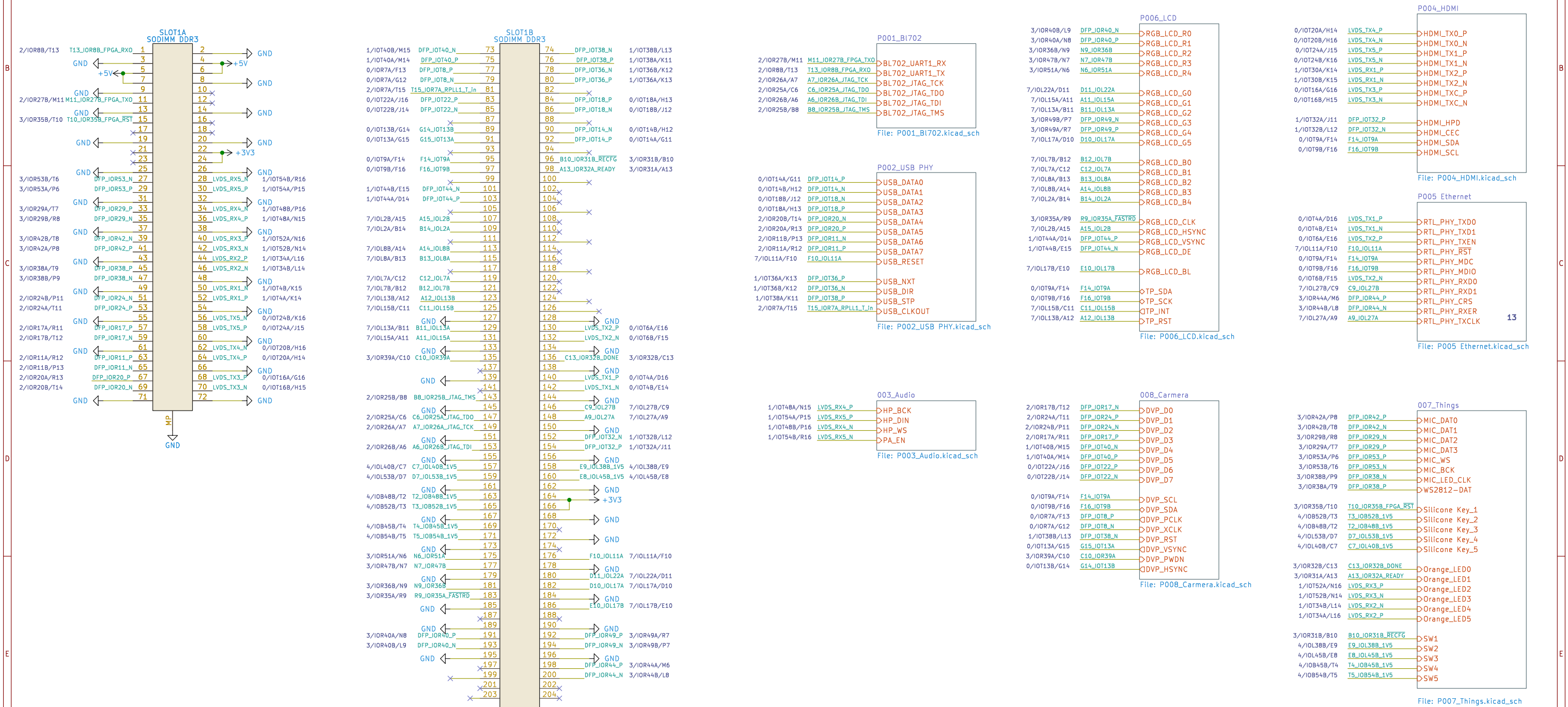


Revision History

Version	Date	Change Note
3708	2022/07/21	First release version.
3709	2022/09/01	Change the DOVDD of DVP from 3.3V to 2.5V.
3711	2022/10/30	Fixed footprint issue for WS2812C.
3713	2023/09/12	Anniversary Version, fixed PMOD spacing issue.



