



UI_LED

LED_DATA_IN

LED_DATA_OUT

File: UI_LED.kicad_sch

MCU

LED_DATA_OUT

File: MCU.kicad_sch

Sheet5D7C8BFD

ANA_0

ANA_1

ANA_4

ANA_5

ANA_8

ANA_9

ANA_12

ANA_13

IN_0

IN_1

IN_2

IN_3

IN_4

IN_5

IN_6

IN_7

OUTD

ADDRESS_A

ADDRESS_B

ADDRESS_C

ESP_GPIO_1

ESP_GPIO_18

ESP_GPIO_37

ESP_GPIO_36

ESP_GPIO_35

File: UI_MUX.kicad_sch

sheet5D8763D6

ANA_2

ANA_3

ANA_6

ANA_7

ANA_10

ANA_11

ANA_14

ANA_15

IN_0

IN_1

IN_2

IN_3

IN_4

IN_5

IN_6

IN_7

OUTD

ADDRESS_A

ADDRESS_B

ADDRESS_C

ESP_GPIO_2

ESP_GPIO_5

ESP_GPIO_4

ESP_GPIO_3

File: UI_MUX.kicad_sch

HWCFG

HWCFG_SHIFT

HWCFG_CLOCK

HWCFG_DATA

File: HWCFG.kicad_sch

MCU

HWCFG_SHIFT

HWCFG_CLOCK

HWCFG_DATA

File: MCU.kicad_sch

Common Sheets:
500 GRID
600 USB_POWER
700 MCU

Module Specific:
800 HWCFG
900 LED
1000 UI

Sheet: /
File: PCBA-PBF4.kicad_sch

Title:

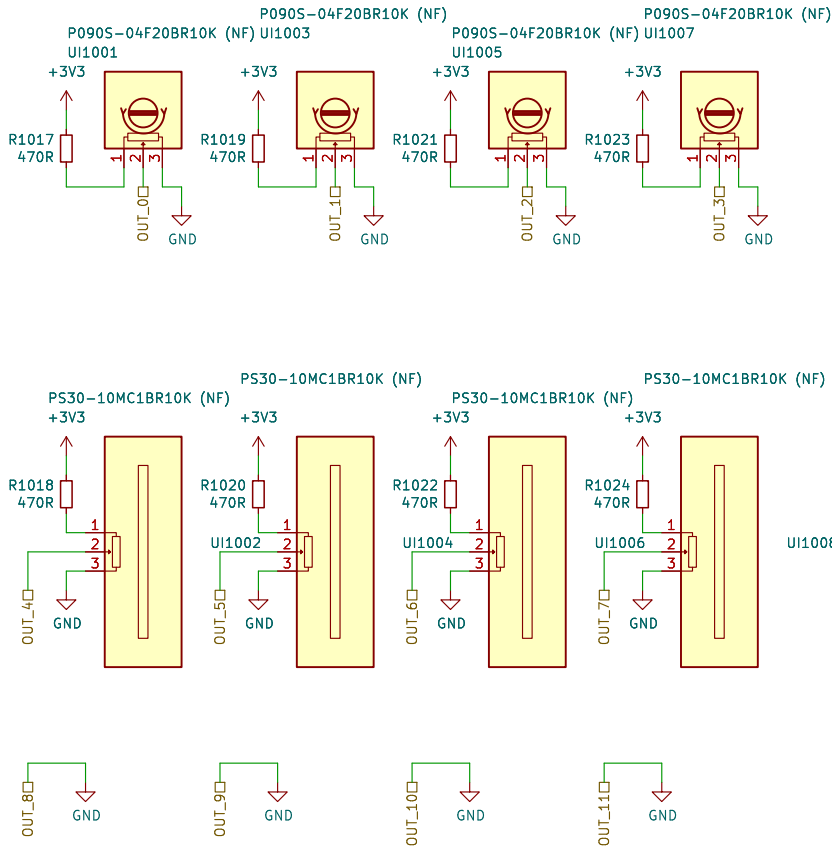
Size: A3
KiCad E.D.A. 8.0.6

Date:

Rev:

Id: 1/10

1000



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



Sheet: /UI_BUTTON/ File: UI_BUTTON.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.6	Id: 3/10	

