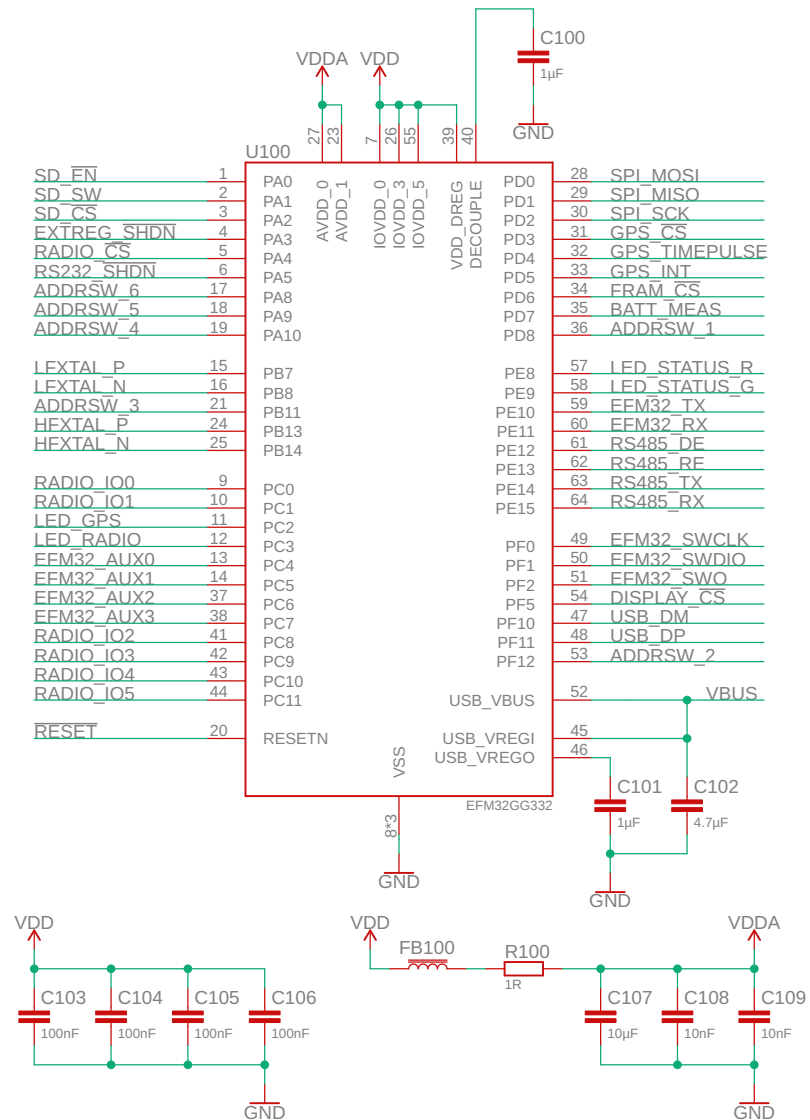
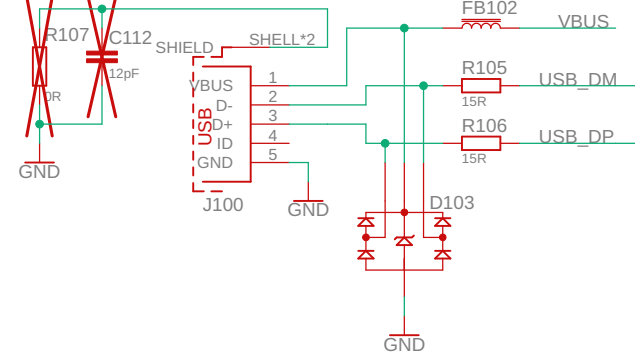


