



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

Title:

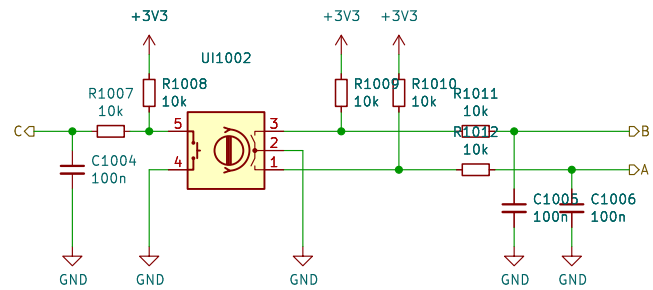
Size: A4

Date:

KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Rev:

Id: 2/23



Sheet: /UI_ENC/ENCODER_11/
File: UI_ENC_FILTER.kicad_sch

Title:

Size: A4	Date:	Rev:
KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1		Id: 3/23

900



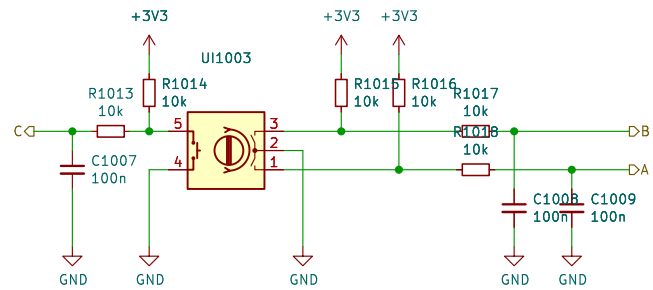
Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

Size: A4
KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Date:

Rev:
Id: 4/23



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

Title:

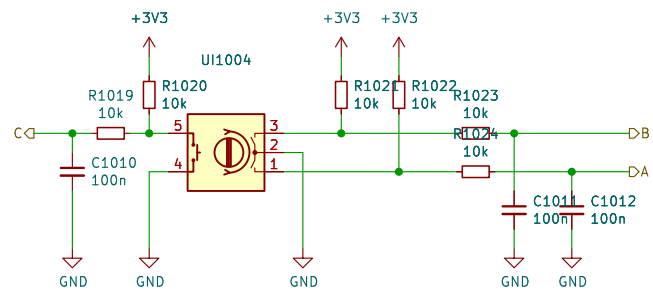
Size: A4

Date:

KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Rev:

Id: 5/23



Sheet: /UI_ENC/ENCODER_12/
File: UI_ENC_FILTER.kicad_sch

Title:

