# Vision RV1126 board

power



File: power.kicad_sch

soc



File: soc.kicad_sch

ddr



File: ddr.kicad_sch

storage



File: storage.kicad_sch

video



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io



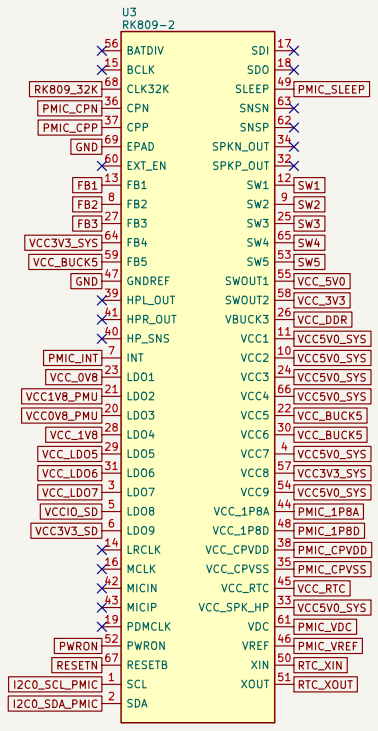
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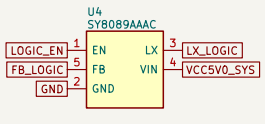
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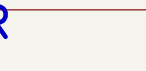
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# POWER



































