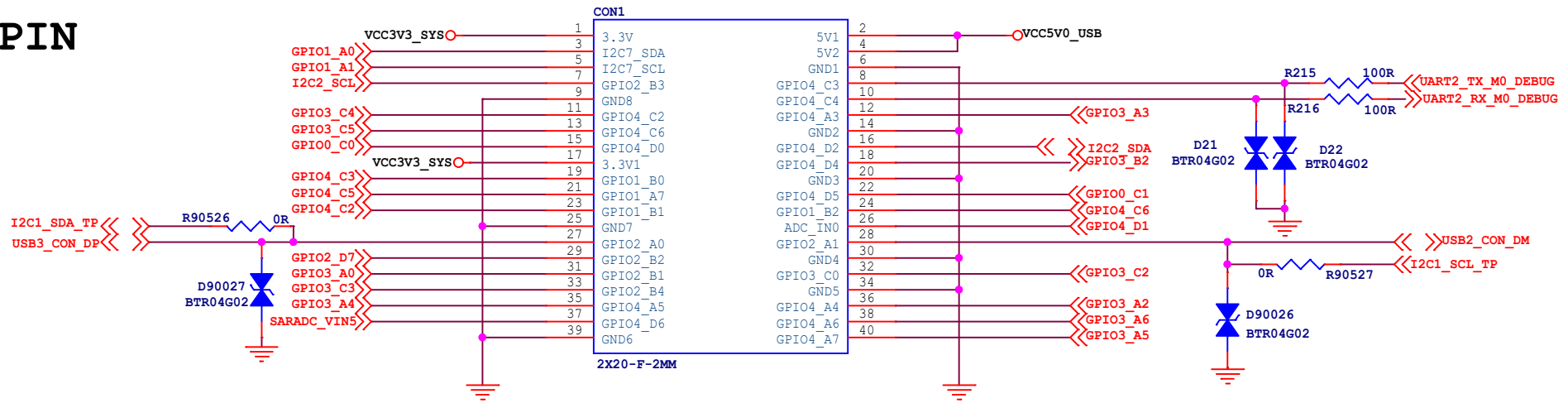


Size	Title: ROCK 3A	REV
A3	Page Name: Ethernet 1000MHz	V1.31
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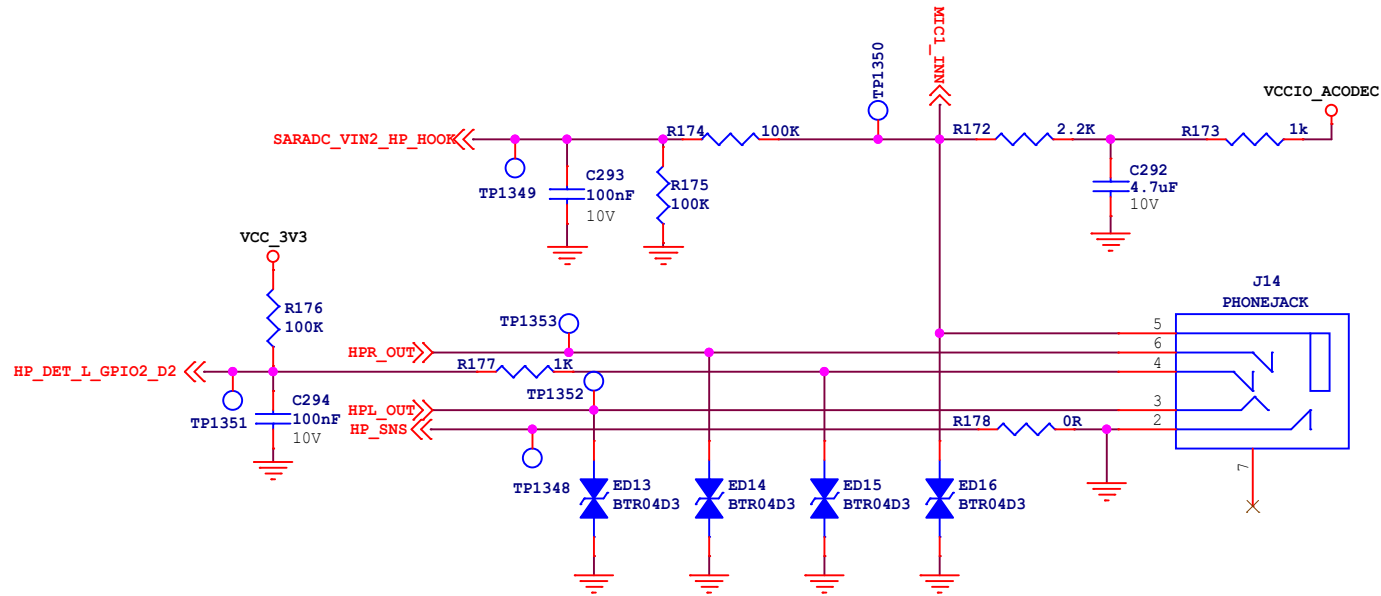
M KEY_PCIE3.0



