

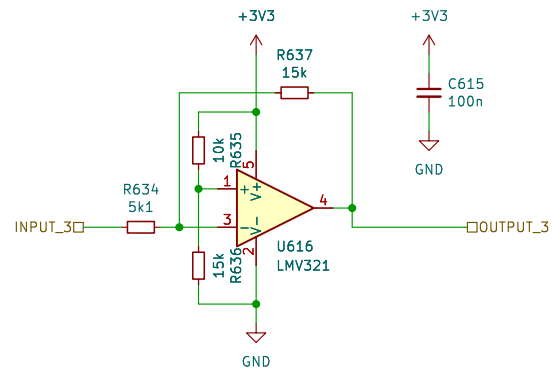
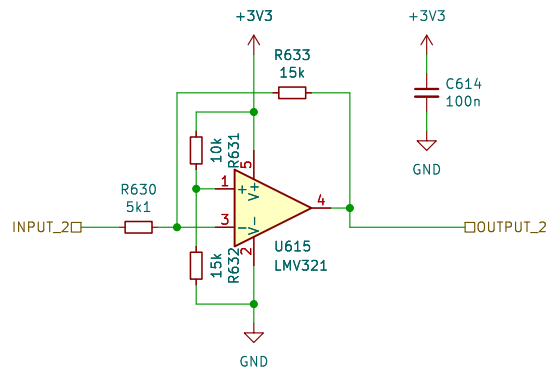
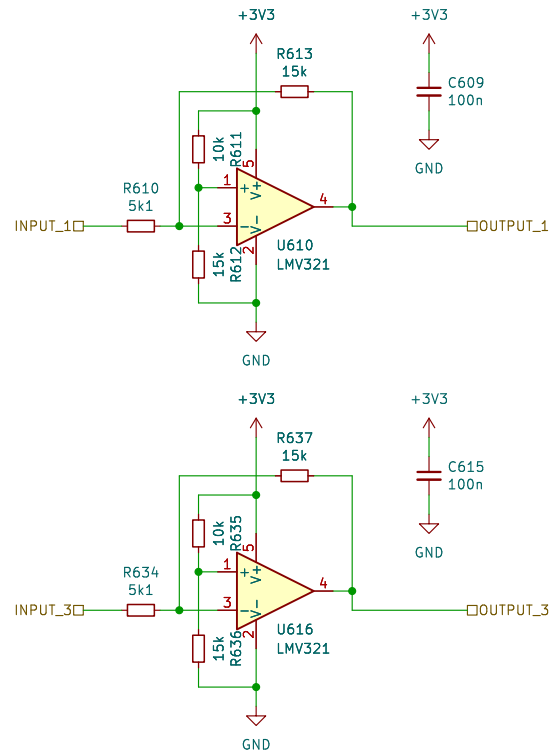
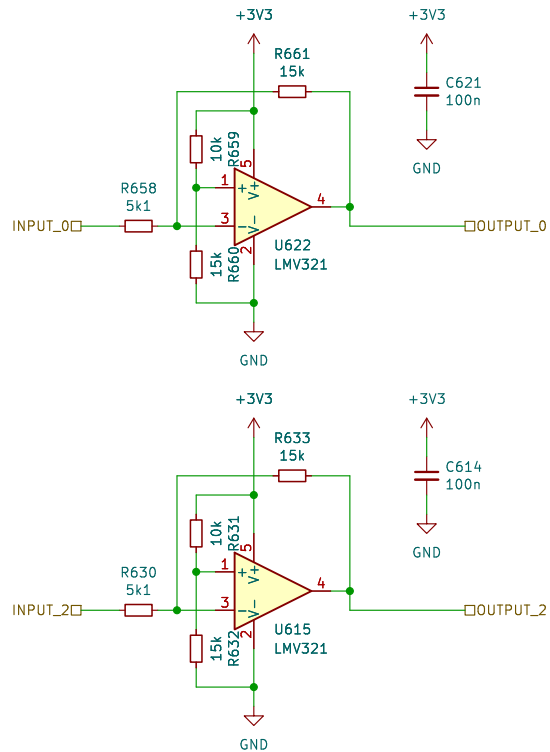
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File: QUAD_INVERT_AND_OFFSET.kicad_sch

Title:

Size: A4
KiCad E.D.A. 9.0.6

Date:

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Id: 2/23



Sheet: /QUAD_INVERT_AND_OFFSET2/
File: QUAD_INVERT_AND_OFFSET.kicad_sch

Title:

