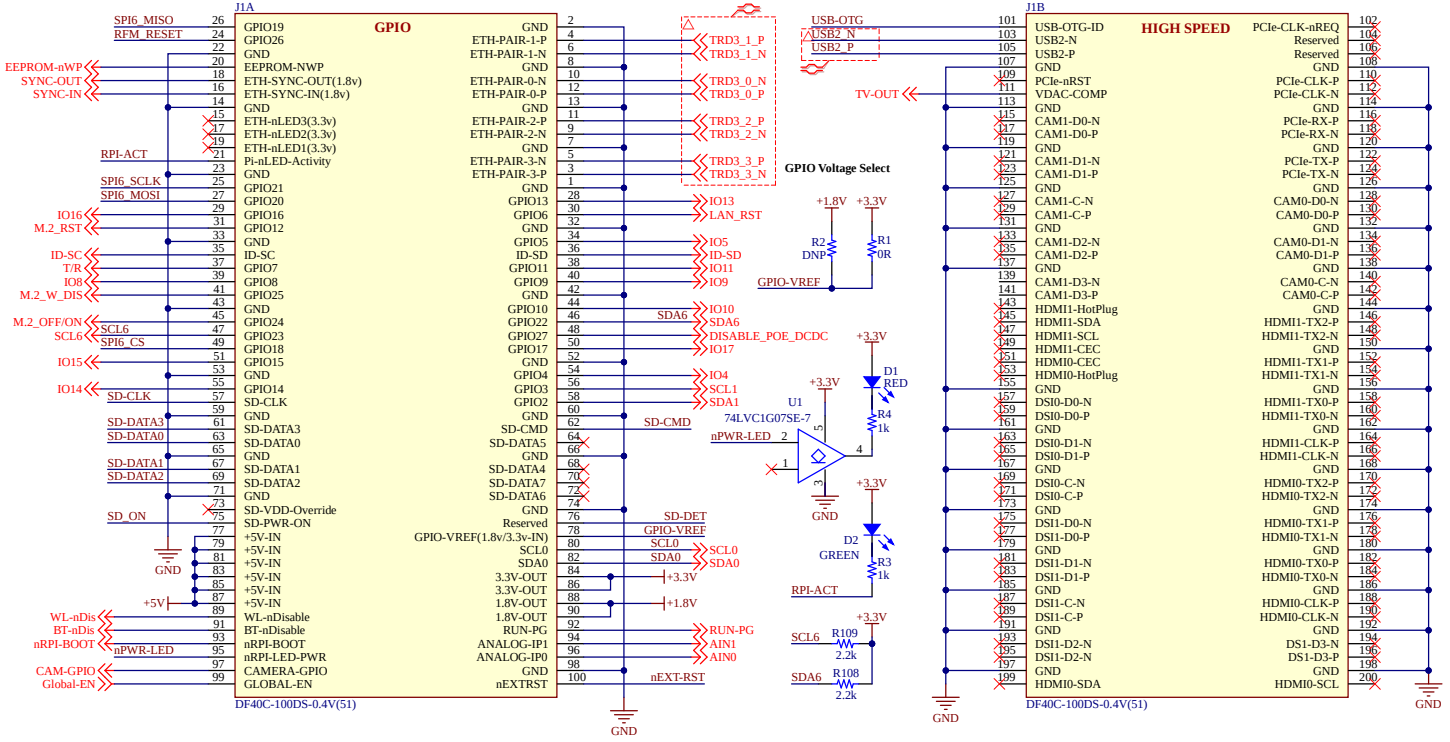
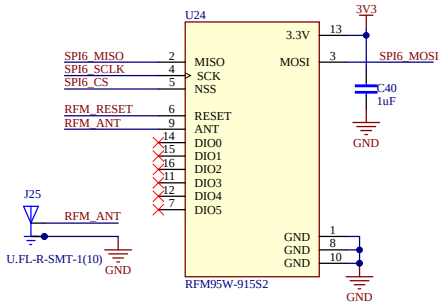
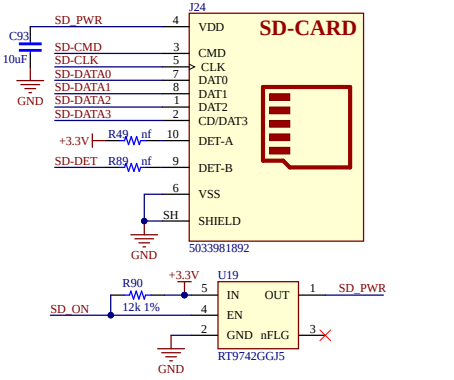
RPI-CM4



