





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

Title:

Size: A4

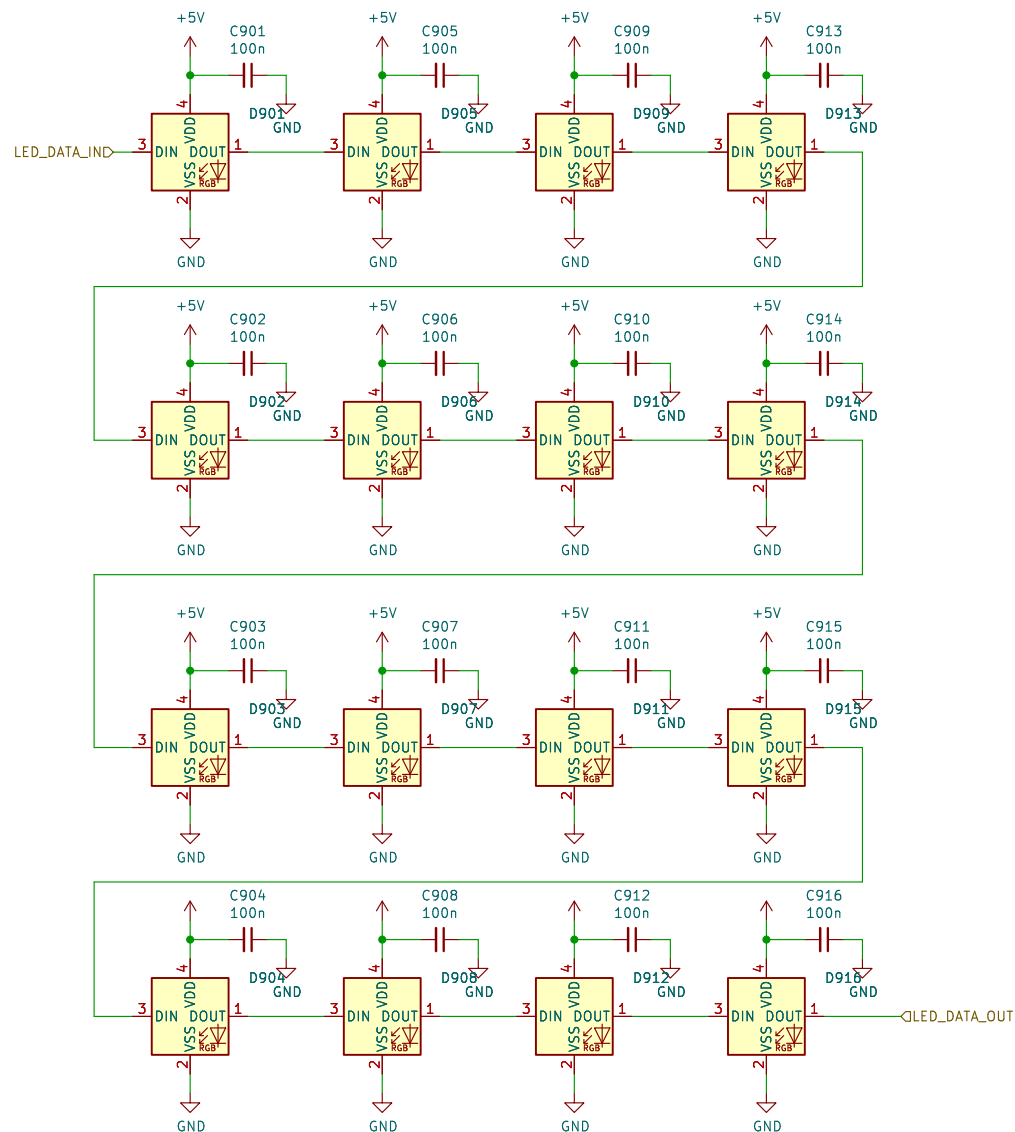
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Sheet: /UI_LED/
File: UI_LED.kicad_sch

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

Title:

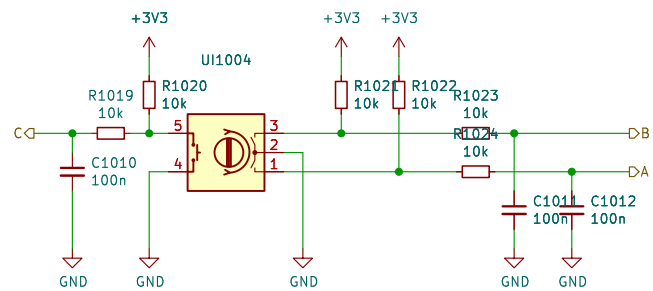
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Sheet: /UI_ENC/ENCODER_12/
File: UI_ENC_FILTER.kicad_sch

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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.

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

Components and Connections:

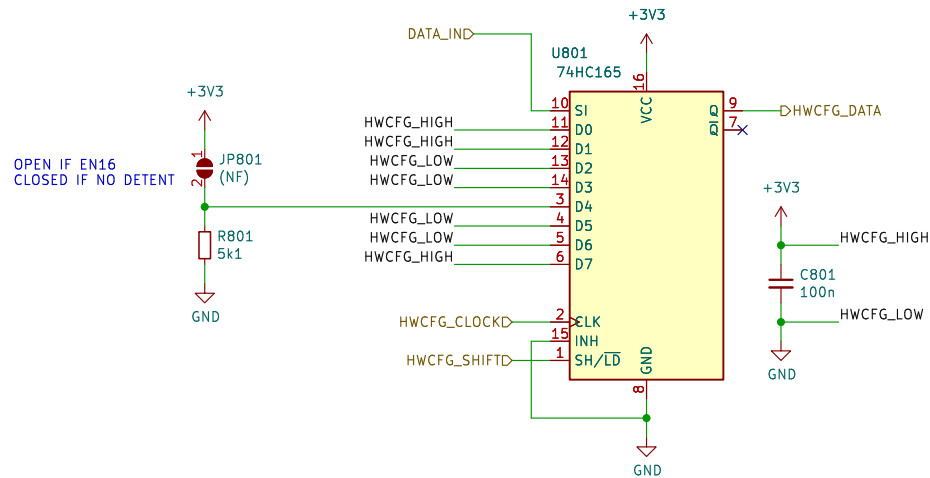
- J601 TYPE-C-32-M-12:** USB Type-C connector. Pins include VBUS, CC1, CC2, D-, D+, SBU1, SBU2, and SHIELD. Connections to VBUS, PWR_FLAG, and GND are shown.
- U601 C5451661:** ESD protection diode for USB_DATA_P and USB_DATA_N.
- TP601 GND, TP602 VB, TP603 D-, TP604 D+:** Test points for USB signals.
- U602 LN1134A332MR-G:** LDO regulator for +3V3 output. Input is connected to VBUS +5V through L601. Output is connected to +3V3.
- Capacitors:** C601 (1uF), C602 (1uF), C603 (4n7).
- Resistors:** R601 (5k1), R602 (5k1), R603 (1M).
- Other components:** S1, S2, S3, S4 (switches), PWR_FLAG, VBUS, USB_DATA_P, USB_DATA_N, GND.

