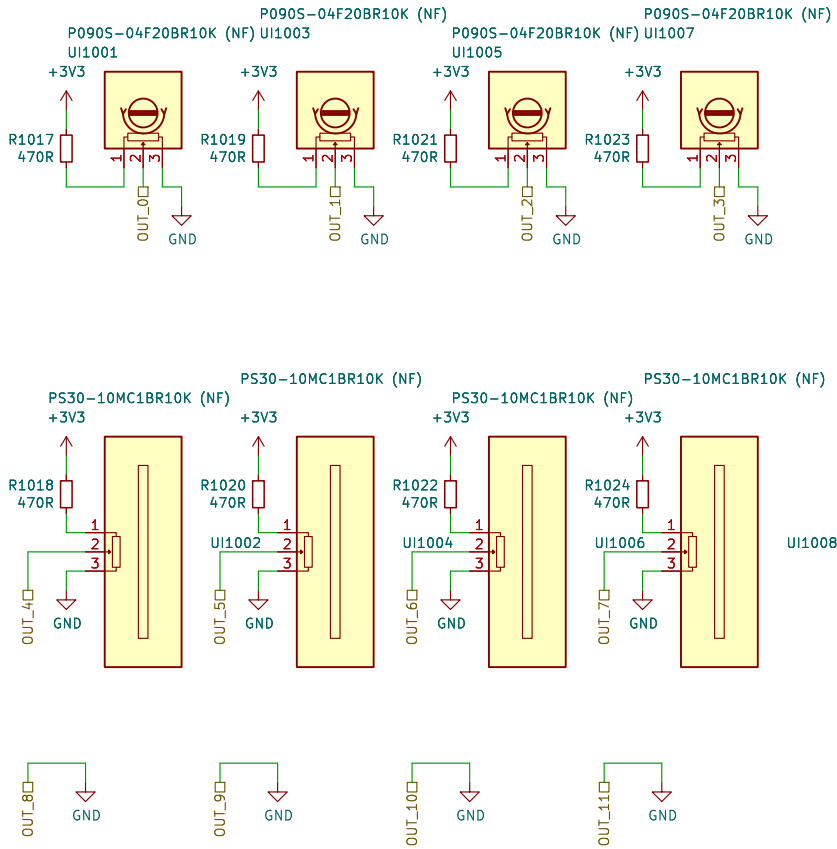




1000



Sheet: /UI_POT/
File: UI_POT.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 8.0.3

Rev:

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Simulation:
<http://tinyurl.com/y229mt4>



Sheet: /UI_BUTTON/ File: UI_BUTTON.kicad_sch		
Title:		
Size: A4	Date:	Rev:
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Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

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1000





500

GRID Connector
Bi-Directional Data
2x SYNC

Board Mounting Pattern



Sheet: /MCU/sheet5D85C9EA/ File: GRID.kicad_sch		
Title:		
Size: A4	Date:	Rev:
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600

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

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

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

VBUS +5V GZ2012D601TF L601 PWR_FLAG UI +3V3 U602 LN1134A332MR-G IN EN OUT NC 1 3 5 4 2 GND GND GND C601 1u C602 1u TP605

J601 TYPE-C-32-M-12 VBUS A9B4 CC1 A5 CC2 B5 D- A7 D- B7 D+ A6 D+ B6 SBU1 A8 SBU2 BB SHIELD A1B12 SHIELD S2 S3 SHIELD S4 SHIELD GND A12B1 GND PWR_FLAG GND R601 5k1 R602 5k1 C603 4n7 R603 1M

Title:		
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800

U801
74HC165

+3V3

16 VCC

9 Q

7 X

HWCFG_DATA

HWCFG_LOW

HWCFG_HIGH

C801
100n

GND

HWCFG_CLOCKD

2 CLK

15 INH

1 SH/LD

GND

HWCFG_SHIFTD

10 SI

11 D0

12 D1

13 D2

14 D3

3 D4

4 D5

5 D6

6 D7

8 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:

KiCad E.D.A. 8.0.3 Id: 10/10

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: Rev:
KiCad E.D.A. 8.0.3	Id: 10/10