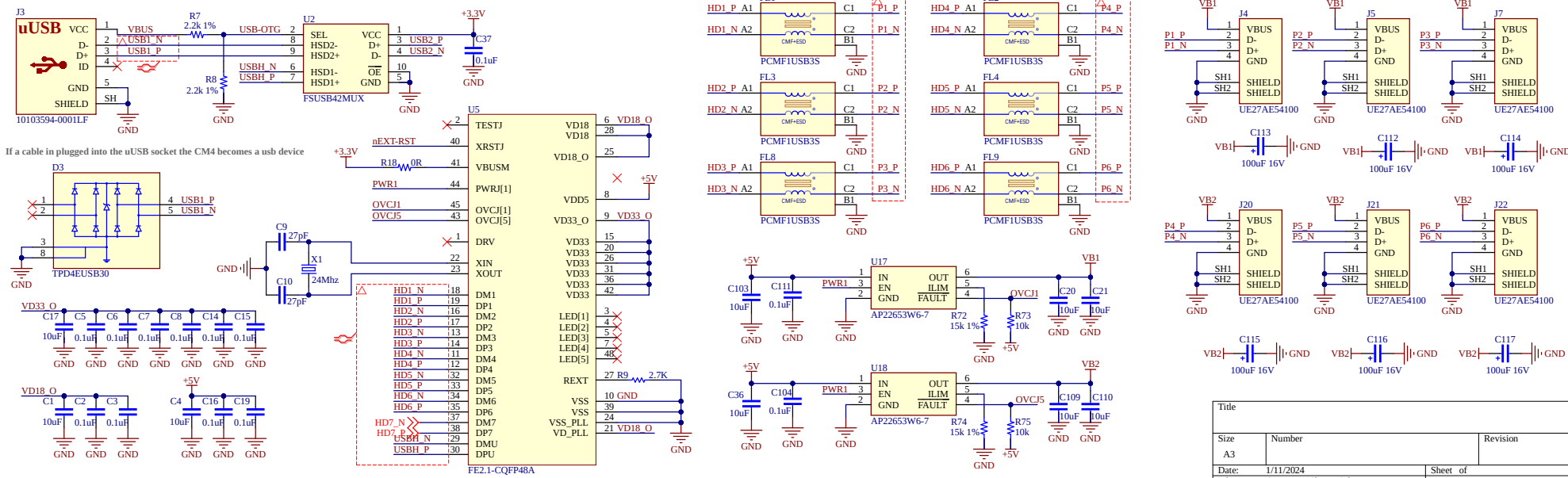
915MHz Tranciever



SD- CARD



USB Hub



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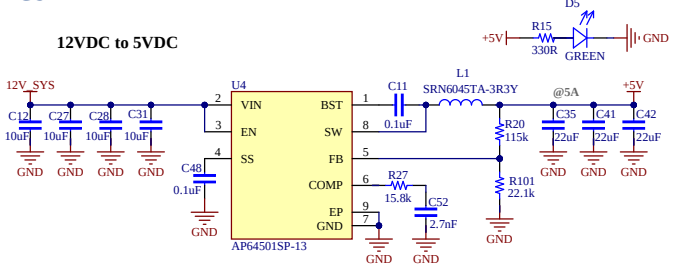
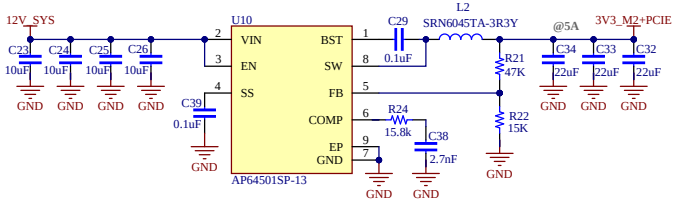
PMICs

