

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

Title:

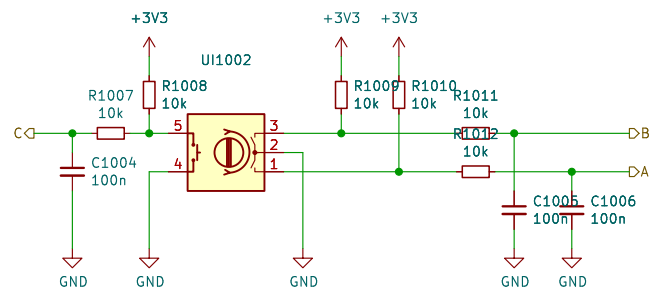
Size: A4

Date:

KiCad E.D.A. 8.0.8

Rev:

Id: 2/23



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

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.8

Id: 3/23

900



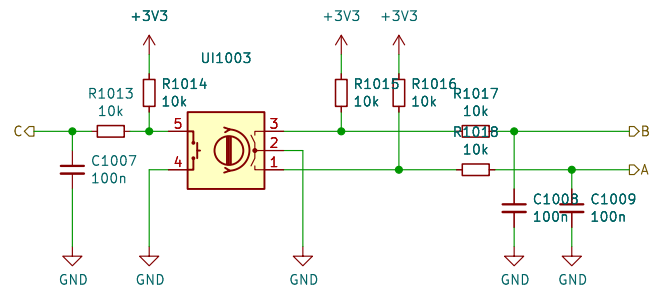
Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

Size: A4
KiCad E.D.A. 8.0.8

Date:

Rev:
Id: 4/23



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

Title:

Size: A4

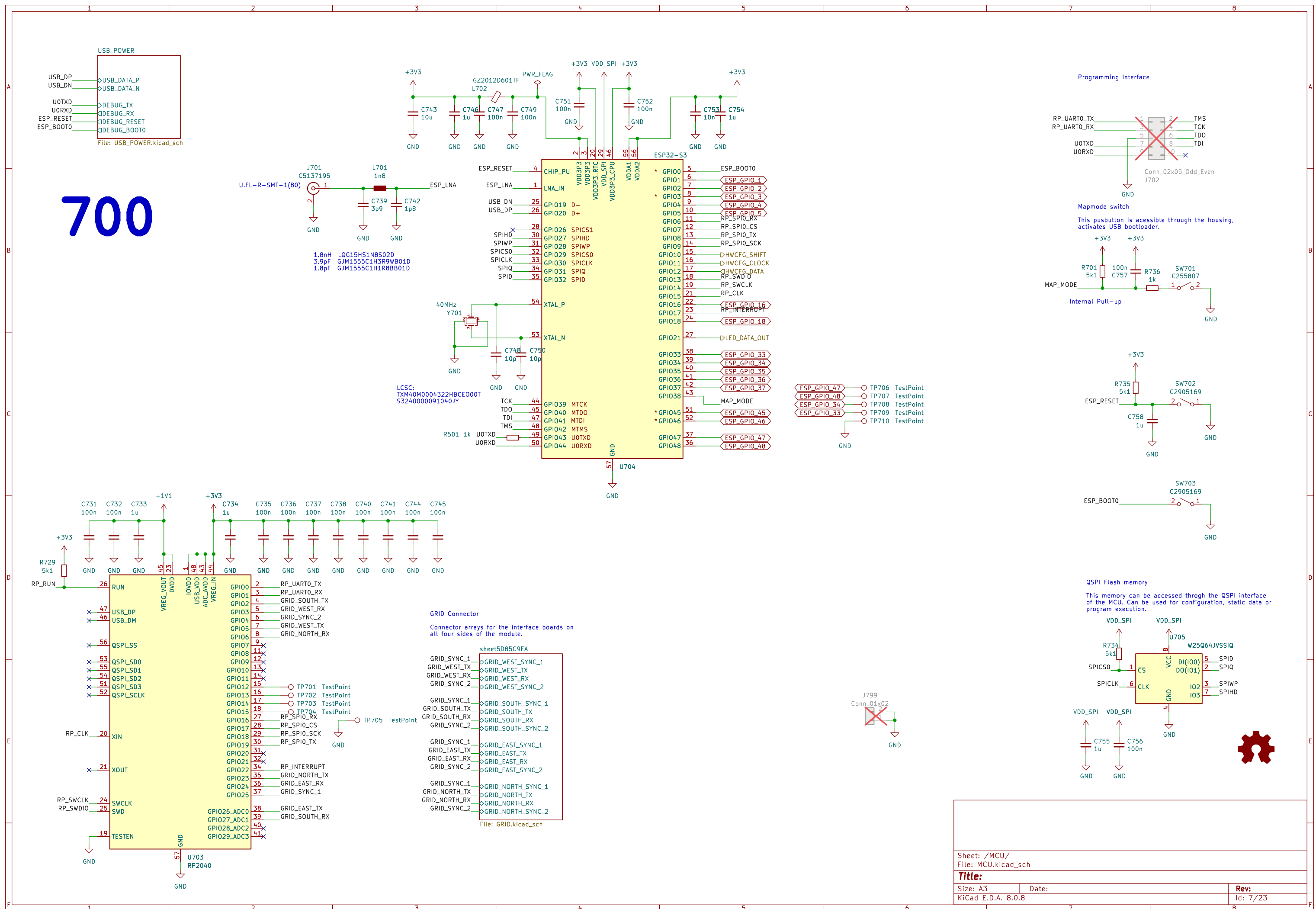
Date:

Rev:

KiCad E.D.A. 8.0.8

Id: 5/23

Id: 6/23



500

GRID Connector
Bi-Directional Data
2x SYNC

Board Mounting Pattern



Sheet: /MCU/sheet5D85C9EA/ File: GRID.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.8	Id: 8/23	

600

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

TP601 GND
TP602 VB
TP603 D-
TP604 D+
USB_DATA_P
USB_DATA_N

+3V3 LDO Regulator
Regulator for generating power rail for the microcontroller!

U602 LN1134A332MR-G
IN EN OUT NC
1 3 5 4
2 6
GND GND GND GND
C601 1u
C602 1u
UI TP605

VBUS +5V
+3V3

J601 TYPE-C-32-M-12
VBUS A9B4
VBUS A4B9
CC1 A5 CC1
CC2 B5 CC2
D- A7 A7
D- B7 B7_DN
D+ A6 A6
D+ B6 B6_DP
SBU1 A8 SBU1
SBU2 B8 SBU2
GND A1B12
GND A12B1
PWR_FLAG
GND

R601 5k1
5k1 R602
GND GND

C603 4n7
R603 1M
GND GND

VBUS
SBU2 1 6 A6
2 5
CC1 3 4 B7_DN
GND
C5451661 U504
GND

VBUS
SBU1 4 3
B6_DP 5 2
CC2 6 1 A7
GND

C5451661 U507
GND

VBUS
DEBUG 6 1
SBU1 5 2
4 3
GND
U501 BL1551B
EN_A1 A1
VCC GND
B A2

VBUS
DEBUG 6 1
SBU2 5 2
4 3
GND
U503 BL1551B
EN_A1 A1
VCC GND
B A2

VBUS
DEBUG 6 1
A7 5 2
B7_DN 4 3
GND
U505 BL1551B
EN_A1 A1
VCC GND
B A2

VBUS
DEBUG 6 1
A6 5 2
B6_DP 4 3
GND
U506 BL1551B
EN_A1 A1
VCC GND
B A2

USB_DATA_N
USB_DATA_P

C501 100n
C502 100n
C503 100n
C504 100n
GND GND GND GND

Sheet: /MCU/USB_POWER/
File: USB_POWER.kicad_sch
Title:
Size: A4 Date:
KiCad E.D.A. 8.0.8 Rev:
Id: 9/23

ESD protection for all of the externally accessible nets.

Regulator for generating power rail for the microcontroller!

Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.8		Id: 9/23

800

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
...

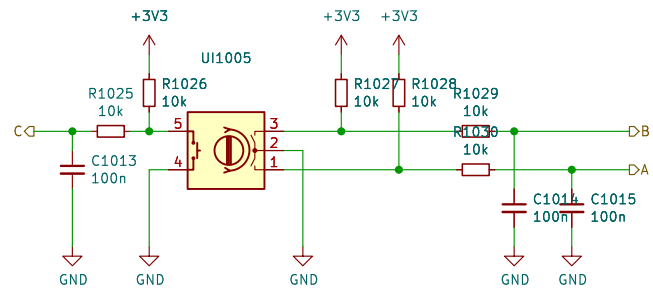
Grid firmware can identify the hardware and the board revision through a 3 wire serial interface using one or more shift register as read only memory. The content of the memory is defined by pulling the inputs high or low through pcb traces or solderable configuration jumpers.

