

1000

1 2 3 4 5 6

A

A

B

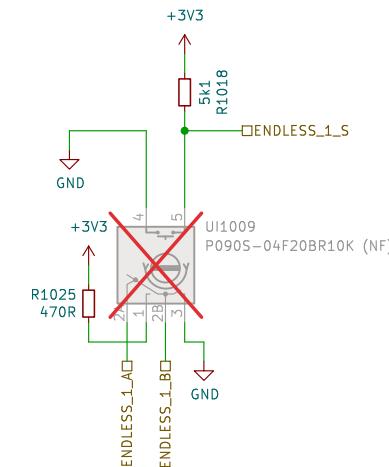
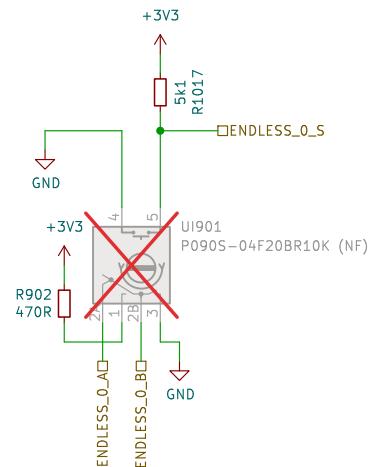
B

C

C

D

D



Sheet: /UI_POT_BTN/
File: UI_POT_BTN.kicad_sch

Title:

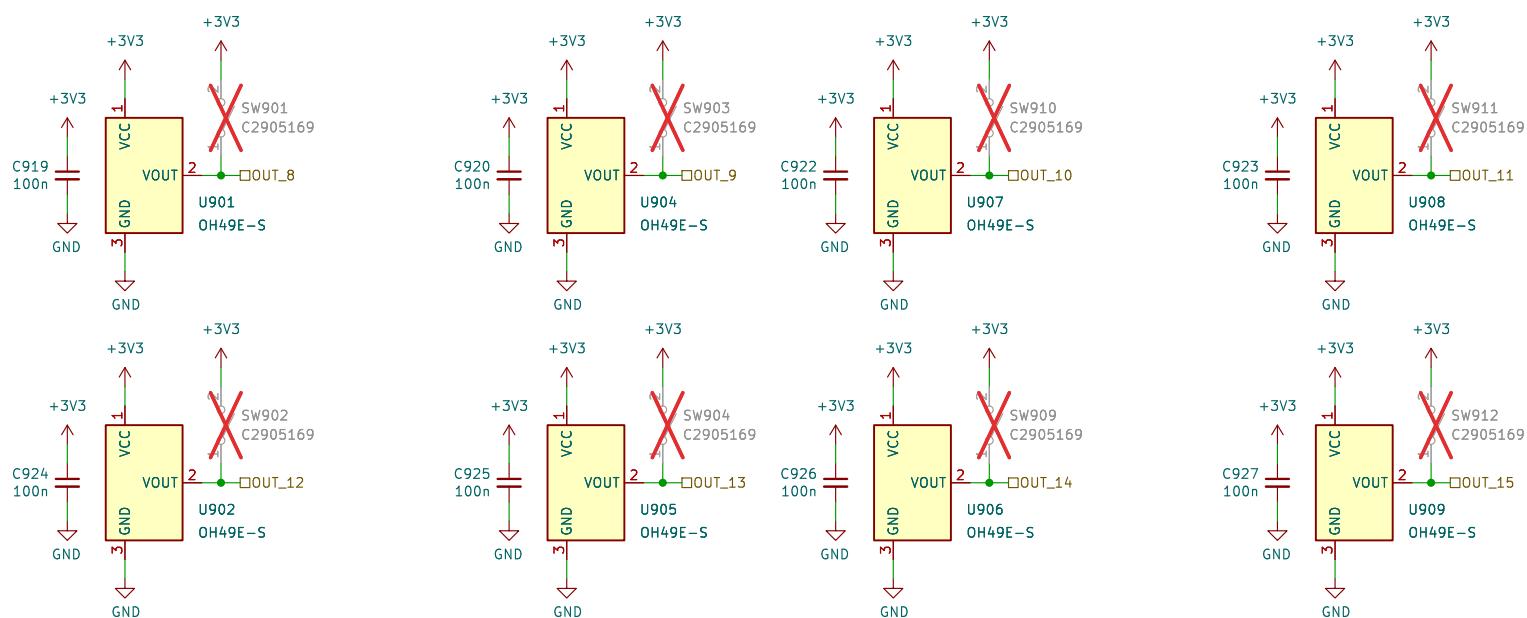
Size: A4 Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 2/22

1 2 3 4 5 6

1000

Simulation:
<http://tinyurl.com/y229mty4>



Sheet: /UI_BUTTON/
File: UI_BUTTON.kicad_sch

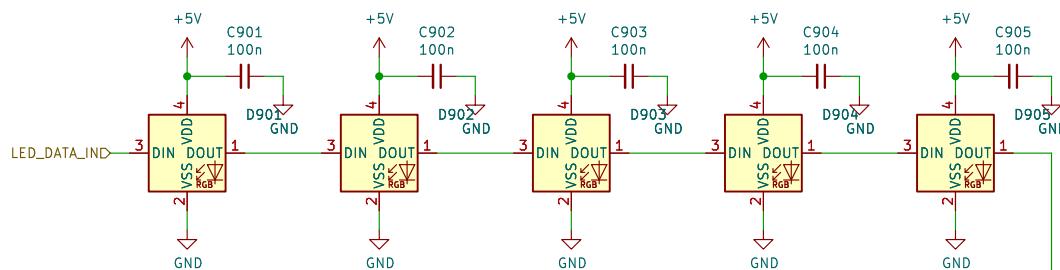
Title:

