







Sheet: /UI\_ENC/ENCODER\_11/  
File: UI\_ENC\_FILTER.kicad\_sch

**Title:**

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KiCad E.D.A. 8.0.4

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Sheet: /UI\_LED/  
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Sheet: /UI\_ENC/ENCODER\_5/  
File: UI\_ENC\_FILTER.kicad\_sch

**Title:**

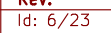
Size: A4

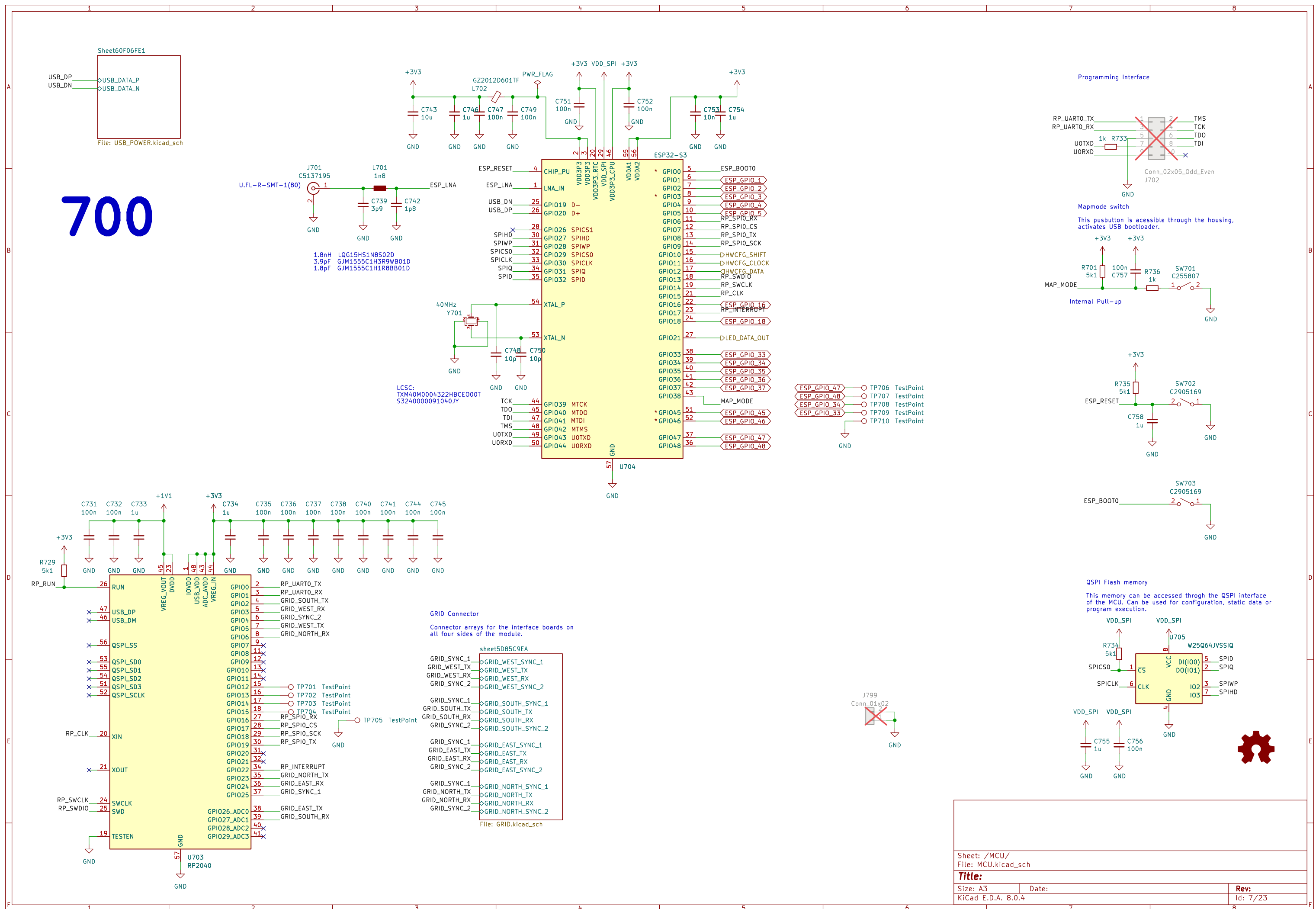
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GRID Connector  
Bi-Directional Data  
2x SYNC

Board Mounting Pattern



Sheet: /MCU/sheet5D85C9EA/  
File: GRID.kicad\_sch

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ESD Diodes

ESD protection for all of the externally accessible nets.