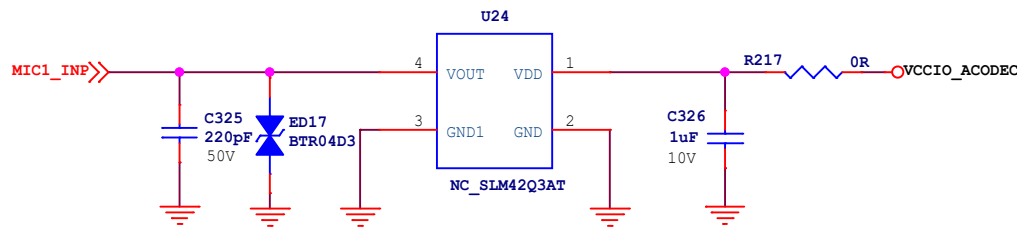
40PIN



PHONE



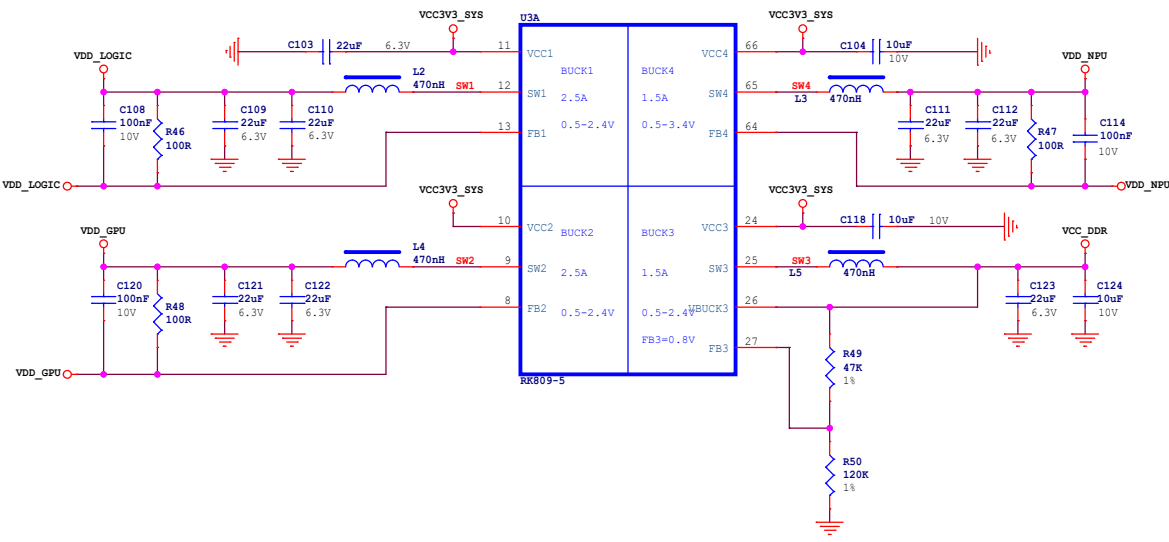
MIC



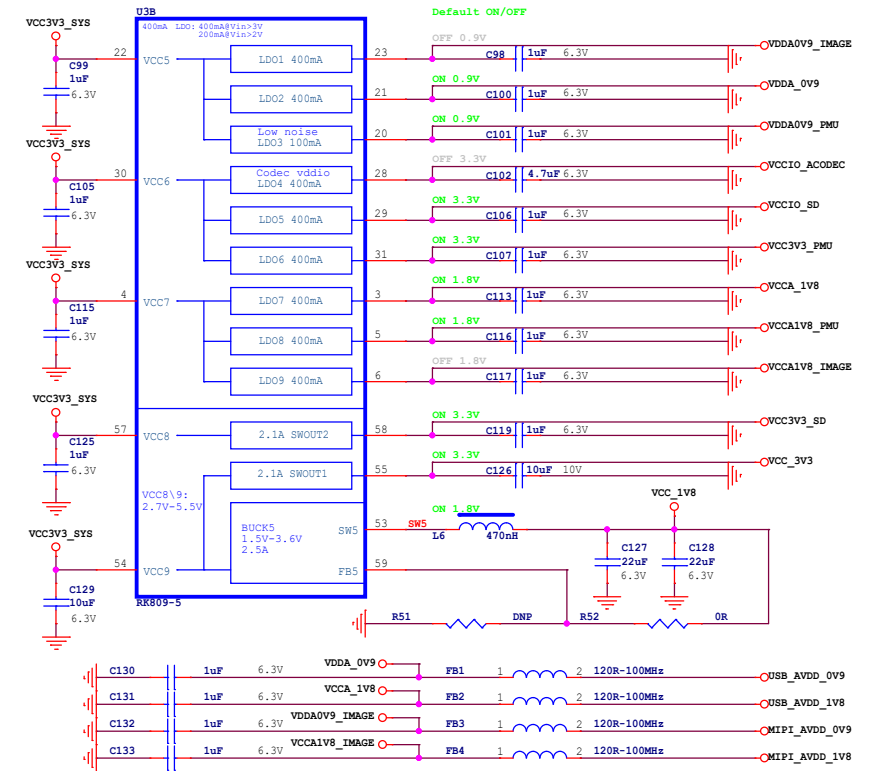
radxa