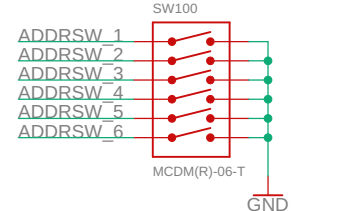
Microcontroller Unit



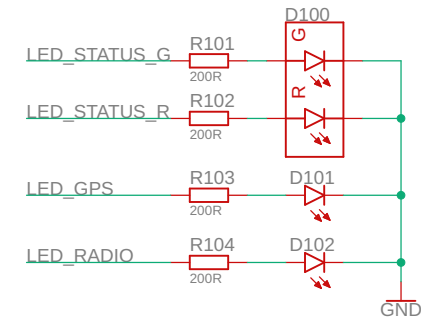
USB



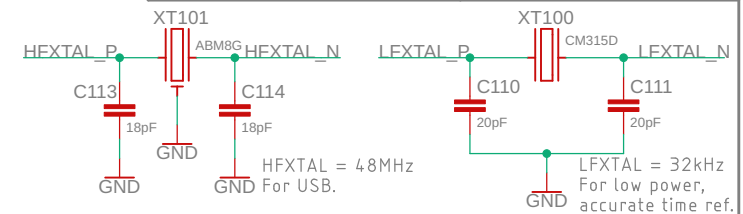
Address Switch



LEDs



Clocks

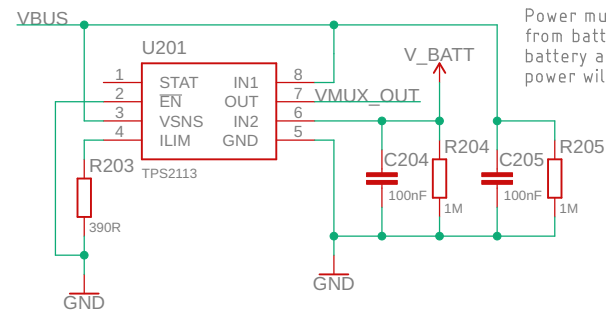


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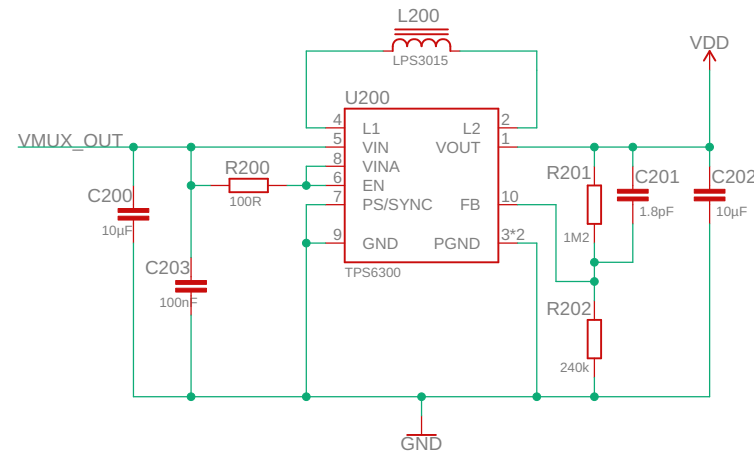
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Power Multiplexer



Power multiplexer allows for powering from battery and USB. When both battery and USB is connected, the power will be drawn from USB.

Switch-Mode 3V Regulator



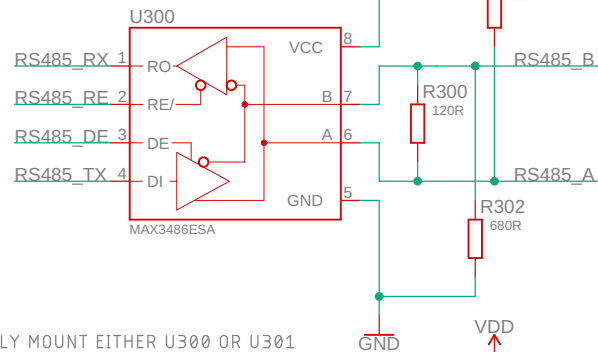
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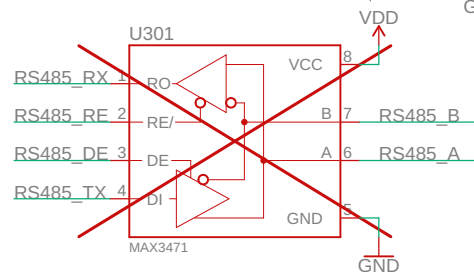
RS485

Consider leaving bias resistors, R301 and R302, unmounted. The bias resistors will cause ~2mA additional current consumption. MAX3486 and MAX3471 features full fail-safe receiver, which means it should hold the receiver output high when the RS485 bus is open and not driven.

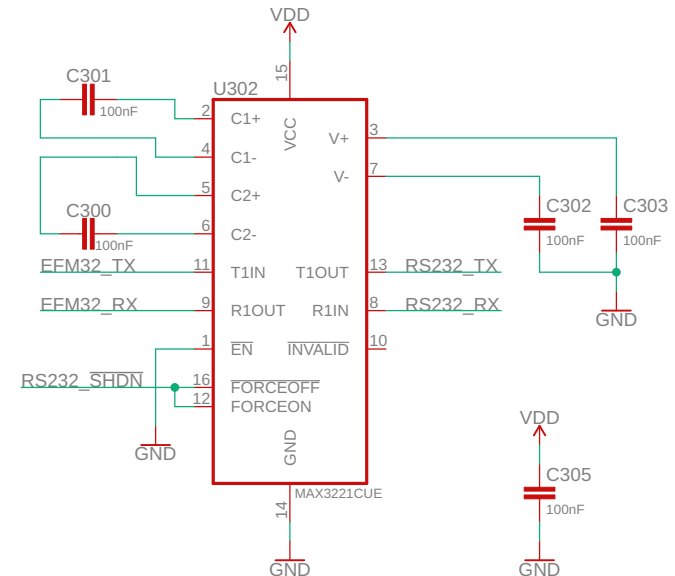


ONLY MOUNT EITHER U300 OR U301

MAX3471 is a low-power RS485 transceiver, that can be powered by a 2.5V supply and has a low supply current. The downside is the maximum data rate of 64kbps. The default data rate of TBR-700 is 115.2kbps.