Size: A4

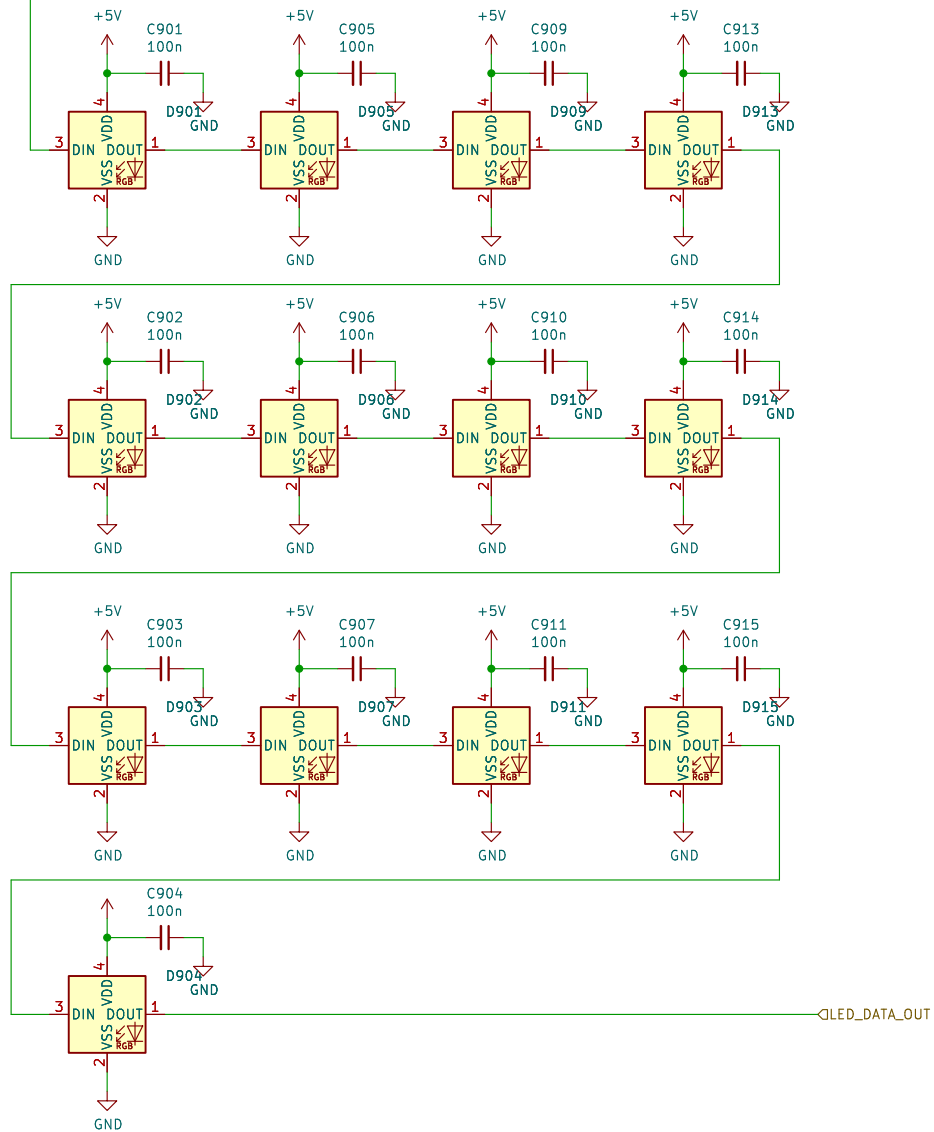
Date:

KiCad E.D.A. 9.0.6

Rev:

