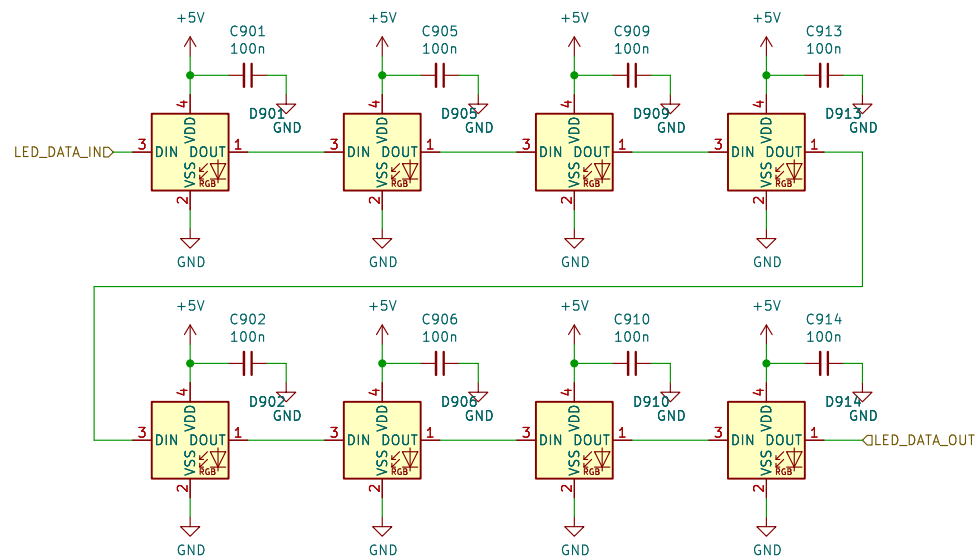


900



Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

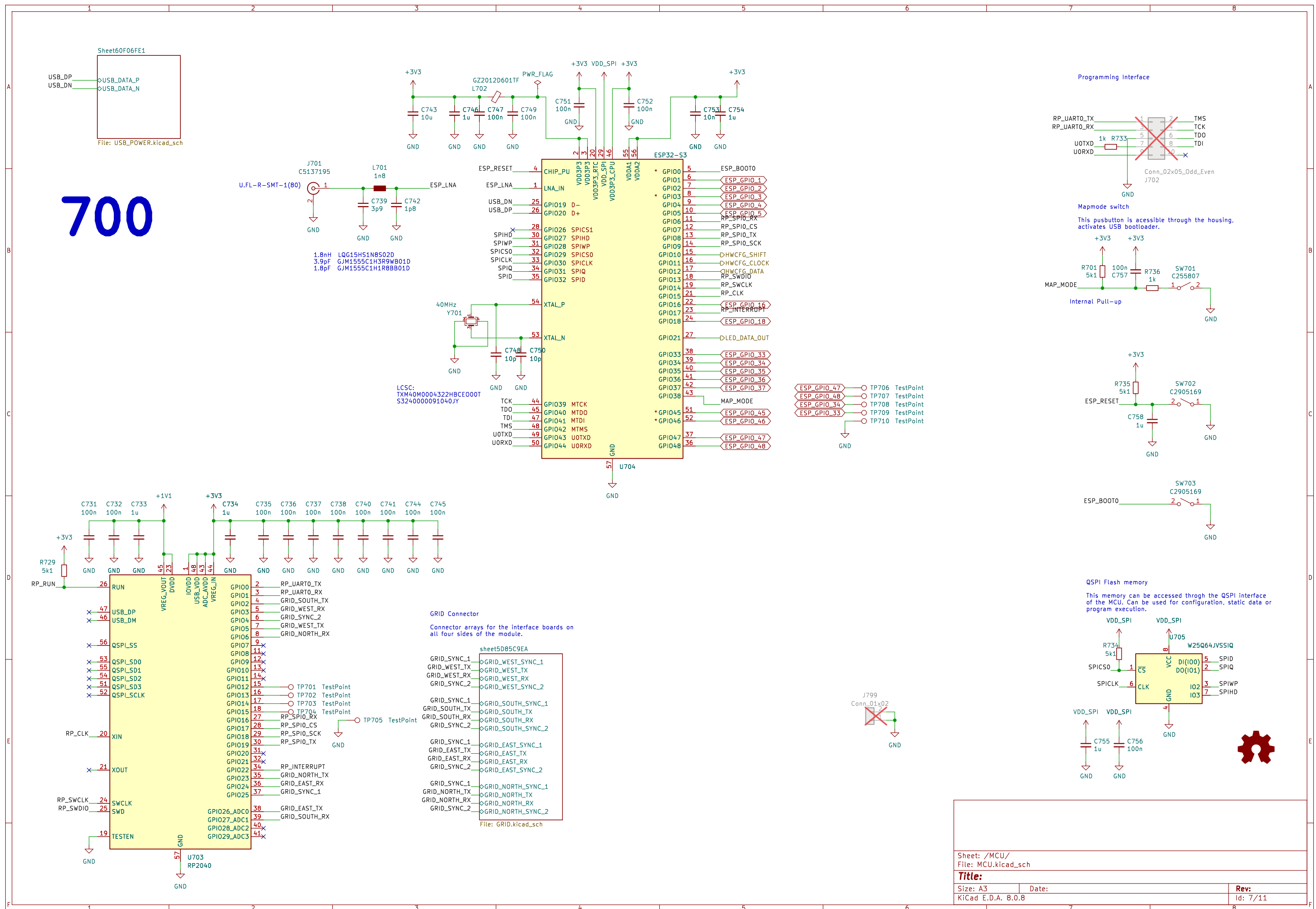
Size: A4