RS232

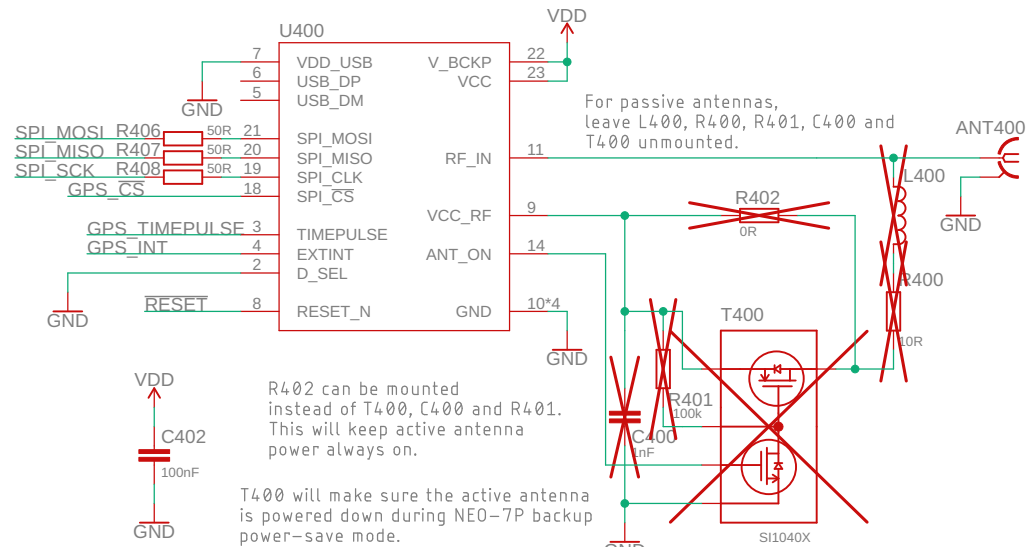


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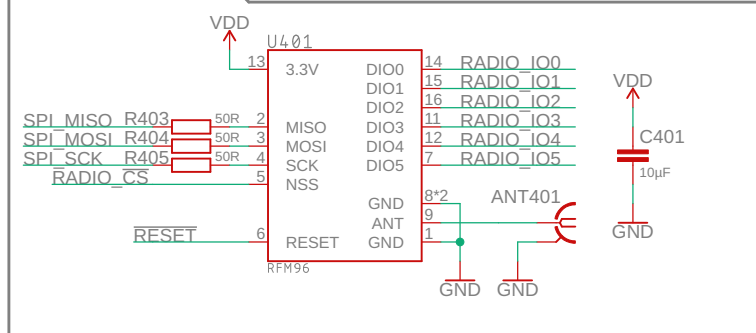
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GPS



LoRa



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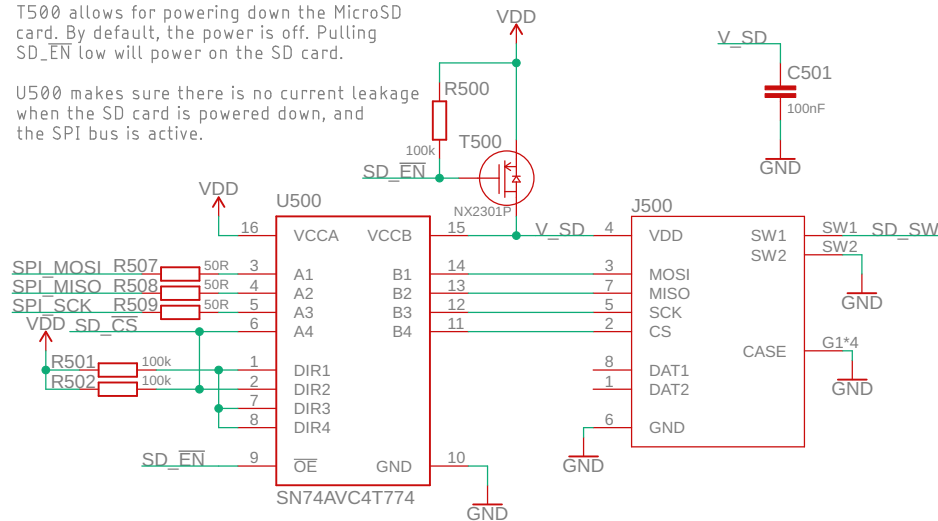
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MicroSD

