



Common Sheets:

500 GRID

600 USB_POWER

700 MCU

Module Specific:

800 HWCFG

900 LED

1000 UI

Sheet: /

File: PCBA-TEK2.kicad_sch

Title:

Size: A3

Date:

Rev:

KiCad E.D.A. kicad-cli 7.0.11+1

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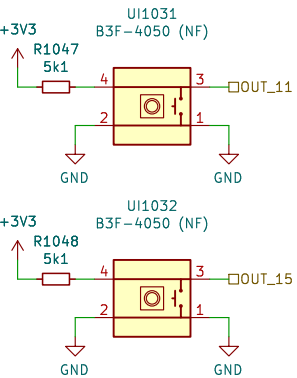
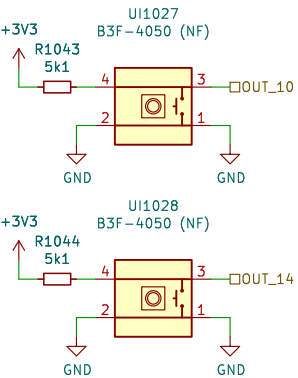
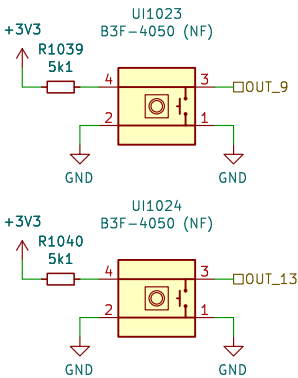
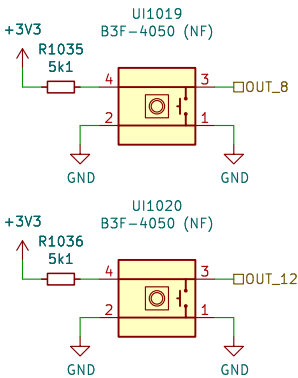
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Sheet: /UI_POT/ File: UI_POT.kicad_sch		
Title:		
Size: A4	Date:	Rev:
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Simulation:
<http://tinyurl.com/y229mt4>



Sheet: /UI_BUTTON/ File: UI_BUTTON.kicad_sch		
Title:		
Size: A4	Date:	Rev:
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900



Sheet: /UI_LED/
File: UI_LED.kicad_sch

Title:

Size: A4
KiCad E.D.A. kicad-cli 7.0.11+1

Date:

