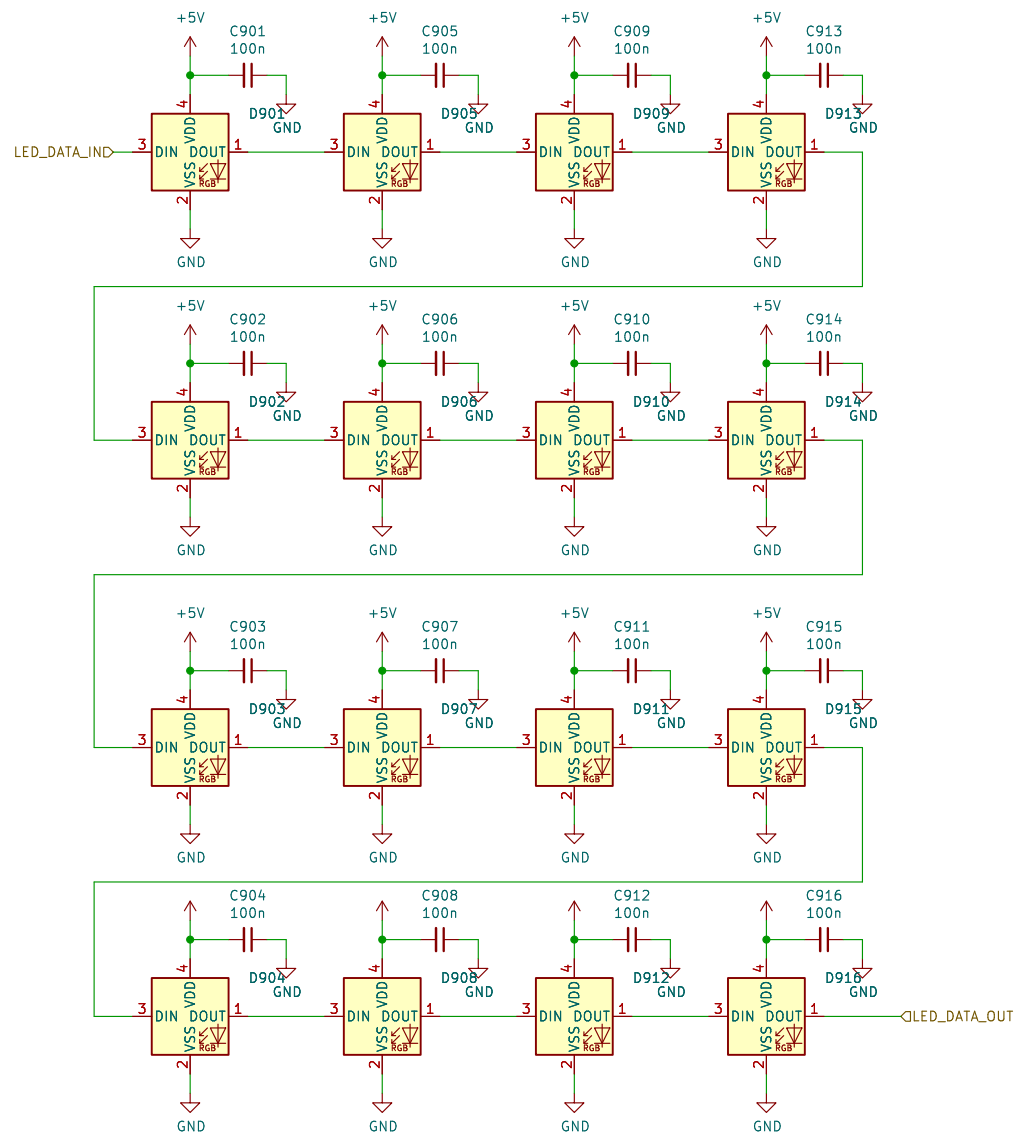




Id: 3/23

900



Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

Size: A4
KiCad E.D.A. 8.0.5

Date:

Rev:
Id: 4/23



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

Title:

Size: A4

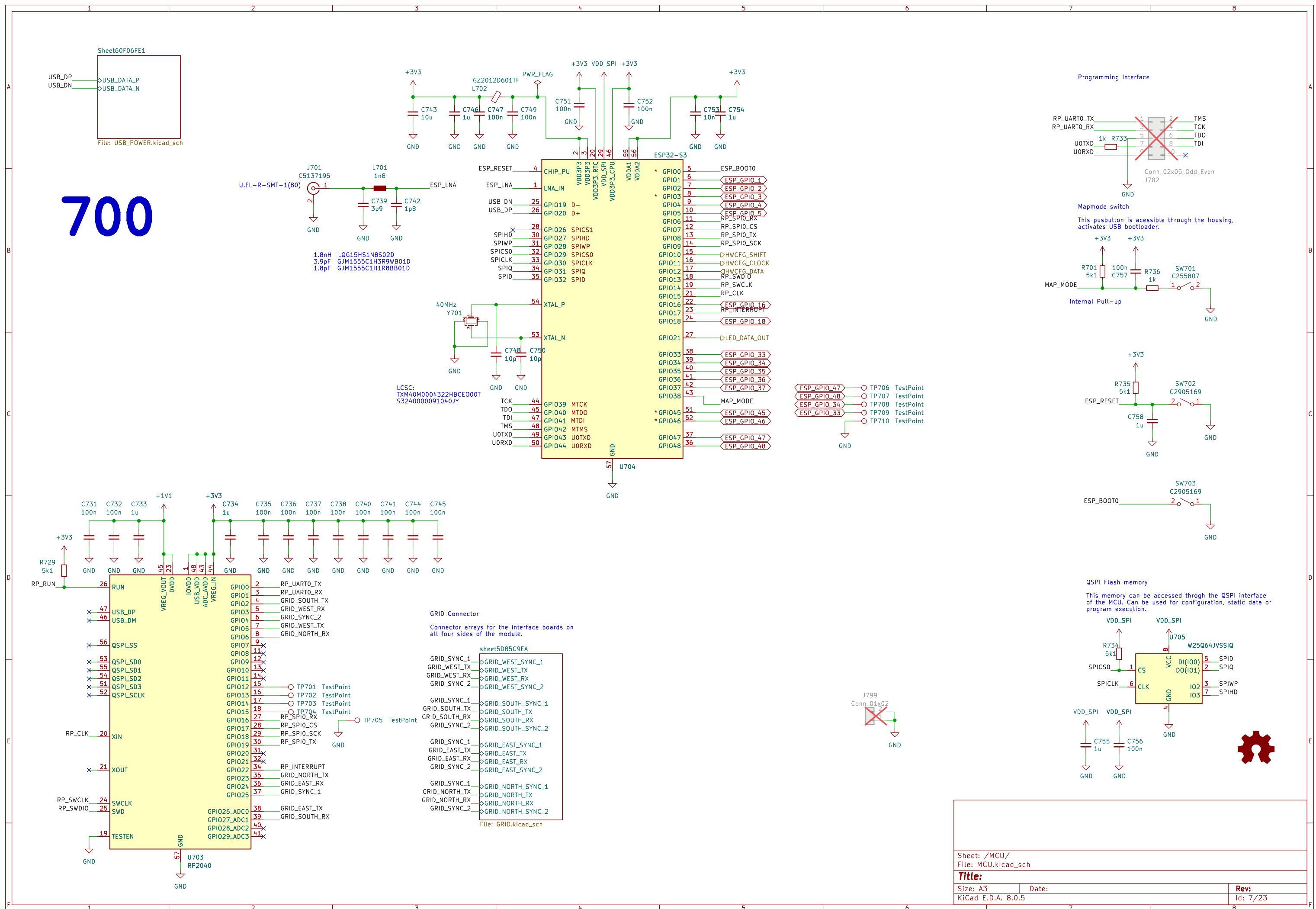
Date:

Rev:

KiCad E.D.A. 8.0.5

Id: 5/23





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Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.5		Id: 8/23
4	5	6

Size: A4	Date:	Rev:
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Id: 8/23

6

600

ESD Diodes
ESD protection for all of the externally accessible nets.

U601
C5451661

VBUS
USB_DATA_N
USB_DATA_P
GND

TP601
GND

TP602
VB

TP603
D-

TP604
D+

USB_DATA_P
USB_DATA_N

+3V3 LDO Regulators
Regulators for generating independent power rails for the microcontroller and the user interface.

