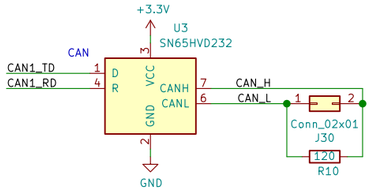
The USART ISP interface is implemented on the following pins:
- PIO0_29 for receive
- PIO0_30 for transmit

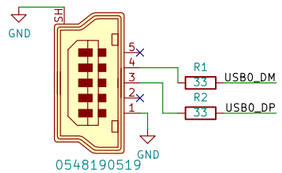
The USB interface is implemented on the following pins:
- PIO0_22 for VBUS
- USB0_DP for USB D+
- USB0_DM for USB D

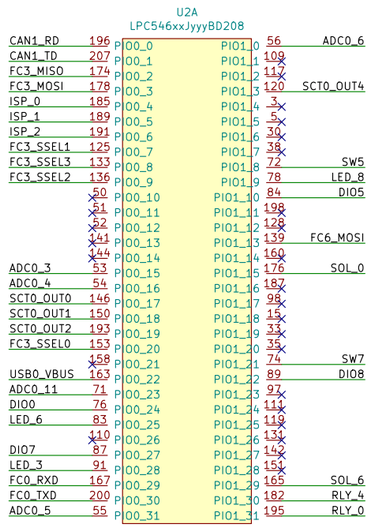
RIO has:
1 USB host
1 USB device
16 DIO on mx
10 DIO
8 AI (0–5V)
2 AO (0–5V)
1 I2C 400KHz (5v compatible)
1 SPI 4MHz w/4 CS lines (5v compatible)
1 TTL UART
1 RS232 UART
10 PWM (330 ohm series resistor) 5V drive 150KHz max
4 forward relay (680 ohm series resistor) 5V drive
4 reverse relay (680 ohm series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

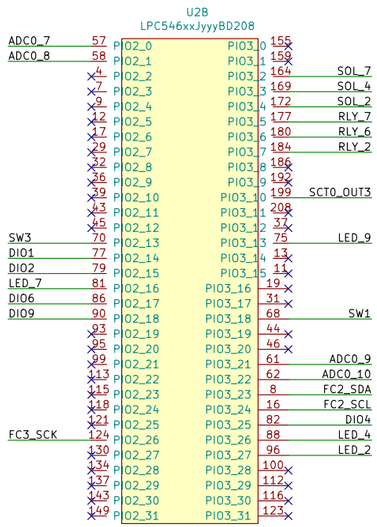
power outputs:
6V @ 2.2A
5V @ 1A
3.3V @ 1.225A