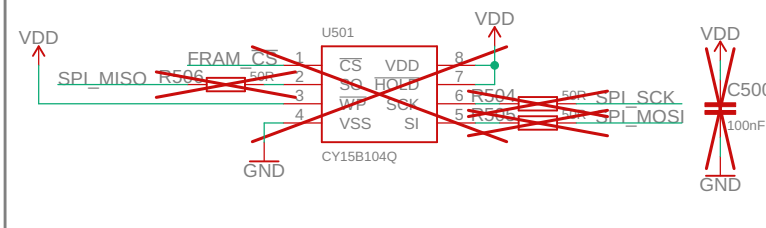
T500 allows for powering down the MicroSD card. By default, the power is off. Pulling SD_EN low will power on the SD card.

U500 makes sure there is no current leakage when the SD card is powered down, and the SPI bus is active.



F-RAM

Ferro-electric random access memory device.

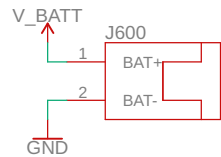


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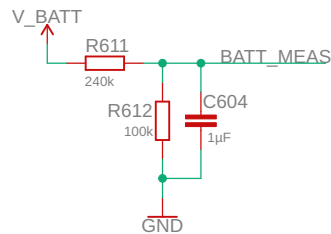
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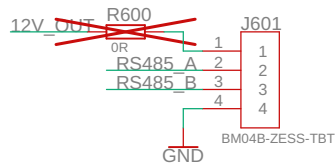
Battery Connector



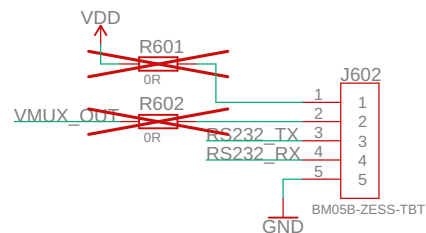
Battery Measurement



RS485 Connector

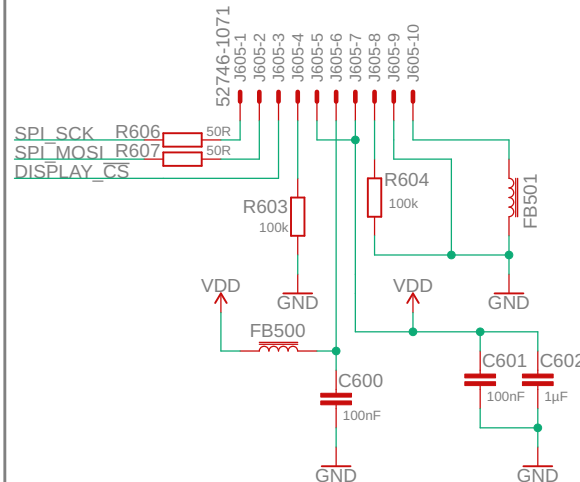


RS232 Connector

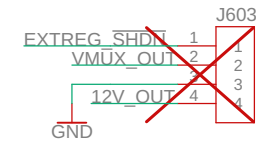


Memory LCD

This connector will support connecting a Sharp Memory LCD (e.g. LS013B7DH03).

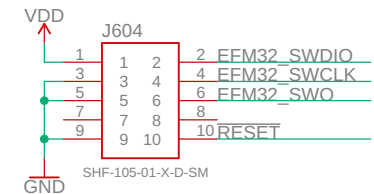


External Regulator

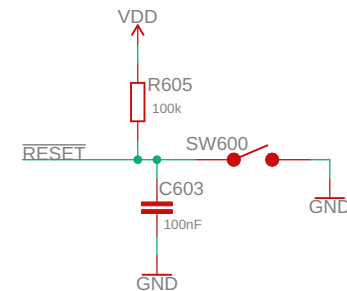


Fits external 12V regulator, e.g. S10V2F12. Can be used to power external equipment requiring 12V.

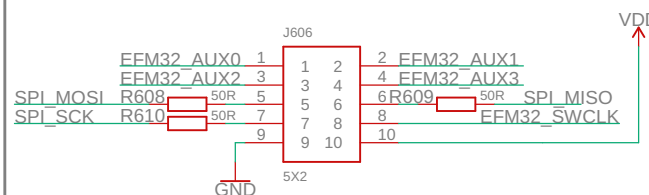
Debug Connector



Reset Button



Auxiliary Connector



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