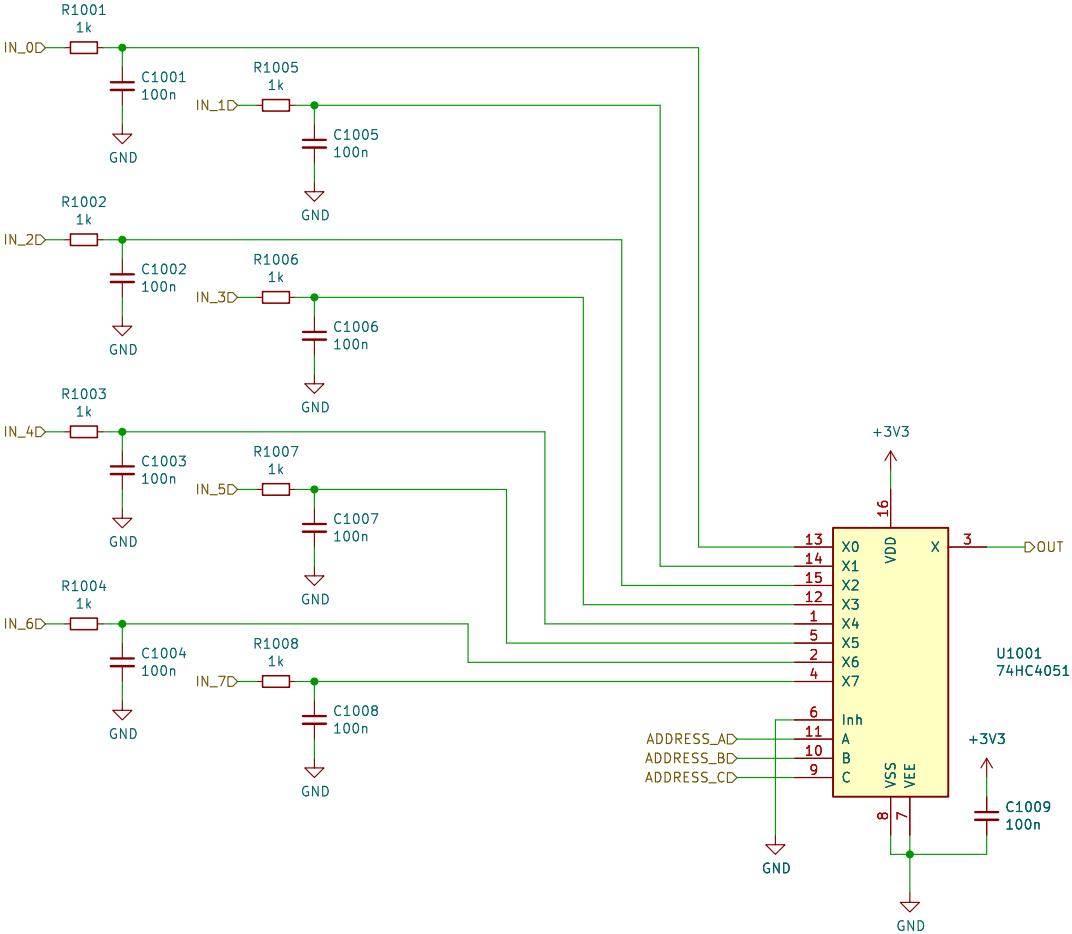
Id: 3/23

900

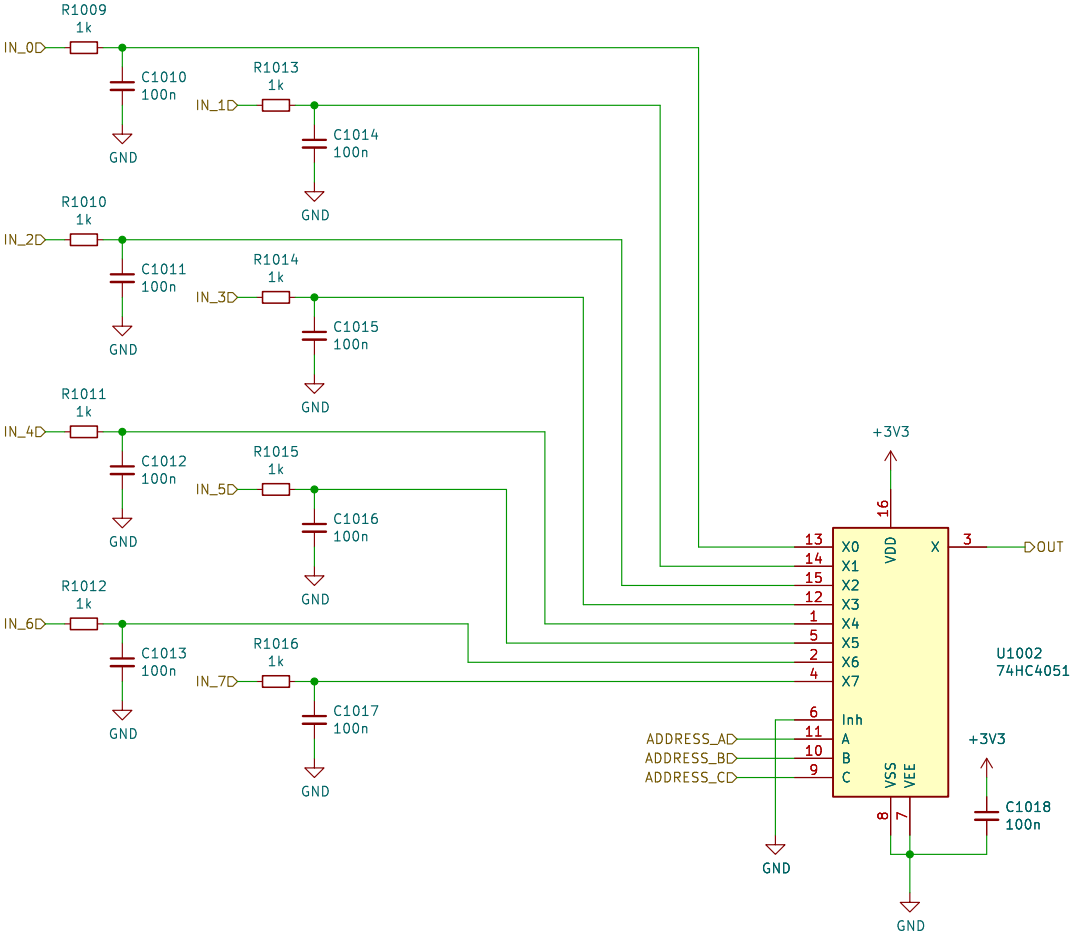


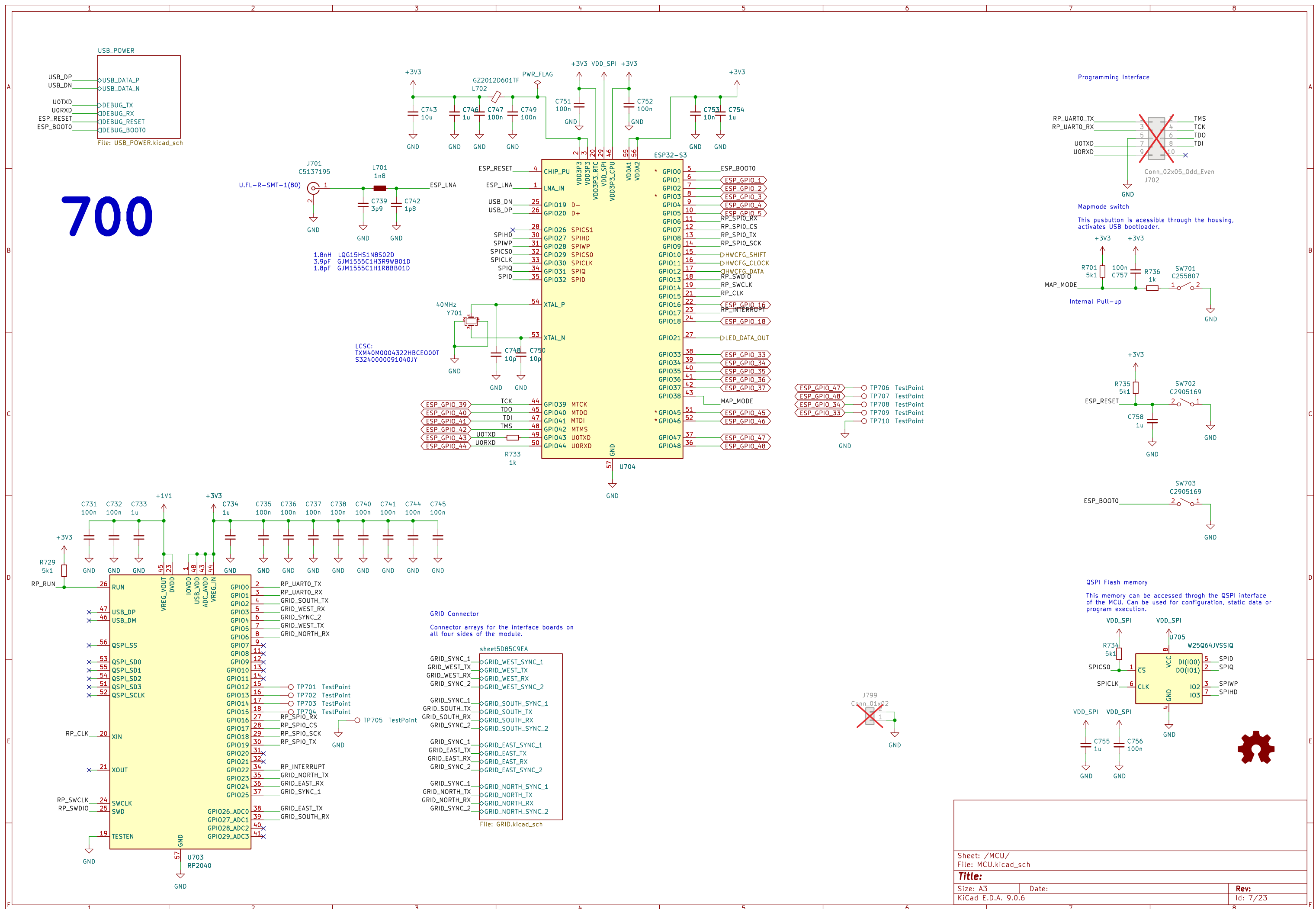
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Size: A4	Date:	Rev:
KiCad E.D.A. 9.0.6		Id: 4/23