Size	Title: ROCK 3A	REV
A4	Page Name: Phoe/MIC/40pin	V1.31
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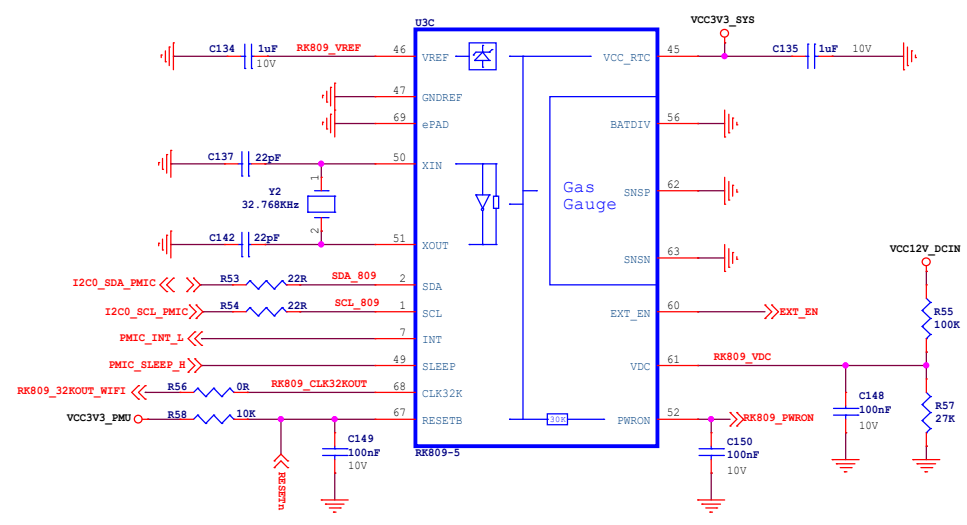
PMIC RK809 DCDC