Date:

Rev:

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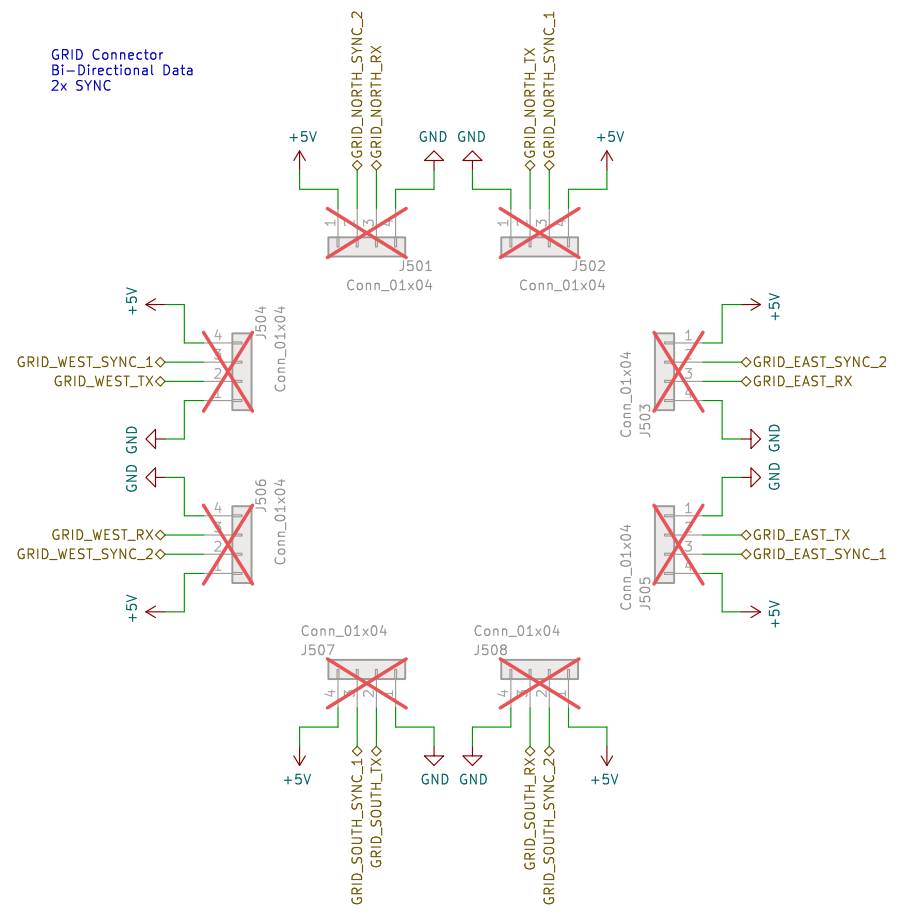
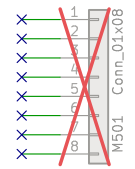
Id: 4/11