Size: A4 | Date:
KiCad E.D.A. 9.0.6

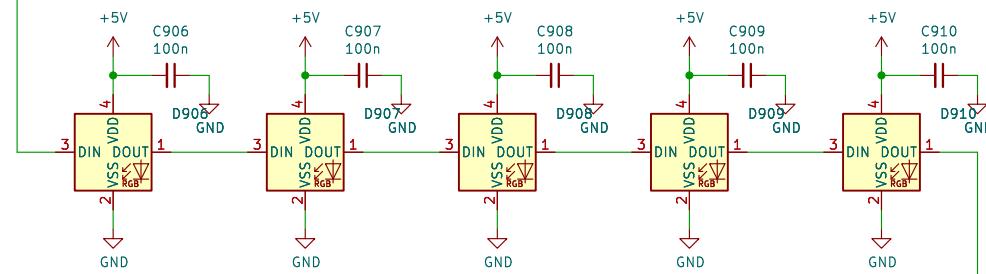
Rev:
Id: 3/22

900

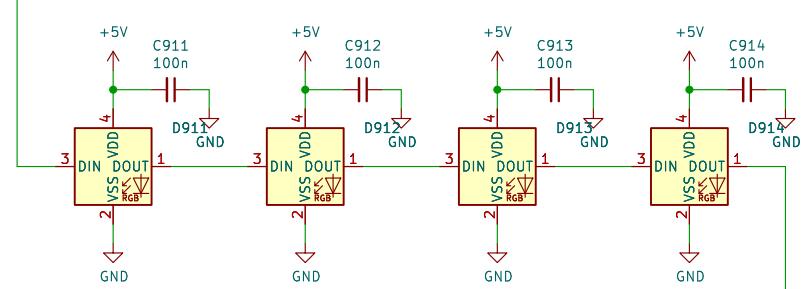
A



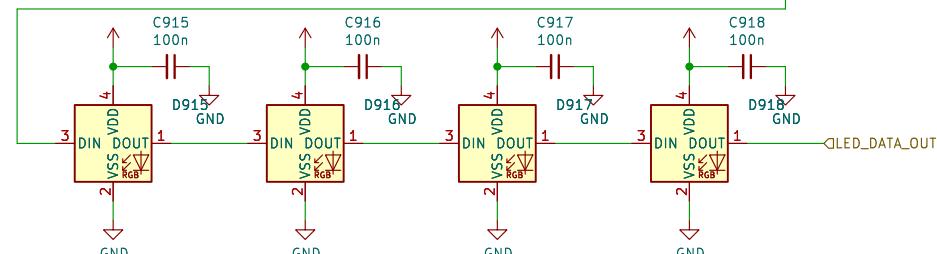
B



C



D



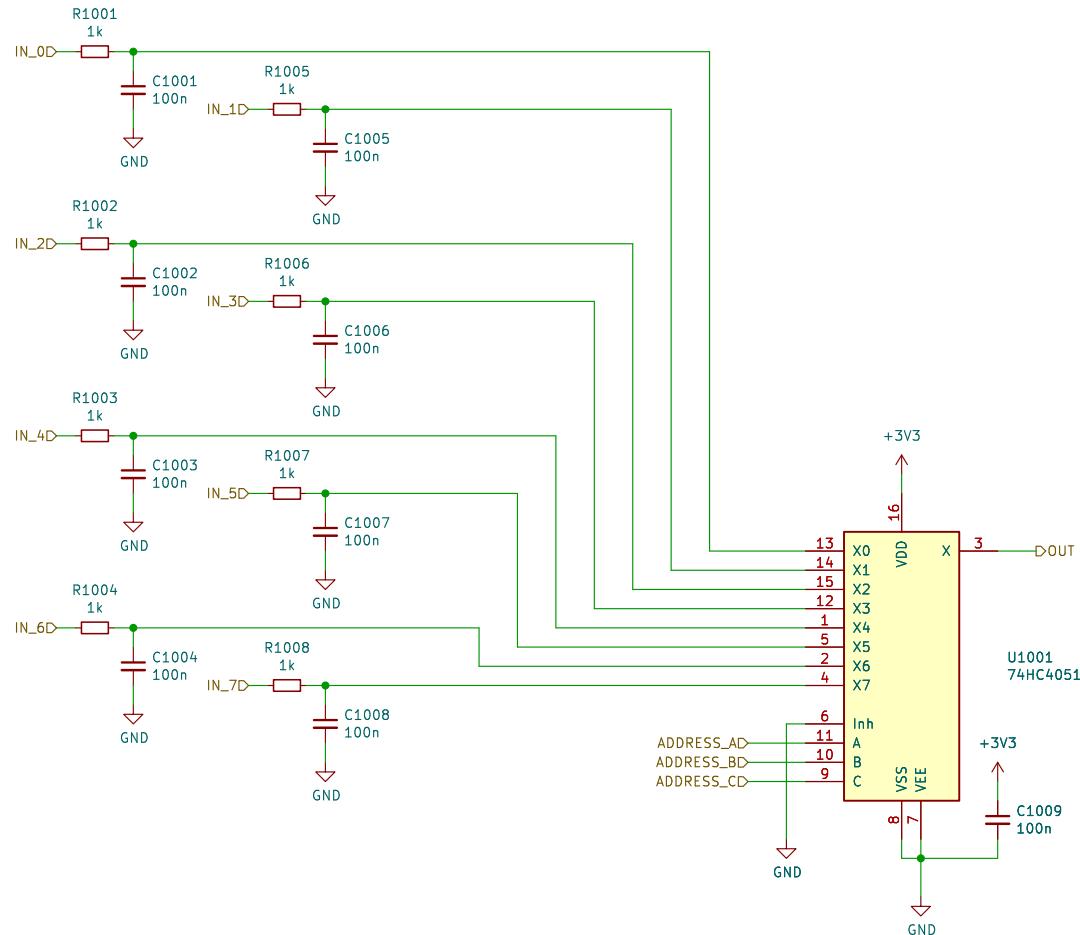
Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