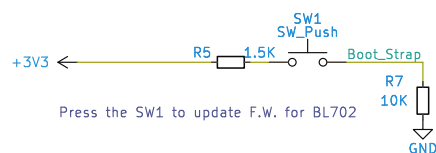
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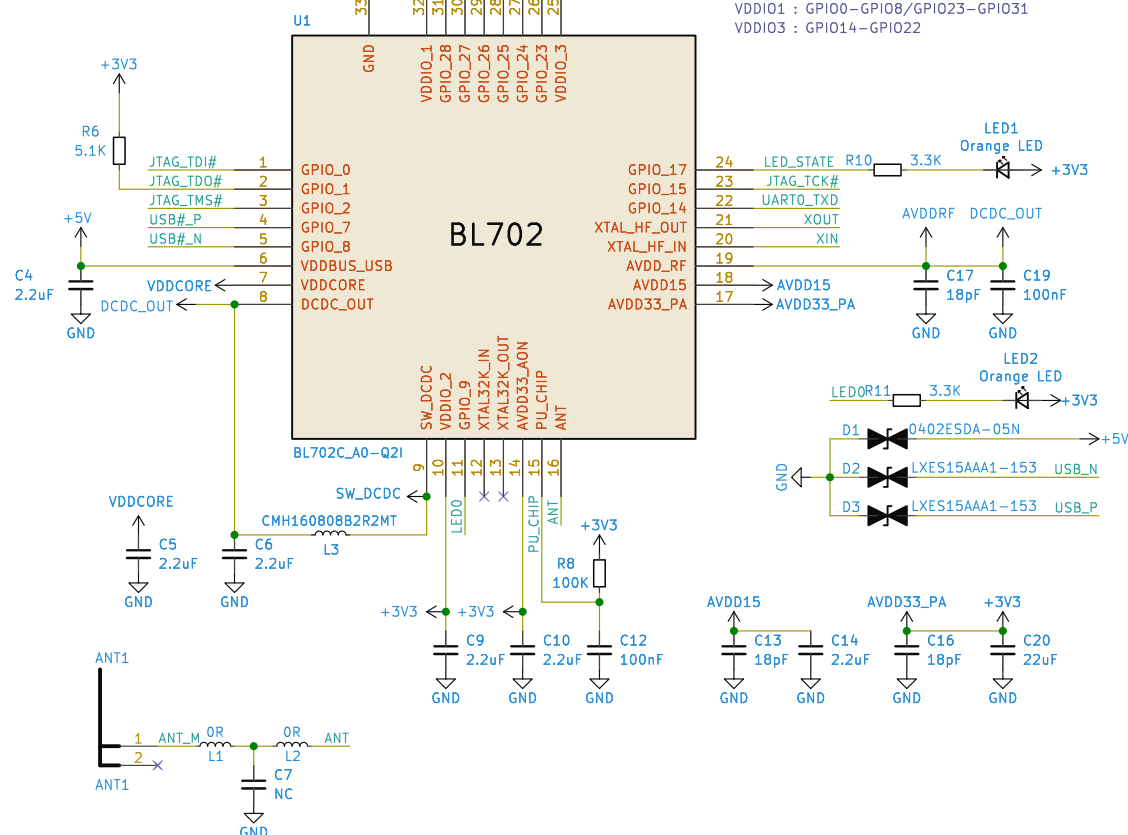
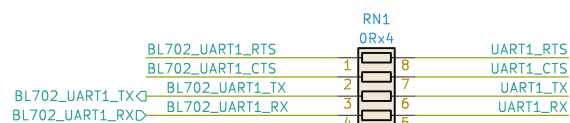
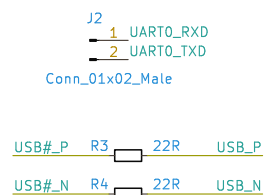