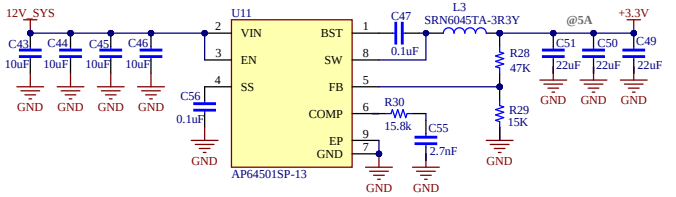
12VDC to 5VDC



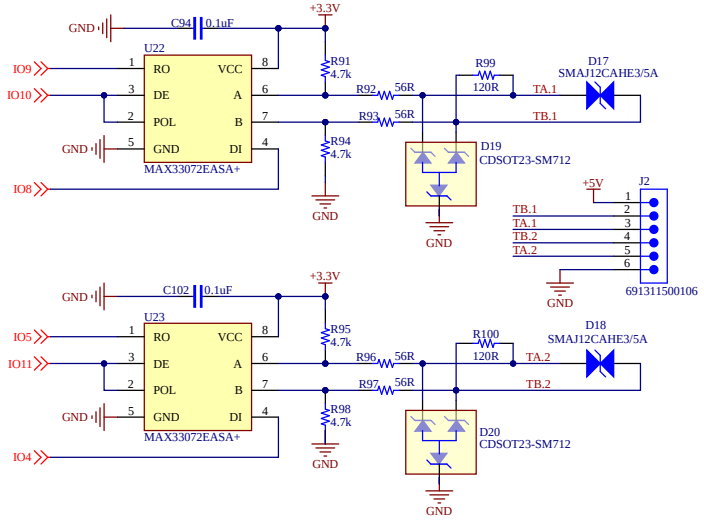
12VDC to 3.3V DC #1



12VDC to 3.3V DC #2

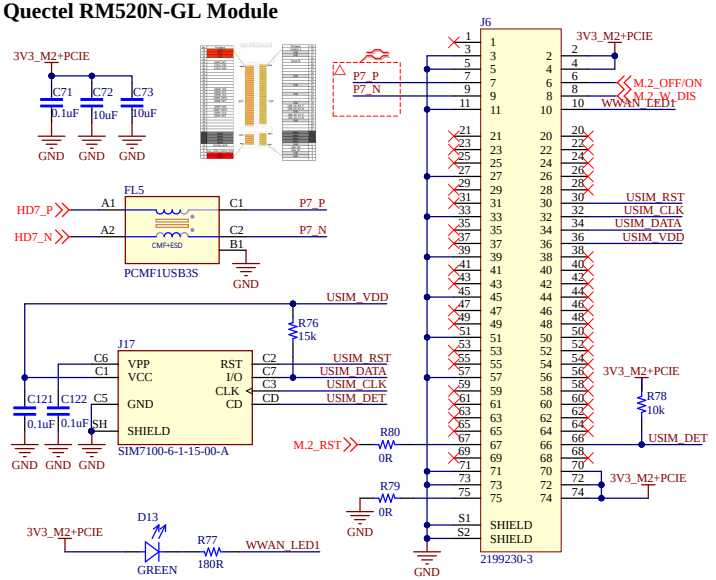


RS485



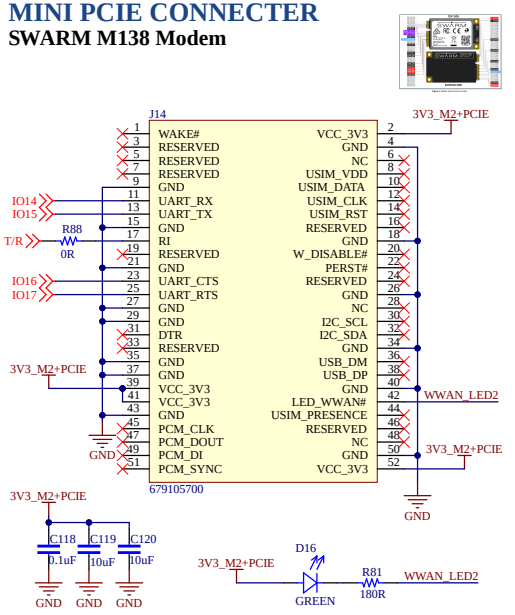
M.2 CONNECTOR

Quectel RM520N-GL Module



MINI PCIE CONNECTER

SWARM M138 Modem



MISCELLANEOUS

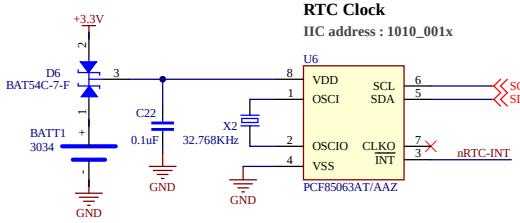
RTC alarms can be used to wake up the Compute module
NB an Alarm triggering while already awake will cause a reset
This can be used as a watchdog reset

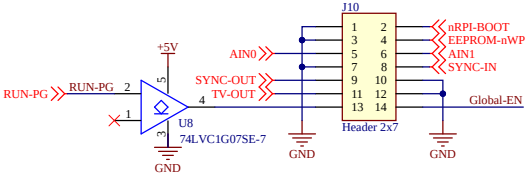
The circuit generates a pulse for
GLOBAL_EN when nRTC_INT goes low
GLOBAL_EN needs to be pulse low for >1mS

Force RPIBOOT = Jumper Pins 1-2
EEPROM write protect = Jumper Pins 3-4
A button bwteen pins 13-14 can be used to wake up compute module from power down
If compute modules is awake RUN_PG will be high so the button doesn't do anything
If the compute module is asleep then RUN_PG will be at 0v and so pull global enable low