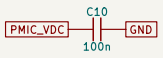


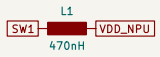


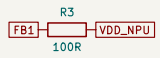


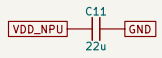


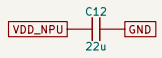


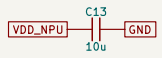





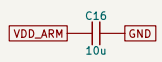










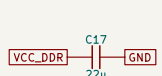












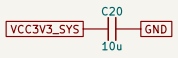


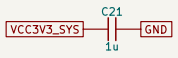


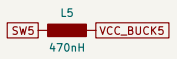






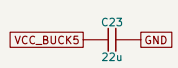










































































































































































































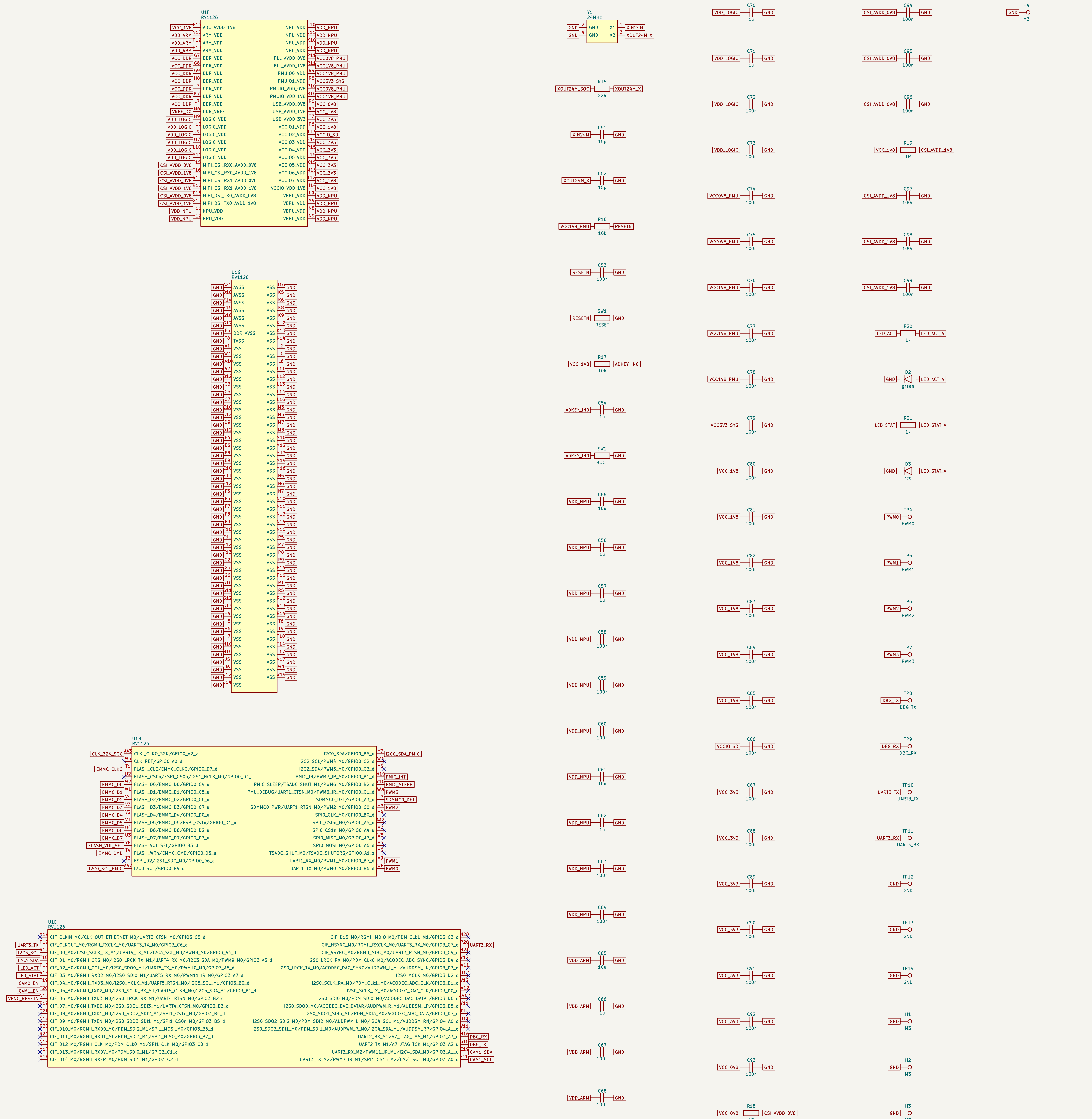


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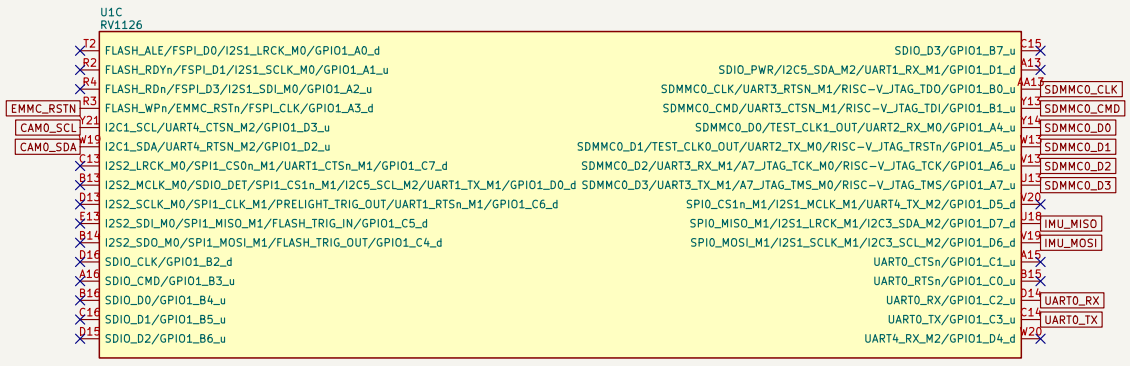
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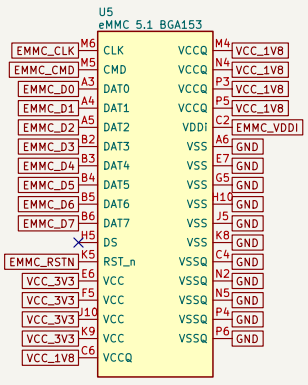
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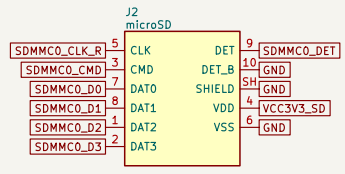


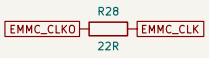

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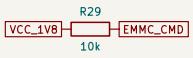
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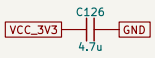