900



Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 8.0.6

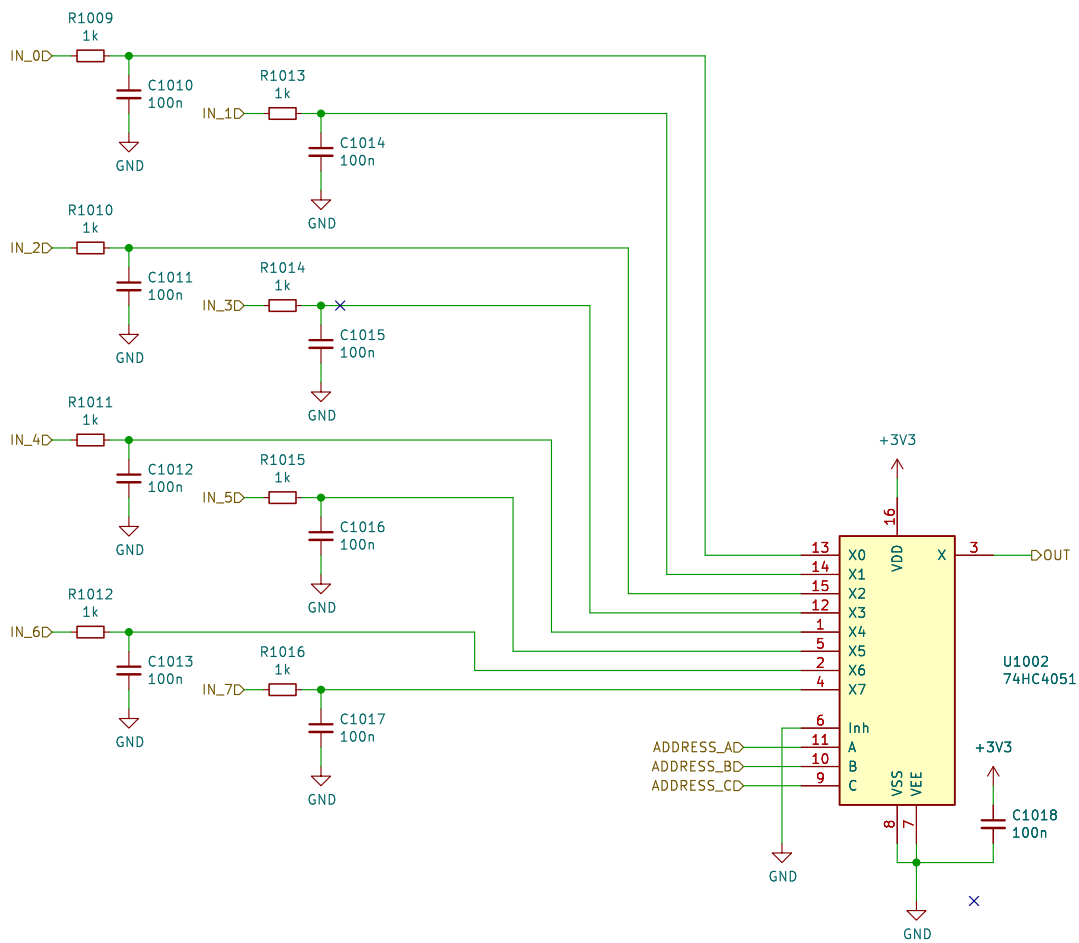
Rev:

Id: 4/10

1000



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Sheet: /sheet5D8763D6/ File: UI_MUX.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.6	Id: 6/10	



500

GRID Connector
Bi-Directional Data
2x SYNC

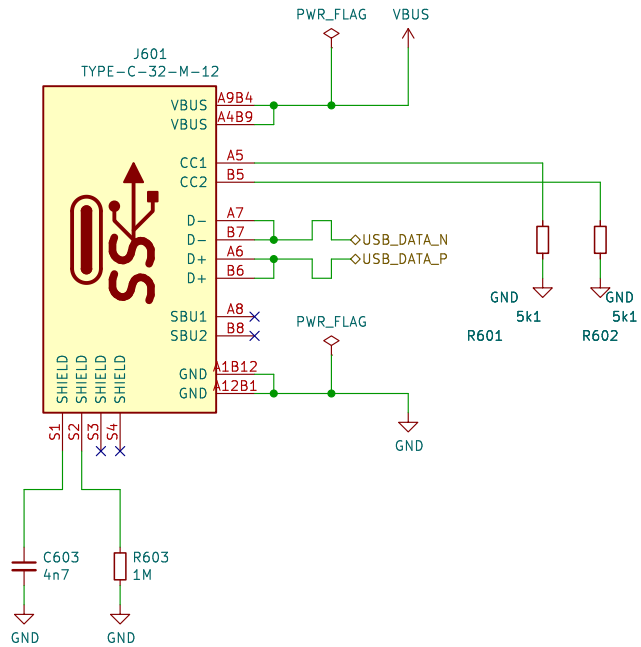
Board Mounting Pattern



Sheet: /MCU/sheet5D85C9EA/ File: GRID.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.6	Id: 8/10	

[illegible]

ESD protection for all of the externally accessible nets.



Id: 9/10

[illegible]

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/		D
File: HWCFG.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 8.0.6		Id: 10/10