



900



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File: UI_LED.kicad_sch

Title:

Size: A4
KiCad E.D.A. 8.0.3

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500

GRID Connector
Bi-Directional Data
2x SYNC

Board Mounting Pattern



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600

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

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

The schematic shows the power management circuit for the 600 board. It includes a USB Type-C connector (J601) with pins for VBUS, CC1, CC2, D-, D+, SBU1, SBU2, and SHIELD. The VBUS line is connected to a USB Type-C symbol and a USB Type-A symbol. The CC1 and CC2 pins are connected to a USB Type-C symbol. The D- and D+ pins are connected to USB_DATA_N and USB_DATA_P. The SBU1 and SBU2 pins are connected to PWR_FLAG. The SHIELD pins are connected to GND. The circuit also includes a USB Type-A connector (J602) with pins for VBUS, D-, D+, and GND. The VBUS line is connected to a USB Type-A symbol and a USB Type-B symbol. The D- and D+ pins are connected to USB_DATA_N and USB_DATA_P. The circuit includes several components: U601 (C5451661) ESD diodes, U602 (LN1134A332MR-G) LDO regulator, C601 (1uF) capacitor, C602 (1uF) capacitor, C603 (4n7) capacitor, R601 (5k1) resistor, R602 (5k1) resistor, R603 (1M) resistor, and TP601 through TP605 test points. The power rails are labeled: VBUS, +5V, +3V3, and PWR_FLAG. The ground is labeled GND.

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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
...

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

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Rev:

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