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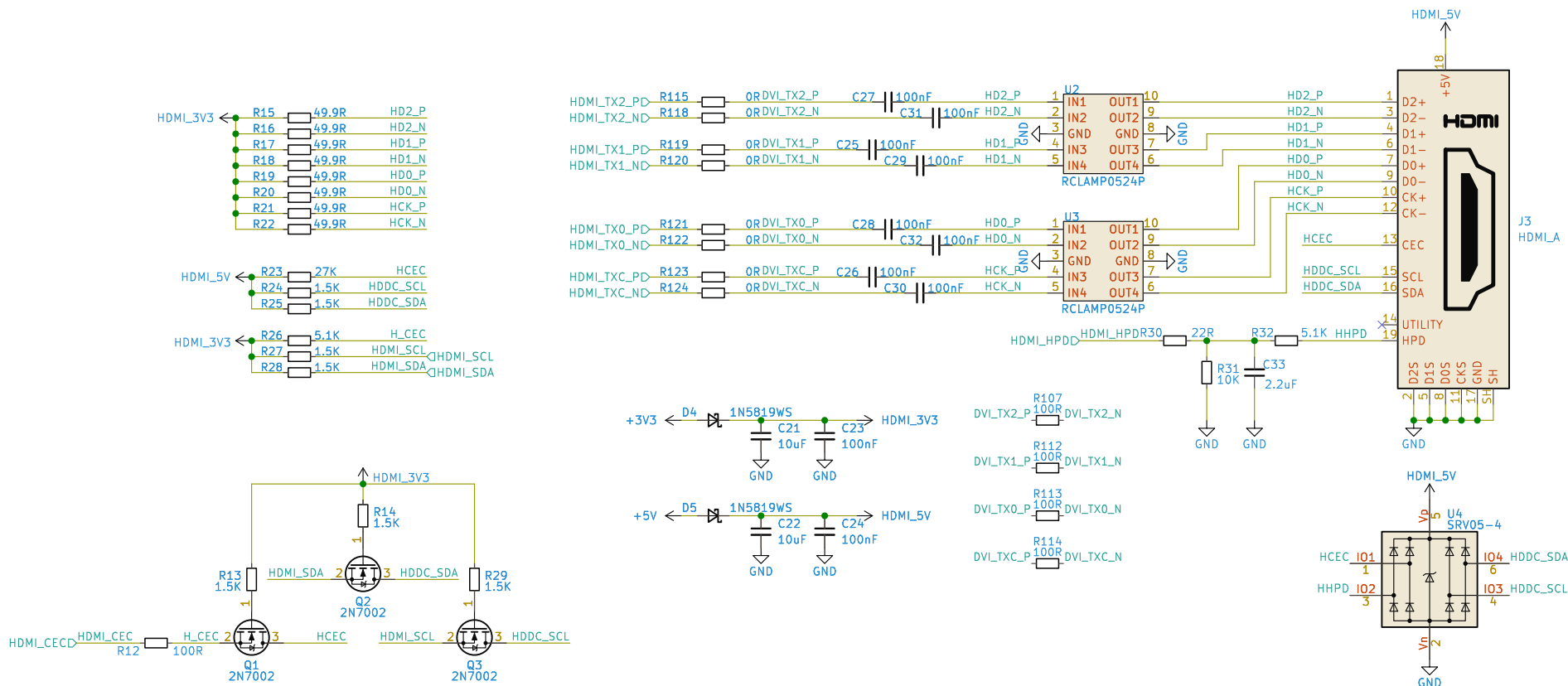
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J1
USB_C_Receptacle_USB2.0