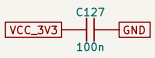



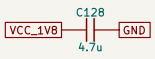



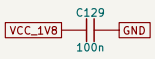


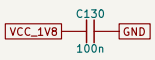




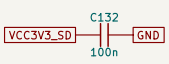



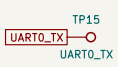



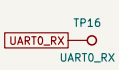







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# VIDEO

U1D
RV1126

| | | | |
|---|---|---|---|
| VO_CLK | LCDC_CLK/UART3_CTSN_M2/PWM8_M1/SPI1_MISO_M2/GPIO2_D7_d | LCDC_D15/RGMII_TXD0_M1/CIF_D11_M1/GPIO2_C3_d | |
| VO_D0 | LCDC_D0/RGMII_TXD3_M1/CIF_D0_M1/UART4_RTSN_M1/GPIO2_A4_d | LCDC_D16/RGMII_TXD1_M1/CIF_D12_M1/GPIO2_C4_d | |
| VO_D1 | LCDC_D1/RGMII_CRS_M1/CIF_D1_M1/UART4_CTSN_M1/I2C5_SCL_M0/GPIO2_A5_d | LCDC_D17/CLK_OUT_ETHERNET_M1/CIF_D13_M1/GPIO2_C5_d | |
| VO_D2 | LCDC_D2/RGMII_COL_M1/CIF_D2_M1/PWM5_M1/UART4_TX_M1/GPIO2_A6_d | LCDC_D18/RGMII_TXEN_M1/CIF_D14_M1/GPIO2_C6_d | |
| VO_D3 | LCDC_D3/I2S2_SDO_M1/UART4_RX_M1/PWM4_M1/SPI0_CS0n_M2/GPIO2_A7_d | LCDC_D19/RGMII_RXD2_M1/CIF_D15_M1/I2S1_MCLK_M2/GPIO2_C7_d | |
| VO_D4 | LCDC_D4/I2S2_SDI_M1/UART5_TX_M1/PWM3_IR_M1/SPI0_MOSI_M2/GPIO2_B0_d | LCDC_D20/RGMII_RXD3_M1/CIF_VSYNC_M1/I2S1_SDO_M2/GPIO2_D0_d | |
| VO_D5 | LCDC_D5/I2S2_SCLK_M1/UART5_RX_M1/PWM2_M1/SPI0_MISO_M2/GPIO2_B1_d | LCDC_D21/RGMII_TXD2_M1/CIF_CLKOUT_M1/I2S1_SCLK_M2/GPIO2_D1_d | |
| VO_D6 | LCDC_D6/I2S2_LRCK_M1/UART5_RTSN_M1/PWM1_M1/SPI0_CLK_M2/GPIO2_B2_d | LCDC_D22/RGMII_TXCLK_M1/CIF_CLKIN_M1/I2S1_LRCK_M2/GPIO2_D2_d | |
| VO_D7 | LCDC_D7/I2S2_MCLK_M1/CIF_D3_M1/UART5_CTSN_M1/SPI0_CS1n_M2/PWM0_M1/I2C5_SDA_M0/GPIO2_B3_d | LCDC_D23/RGMII_RXCLK_M1/CIF_HSYNC_M1/I2S1_SDI_M2/GPIO2_D3_d | |
| | LCDC_D8/RGMII_RXDV_M1/CIF_D4_M1/GPIO2_B4_d | LCDC_DEN/PWM6_M1/SPI1_CS0n_M2/I2C3_SCL_M1/GPIO2_D4_d | |
| | LCDC_D9/RGMII_RXD0_M1/CIF_D5_M1/GPIO2_B5_d | LCDC_HSYNC/PWM10_M1/SPI1_CLK_M2/I2C3_SDA_M1/GPIO2_D5_d | VO_HSYNC |
| | LCDC_D10/RGMII_RXD1_M1/CIF_D6_M1/GPIO2_B6_d | LCDC_VSYNC/UART3_RTSN_M2/PWM9_M1/SPI1_MOSI_M2/GPIO2_D6_d | VO_VSYNC |
| | LCDC_D11/RGMII_CLK_M1/CIF_D7_M1/GPIO2_B7_d | MIPI_CSI_CLK0/UART5_CTSN_M2/GPIO2_A3_d | |
| | LCDC_D12/RGMII_RXER_M1/CIF_D8_M1/GPIO2_C0_d | MIPI_CSI_CLK1/UART5_RTSN_M2/GPIO2_A2_d | IMU_INT |
| | LCDC_D13/RGMII_MDIO_M1/CIF_D9_M1/GPIO2_C1_d | SPI0_CLK_M1/I2S1_SDO_M1/UART5_RX_M2/GPIO2_A1_d | IMU_SCLK |
| | LCDC_D14/RGMII_MDC_M1/CIF_D10_M1/GPIO2_C2_d | SPI0_CSOn_M1/I2S1_SDI_M1/UART5_TX_M2/GPIO2_A0_d | IMU_CS |