U602
LN1134A332MR-G

VBUS +5V
GZ2012D601TF
L601

PWR_FLAG

C601
1u

C602
1u

TP605

+3V3

J601
TYPE-C-32-M-12

VBUS
A9B4
A4B9

CC1
A5
B5

CC2
A7
B7

D-
B7

D+
A6
B6

SBU1
A8
BB

SBU2
BB

SHIELD
S1
S2
S3
S4

GND
A1B12
A12B1

PWR_FLAG

GND

R601
5k1

R602
5k1

C603
4n7

R603
1M

GND

Sheet: /MCU/Sheet60F06FE1/
File: USB_POWER.kicad_sch

Title:

Size: A4 Date: Rev:

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Title:		
Size: A4	Date:	Rev:
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800

OPEN IF EN16
CLOSED IF NO DETENT

JP801 (NF)

R801 5k1

+3V3

GND

DATA_IND

U801 74HC165

10 SI

11 D0

12 D1

13 D2

14 D3

3 D4

4 D5

5 D6

6 D7

2 CLK

15 INH

1 SH/LD

8 GND

+3V3

VCC

9 Q

7 X

HWCFG_DATA

+3V3

HWCFG_HIGH

C801 100n

HWCFG_LOW

GND

HWCFG_CLOCKD

HWCFG_SHIFTD

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. 8.0.5		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. 8.0.5	Id: 10/23



Sheet: /UI_ENC/ENCODER_0/
File: UI_ENC_FILTER.kicad_sch

Title:

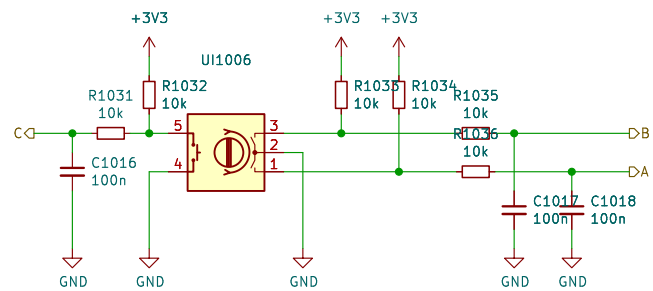
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.5

Id: 11/23



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

Title:

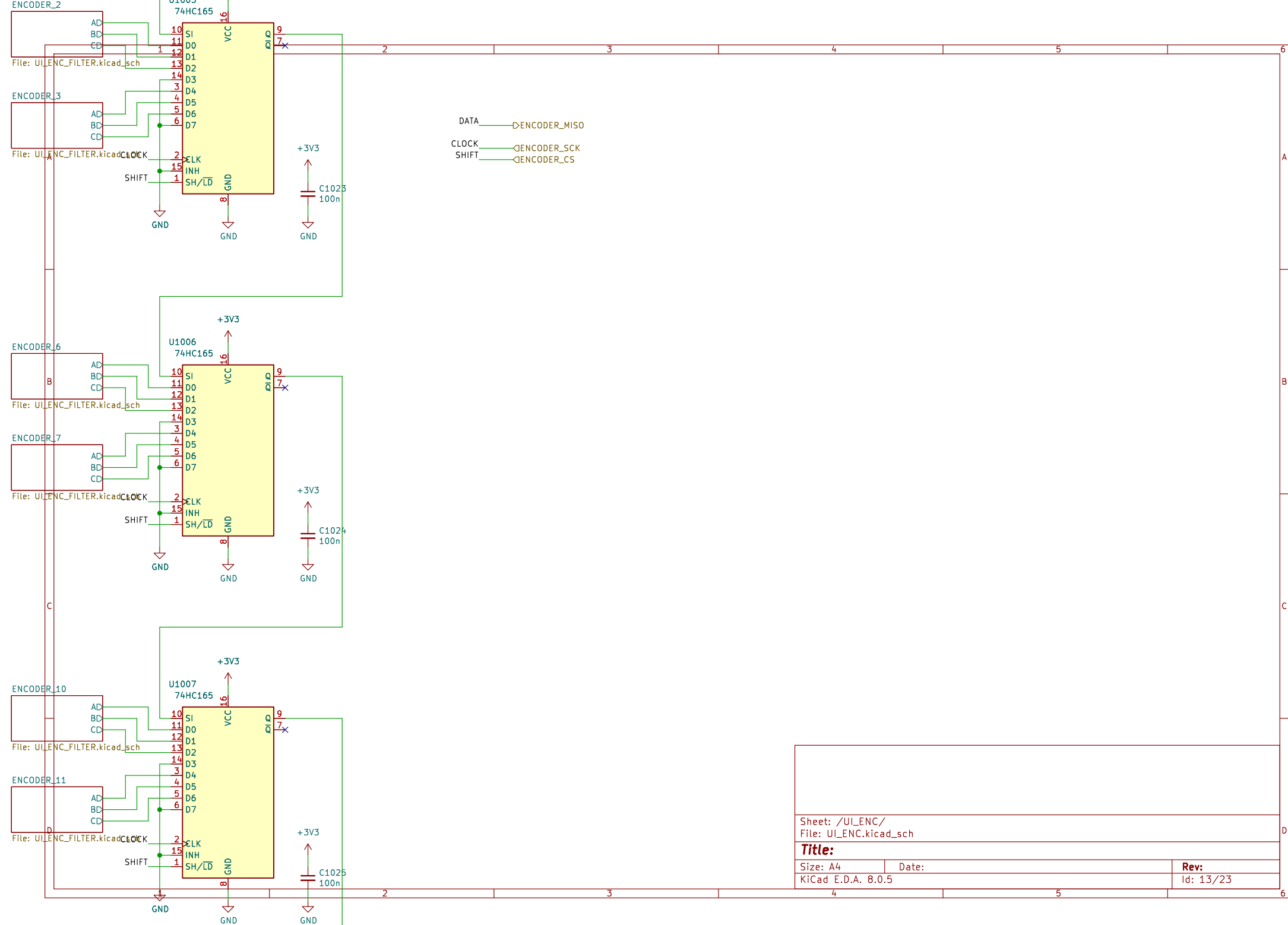
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.5