1000



1000

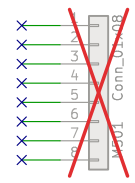
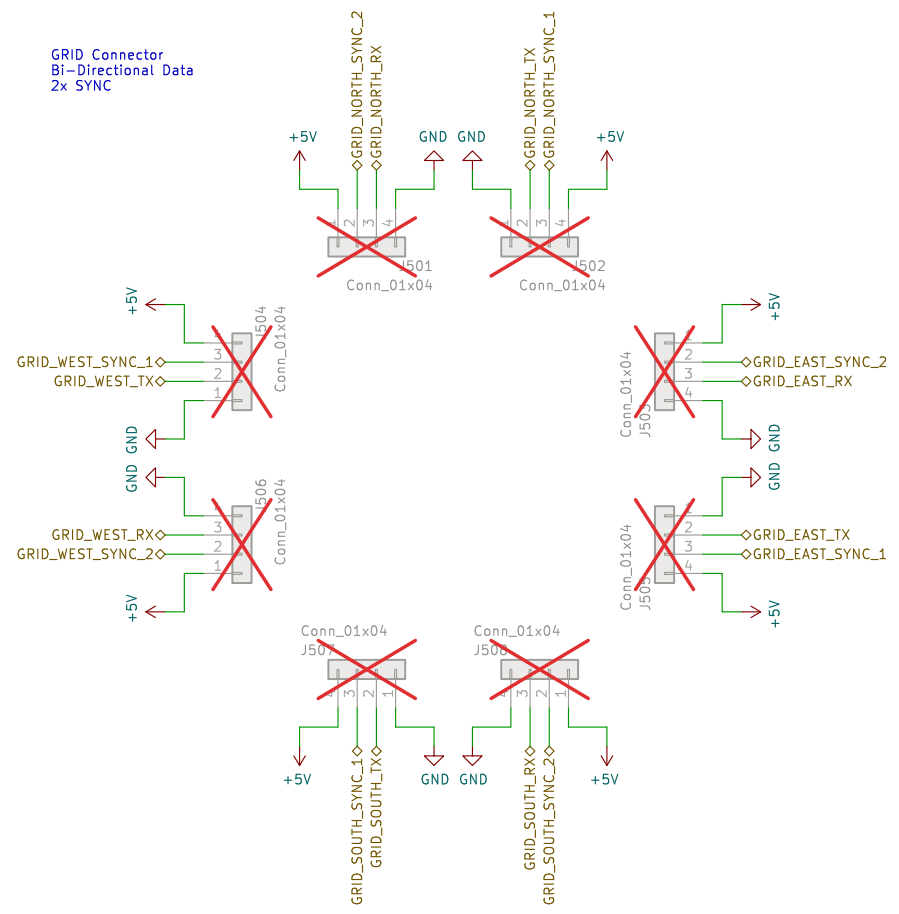




500

GRID Connector
Bi-Directional Data
2x SYNC

Board Mounting Pattern

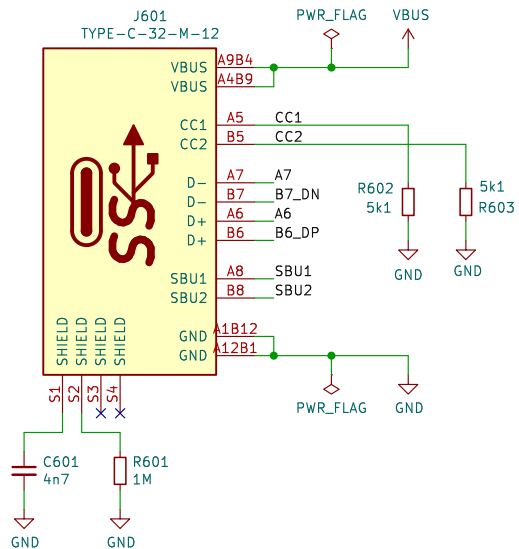


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Size: A4	Date:	Rev:
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600

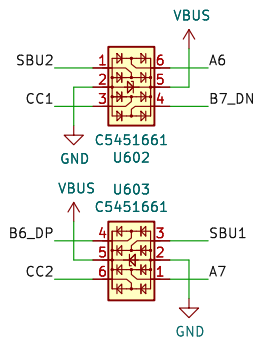
USB Port

USB C upstream facing port configured for 5V 3A power consumption.