HDMI_TX/RX



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File: P004_HDMI.kicad_sch

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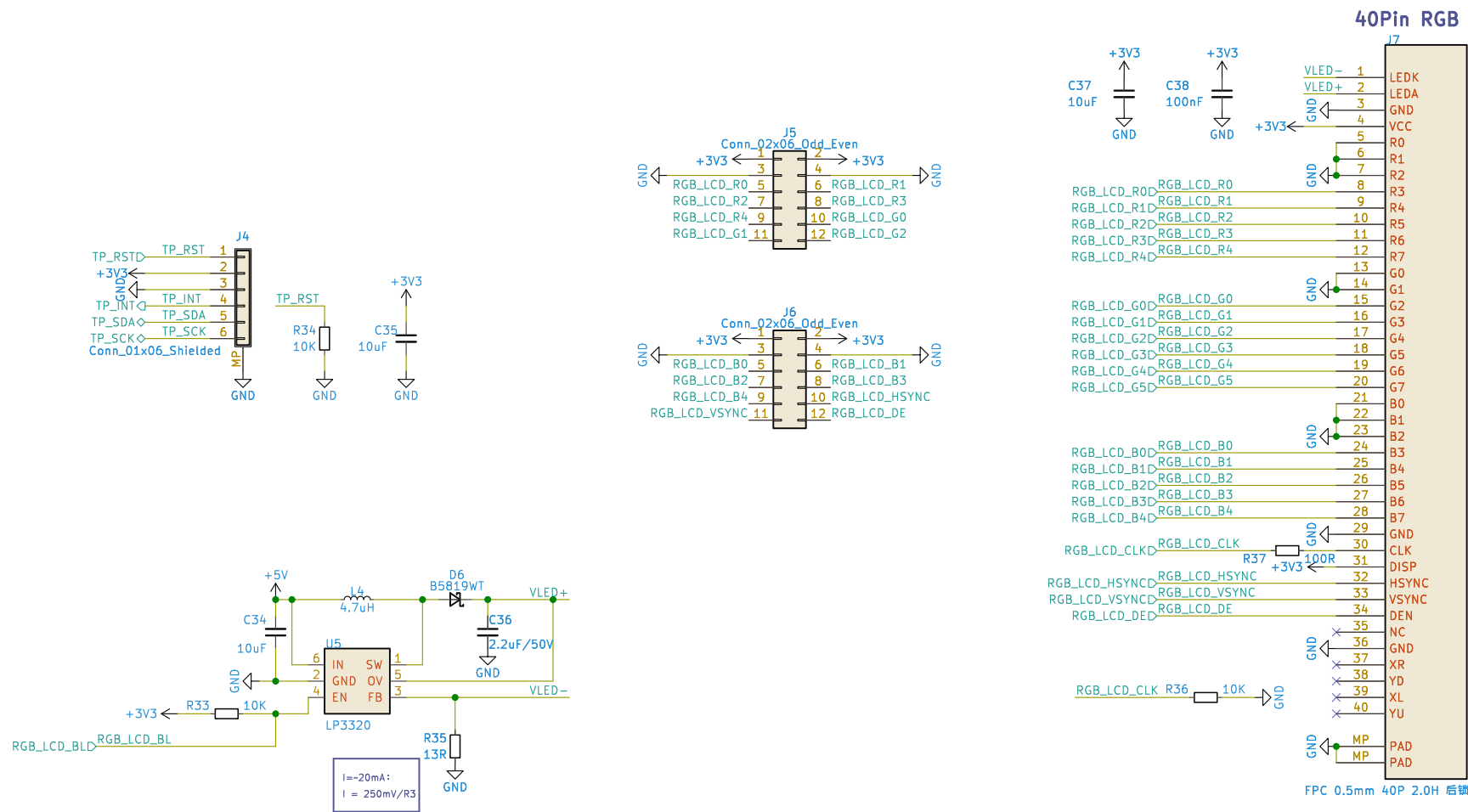
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RGB LCD