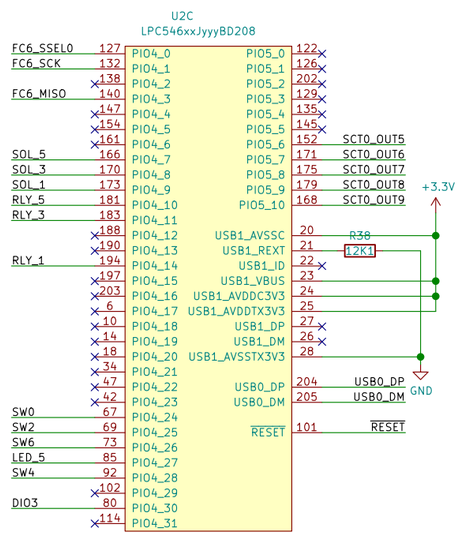
power supply:
4–16V 45W max

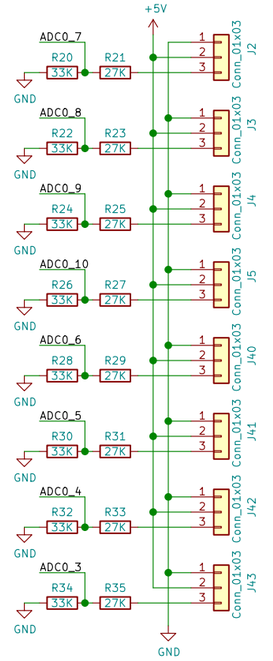


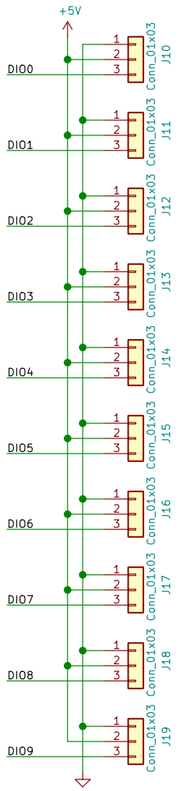


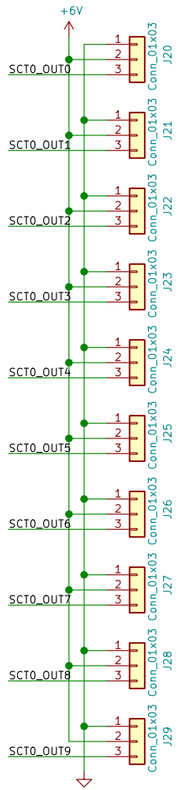


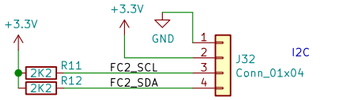


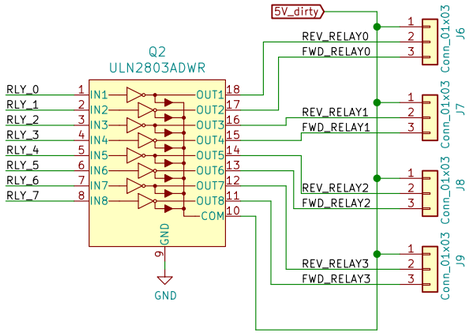


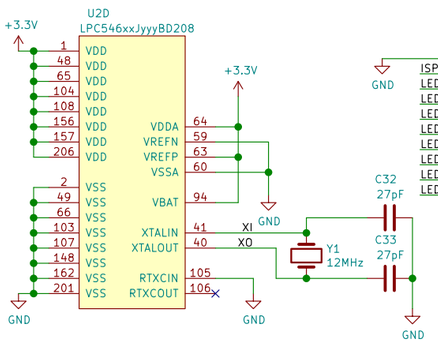


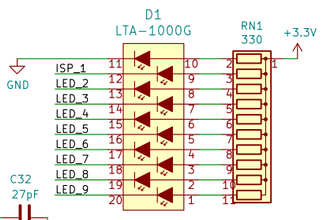




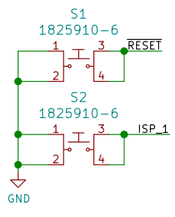


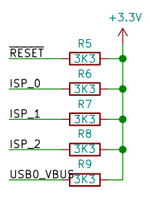


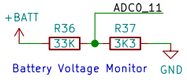


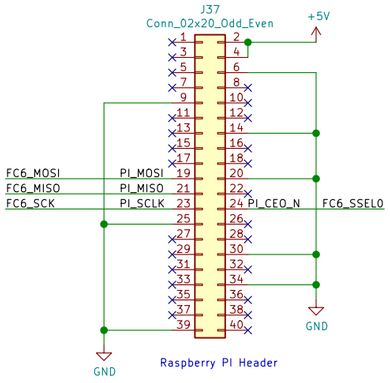


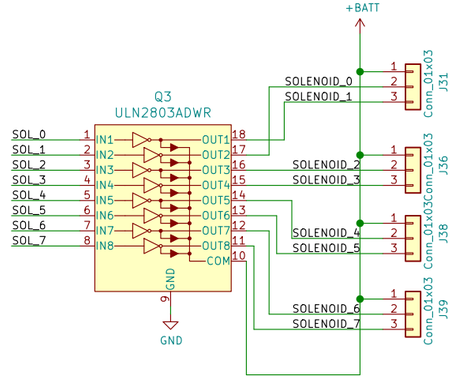
Using PIO0_31 as an output (even though it is connected to a switch that can shunt it to ground) is OK if it is configured in open-drain mode (high-side driver disabled.)

