

900



Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

Size: A4
KiCad E.D.A. 8.0.3

Date:

Rev:
Id: 4/11



GRID Connector
Bi-Directional Data
2x SYNC

500

Board Mounting Pattern

Sheet: /MCU/sheet5D85C9EA/
File: GRID.kicad_sch

Title:

Size: A4 Date: Rev: 8/11
KiCad E.D.A. 8.0.3

Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.3		Id: 8/11

Size: A4	Date:	Rev:
----------	-------	------

KiCad E.D.A. 8.0.3	Id: 8/11
--------------------	----------

3	Id: 8/11
---	----------

Id: 8/11

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
GZZ012D601TF L601
PWR_FLAG
C601 1u
U602 LN1134A332MR-G
IN EN 1 3
OUT NC 5 4
GND 2
C602 1u
TP605 UI
+3V3
GND

J601 TYPE-C-32-M-12
VBUS A9B4
VBUS A4B9
CC1 A5
CC2 B5
D- A7
D- B7
D+ A6
D+ B6
SBU1 A8
SBU2 BB
SHIELD A1B12
SHIELD A12B1
GND
PWR_FLAG
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. 8.0.3 Id: 9/11

Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.3		Id: 9/11

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
...

Sheet: /HWCFG/
File: HWCFG.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 8.0.3

Rev:

Id: 10/11



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

Title:

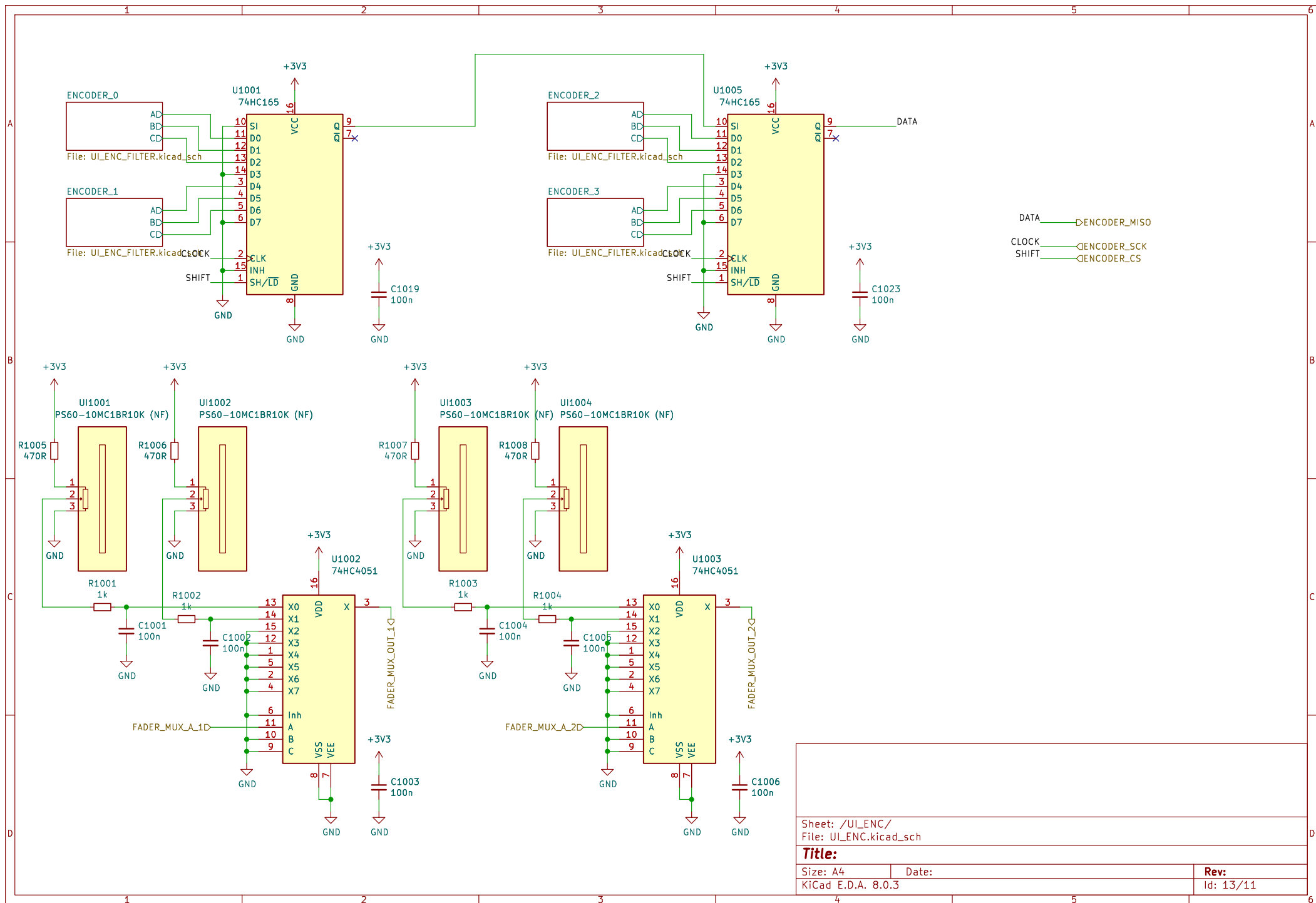
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.3

Id: 11/11



Sheet: /UI_ENC/		
File: UI_ENC.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.3		Id: 13/11



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

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.3

Id: 14/11



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

Title:

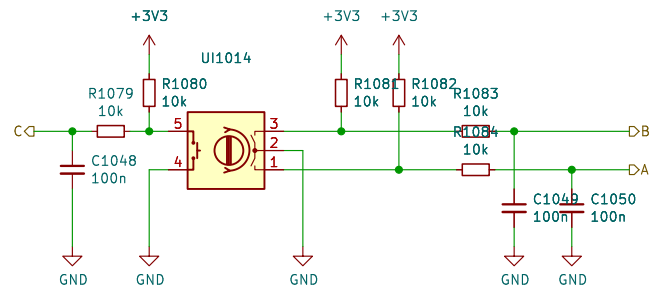
Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.3

Id: 15/11



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

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.3

Id: 21/11