U1H
RV1126

| | | | |
|---|---|---|---|
| ADKEY_IN0 | ADCIN0 | MIPI_CSI_RX1_D1P/LVDS1_RX1P | CSI1_D1P |
| | ADCIN1 | MIPI_CSI_RX1_D2N/LVDS1_RX2N | |
| | ADCIN2 | MIPI_CSI_RX1_D2P/LVDS1_RX2P | |
| | ADCIN3 | MIPI_CSI_RX1_D3N/LVDS1_RX3N | |
| | ADCIN4 | MIPI_CSI_RX1_D3P/LVDS1_RX3P | |
| | ADCIN5 | MIPI_DSI_TX0_CLKN | |
| USB_HOST_DM | HOST_DM | MIPI_DSI_TX0_CLKP | |
| USB_HOST_DP | HOST_DP | MIPI_DSI_TX0_D0N | |
| HOST_EXTR | HOST_EXTR | MIPI_DSI_TX0_D0P | |
| CSI0_CLKN | MIPI_CSI_RX0_CLKN/LVDS0_CLKN | MIPI_DSI_TX0_D1N | |
| CSI0_CLKP | MIPI_CSI_RX0_CLKP/LVDS0_CLKP | MIPI_DSI_TX0_D1P | |
| CSI0_D0N | MIPI_CSI_RX0_D0N/LVDS0_RX0N | MIPI_DSI_TX0_D2N | |
| CSI0_D0P | MIPI_CSI_RX0_D0P/LVDS0_RX0P | MIPI_DSI_TX0_D2P | |
| CSI0_D1N | MIPI_CSI_RX0_D1N/LVDS0_RX1N | MIPI_DSI_TX0_D3N | |
| CSI0_D1P | MIPI_CSI_RX0_D1P/LVDS0_RX1P | MIPI_DSI_TX0_D3P | |
| CSI0_D2N | MIPI_CSI_RX0_D2N/LVDS0_RX2N | NPOR_u | RESETN |
| CSI0_D2P | MIPI_CSI_RX0_D2P/LVDS0_RX2P | OTG_DM | OTG_DM |
| CSI0_D3N | MIPI_CSI_RX0_D3N/LVDS0_RX3N | OTG_DP | OTG_DP |
| CSI0_D3P | MIPI_CSI_RX0_D3P/LVDS0_RX3P | OTG_EXTR | OTG_EXTR |
| CSI1_CLKN | MIPI_CSI_RX1_CLKN/LVDS1_CLKN | OTG_ID | |
| CSI1_CLKP | MIPI_CSI_RX1_CLKP/LVDS1_CLKP | OTG_VBUS1V8 | OTG_DET_1V8 |
| CSI1_D0N | MIPI_CSI_RX1_D0N/LVDS1_RX0N | XIN24M | XIN24M |
| CSI1_D0P | MIPI_CSI_RX1_D0P/LVDS1_RX0P | XOUT24M | XOUT24M_SOC |
| CSI1_D1N | MIPI_CSI_RX1_D1N/LVDS1_RX1N | | |

U6
ADV7391BCPZ

| | | | |
|---|---|---|---|
| GND | AGND | P4 | VO_D4 |
| GND | AGND | P5 | VO_D5 |
| GND | ALSB | P6 | VO_D6 |
| VO_CLK_R | CLKIN | P7 | VO_D7 |
| VENC_COMP | COMP | PGND | GND |
| CVBS | DAC1 | PVDD | VENC_PVDD |
| | DAC2 | RESET_n | VENC_RESETN |
| | DAC3 | RSET | VENC_RSET |
| GND | DGND | SCL | I2C3_SCL |
| GND | DGND | SDA | I2C3_SDA |
| VENC_LF | EXT_LF | SFL | |
| GND | GND_IO | VAA | VENC_VAA |
| VO_HSYNC | HSYNC_n | VDD | VENC_VDD |
| VO_D0 | P0 | VDD | VENC_VDD |
| VO_D1 | P1 | VDD_IO | VCC_3V3 |
| VO_D2 | P2 | VSYNC_n | VO_VSYNC |
| VO_D3 | P3 | | |