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			D
Title:			
Size: A4	Date:	Rev:	
KiCad E.D.A. 8.0.8		Id: 10/23	



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

Title:

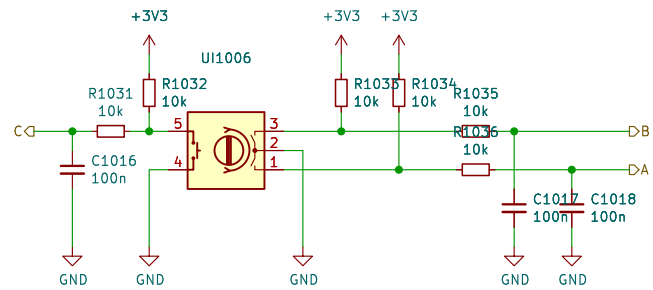
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.8

Id: 11/23



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

Title:

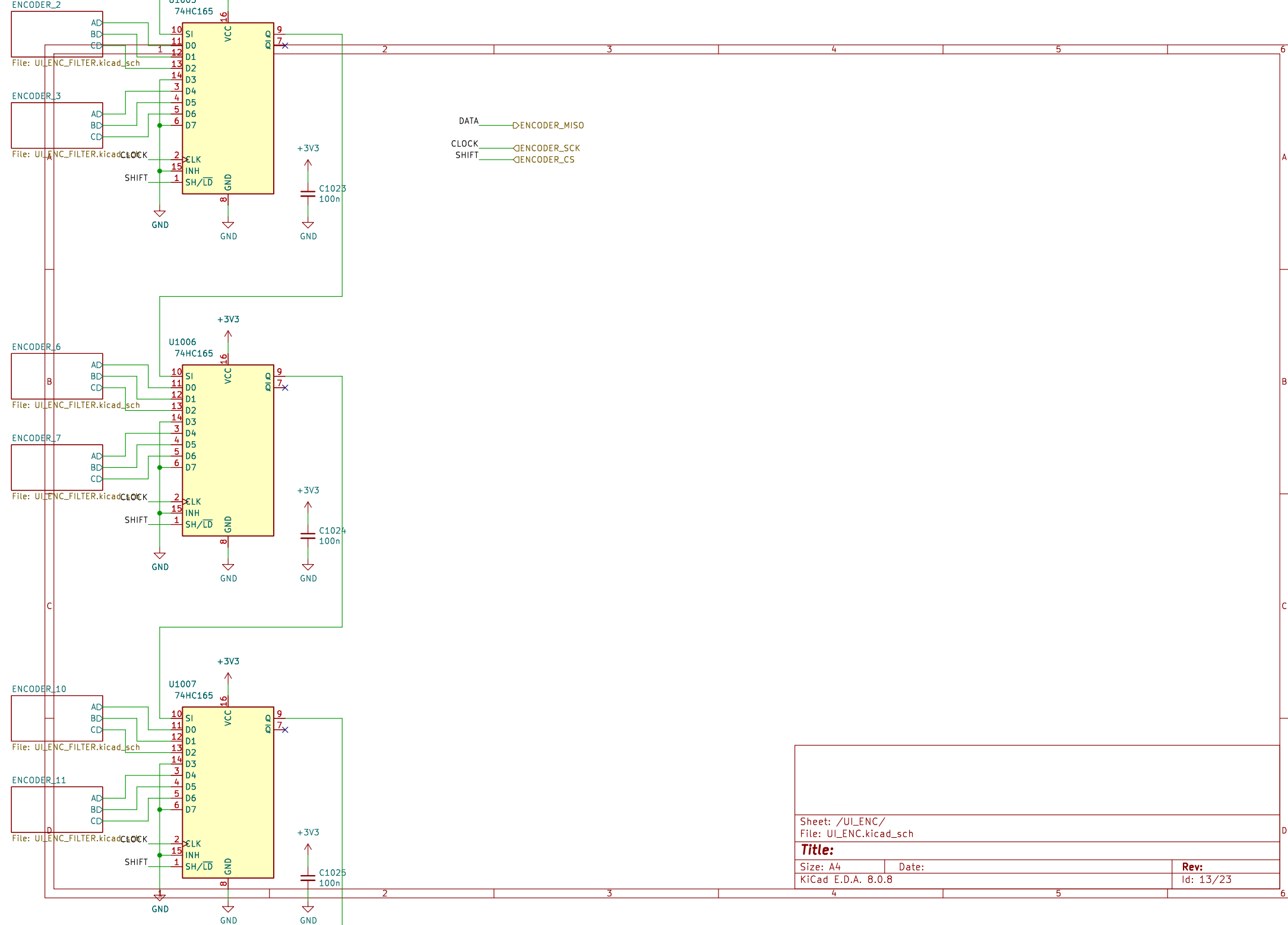
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.8