Id: 12/23





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

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.5

Id: 14/23



Sheet: /UI_ENC/ENCODER_1/
File: UI_ENC_FILTER.kicad_sch

Title:

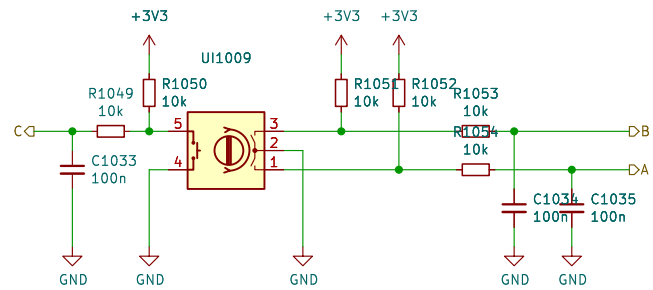
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.5

Id: 15/23



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

Title:

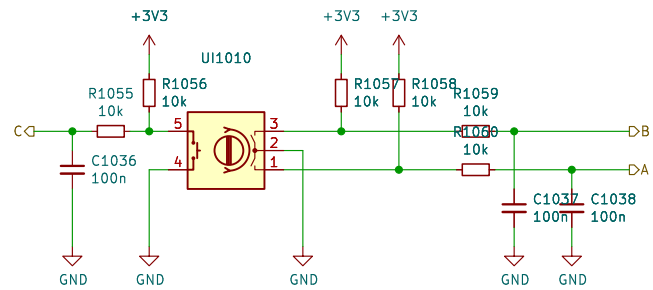
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.5

Id: 16/23



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

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.5

Id: 17/23



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

Title:

Size: A4

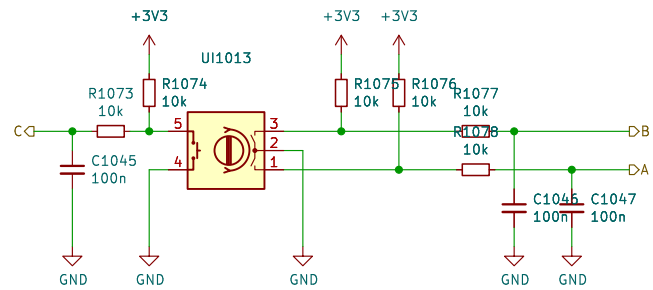
Date:

Rev:

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Id: 19/23



Sheet: /UI_ENC/ENCODER_15/
File: UI_ENC_FILTER.kicad_sch

Title:

Size: A4

Date:

Rev:

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Sheet: /UI_ENC/ENCODER_2/
File: UI_ENC_FILTER.kicad_sch

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.5

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

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.5

Id: 22/23



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

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.5

Id: 23/23