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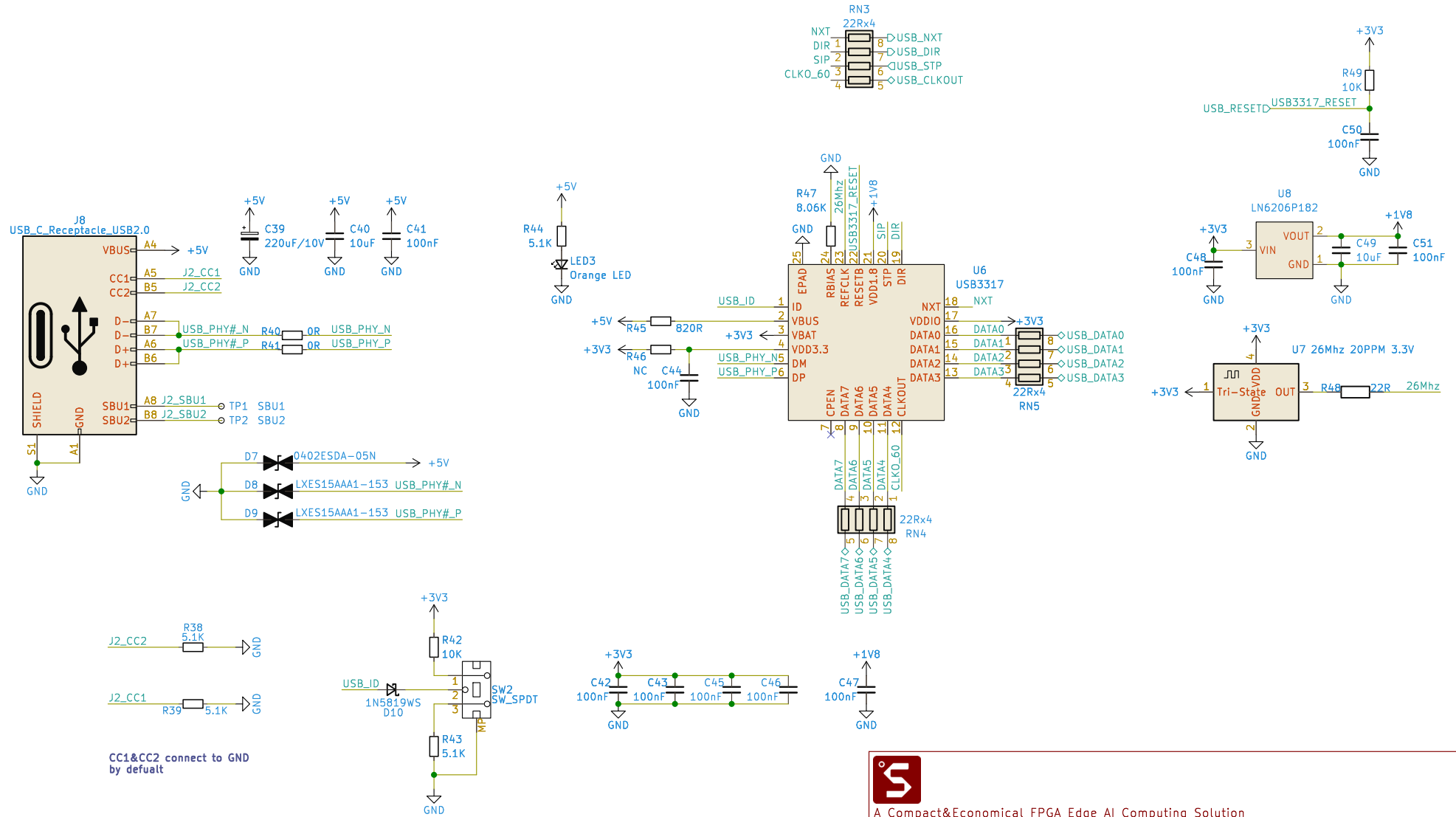
Size: A4 Date: 2023-09-12

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Id: 6/9

USB 2.0 PHY-IN BANK7



CC1&CC2 connect to GND by default



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Sheet: /P002_USB PHY/
 File: P002_USB PHY.kicad_sch