TP601 GND

TP602 VB

TP603 D-

TP604 D+

VBUS

USB\_DATA\_N

USB\_DATA\_P

U601 C5451661

J601 TYPE-C-32-M-12

VBUS

VBUS

CC1 A5

CC2 B5

D- A7

D- B7

D+ A6

D+ B6

SBU1 A8

SBU2 BB

SHIELD A1B12

SHIELD A12B1

GND

PWR\_FLAG

VBUS

R601 5k1

R602 5k1

C603 4n7

R603 1M

+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 1

EN 3

OUT 5

NC 4

GND 2

C602 1u

TP605 UI

+3V3

Sheet: /MCU/Sheet60F06FE1/  
File: USB\_POWER.kicad\_sch

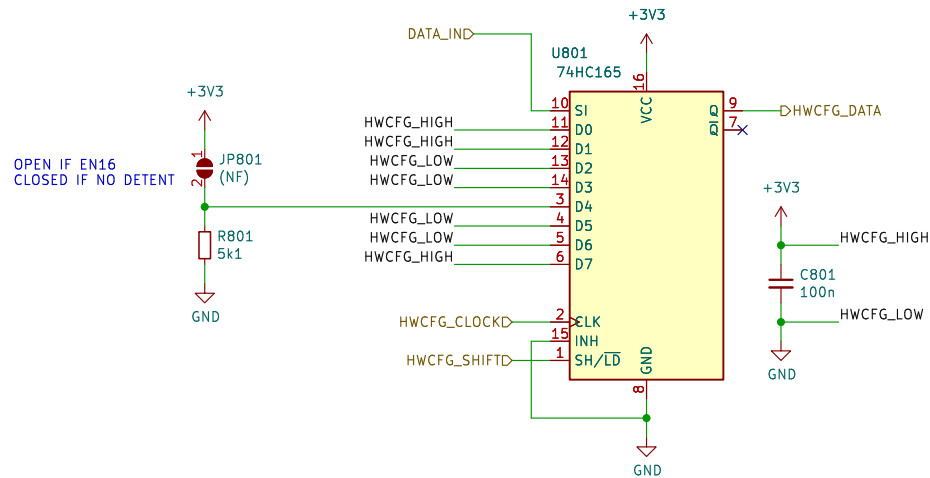
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#### Board Identification

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

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Sheet: /UI\_ENC/ENCODER\_0/  
File: UI\_ENC\_FILTER.kicad\_sch

**Title:**

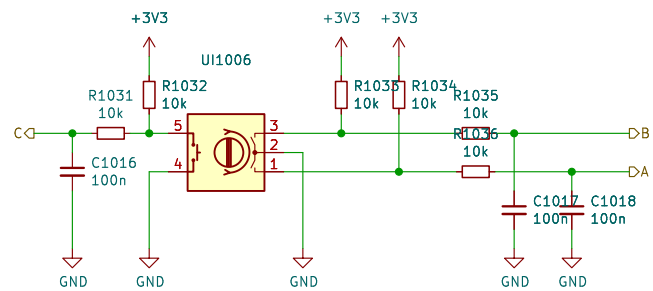
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Sheet: /UI\_ENC/ENCODER\_6/  
File: UI\_ENC\_FILTER.kicad\_sch