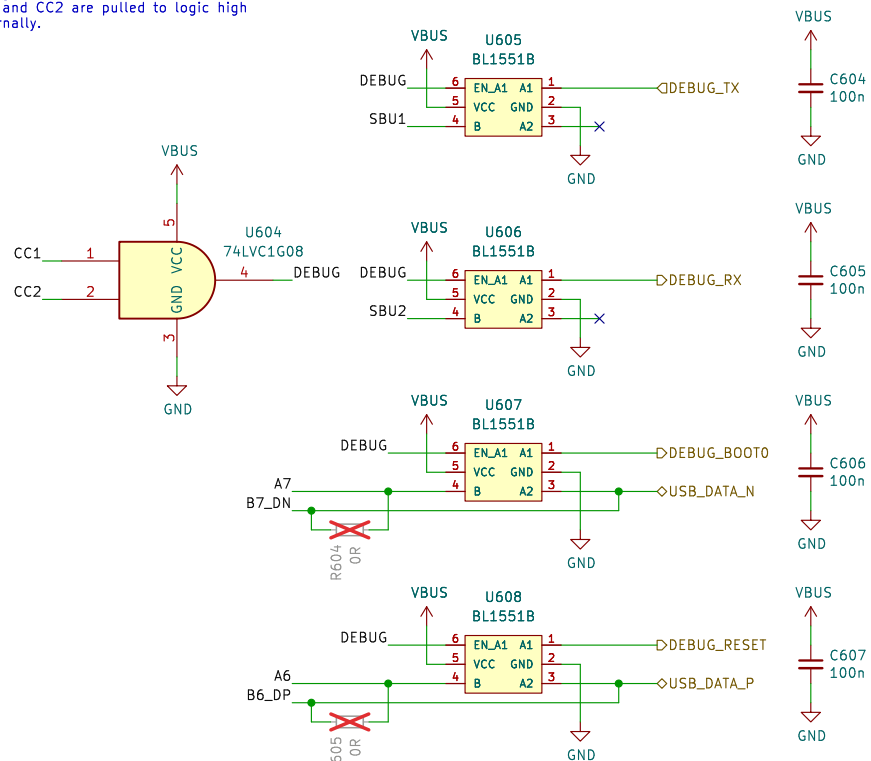
ESD Prot.

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



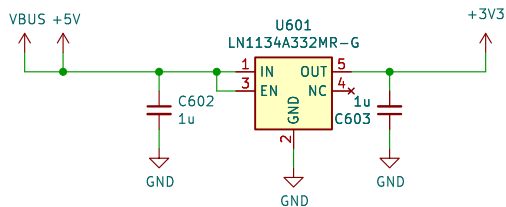
Debug-Mode Multiplexing

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

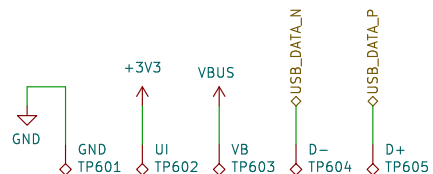


3V3 LDO

LDO regulator for generating the +3V3 power rail for the microcontroller and UI.



Testpoints



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

Title:

Size: A4	Date:
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Date:

Rev:

Id: 9/23

800

CLOSED IF NO DETENT

JP1001 (NF)

R1065 5k1

+3V3

GND

DATA_IND

U801 74HC165

SI

D0

D1

D2

D3

D4

D5

D6

D7

SH/LD

CLK

INH

VCC

Q0

Q1

Q2

Q3

Q4

Q5

Q6

Q7

HWCFG_HIGH

HWCFG_LOW

HWCFG_CLOCKD

HWCFG_SHIFTD

HWCFG_DATA

C801 100n

+3V3

GND

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:	Rev:
KiCad E.D.A. 9.0.6		Id: 10/23

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.

D0: MODEL (LSB)
D1: MODEL
D2: MODEL
D3: MODEL (MSB)
D4: REVISION (LSB)
D5: REVISION
D6: REVISION
D7: REVISION (MSB)

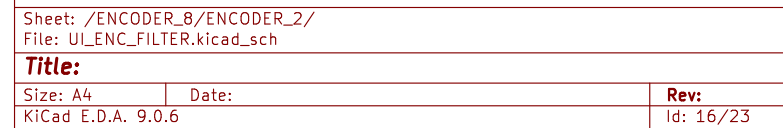
Po16	0000
Bo16	0001
PBF4	0010
EN16	0011
...	

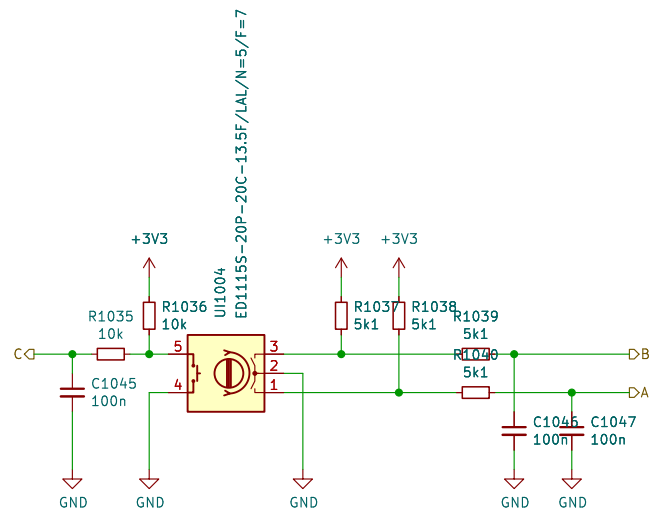
```
RevA 0000
RevB 0001
RevC 0010
RevD 0011
...
```

Sheet: /HWCFG/ File: HWCFG.kicad_sch	
Title:	
Size: A4	Date:
KiCad E.D.A. 9.0.6	Id: 10/23









Sheet: /ENCODER_8/ENCODER_3/
File: UI_ENC_FILTER.kicad_sch

Title:

Size: A4

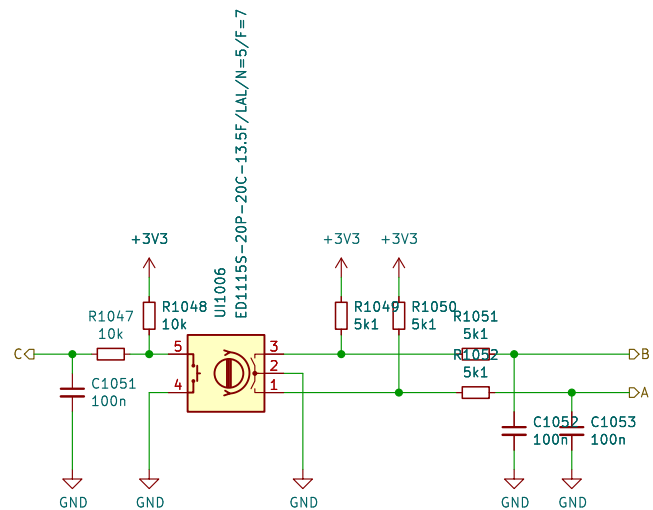
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KiCad E.D.A. 9.0.6

Rev:

Id: 17/23





Sheet: /ENCODER_8/ENCODER_5/
File: UI_ENC_FILTER.kicad_sch

Title:

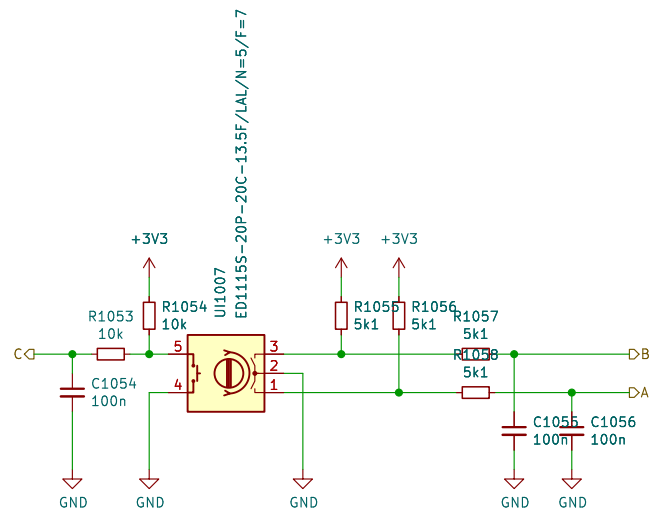
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Date:

Rev:

KiCad E.D.A. 9.0.6

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Sheet: /ENCODER_8/ENCODER_6/
File: UI_ENC_FILTER.kicad_sch