J3
CSI0 4-lane (RPi 22-pin)

| | | | |
|---|---|---|---|
| GND | MP | P12 | CSI0_D2P |
| GND | P1 | P13 | GND |
| CSI0_D0N | P2 | P14 | CSI0_D3N |
| CSI0_D0P | P3 | P15 | CSI0_D3P |
| GND | P4 | P16 | GND |
| CSI0_D1N | P5 | P17 | CAM0_EN |
| CSI0_D1P | P6 | P18 | |
| GND | P7 | P19 | GND |
| CSI0_CLKN | P8 | P20 | CAM0_SCL |
| CSI0_CLKP | P9 | P21 | CAM0_SDA |
| GND | P10 | P22 | VCC_3V3 |
| CSI0_D2N | P11 | | |

J4
CSI1 2-lane (RPi 22-pin)

| | | | |
|---|---|---|---|
| GND | MP | P12 | |
| GND | P1 | P13 | GND |
| CSI1_D0N | P2 | P14 | |
| CSI1_D0P | P3 | P15 | |
| GND | P4 | P16 | GND |
| CSI1_D1N | P5 | P17 | CAM1_EN |
| CSI1_D1P | P6 | P18 | |
| GND | P7 | P19 | GND |
| CSI1_CLKN | P8 | P20 | CAM1_SCL |
| CSI1_CLKP | P9 | P21 | CAM1_SDA |
| GND | P10 | P22 | VCC_3V3 |
| | P11 | | |

R31 VO_CLK — VO_CLK_R, 22R

FB1 VCC_1V8 — VENC_VDD, 600R@100MHz

C133 VENC_VDD — GND, 10u

C134 VENC_VDD — GND, 100n

C135 VENC_VDD — GND, 100n

C146 VCC_3V3 — GND, 100n

FB2 VCC_1V8 — VENC_PVDD, 600R@100MHz

C136 VENC_PVDD — GND, 1u

C137 VENC_PVDD — GND, 100n

FB3 VCC_3V3 — VENC_VAA, 600R@100MHz

C138 VENC_VAA — GND, 10u

C139 VENC_VAA — GND, 100n

R32 VENC_RSET — GND, 510R 1%

C140 VENC_COMP — VENC_VAA, 2.2n

R33 VENC_LF — VENC_LF_RC, 170R 1%

C141 VENC_LF_RC — VENC_PVDD, 12n

C142 VENC_LF — VENC_PVDD, 1.2n

R34 CVBS — GND, 75R 1%

R35 VCC_3V3 — VENC_RESETN, 10k

TP17 CVBS, VIDEO

TP18 GND, VIDEO GND

R36 VCC_3V3 — CAM0_SCL, 2.2k

R37 VCC_3V3 — CAM0_SDA, 2.2k

R38 VCC_3V3 — CAM1_SCL, 2.2k

R39 VCC_3V3 — CAM1_SDA, 2.2k

R40 VCC_3V3 — I2C3_SCL, 2.2k

R41 VCC_3V3 — I2C3_SDA, 2.2k

C143 VCC_3V3 — GND, 10u

C144 VCC_3V3 — GND, 100n

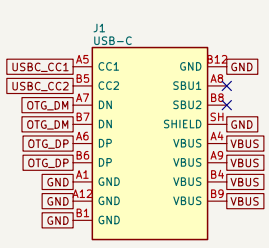
C145 VCC_3V3 — GND, 10u

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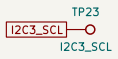
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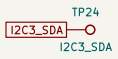
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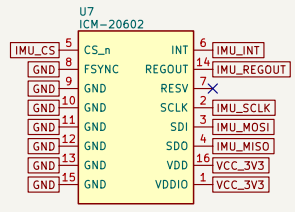


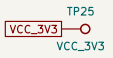


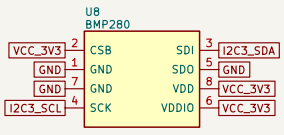


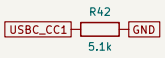


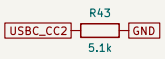



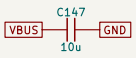



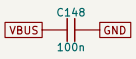



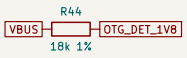



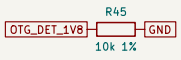



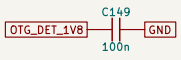





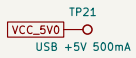






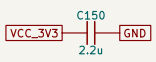


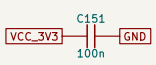


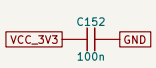



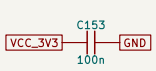







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