**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
...

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

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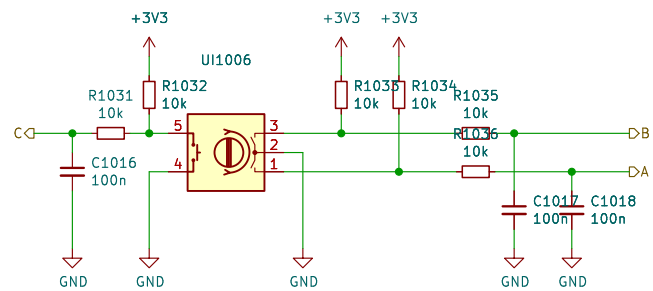
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Sheet: /UI_ENC/ENCODER_6/
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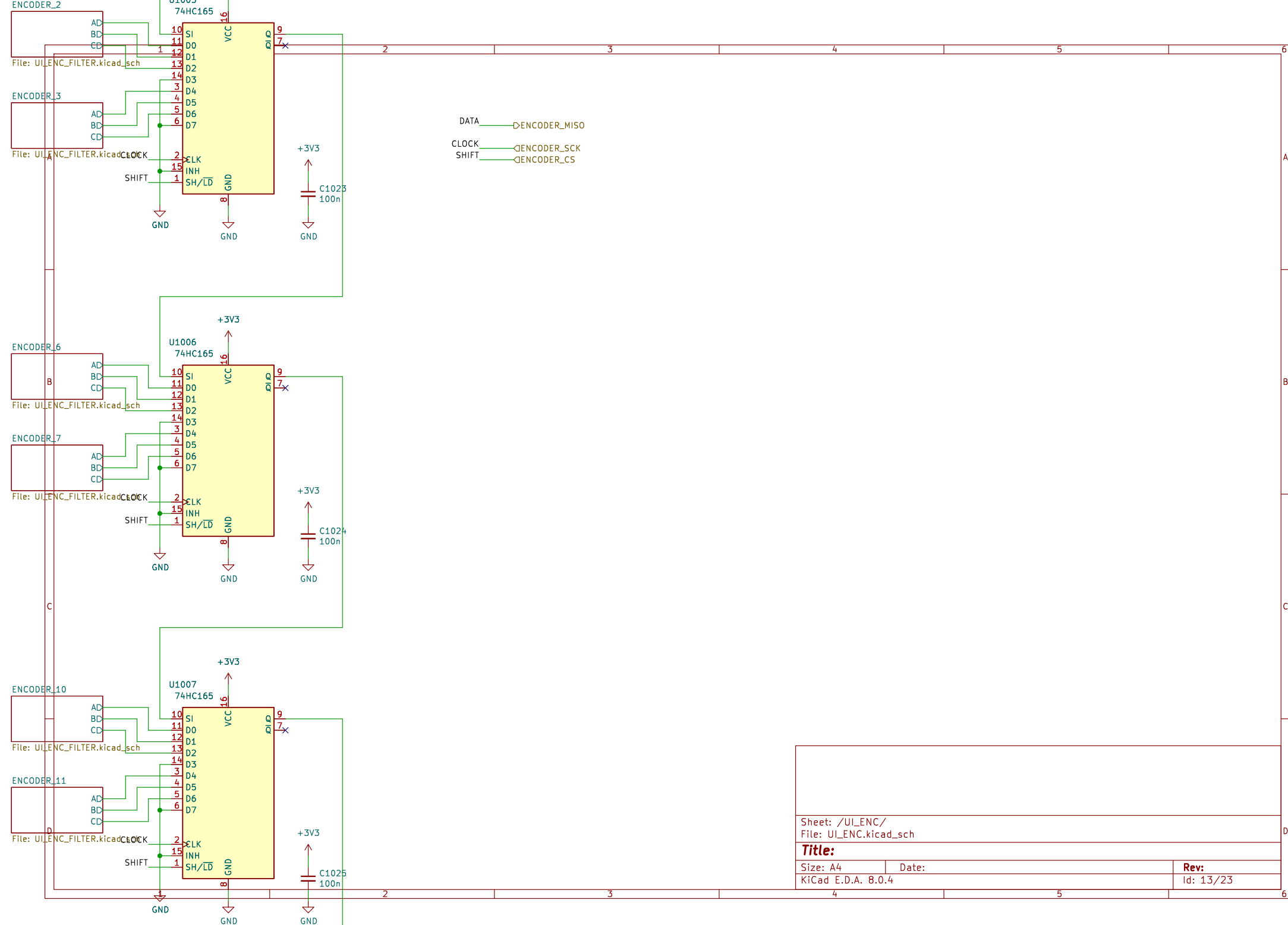
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Sheet: /UI_ENC/ENCODER_3/
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Sheet: /UI_ENC/ENCODER_10/
File: UI_ENC_FILTER.kicad_sch

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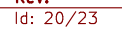
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Sheet: /UI_ENC/ENCODER_2/
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Sheet: /UI_ENC/ENCODER_9/
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