Size: A4 | Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 4/22

1000



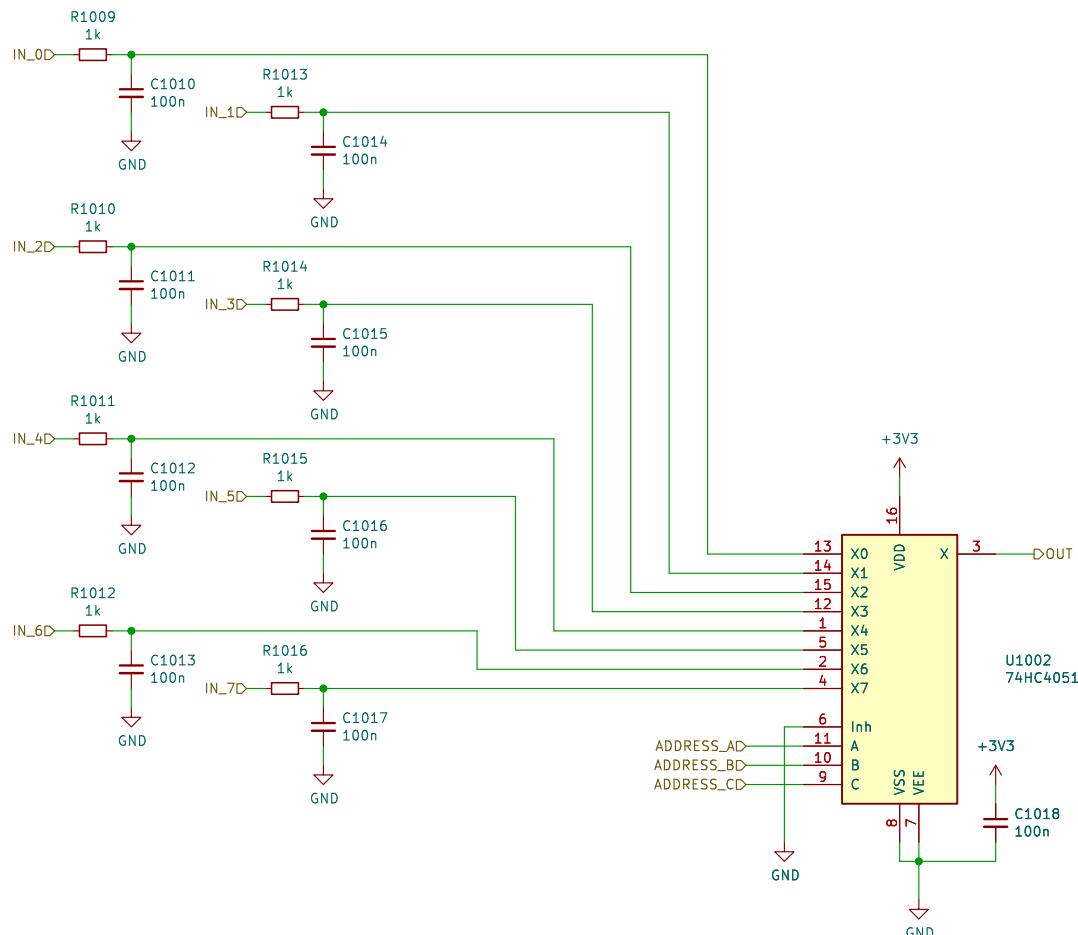
Sheet: /Sheet5D7C8BFD/
File: UI_MUX.kicad_sch

Title:

Size: A4 | Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 5/22

1000

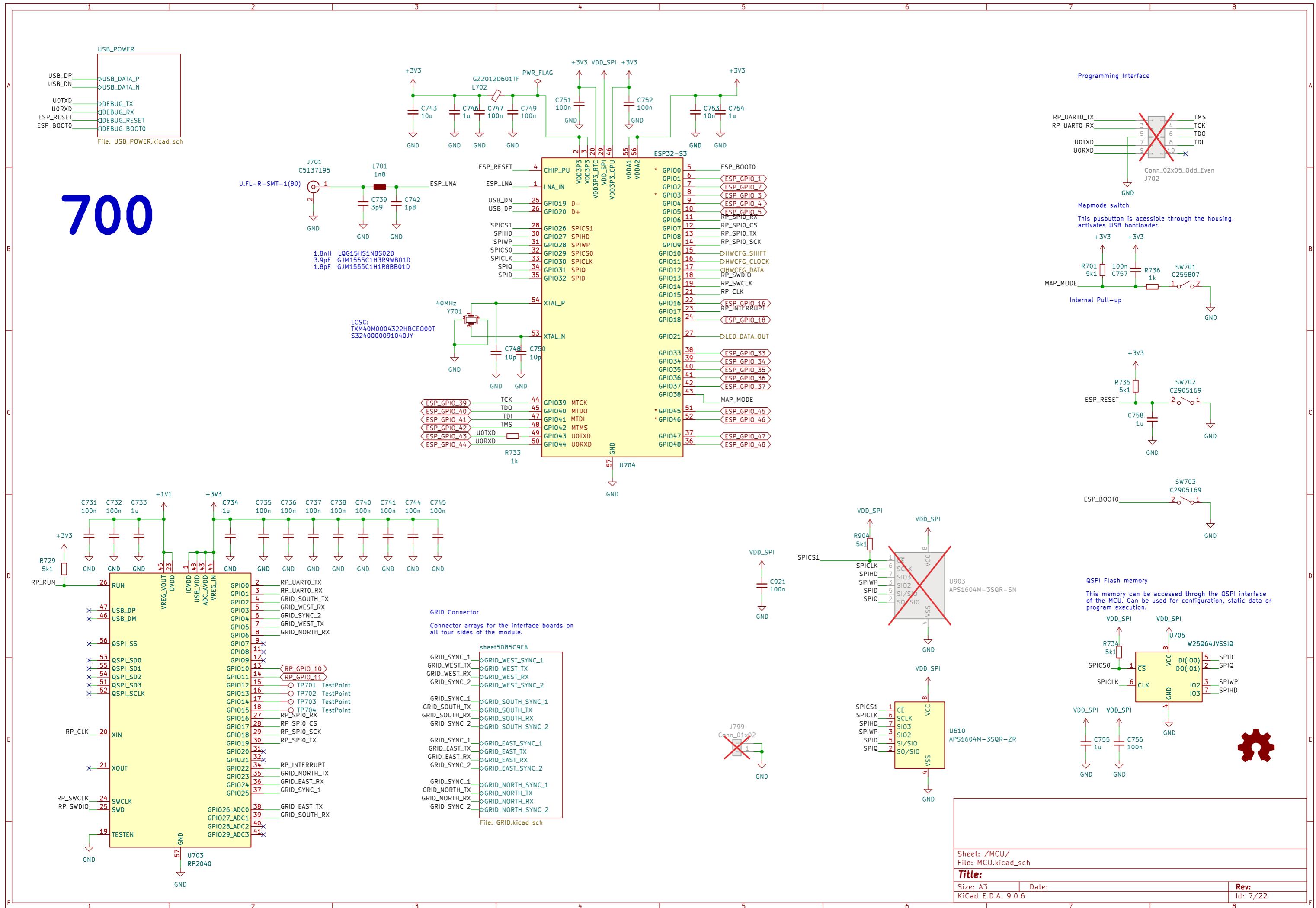


Sheet: /sheet5D8763D6/
File: UI_MUX.kicad_sch

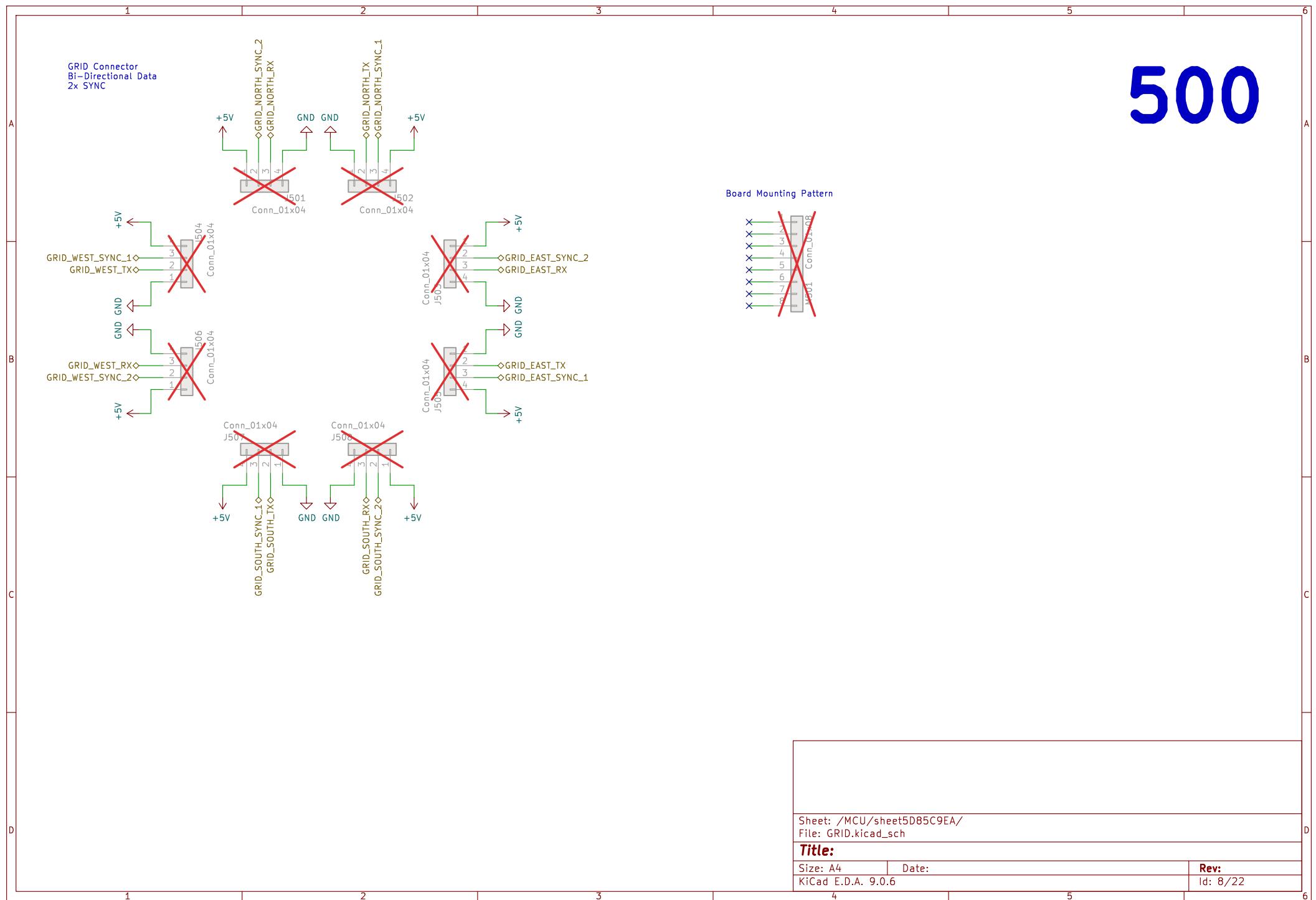
Title:

Size: A4 | Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 6/22



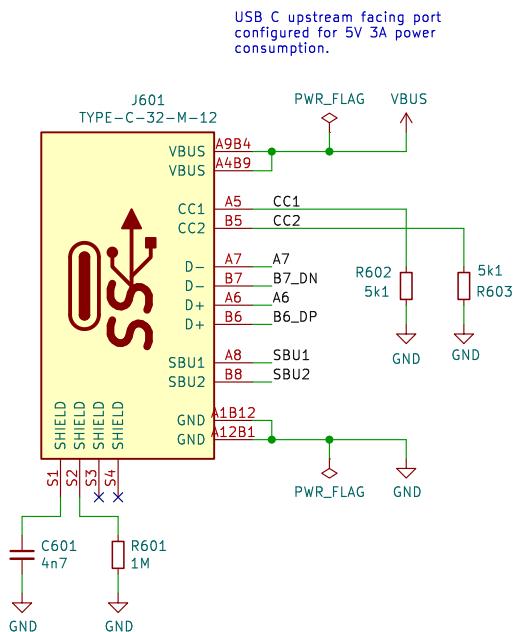
500



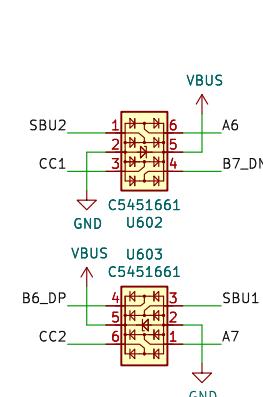
600

USB Port

ESD Prot.

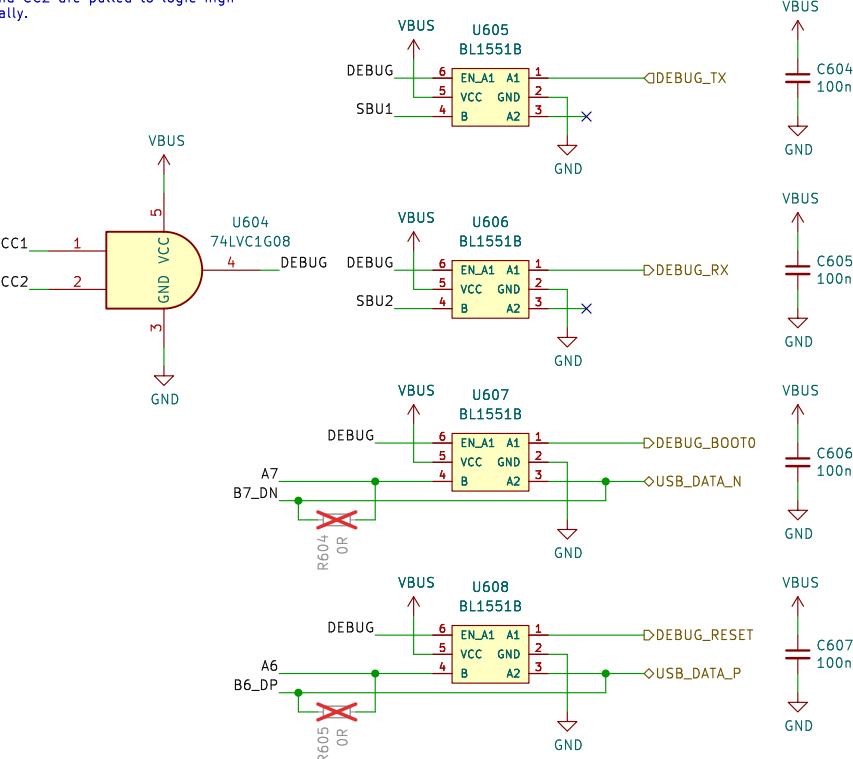


ESD protection for all 8 signals externally accessible via the USB C connector.



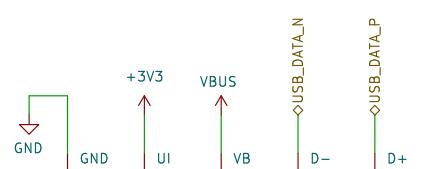
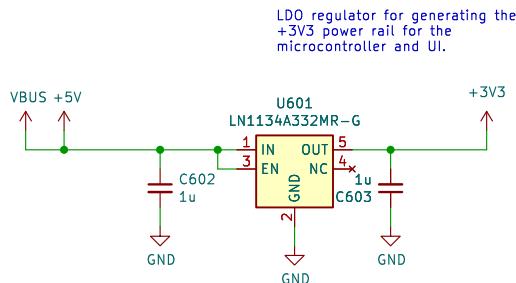
Debug-Mode Multiplexing

Debug.mode is activated when both CC1 and CC2 are pulled to logic high externally.