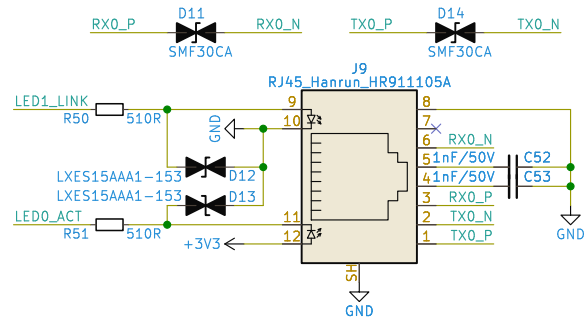
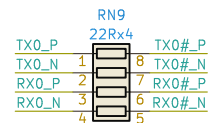
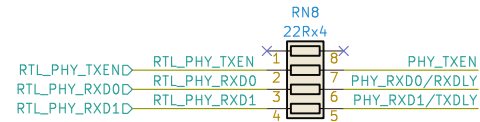
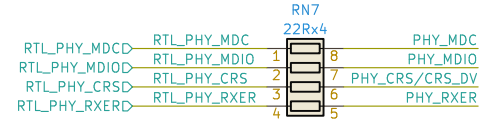
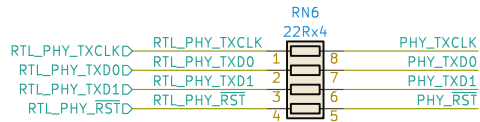
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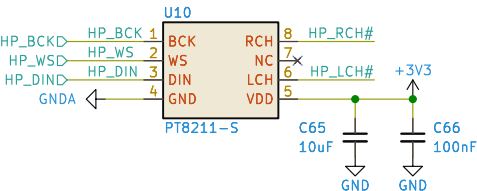
Rev: 1.1

Id: 7/9

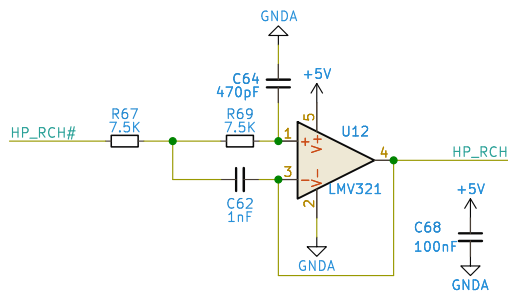
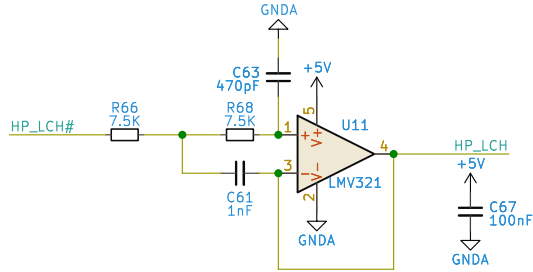


Audio

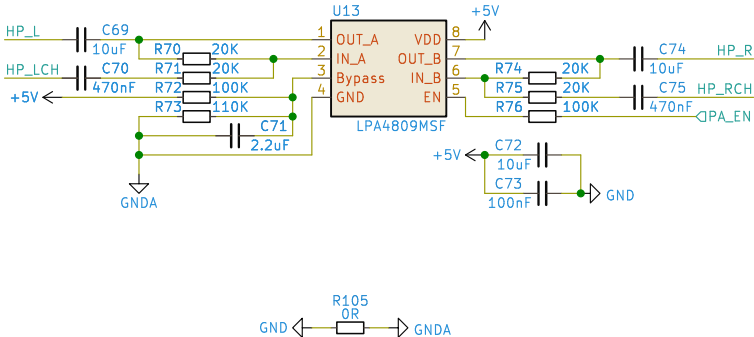
STEREO DAC



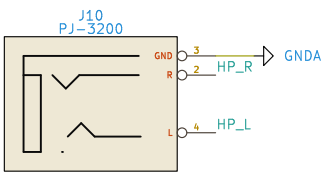
Low-Pass Filter



HEADPHONE AMP.



HEADPHONE JACK 3.5MM



When the jack is unplugged, L/R_DET is connected to L/R.