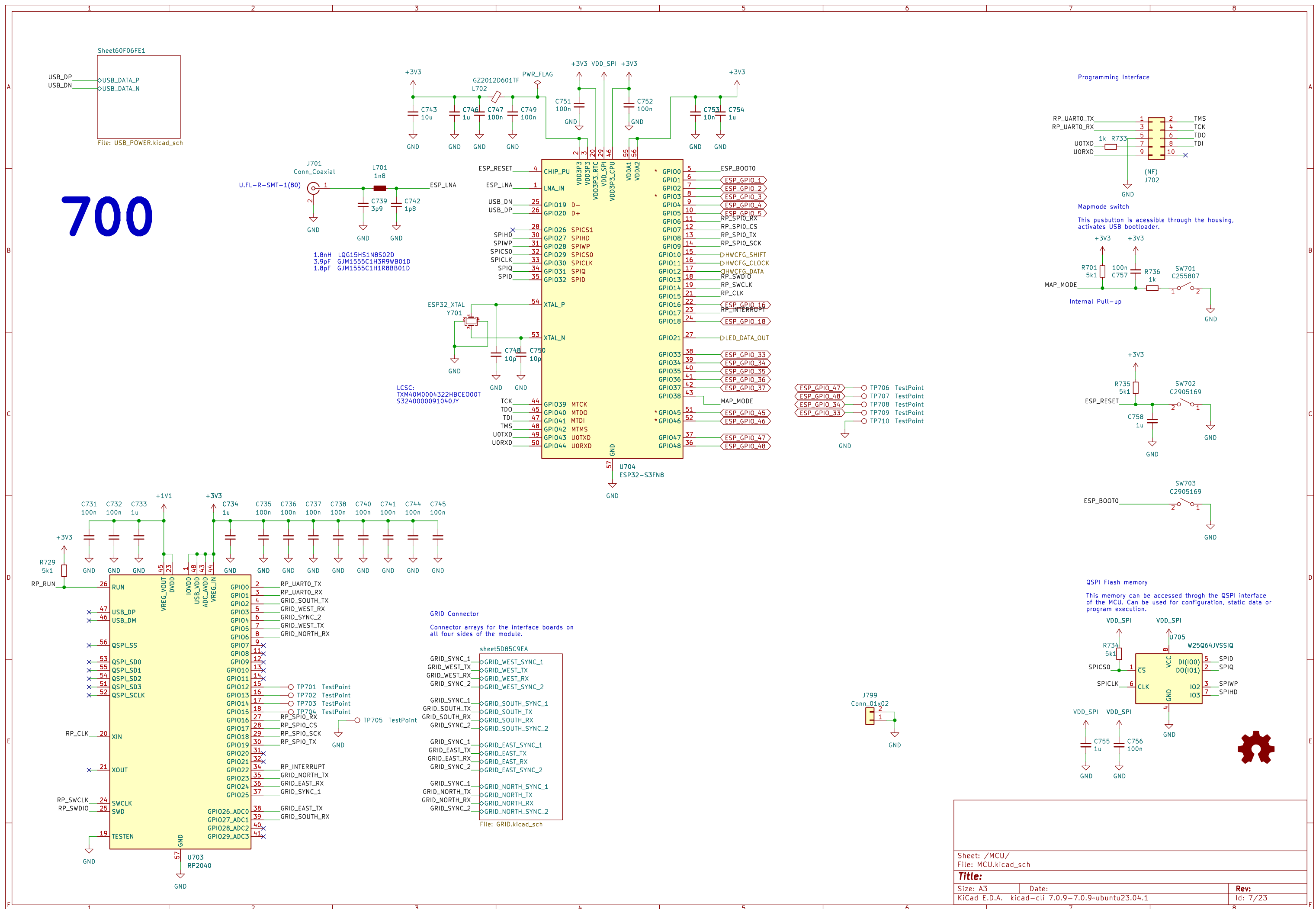
Size: A4

Date:

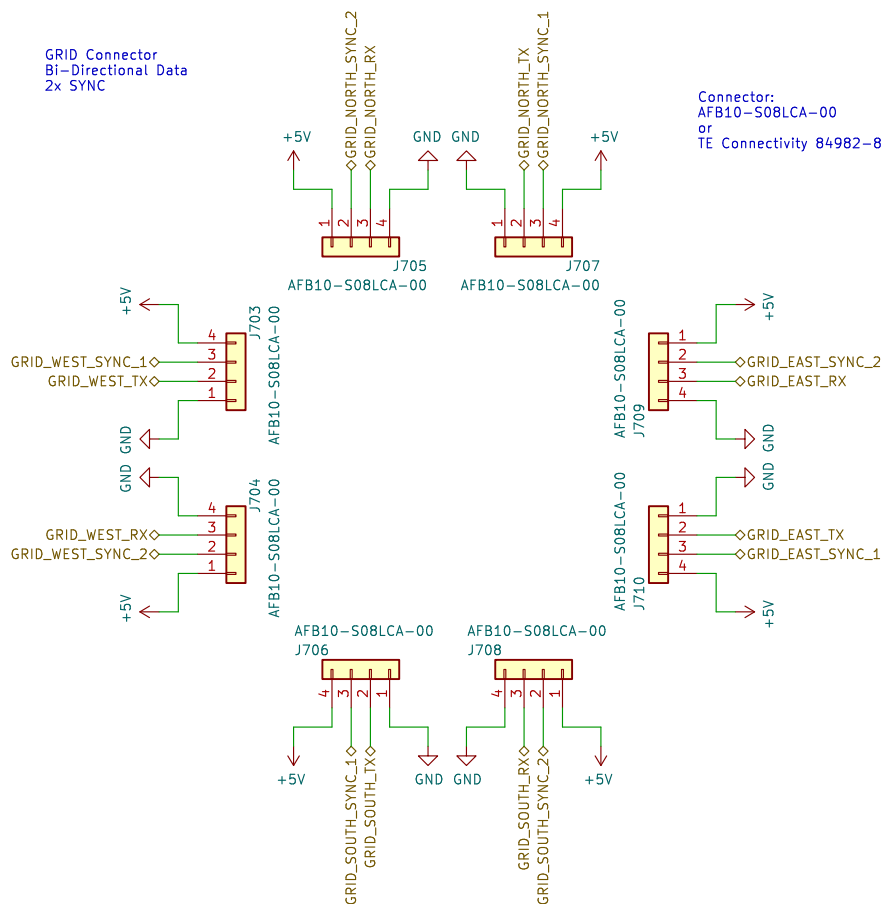
KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Rev:

Id: 6/23



500



Sheet: /MCU/sheet5D85C9EA/ File: GRID.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1		Id: 8/23

600

ESD Diodes

ESD protection for all of the externally accessible nets.

TP711 GND

TP712 VB

TP713 D-

TP714 D+

U706 SESRV05-4

USB_DATA_N

USB_DATA_P

VBUS

GND

+3V3 LDO Regulators

Regulators for generating independent power rails for the microcontroller and the user interface.

VBUS +5V

GZ2012D601TF L703

PWR_FLAG

U707 LN1134A332MR-G

IN EN

OUT NC

5 4 3 2

C760 1u

C761 1u

TP715 UI

+3V3

GND

J711 USB_C_TYPE-C-32-M-12

VBUS

VBUS

CC1

CC2

D-

D-

D+

D+

SBU1

SBU2

SHIELD

SHIELD

SHIELD

A9B4

A4B9

A5

B5

A7

B7

A6

B6

A8

B8

A1B12

A12B1

PWR_FLAG

GND

GND

5k1

5k1

R738

R739

C759 4n7

R737 1M

GND

GND

Sheet: /MCU/Sheet60F06FE1/ File: USB_POWER.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A.	kicad-cli 7.0.9-7.0.9-ubuntu23.04.1	Id: 9/23

Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1		Id: 9/23

800

OPEN IF EN16
CLOSED IF NO DETENT

U801
74HC165

+3V3

GND

HWCFG_HIGH

HWCFG_LOW

HWCFG_CLOCKD

HWCFG_SHIFTD

DATA_IND

VCC

Q

HWCFG_DATA

C801
100n

HWCFG_HIGH

HWCFG_LOW

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.	kicad-cli 7.0.9-ubuntu23.04.1	Id: 10/23

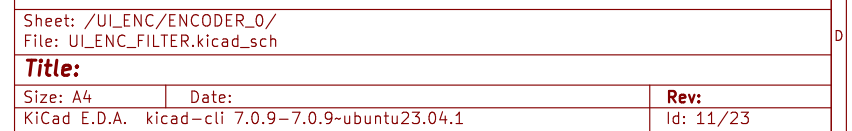
Grid firmware can identify the hardware and the board revision through a 3 wire serial interface using one or more shift register as read only memory. The content of the memory is defined by pulling the inputs high or low through pcb traces or solderable configuration jumpers.

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:	Rev:
KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1		Id: 10/23





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

Title:

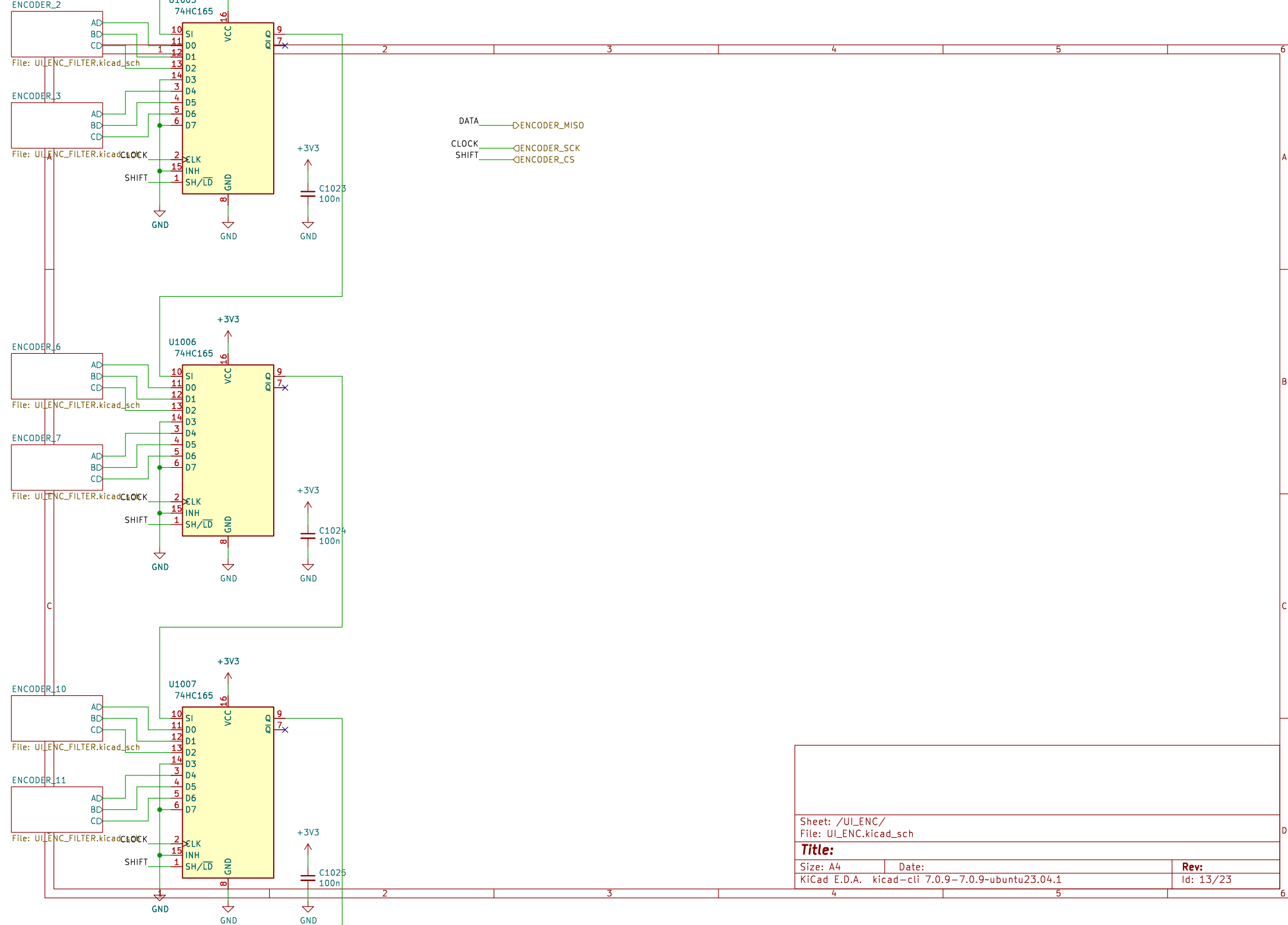
Size: A4

Date:

KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Rev:

Id: 12/23





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

Title:

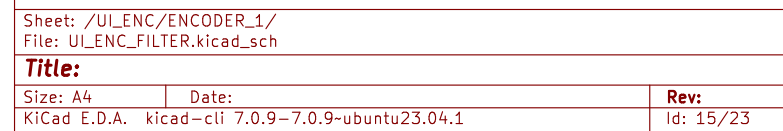
Size: A4

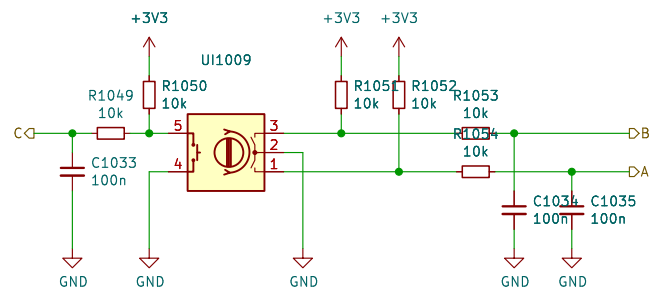
Date:

KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Rev:

Id: 14/23





Sheet: /UI_ENC/ENCODER_7/
File: UI_ENC_FILTER.kicad_sch

Title:

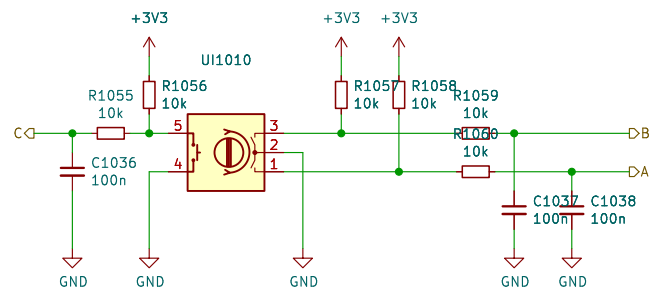
Size: A4

Date:

KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Rev:

Id: 16/23



Sheet: /UI_ENC/ENCODER_14/
File: UI_ENC_FILTER.kicad_sch

Title:

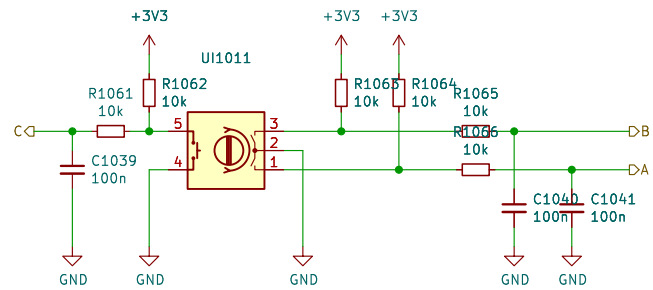
Size: A4

Date:

KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Rev:

Id: 17/23



Sheet: /UI_ENC/ENCODER_13/
File: UI_ENC_FILTER.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Rev:

Id: 18/23



Sheet: /UI_ENC/ENCODER_10/
File: UI_ENC_FILTER.kicad_sch

Title:

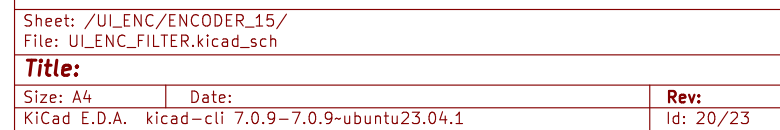
Size: A4

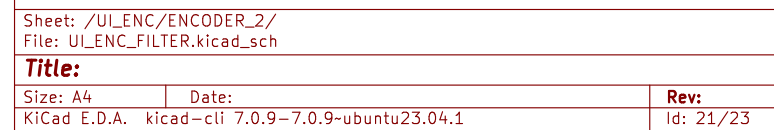
Date:

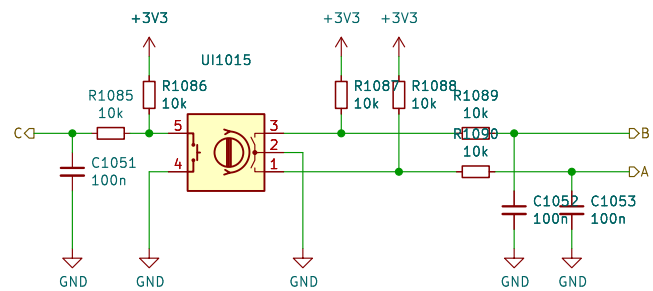
KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Rev:

Id: 19/23







Sheet: /UI_ENC/ENCODER_4/
File: UI_ENC_FILTER.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1

Rev:

Id: 22/23



Sheet: /UI_ENC/ENCODER_9/
File: UI_ENC_FILTER.kicad_sch

Title:

Size: A4	Date:	Rev:
KiCad E.D.A. kicad-cli 7.0.9-7.0.9-ubuntu23.04.1		Id: 23/23