3V3 LDO

Testpoints



Sheet: /MCU/USB_POWER/
File: USB_POWER.kicad_sch

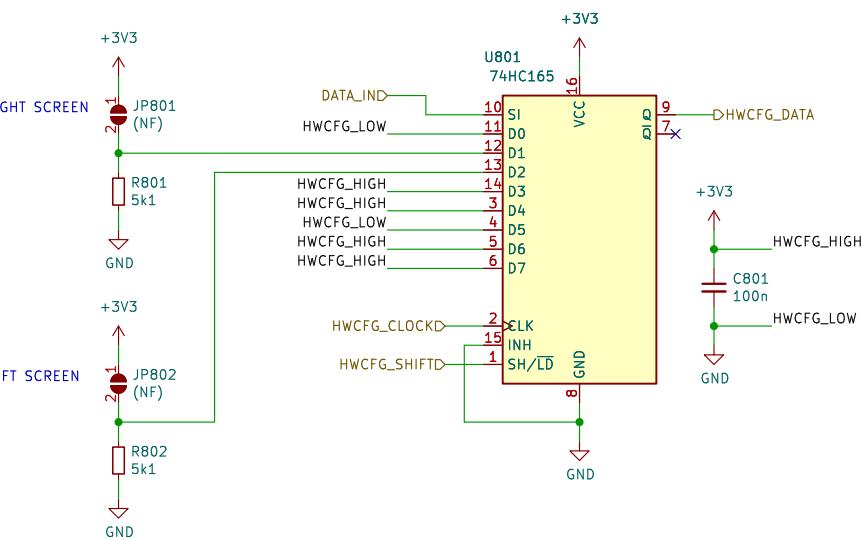
Title:

Size: A4 Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 9/22

800

A



Board Identification

Grid firmware can identify the hardware and the board revision through a 3 wire serial interface using one or more shift register as read only memory. The content of the memory is defined by pulling the inputs high or low through pcb traces or solderable configuration jumpers.

4b' Model + 4b' Revision + nb' Reserved (Multiple shift registers)

D0: MODEL (LSB)

D1: MODEL

D2: MODEL

D3: MODEL (MSB)

D4: REVISION (LSB)

D5: REVISION

D6: REVISION

D7: REVISION (MSB)

Model Codes (D3–D0):

Po16 0000

Bo16 0001

PBF4 0010

EN16 0011

...

Revision Codes (D7–D4):

RevA 0000

RevB 0001

RevC 0010

RevD 0011

...

Sheet: /HWCfg/
File: HWCfg.kicad_sch

Title:

Size: A4 | Date:

KiCad E.D.A. 9.0.6

Rev:
Id: 10/22

1000

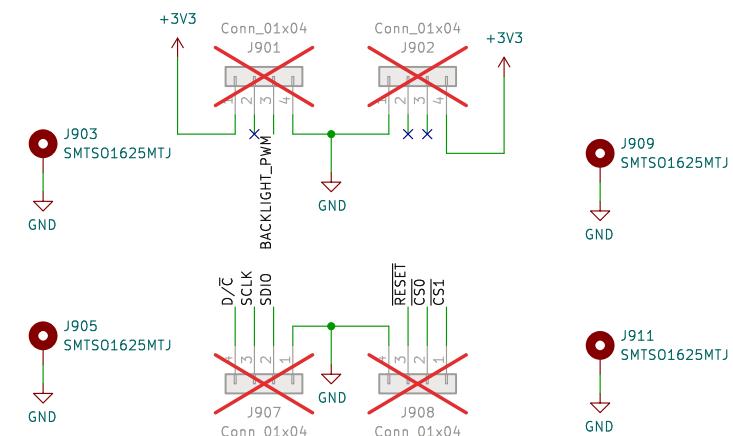
1 2 3 4 5 6

A

A

BACKLIGHT□ BACKLIGHT_PWM

$\overline{CS1}$ $\overline{CS0}$
 $\overline{D/C}$
SCLKD SCLK
SDIOD SDIO
RESETD RESET



B

B

C

C

D

D

1 2 3 4 5 6

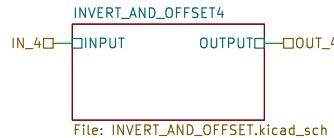
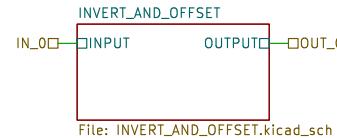
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File: UI_DISPLAY.kicad_sch

Title:

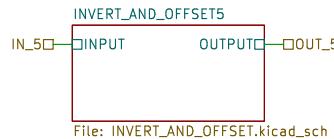
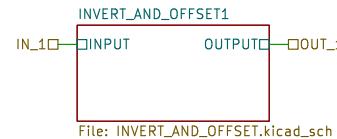
Size: A4 Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 11/22

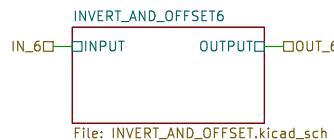
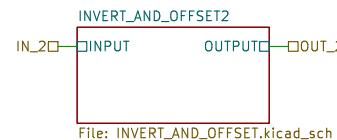
A

simulation

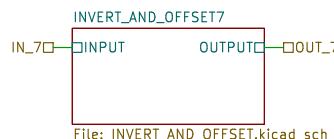
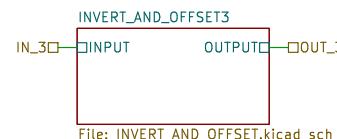
B