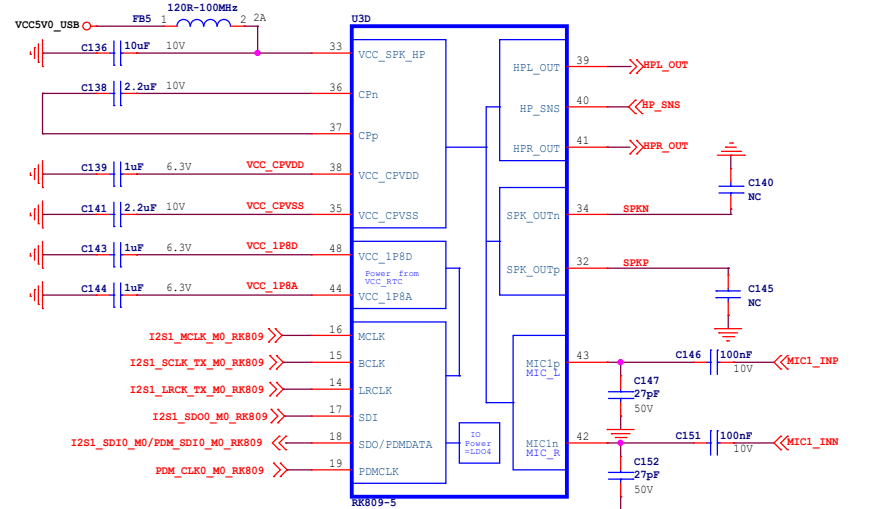
PMIC RK809 LDO



PMIC RK809 Managerment



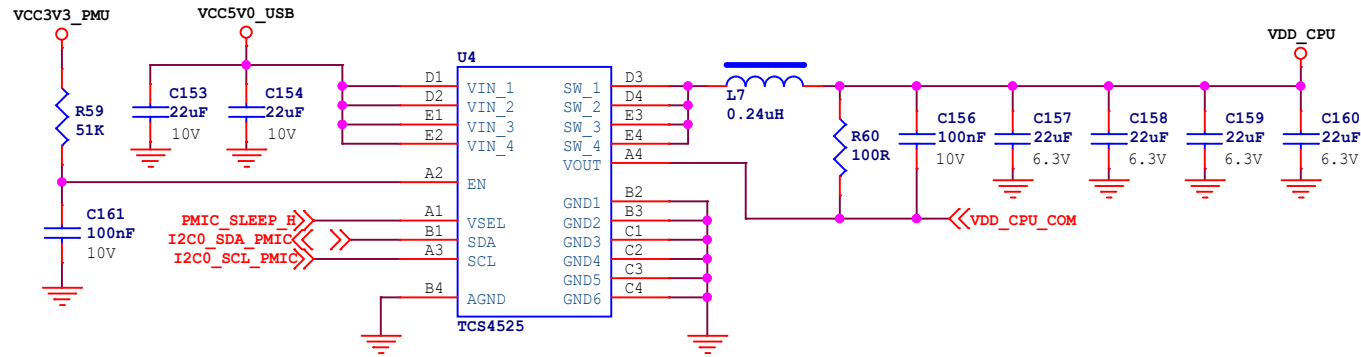
PMIC RK809 CODEC



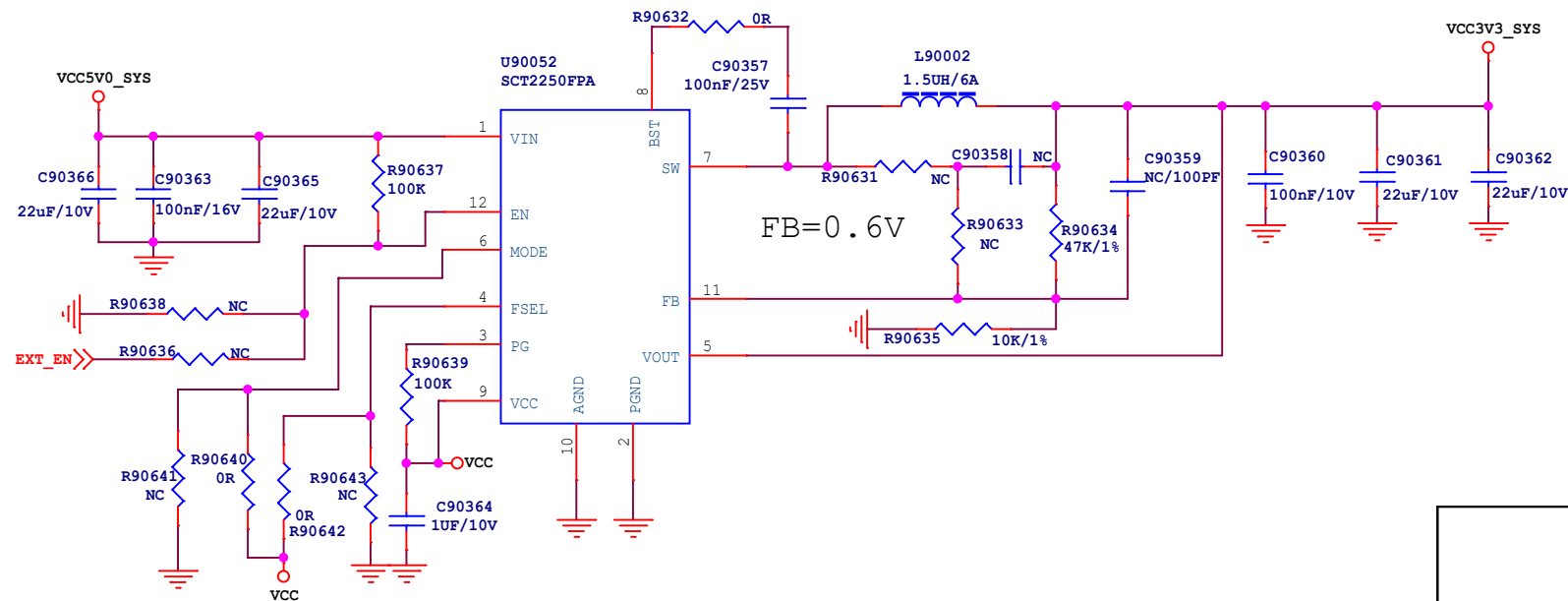
radxa

Size	Title: ROCK 3A	REV
A3	Page Name: Power_PMIC	V1.31
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VDD_CPU

