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Sheet: /UI_POT/ File: UI_POT.kicad_sch		
Title:		
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Simulation:
<http://tinyurl.com/y229mt4>



Sheet: /UI_BUTTON/
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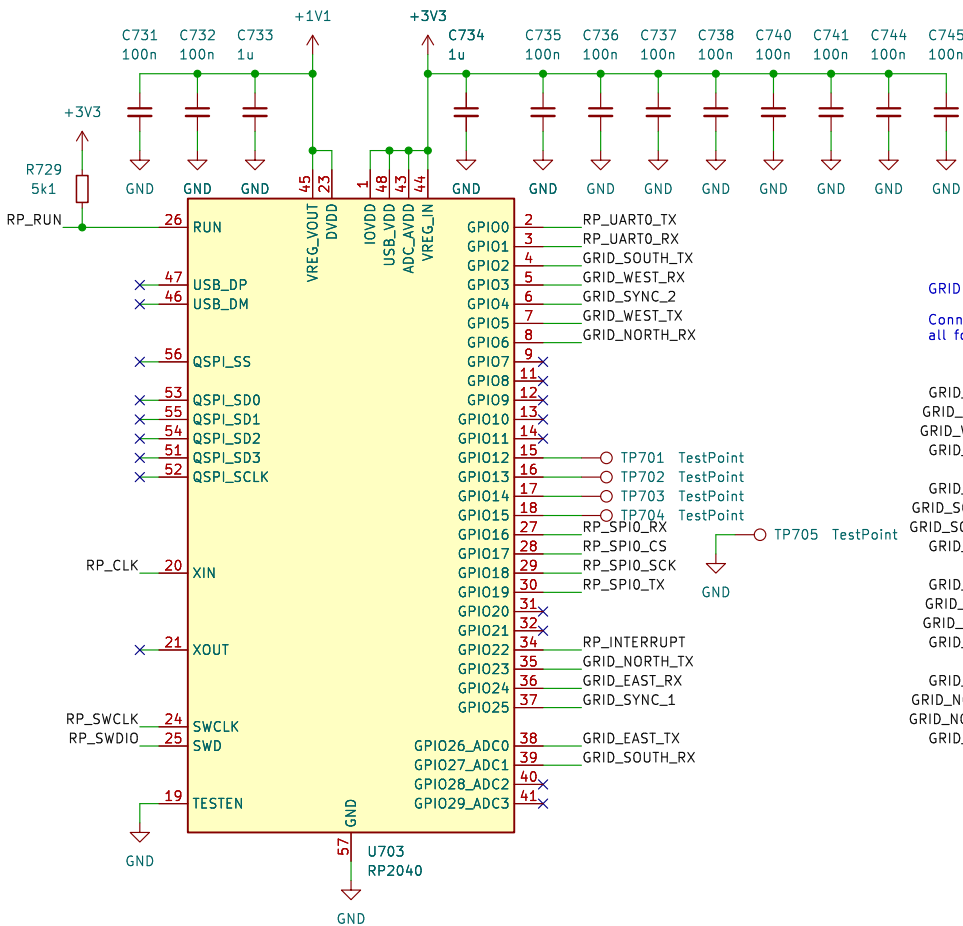
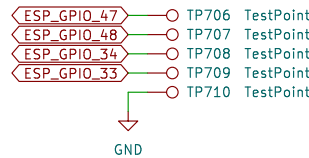
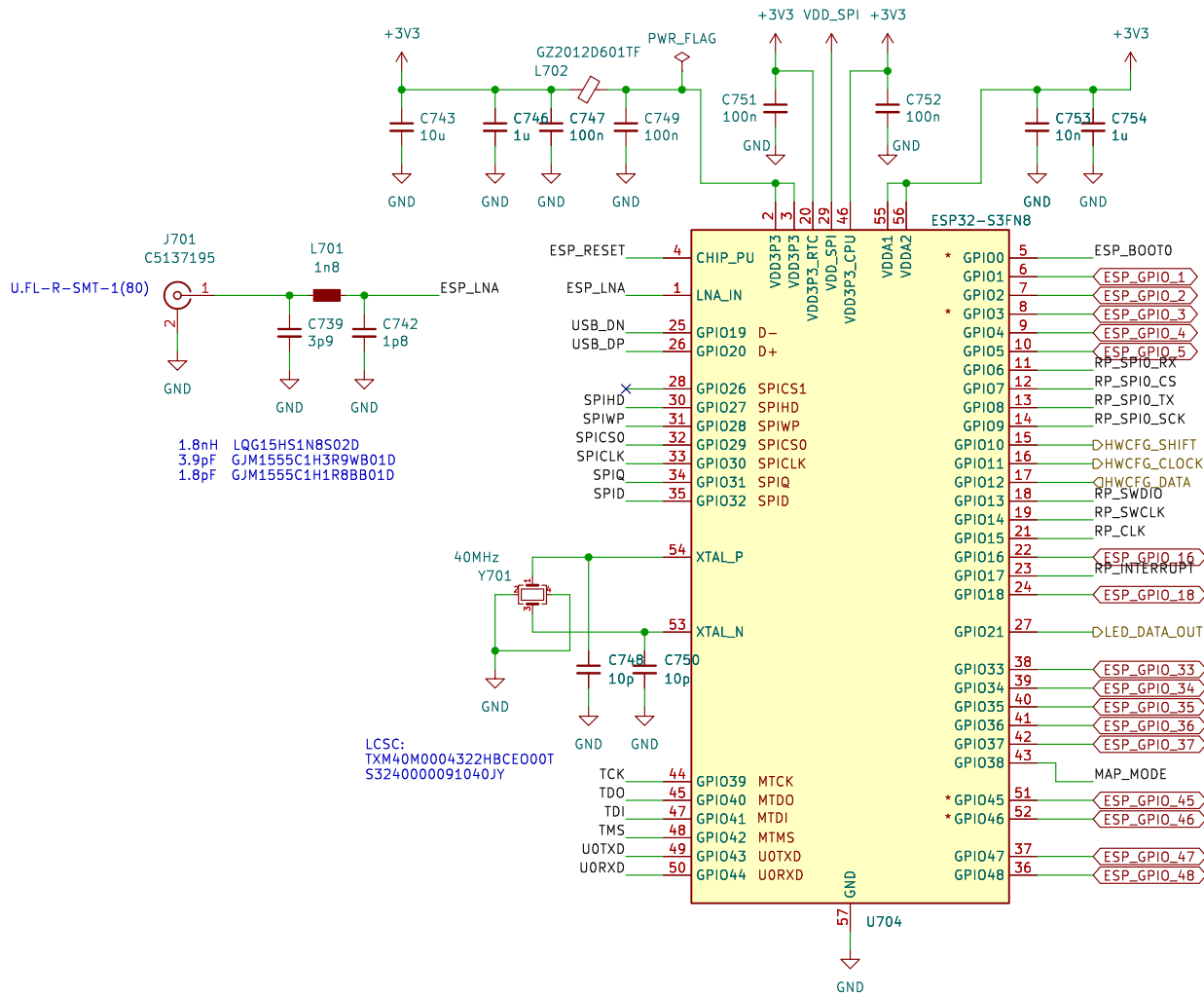
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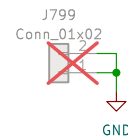
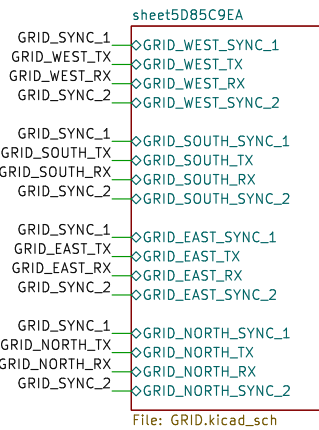