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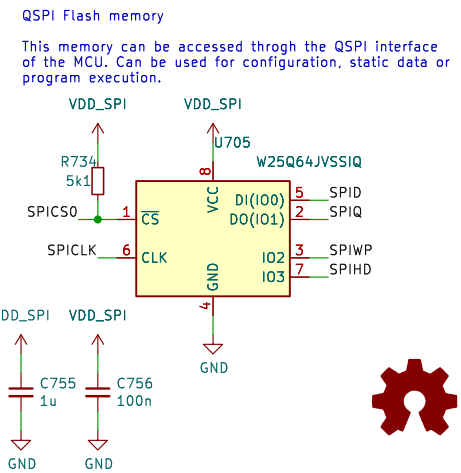
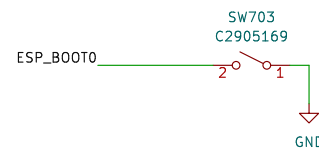
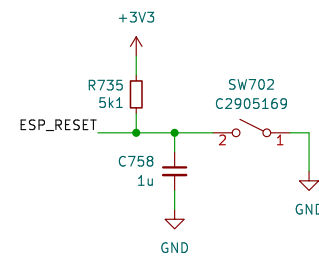
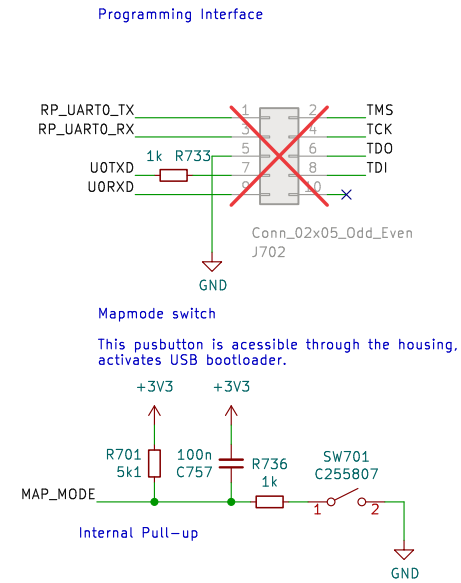
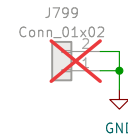
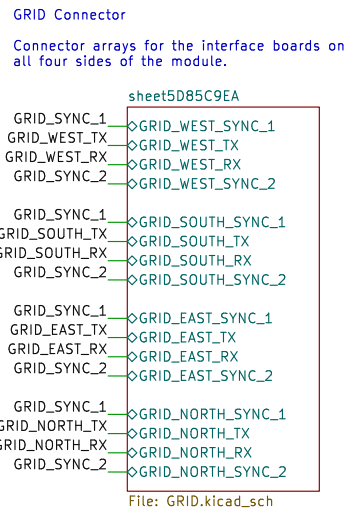
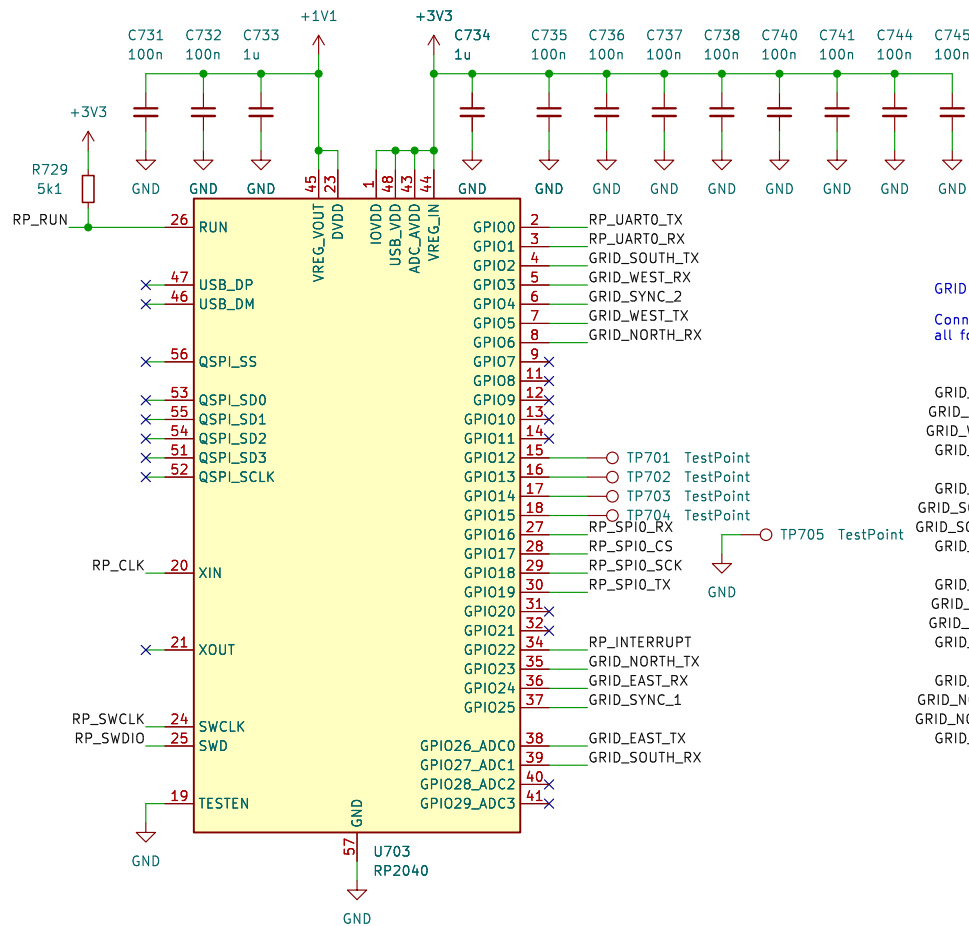
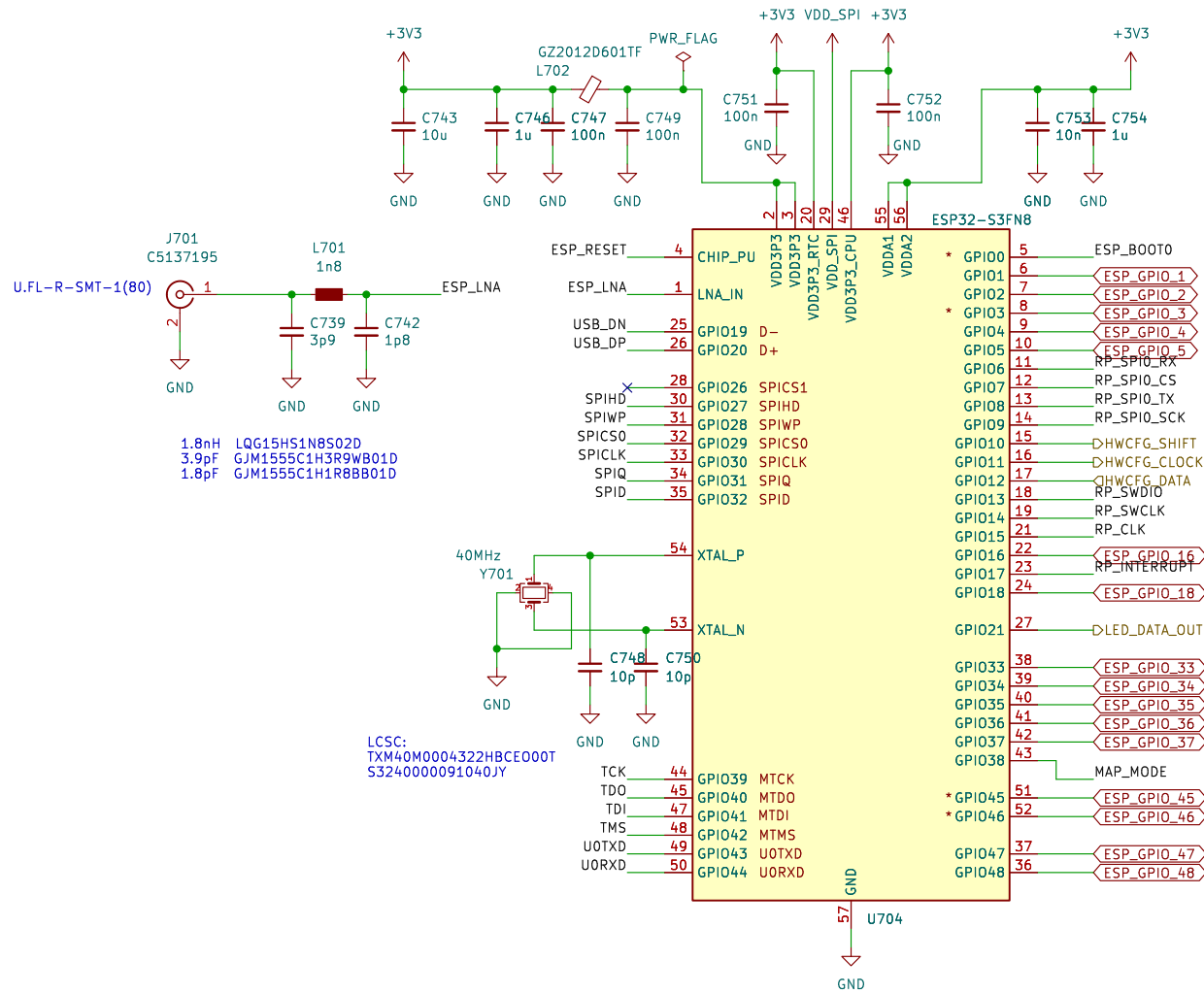
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700