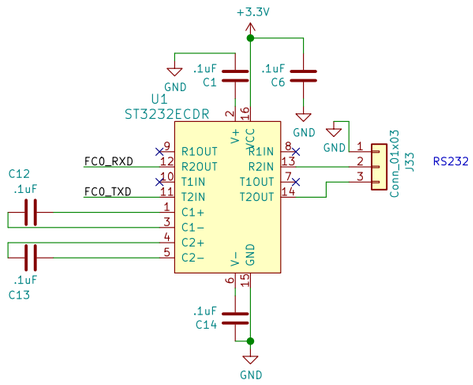


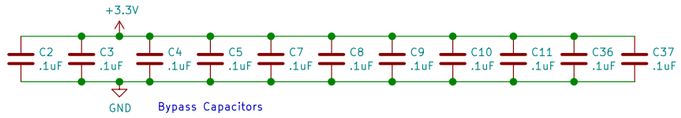












https://github.com/johnwinans/2056-LPC546xxJyyyBD208-breakout

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File: 2056-LPC546xxJyyyBD208-breakout.sch

Title:

Size: USLedger	Date:	Rev:
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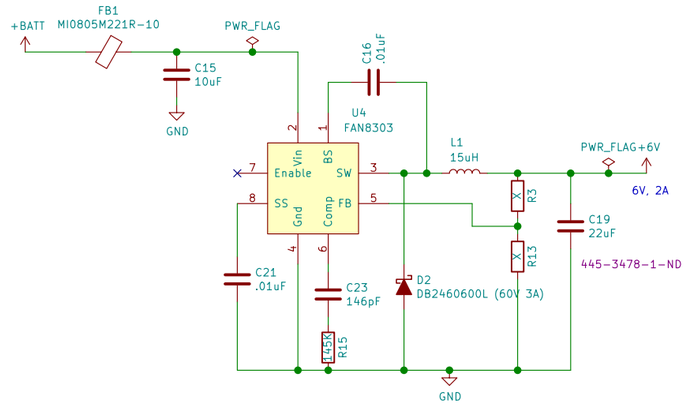

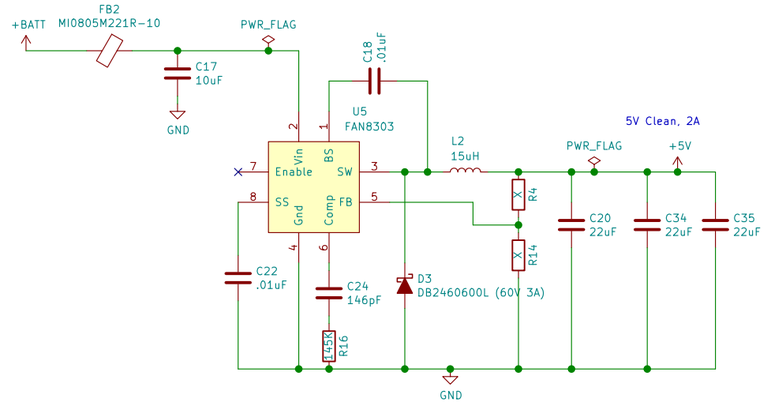

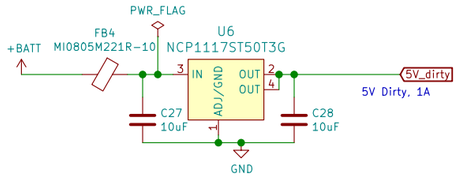

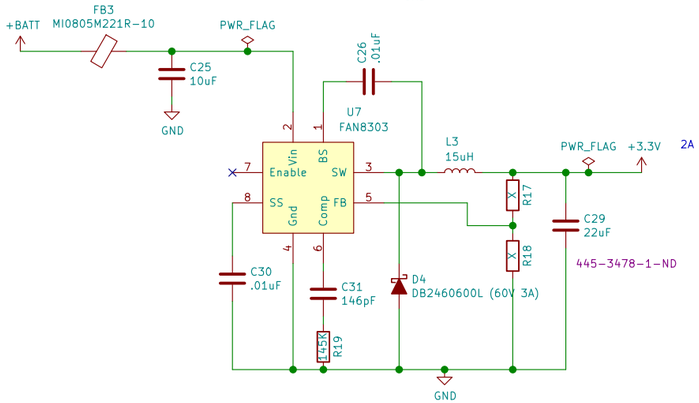

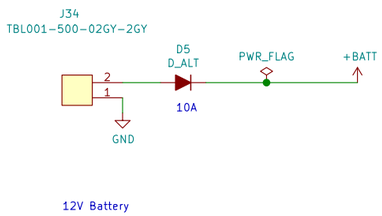

12V Battery

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

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File: POWER.sch

Title: Power Supplies

Size: USLedger	Date: 2019-10-04	**Rev: 1**
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