C



D

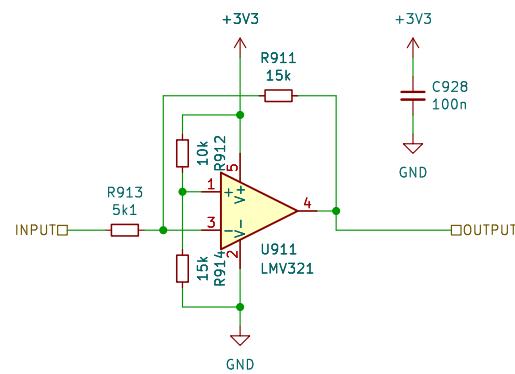


Sheet: /UI_HALL_PREAMP/
File: UI_HALL_PREAMP.kicad_sch

Title:

Size: A4 Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 12/22



Sheet: /UI_HALL_PREAMP/INVERT_AND_OFFSET/
File: INVERT_AND_OFFSET.kicad_sch

Title:

Size: A4 | Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 13/22

1 2 3 4 5 6

A

A

B

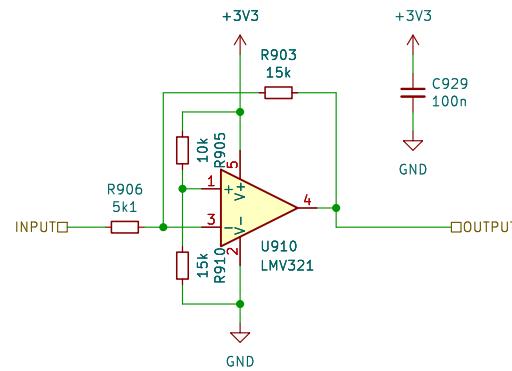
B

C

C

D

D



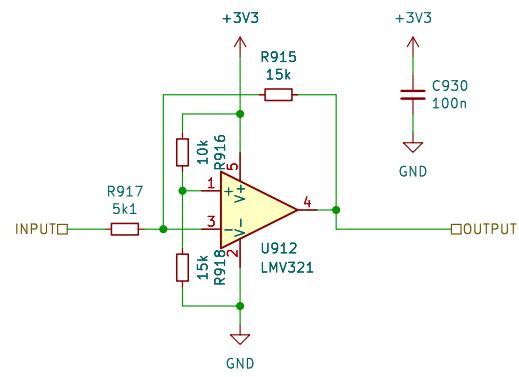
Sheet: /UI_HALL_PREAMP/INVERT_AND_OFFSET1/
File: INVERT_AND_OFFSET.kicad_sch

Title:

Size: A4 Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 14/22

1 2 3 4 5 6



Sheet: /UI_HALL_PREAMP/INVERT_AND_OFFSET2/
File: INVERT_AND_OFFSET.kicad_sch

Title:

Size: A4 | Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 15/22

1 2 3 4 5 6

A

A

B

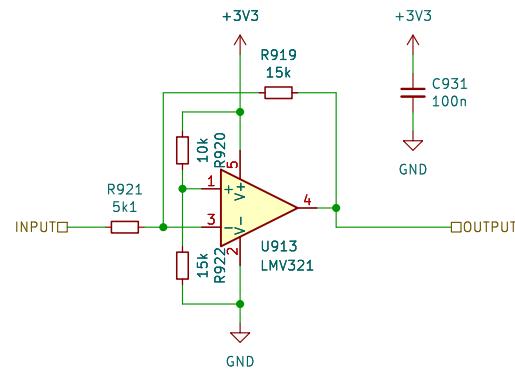
B

C

C

D

D



Sheet: /UI_HALL_PREAMP/INVERT_AND_OFFSET3/
File: INVERT_AND_OFFSET.kicad_sch

Title:

Size: A4 Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 16/22

1 2 3 4 5 6

1 2 3 4 5 6

A

A

B

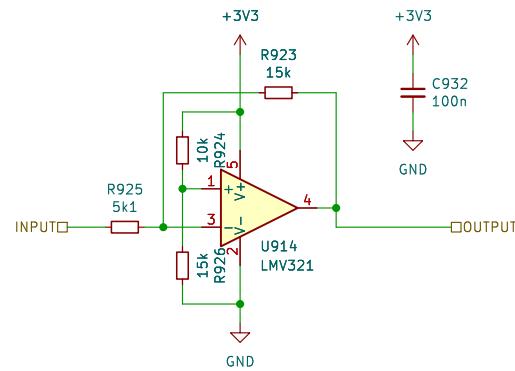
B

C

C

D

D



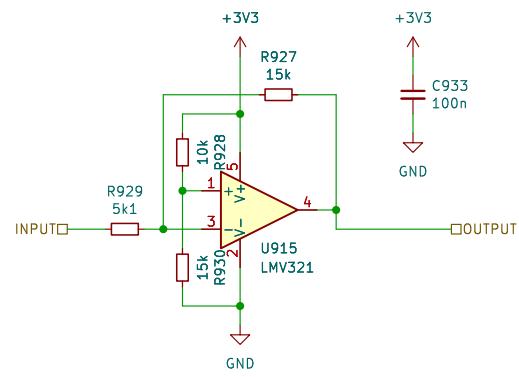
Sheet: /UI_HALL_PREAMP/INVERT_AND_OFFSET4/
File: INVERT_AND_OFFSET.kicad_sch

Title:

Size: A4 Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 17/22

1 2 3 4 5 6

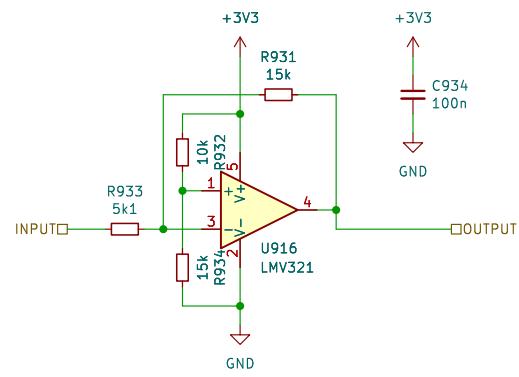


Sheet: /UI_HALL_PREAMP/INVERT_AND_OFFSET5/
File: INVERT_AND_OFFSET.kicad_sch

Title:

Size: A4 | Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 18/22

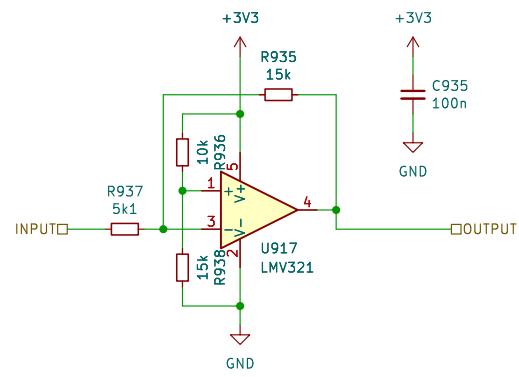


Sheet: /UI_HALL_PREAMP/INVERT_AND_OFFSET6/
File: INVERT_AND_OFFSET.kicad_sch

Title:

Size: A4 | Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 19/22



Sheet: /UI_HALL_PREAMP/INVERT_AND_OFFSET7/
File: INVERT_AND_OFFSET.kicad_sch

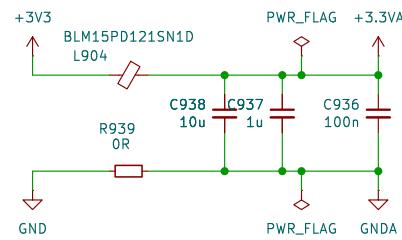
Title:

Size: A4 | Date:
KiCad E.D.A. 9.0.6

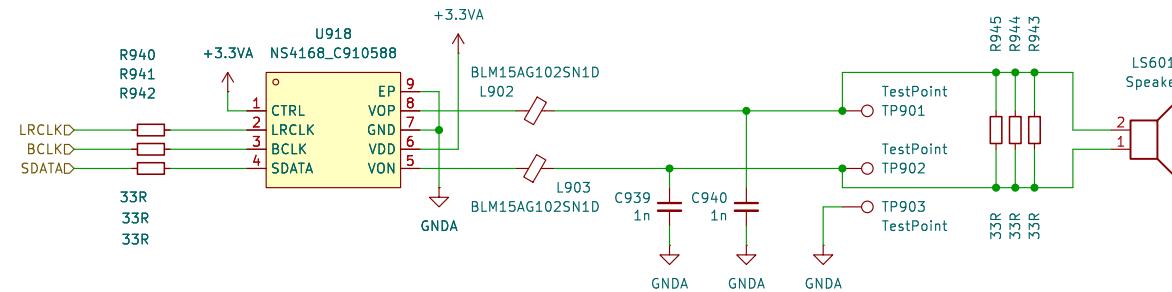
Rev:
Id: 20/22

1 2 3 4 5 6

A



B



C

D

Sheet: /AUDIO/
File: AUDIO.kicad_sch

Title:

Size: A4 | Date:
KiCad E.D.A. 9.0.6

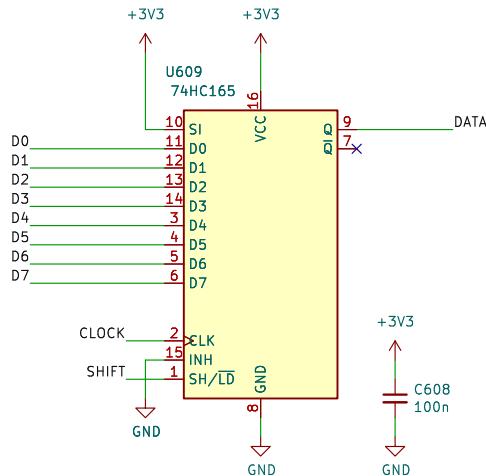
Rev:
Id: 21/22

1 2 3 4 5 6

1 2 3 4 5 6

A

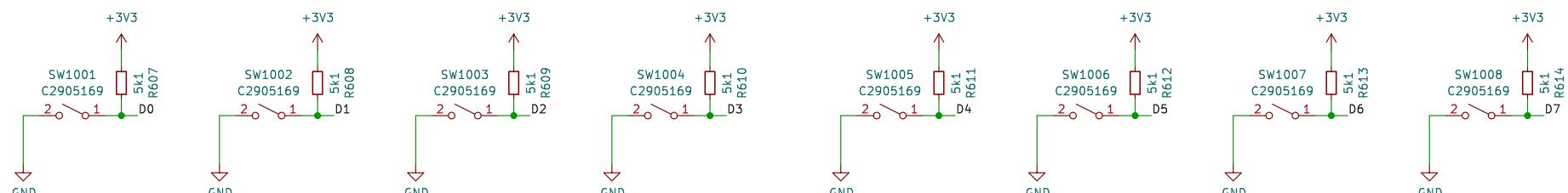
A



DATA LCDBUTTON_DATA
CLOCK LCDBUTTON_CLOCK
SHIFT LCDBUTTON_SHIFT

B

B



C

C

D

D

Sheet: /LCDBUTTON/
File: LCDBUTTON.kicad_sch

Title:

Size: A4 Date:
KiCad E.D.A. 9.0.6

Rev:
Id: 22/22

1 2 3 4 5 6