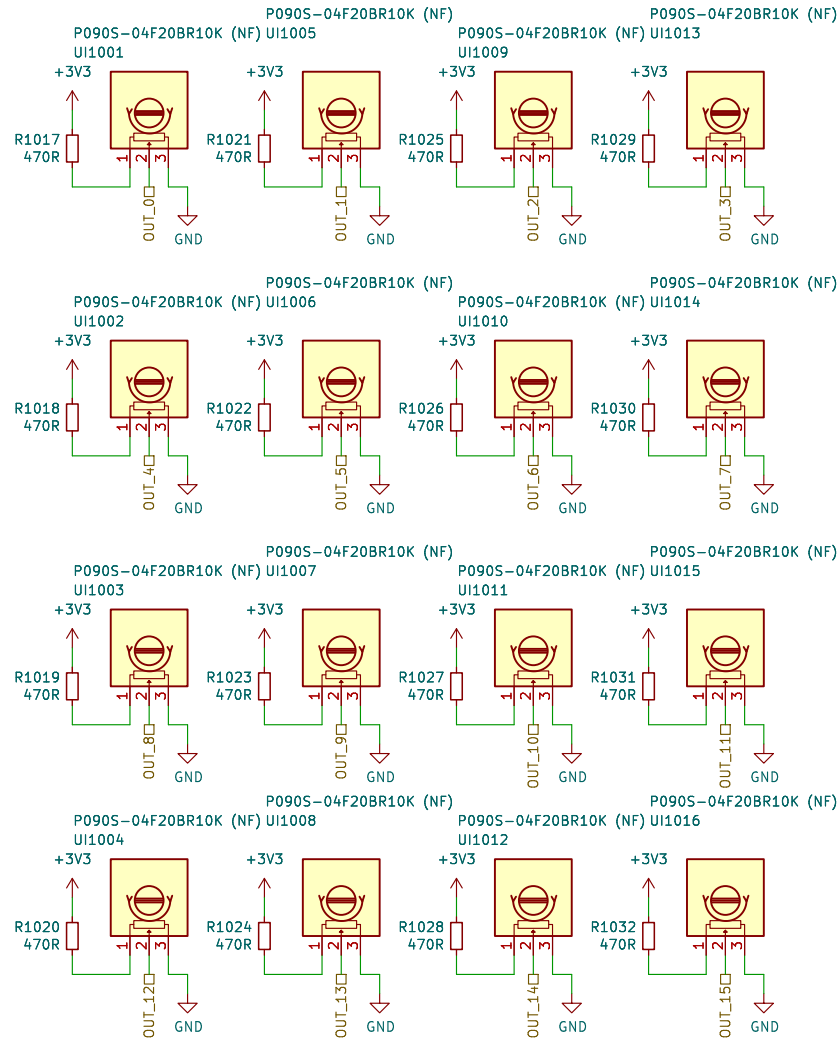


Common Sheets:
500 GRID
600 USB_POWER
700 MCU

Module Specific:
800 HWCFG
900 LED
1000 UI

1000



Sheet: /UI_POT/
File: UI_POT.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 8.0.3

Rev:

Id: 2/10

1000

Simulation:
<http://tinyurl.com/y229mty4>



Sheet: /UI_BUTTON/
File: UI_BUTTON.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 8.0.3

Rev:

Id: 3/10

900



Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

Size: A4
KiCad E.D.A. 8.0.3

Date:

Rev:
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1000



1000





500

GRID Connector
Bi-Directional Data
2x SYNC

Board Mounting Pattern



Sheet: /MCU/sheet5D85C9EA/ File: GRID.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.3		Id: 8/10

600

ESD Diodes

ESD protection for all of the externally accessible nets.

U601
C5451661

VBUS

USB_DATA_N

USB_DATA_P

GND

TP601
GND

TP602
VB

TP603
D-

TP604
D+

VBUS

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

U602
LN1134A332MR-G

IN

EN

OUT

NC

GND

5

4

1u

C601
1u

C602
1u

TP605

UI

+3V3

J601
TYPE-C-32-M-12

VBUS

VBUS

CC1

CC2

D-

D-

D+

D+

SBU1

SBU2

GND

GND

SHIELD

SHIELD

SHIELD

S1

S2

S3

S4

C603
4n7

R603
1M

GND

GND

A9B4

A4B9

A5

B5

A7

B7

A6

B6

A8

BB

A1B12

A12B1

PWR_FLAG

GND

GND

5k1

R601

5k1

R602

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

Title:

Size: A4 Date: Rev:

KiCad E.D.A. 8.0.3 Id: 9/10

Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.3		Id: 9/10

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: 10/10