700

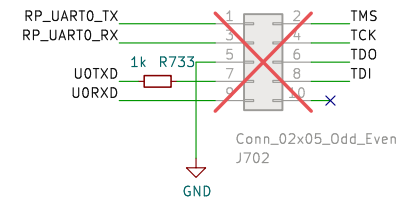


GRID Connector

Connector arrays for the interface boards on all four sides of the module.

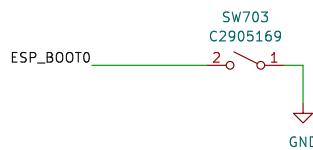
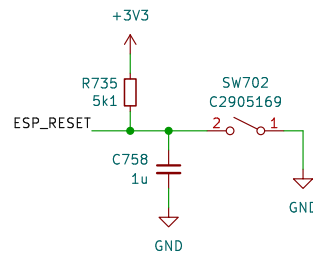
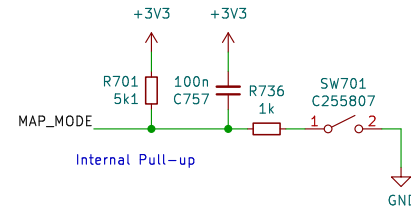


Programming Interface



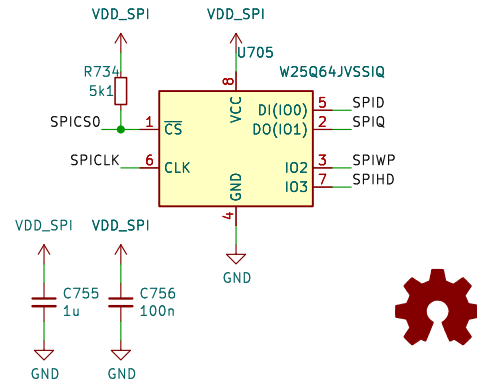
Mapmode switch

This pusbutton is accessible through the housing, activates USB bootloader.



QSPI Flash memory

This memory can be accessed through the QSPI interface of the MCU. Can be used for configuration, static data or program execution.



GRID Connector
Bi-Directional Data
2x SYNC

500

Board Mounting Pattern

J501 Conn_01x04
J502 Conn_01x04
J503 Conn_01x04
J504 Conn_01x04
J505 Conn_01x04
J506 Conn_01x04
J507 Conn_01x04
J508 Conn_01x04

GRID_NORTH_SYNC_2
GRID_NORTH_RX
GRID_NORTH_TX
GRID_NORTH_SYNC_1
GRID_EAST_SYNC_2
GRID_EAST_RX
GRID_EAST_TX
GRID_EAST_SYNC_1
GRID_WEST_SYNC_1
GRID_WEST_TX
GRID_WEST_RX
GRID_WEST_SYNC_2
GRID_SOUTH_SYNC_1
GRID_SOUTH_TX
GRID_SOUTH_RX
GRID_SOUTH_SYNC_2

+5V
GND

Sheet: /MCU/sheet5D85C9EA/
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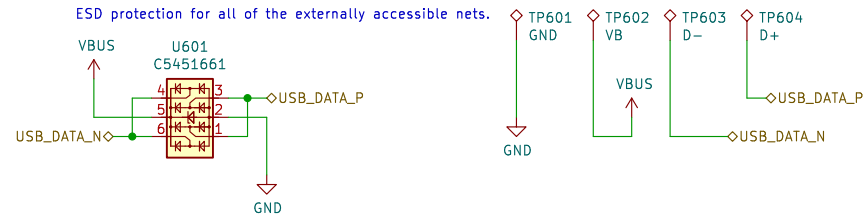
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ESD Diodes

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.



Sheet: /MCU/Sheet60F06FE1/
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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/
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