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Size: A4

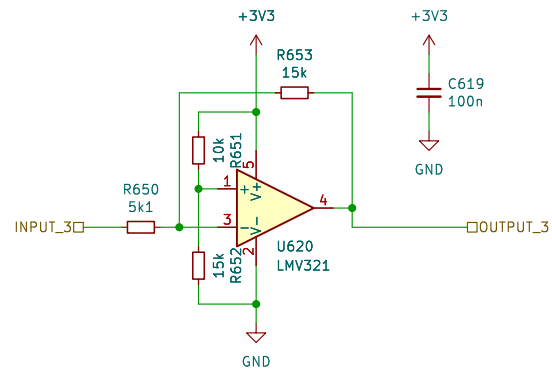
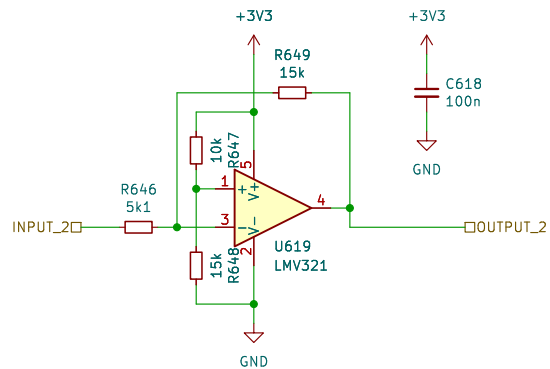
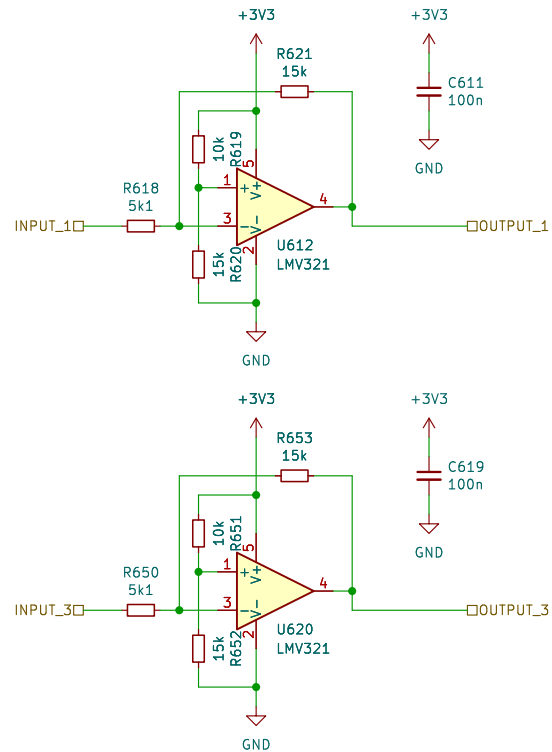
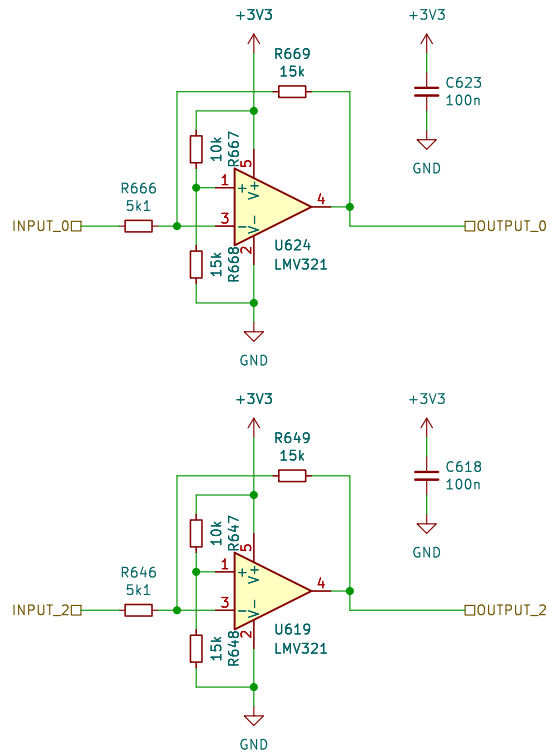
Date:

KiCad E.D.A. 9.0.6

Rev:

Id: 20/23

Id: 21/23



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Title:

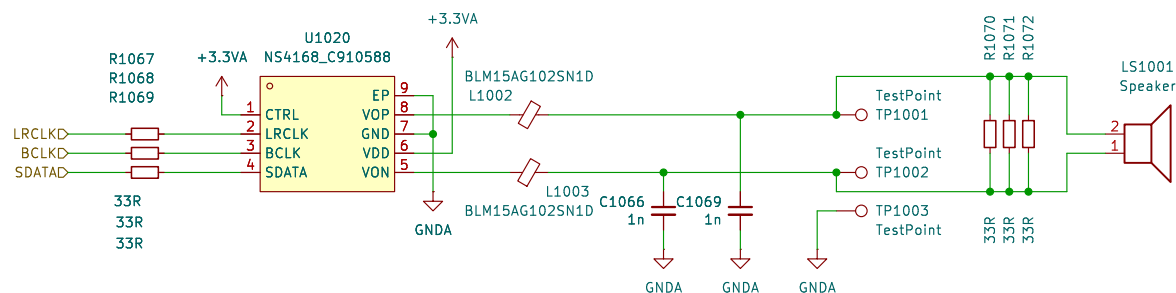
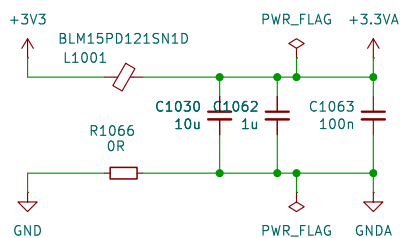
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Date:

KiCad E.D.A. 9.0.6

Rev:

Id: 15/23



Sheet: /AUDIO/
File: AUDIO.kicad_sch

Title:

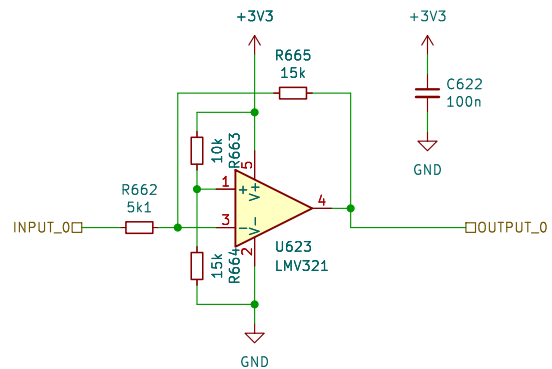
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Date:

KiCad E.D.A. 9.0.6

Rev:

Id: 22/23



Sheet: /SINGLE_INVERT_AND_OFFSET/
File: SINGLE_INVER_AND_OFFSET.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 9.0.6

Rev:

Id: 24/23

