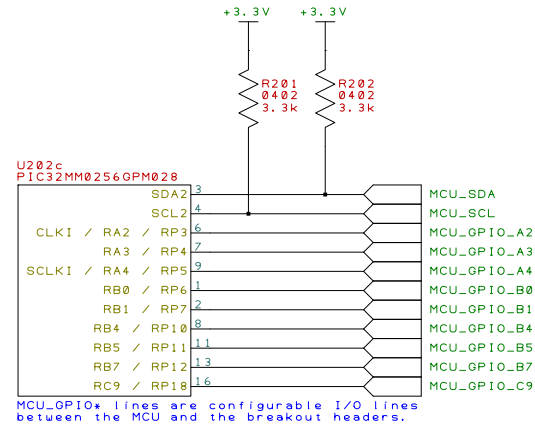
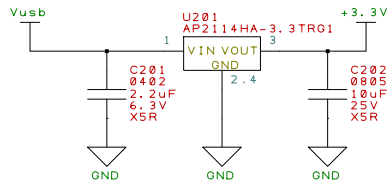
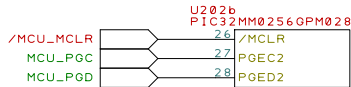


LDO gives +3.2V to +3.4V, minimum 1A.
 SOT-223 package with T_{ja}=128degC/W.
 Derated to 150mA @ 50degC ambient.

Typical rise of 50degC at 1A, measured.

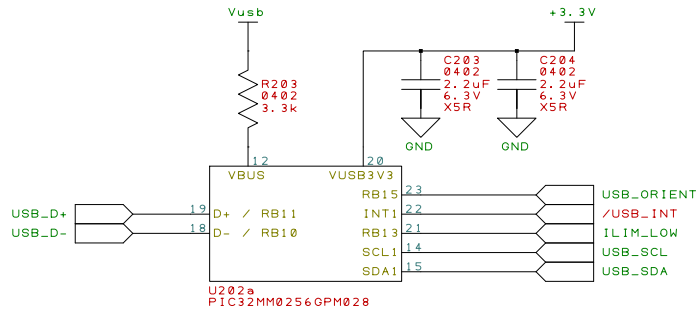


MCU_GPIO* lines are configurable I/O lines between the MCU and the breakout headers.



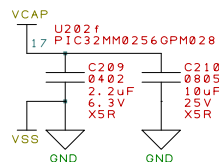
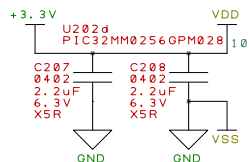
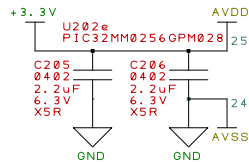
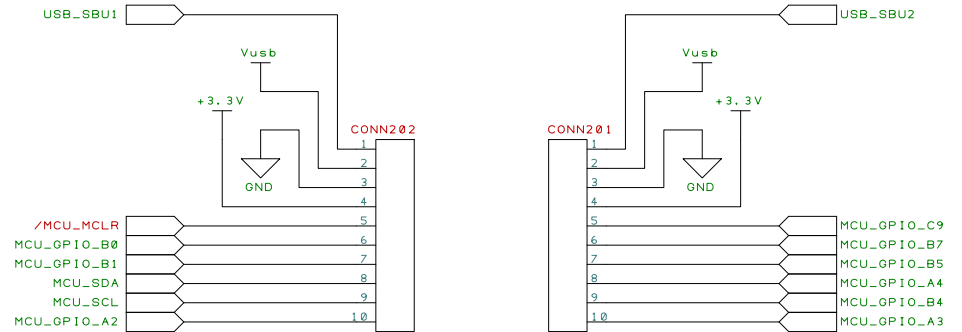
PIC ICSP is multiplexed with the USB D+ / D- lines, using Debug Accessory Mode detection as the selector. PGEC1 / PGED1 are also broken out with /MCLR to facilitate ICSP under the control of non-USB external circuitry.

/MCLR can be connected to an open-drain / open-collector if external reset control is desired. The pin can also be tied directly to +3.3V to prevent programming or reset during USB Debug Accessory Mode, or a push-pull output to allow exclusive programming / reset control by external circuitry.



In Debug Accessory Mode, SBU1 controls /MCU_MCLR and SBU2 controls the USB Data / MCU ICSP multiplexor.

In other modes, SBU1 and SBU2 are routed directly to the headers for use by external circuitry. They are not impedance or length matched, and not capable of high current.



Drawn Pete Restall <pete@restall.net>	Revision 1.0 2020-03	All resistors are +/- 1%, 100ppm thick film 1/16W unless otherwise stated. Capacitor dielectric and working voltages are minimums unless otherwise stated.
Project USB 2.0 Type C / PIC32 Breakout Board		
Title MCU and I/O Breakout	Filename 2-Mcu-Io.sch	Sheet 2 of 2