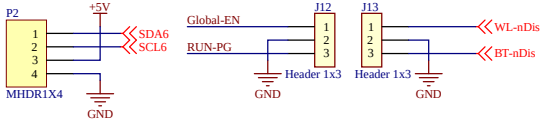
RTC Clock

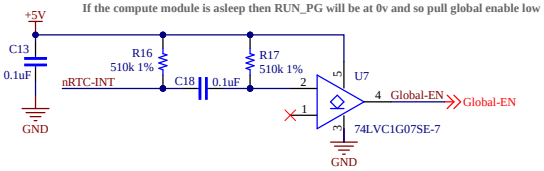
IIC address : 1010_001x



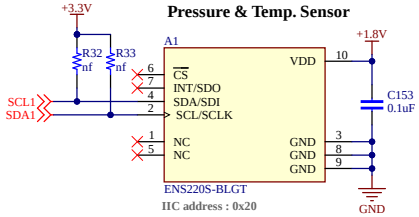


I2C Out for OLED 0.96in



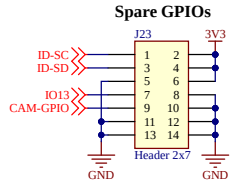


Pressure & Temp. Sensor

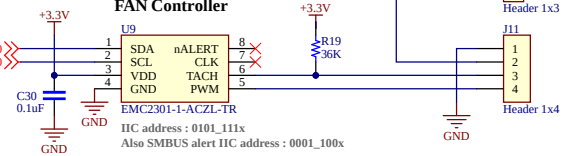