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Sheet: /003_Audio/
File: P003_Audio.kicad_sch

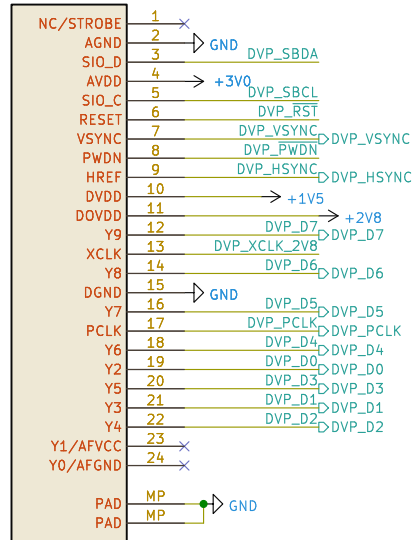
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KiCad E.D.A. kicad 7.0.9

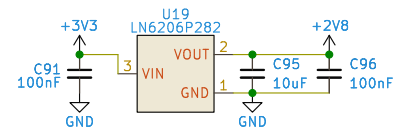
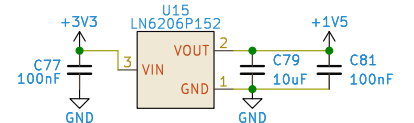
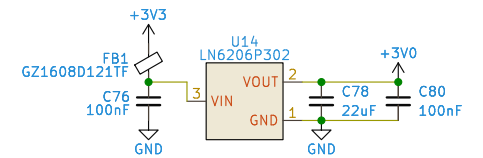
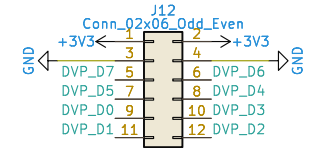
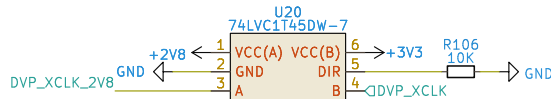
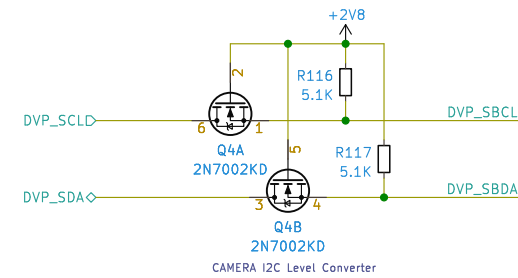
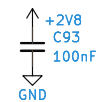
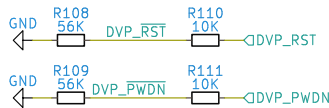
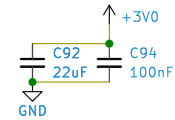
Rev: 1.1
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DVP Carmera

J11
FPC 0.5mm 24P 2.0H backlock



NOTICE:
DOVDD refers to I/O Bank voltage



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Sheet: /008_Carmera/
File: P008_Carmera.kicad_sch

Title: Tang_Primer_20K-Dock_3713

Size: A4 Date: 2023-09-12

KiCad E.D.A. kicad 7.0.9

Rev: 1.1

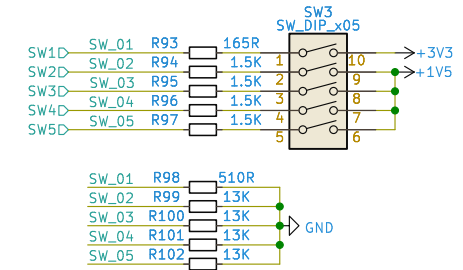
Id: 9/9

DC-IN BUCK

The circuit diagram illustrates a DC input buck converter and a voltage selection switch. The buck converter (U16, EUP3458VIR1) takes a +12V input and outputs +5V. The output is connected to an LED indicator (D23, 0402ESDA-05N) through a 5.1K resistor (R90). A 5-pin switch (SW3, SW_DIP_x05) is used to select between +3V3 and +1V5 outputs. The switch is connected to the +5V output of the buck converter and the +3V3 and +1V5 outputs of the voltage divider network.