500

GRID Connector
Bi-Directional Data
2x SYNC

Board Mounting Pattern



Sheet: /MCU/sheet5D85C9EA/ File: GRID.kicad_sch		
Title:		
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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
VBUS
GND

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

VBUS +5V
GZ2012D601TF L601
PWR_FLAG
C601 1u
U602 LN1134A332MR-G
IN EN
OUT NC
GND
C602 1u
TP605
+3V3
UI

J601 TYPE-C-32-M-12
VBUS
VBUS
CC1
CC2
D-
D-
D+
D+
SBU1
SBU2
SHIELD
SHIELD
SHIELD
GND
GND
A9B4
A4B9
A5
B5
A7
B7
A6
B6
A8
BB
A1B12
A12B1
PWR_FLAG
GND
GND
R601 5k1
R602 5k1
C603 4n7
R603 1M
GND
GND

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

Title:

Size: A4 Date: Rev:

KiCad E.D.A. 8.0.8 Id: 9/11

Title:		
Size: A4	Date:	Rev:
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4	5	6

800

OPEN IF EN16
CLOSED IF NO DETENT

+3V3

JP801 (NF)

R801 5k1

GND

DATA_IND

U801 74HC165

HWCFG_LOW

HWCFG_LOW

HWCFG_HIGH

HWCFG_LOW

HWCFG_LOW

HWCFG_LOW

HWCFG_HIGH

HWCFG_CLOCK

HWCFG_SHIFT

VCC

Q

X

D HWCFG_DATA

+3V3

C801 100n

GND

HWCFG_HIGH

HWCFG_LOW

GND

B

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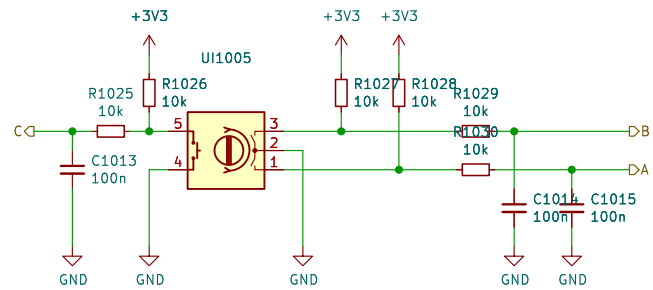
Grid firmware can identify the hardware and the board revision through a 3 wire serial interface using one or more shift register as read only memory. The content of the memory is defined by pulling the inputs high or low through pcb traces or solderable configuration jumpers.

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. 8.0.8	Rev: Id: 10/11



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

Title:

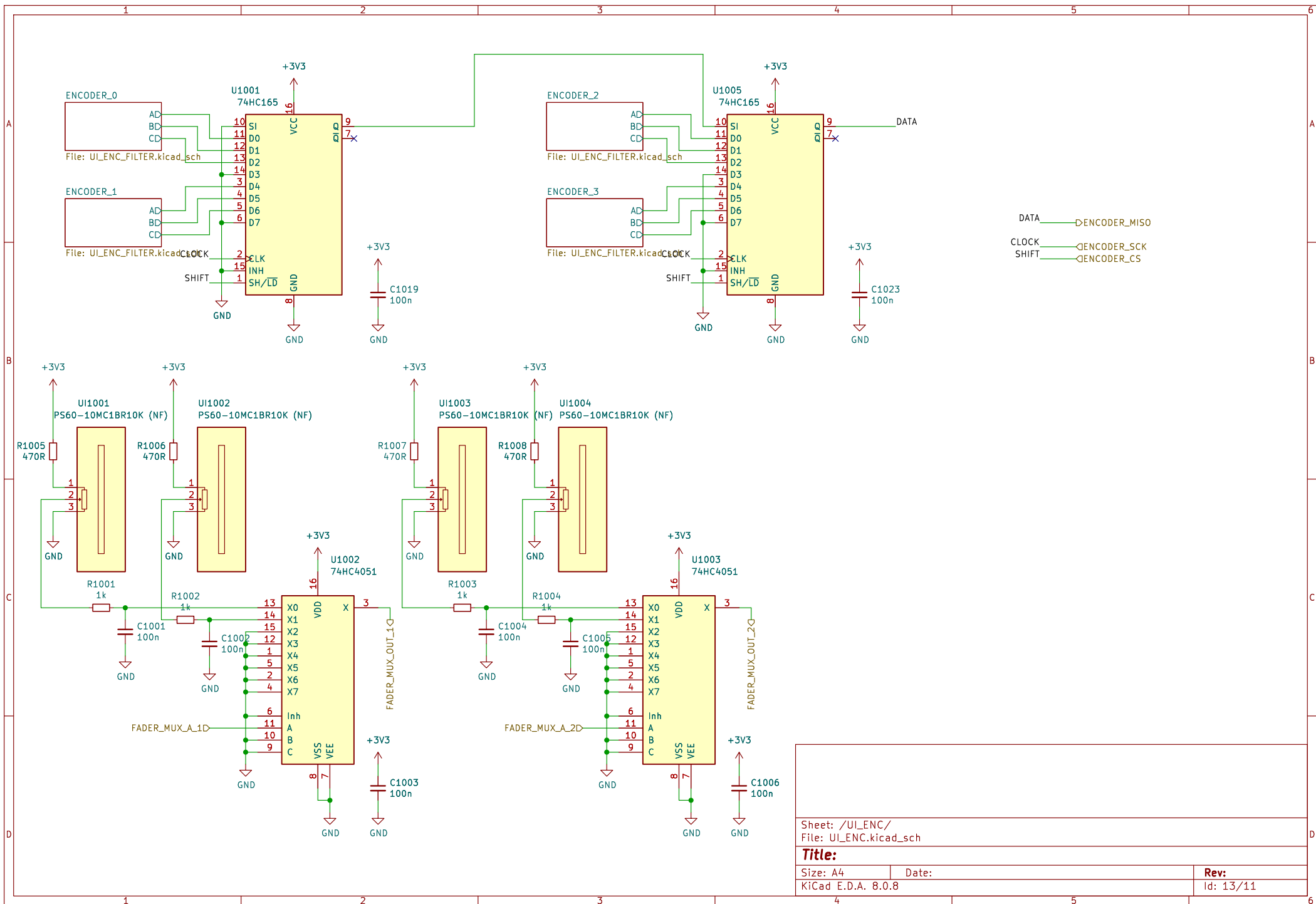
Size: A4

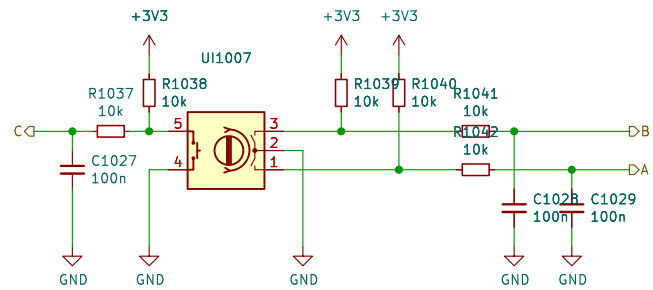
Date:

Rev:

KiCad E.D.A. 8.0.8

Id: 11/11





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

Title:

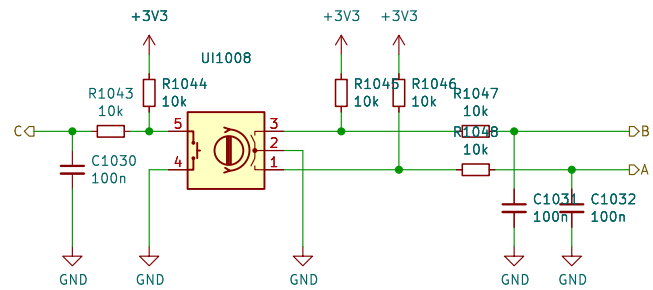
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.8

Id: 14/11



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

Title:

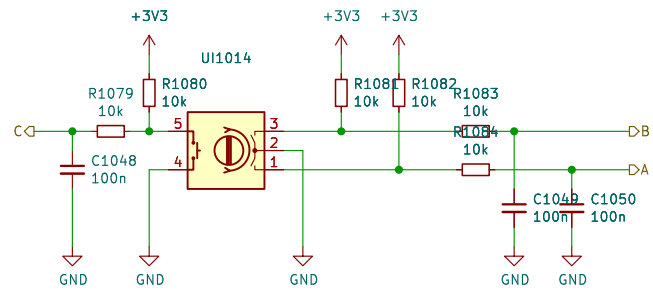
Size: A4

Date:

Rev:

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Id: 15/11



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

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.8

Id: 21/11