IIC address : 0x20

Spare GPIOs



FAN Controller



IIC address : 0101_111x
Also SMBUS alert IIC address : 0001_100x

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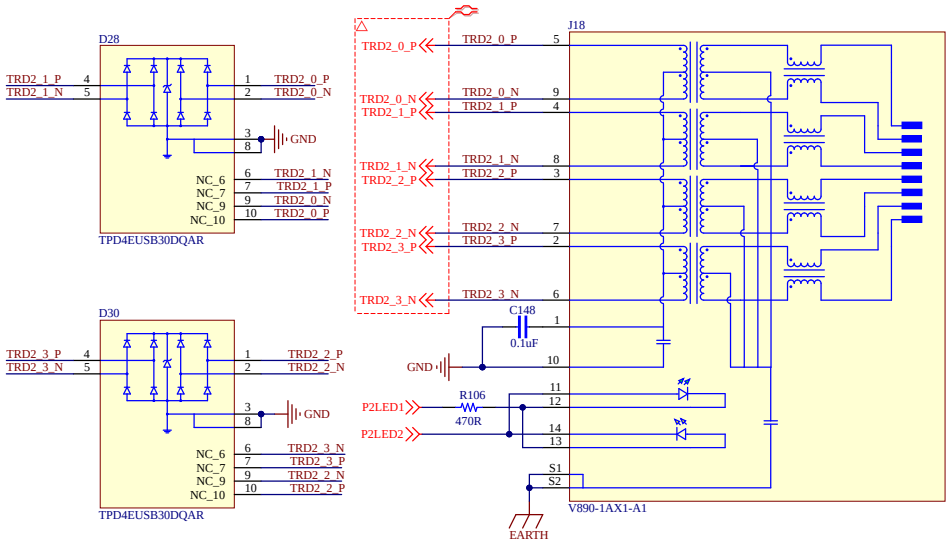
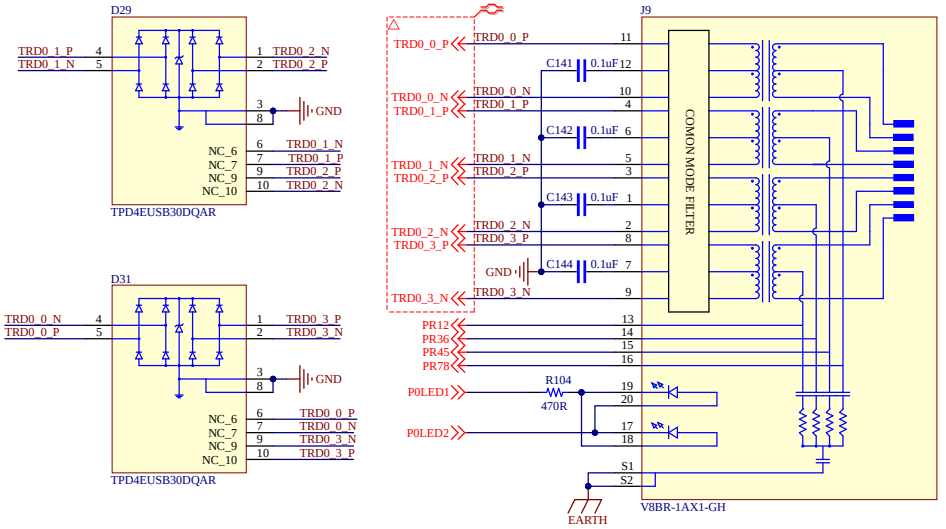
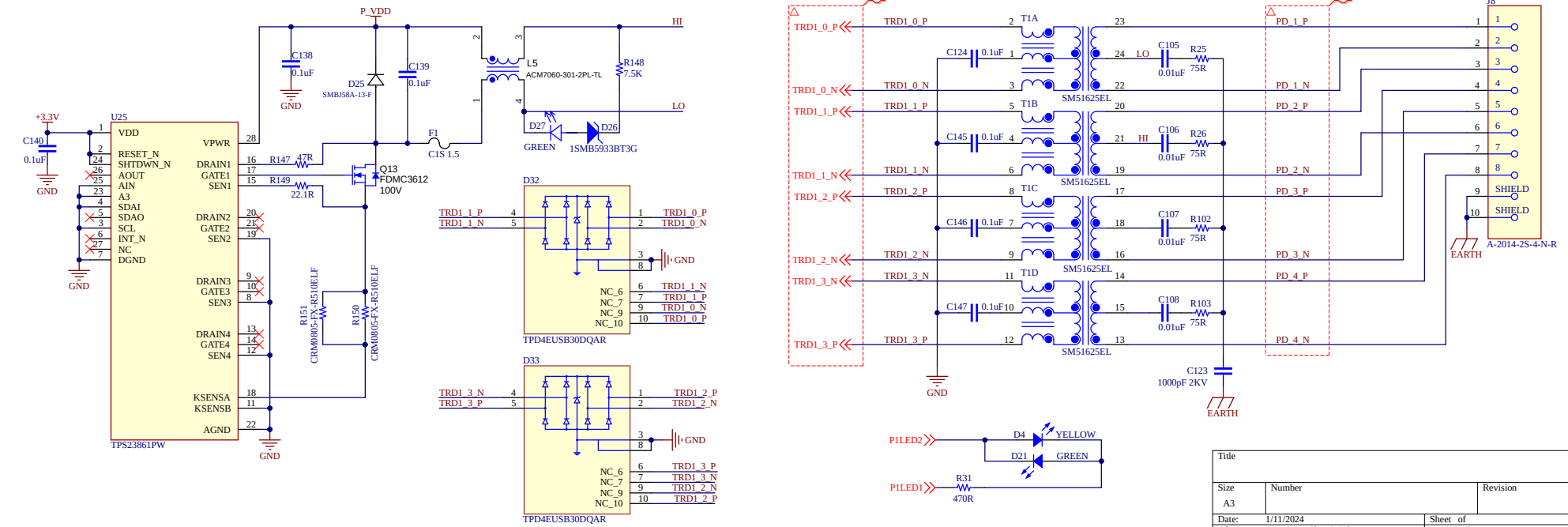
Ethernet 2 (Debugg)