Id: 12/23





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

Title:

Size: A4

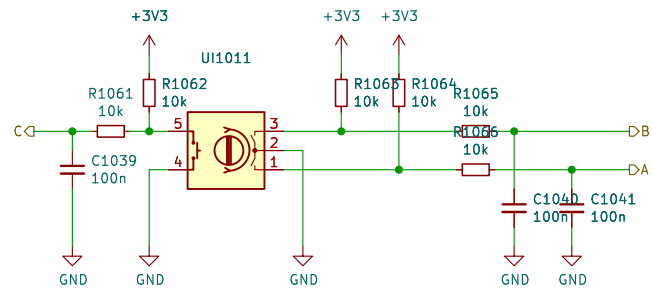
Date:

Rev:

Id: 15/23







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

Title:

Size: A4

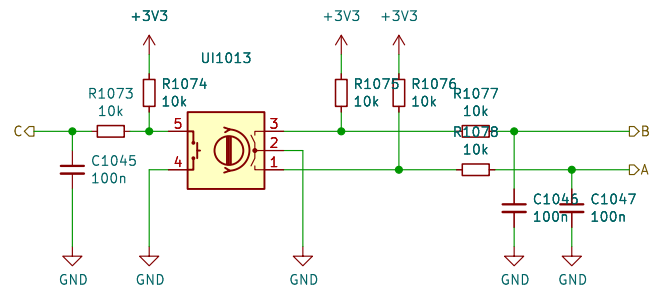
Date:

Rev:

KiCad E.D.A. 8.0.8

Id: 18/23





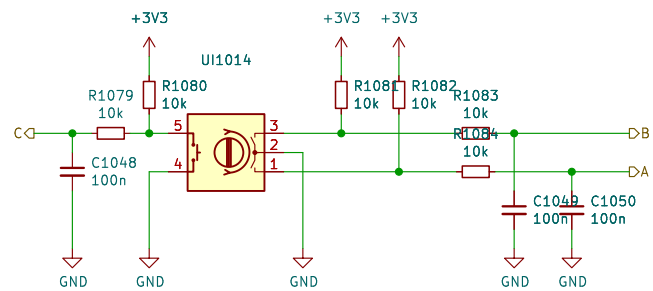
Sheet: /UI_ENC/ENCODER_15/
File: UI_ENC_FILTER.kicad_sch

Title:

Size: A4
KiCad E.D.A. 8.0.8

Date:

Rev:
Id: 20/23



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

Title:

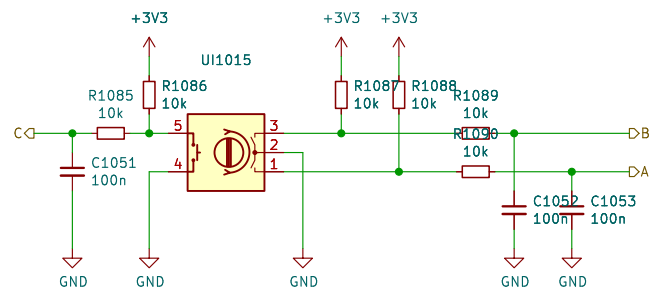
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.8

Id: 21/23



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

Title:

Size: A4
KiCad E.D.A. 8.0.8

Date:

Rev:

Id: 22/23