Component List:

- U16: EUP3458VIR1 (Buck Converter)
- D21: 1N5819WS (Schottky Diode)
- D22: DSK24 (Diode)
- D23: 0402ESDA-05N (LED)
- SW3: SW_DIP_x05 (5-pin Switch)
- R77: 68K (Resistor)
- R78: 13K (Resistor)
- R90: 5.1K (Resistor)
- R93: 165R (Resistor)
- R94: 1.5K (Resistor)
- R95: 1.5K (Resistor)
- R96: 1.5K (Resistor)
- R97: 1.5K (Resistor)
- R98: 510R (Resistor)
- R99: 13K (Resistor)
- R100: 13K (Resistor)
- R101: 13K (Resistor)
- R102: 13K (Resistor)
- C82: 100nF/25V (Capacitor)
- C83: 22uF/25V (Capacitor)
- C89: 100nF (Capacitor)
- C90: 22uF/25V (Capacitor)
- L5: 6.8uH (Inductor)



LED x 6

The diagram shows a +3V3 supply connected to six LEDs. Each LED is connected to a resistor (R79-R84) and then to a microcontroller pin (Orange_LED0-Orange_LED5). The LEDs are labeled LED4, LED5, LED7, LED6, LED8, and LED9. The resistors are labeled R79, R80, R81, R82, R83, and R84. The microcontroller pins are labeled Orange_LED0, Orange_LED1, Orange_LED2, Orange_LED3, Orange_LED4, and Orange_LED5.

LED Label	Resistor Label	Resistor Value	Microcontroller Pin
LED4	R79	510R	Orange_LED0
LED5	R80	510R	Orange_LED1
LED7	R81	510R	Orange_LED2
LED6	R82	510R	Orange_LED3
LED8	R83	510R	Orange_LED4
LED9	R84	510R	Orange_LED5

LED x 6

+3V3

LED4 Orange LED R79 510R Orange_LED0 Orange_LED0

LED5 Orange LED R80 510R Orange_LED1 Orange_LED1

LED7 Orange LED R81 510R Orange_LED2 Orange_LED2

LED6 Orange LED R82 510R Orange_LED3 Orange_LED3

LED8 Orange LED R83 510R Orange_LED4 Orange_LED4

DC-IN JACK

J13

DC-036A-2.5A-2.0

1 +12V

2 GND

U1

MP

GND

KEY x 5

The diagram shows a 5x5 matrix of keys. The rows are labeled Silicone Key_1D to Silicone Key_5D. The columns are labeled White Key_3*4. Each key is represented by a switch (S1 to S5) connected to a +3V3 supply through a pull-up resistor (R86 to R90) and a diode (D15 to D20) to ground. The diodes are 0402ESDA-05N. Capacitors C84 to C88 are 100nF.

The diagram shows two circuit sections. The left section is a WS2812B LED strip connection. It features a WS2812B IC (U17) with pins 1 (DIN), 2 (VSS), 3 (VDD), 4 (DOUT), and 5 (GND). The DIN pin is connected to a green wire labeled LED_DAT through a 100R resistor (R91). The VDD pin is connected to a +5V supply through a 10K resistor (R92). The VSS and GND pins are connected to ground. The right section is a MIC Array connection. It shows a MIC Array IC (J15) with pins 1 through 10. The pins are connected to a +5V supply and ground. The connections are: MIC_LED_CLK to pin 1, MIC_LED_DAT to pin 2, MIC_DAT0 to pin 3, MIC_DAT1 to pin 4, MIC_DAT2 to pin 5, MIC_DAT3 to pin 6, MIC_WS to pin 7, MIC_BCK to pin 8, +5V to pin 9, and GND to pin 10. The IC is labeled RN11 22Rx4.

Pinout diagram for the J15 FPC 0.5mm 10P 2.0H Backlock connector. The diagram shows two rows of pins. The top row (RN10 22Rx4) has pins 1-8 connected to MIC_LED_CLKD, WS2812-DAT, MIC_DAT0, MIC_DAT1, MIC_DAT1D, MIC_DAT2D, MIC_DAT3D, and MIC_WS. The bottom row (RN11 22Rx4) has pins 5-10 connected to MIC_BCKD, MIC_WS, MIC_BCK, and +5V/GND. A red 'C' is on the right, and a red 'D' is at the bottom right.



Sheet: /007_Things/		D
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Size: A4	Date: 2023-09-12	Rev: 1.1
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