Ethernet 0 (Internet POE In)



Ethernet 1 (Camera POE Out)



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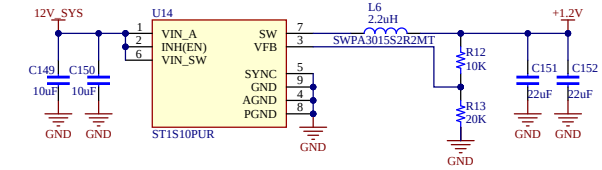
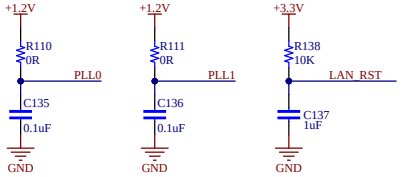
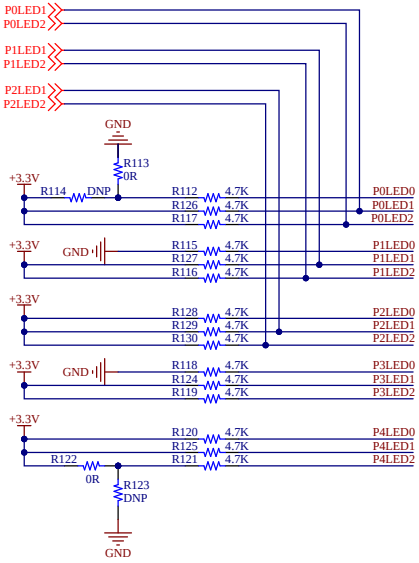
LAN Swtich







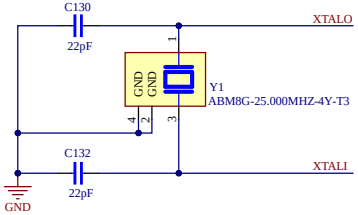
P0Led0 PU Dis Loop Detect , PD En Loop Detect
P0Led2 PU En emb PHY

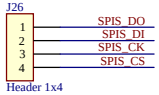
P1Led0 PD MII PHY ID 0
P1Led2 PU Internal Use /Resereved