500

GRID Connector
Bi-Directional Data
2x SYNC

Board Mounting Pattern



Sheet: /MCU/sheet5D85C9EA/ File: GRID.kicad_sch		
Title:		
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600

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

TP601 GND
TP602 VB
TP603 D-
TP604 D+

VBUS
USB_DATA_N
USB_DATA_P
GND

U601
C5451661

VBUS
USB_DATA_N
USB_DATA_P
GND

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

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

J601
TYPE-C-32-M-12
VBUS
A9B4
A4B9
CC1
A5
B5
CC2
D-
A7
B7
D-
A6
B6
D+
SBU1
A8
BB
SBU2
A1B12
A12B1
GND
PWR_FLAG
GND
GND
C603 4n7
R603 1M
GND

GND
5k1
R601
5k1
R602

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

Title:

Size: A4 Date: Rev:

KiCad E.D.A. kicad-cli 7.0.11+1 Id: 9/10

ESD protection for all of the externally accessible nets.

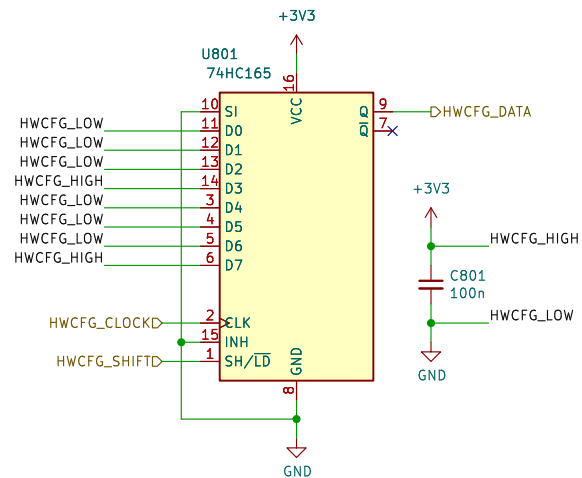


Size: A4

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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
KiCad E.D.A. kicad-cli 7.0.11+1

Date:

Rev:

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