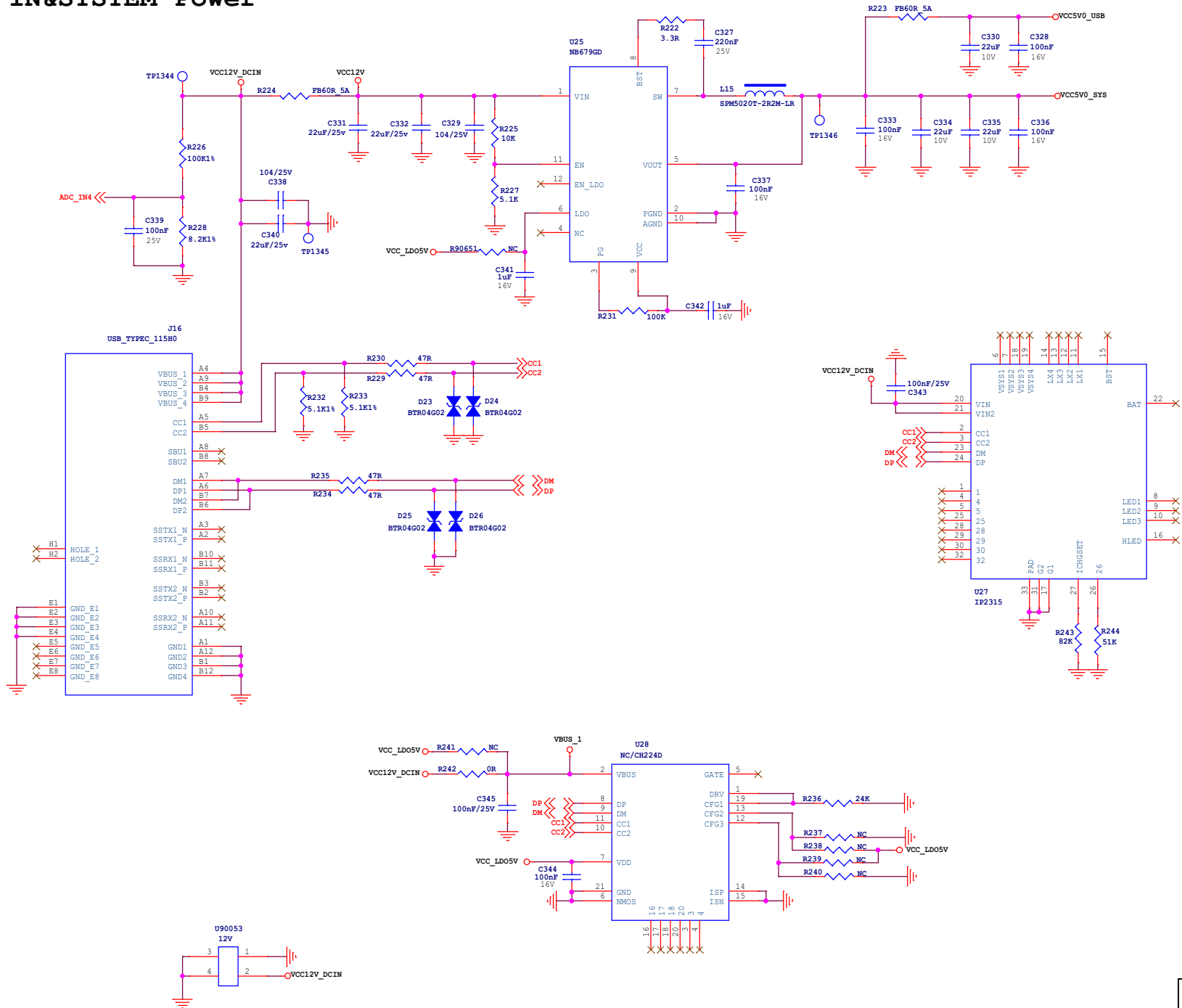


VCC3V3_SYS

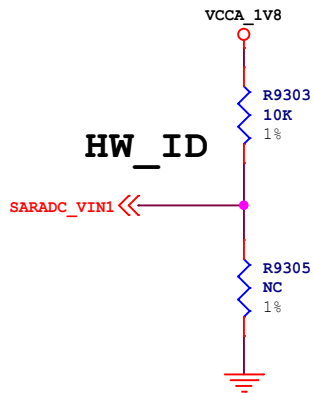


Size	Title: ROCK 3A	REV
A4	Page Name: Power_CPU/SYS	V1.31
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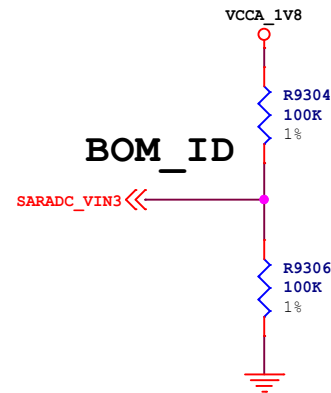
DC IN&SYSTEM Power



radxa		
Size	Title:	ROCK 3A
A3	Page Name:	Power_DC IN
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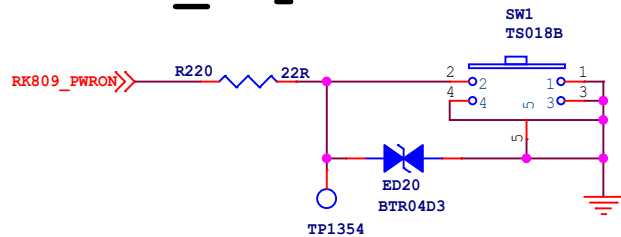


SARADC_VIN1	Up Resistance	Down Resistance
HW_ID0	10K	DNP
HW_ID1	10K	110K
HW_ID2	20K	100K
HW_ID3	33K	100K