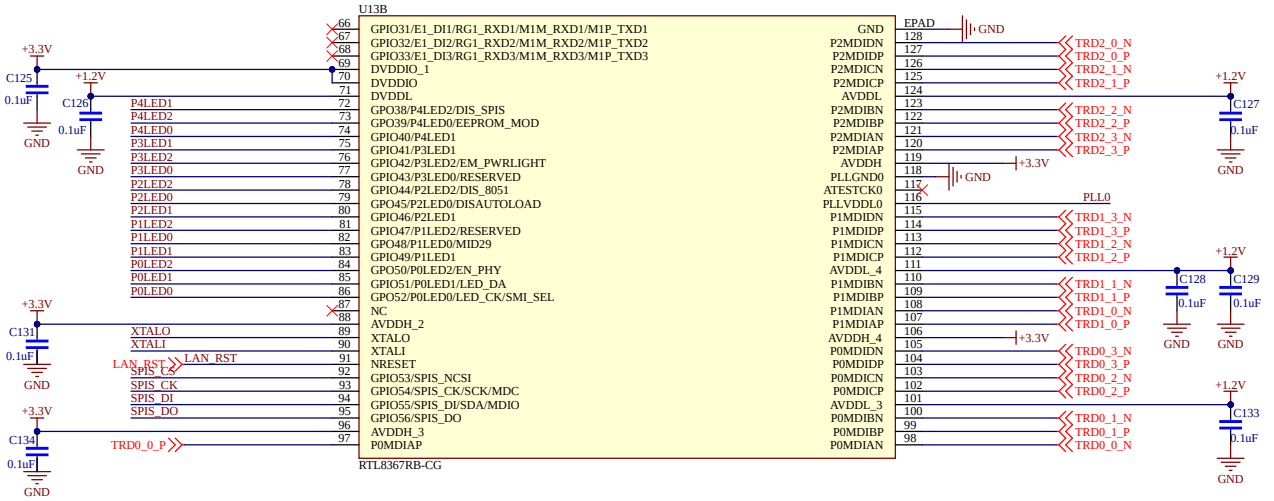
P2Led0 PU Dis EEPROM autoload
P2Led2 PU Dis emb 8051

P3Led0 PD Internal Use / Resereved
P3Led2 PU En Power on Light

P4Led0 PU EEPROM > 16Bits
P4Led2 PU Dis SPI , PD En SPI







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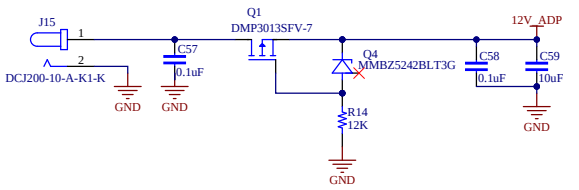
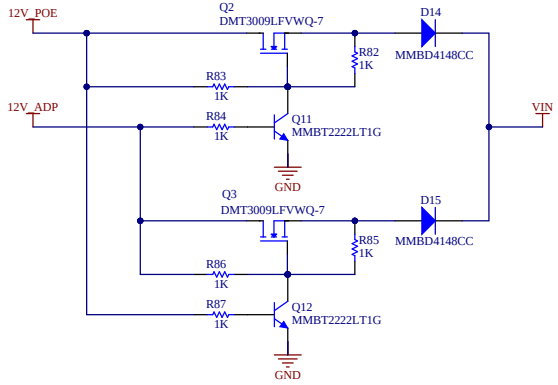
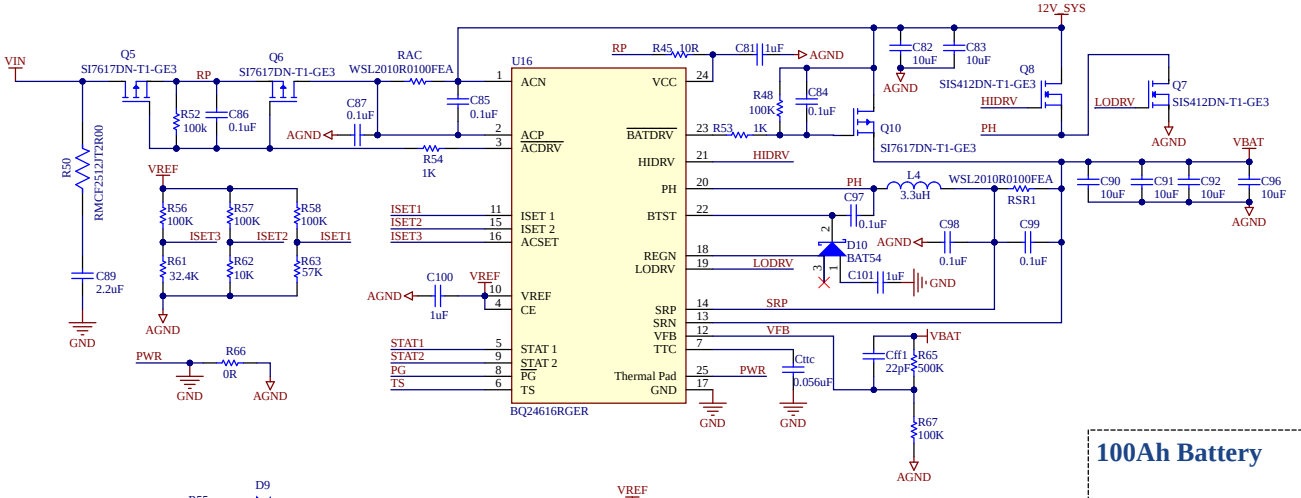
DC Adapter IN