**Title:**

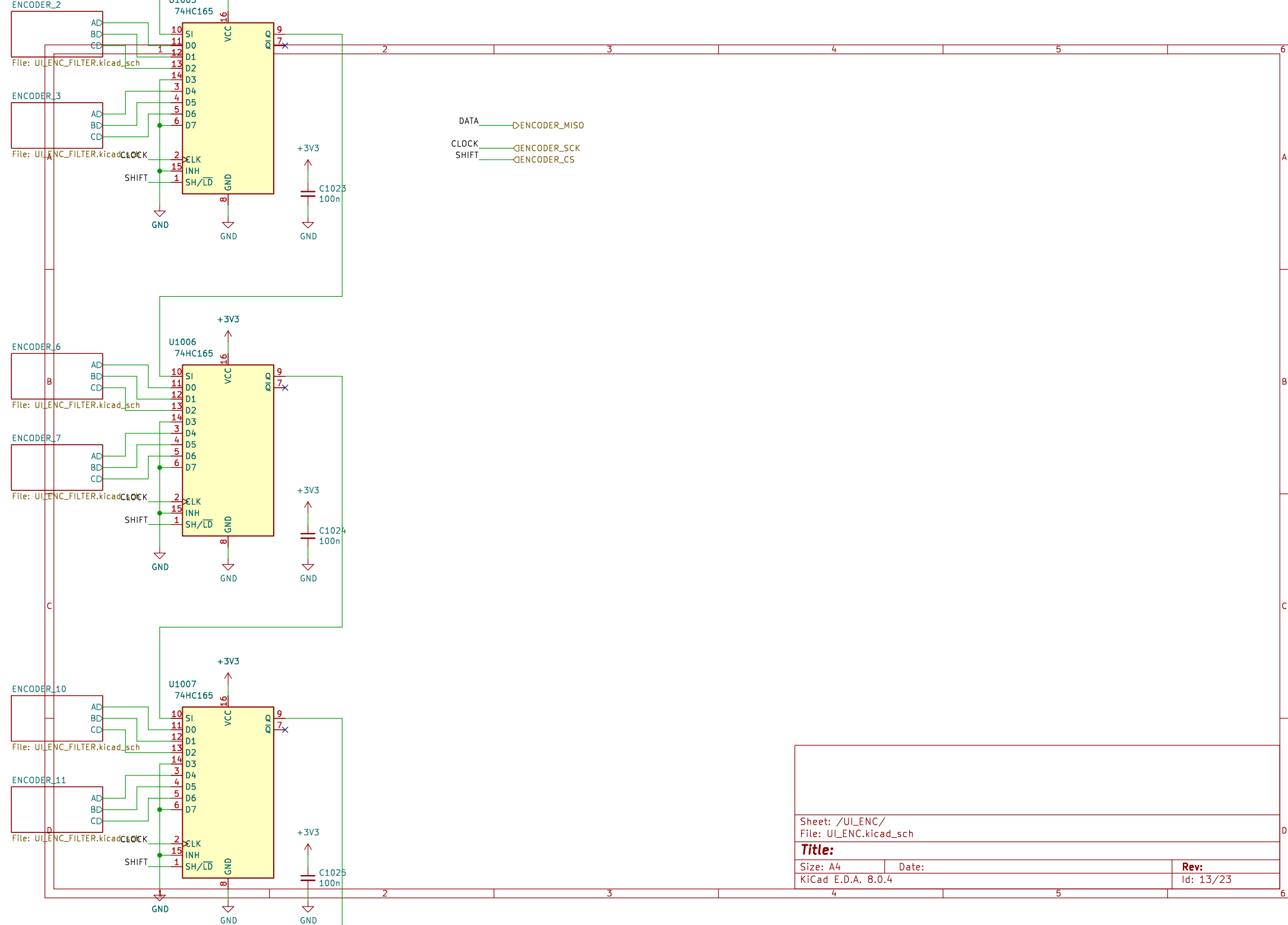
Size: A4

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Sheet: /UI\_ENC/ENCODER\_3/  
File: UI\_ENC\_FILTER.kicad\_sch

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Sheet: /UI\_ENC/ENCODER\_1/  
File: UI\_ENC\_FILTER.kicad\_sch

**Title:**

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Sheet: /UI\_ENC/ENCODER\_13/  
File: UI\_ENC\_FILTER.kicad\_sch

**Title:**

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Sheet: /UI\_ENC/ENCODER\_10/  
File: UI\_ENC\_FILTER.kicad\_sch

**Title:**

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Sheet: /UI\_ENC/ENCODER\_15/  
File: UI\_ENC\_FILTER.kicad\_sch

**Title:**

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Sheet: /UI\_ENC/ENCODER\_2/  
File: UI\_ENC\_FILTER.kicad\_sch

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Sheet: /UI\_ENC/ENCODER\_9/  
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