HW_ID4	18K	36K
HW_ID5	36K	51K
HW_ID6	51K	51K
HW_ID7	51K	36K
HW_ID8	36K	18K
HW_ID9	100K	33K
HW_ID10	100K	20K
HW_ID11	110K	10K
HW_ID12	DNP	10K

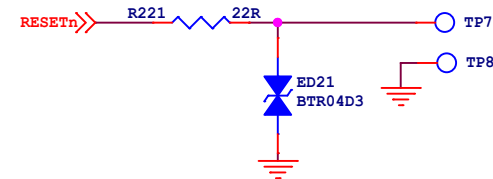


SARADC_VIN3	Up Resistance	Down Resistance
G	10K	DNP
A	DNP	100K
B	100K	20K
C	100K	51K
D	100K	100K
E		
F		
NC	DNP	DNP
I	20K	100K
J	18K	36K

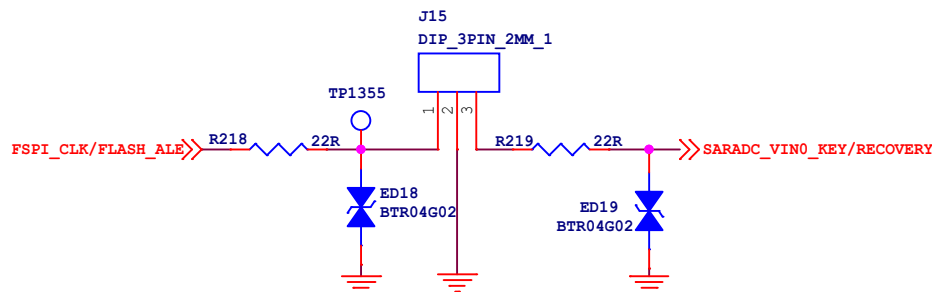
PowerOn/OFF_Key



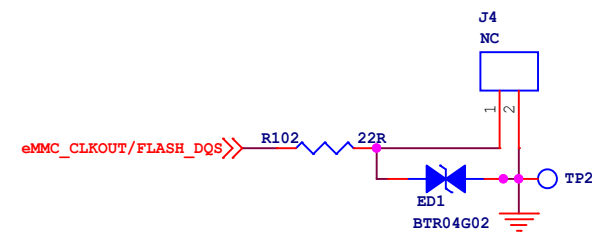
Reset_Key



RECOVERY



Maskrom



radxa

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