The USART ISP interface is implemented on the following pins:
- PIO0_29 for receive
- PIO0_30 for transmit

The USB interface is implemented on the following pins:
- PIO0_22 for VBUS
- USB0_DP for USB D+
- USB0_DM for USB D-

RIO has:
1 USB host
1 USB device
16 DIO on mx
10 DIO
8 AI (0–5V)
2 AO (0–5V)
1 I2C 400KHz (5v compatible)
1 SPI 4MHz w/4 CS lines (5v compatible)
1 TTL UART
1 RS232 UART
10 PWM (330 ohm series resistor) 5V drive 150KHz max
4 forward relay (680 ohm series resistor) 5V drive
4 reverse relay (680 ohm series resistor) 5V drive
RSL open collector drive up to 16V @ 120 ma
3 axis Accel, 12 bit resolution

power outputs:
6V @ 2.2A
5V @ 1A
3.3V @ 1.225A

power supply:
4–16V 45W max

Using PIO0_31 as an output (even though it is connected to a switch that can shunt it to ground) is OK if it is configured in open-drain mode (high-side driver disabled.)

Sheet: POWER
File: POWER.sch

Bypass Capacitors

Battery Voltage Monitor

Raspberry PI Header

RS232

https://github.com/johnwinans/2056-LPC546xxJyyyBD208-breakout

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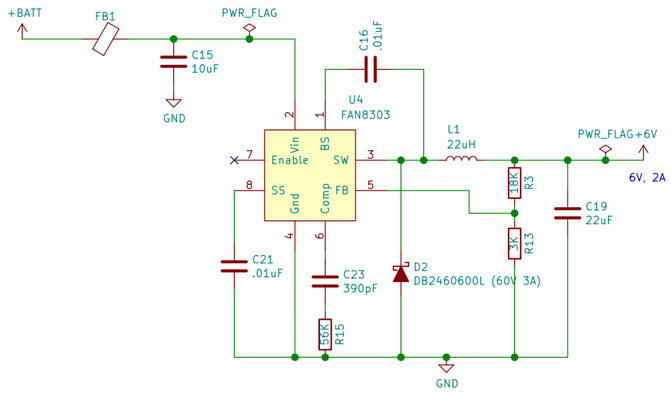
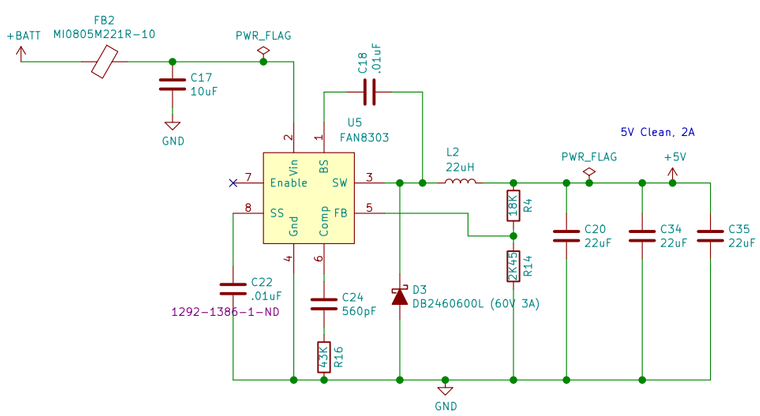
If you chose to manufacture products based on this design, please notify me (see license section 4.2) via john@winans.org

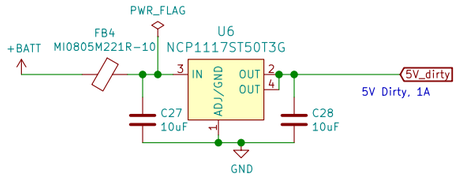
Sheet: /
File: 2056-LPC546xxJyyyBD208-breakout.sch

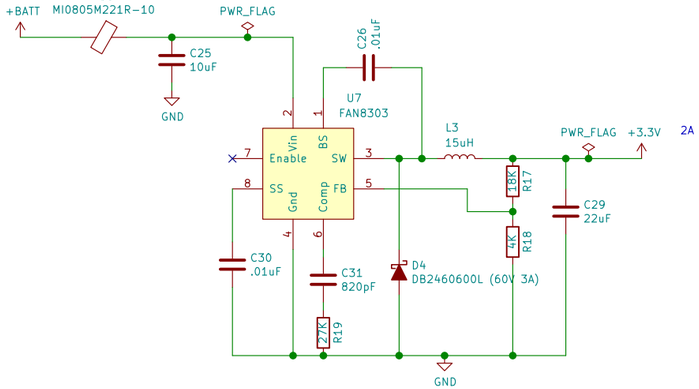
Title: ORIO Processor

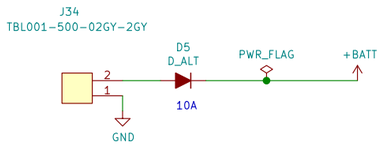
Size: USLedger	Date: 2019-10-07	Rev: 1.0
KiCad E.D.A. kicad 5.1.4-e60b26684ubuntu18.04.1		Id: 1/2











12V Battery

https://github.com/johnwinans/2056-LPC546xxJyyyBD208-breakout

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Sheet: /POWER/
File: POWER.sch

Title: ORIO Power

Size: USLedger	Date: 2019-10-07	**Rev: 1.0**
KiCad E.D.A. kicad 5.1.4-e60b26684ubuntu18.04.1		Id: 2/2