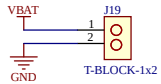
Power Selector

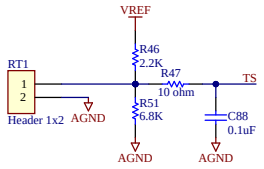


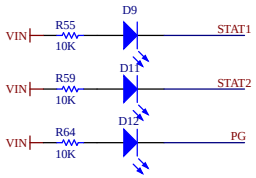
Battery Charging



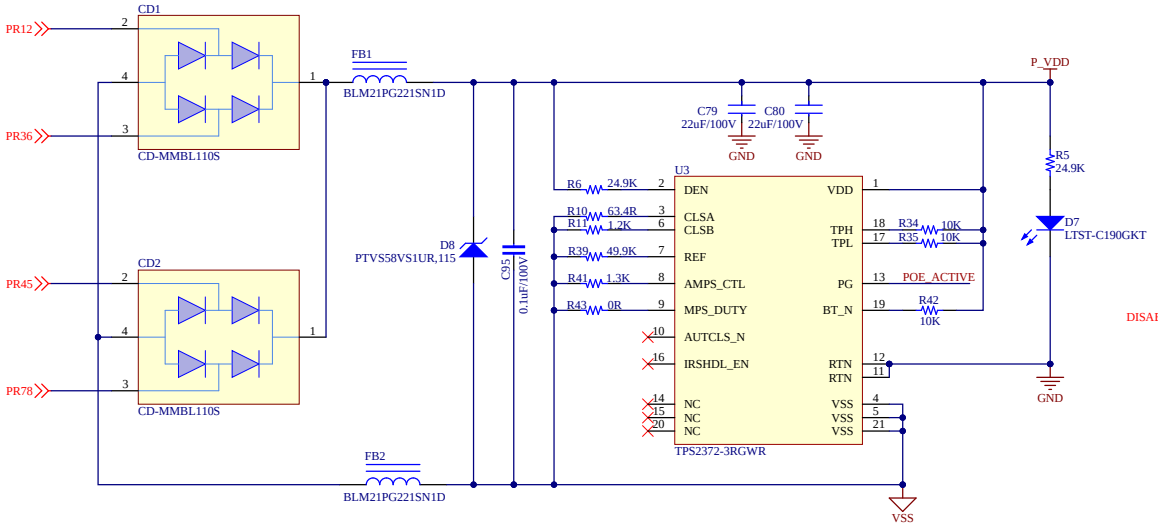
100Ah Battery

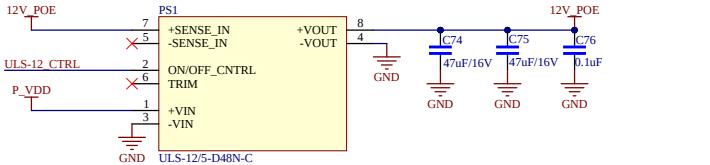


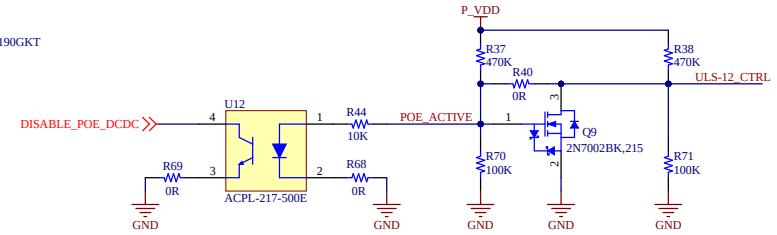




POE to 12V DC DC Converter







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