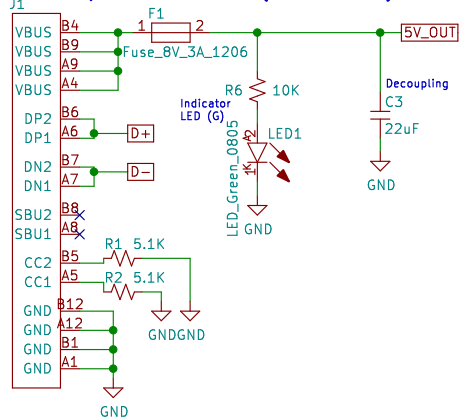
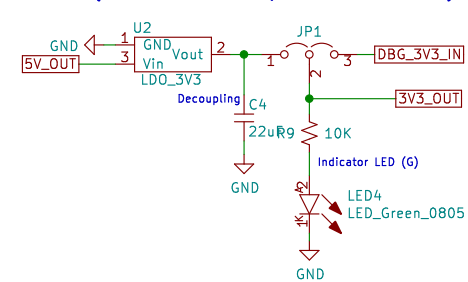


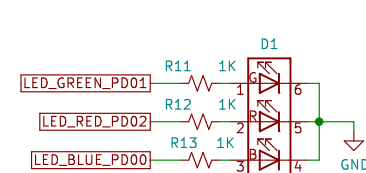
USB C Input – Power+Data (5V @ 3A max)



3V3 LDO (3A max / 1.4V dropout / 18V Vin max)



RGB LED

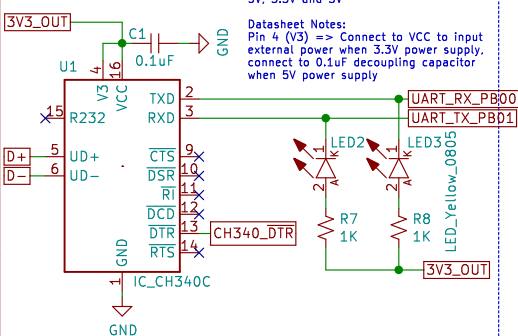


Mounting Screws (no connections – just for reference)



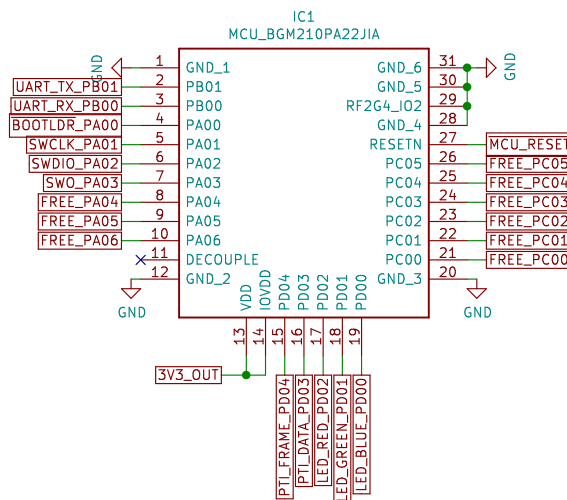
USB-to-Serial Converter

CH340 support VCC of 5V, 3.3V and 3V
 Datasheet Notes:
 Pin 4 (V3) => Connect to VCC to input external power when 3.3V power supply, connect to 0.1uF decoupling capacitor when 5V power supply

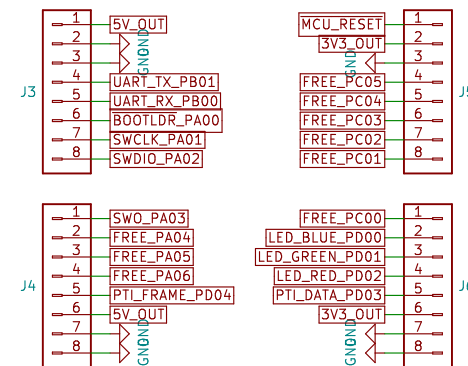


BGM210PA22JIA Quick Faxx:
 - Max Current Per Pin => 50mA
 - Max Total Pins Current => 200mA
 - 3V3 Logic (obv)
 - Vin => 1.71 – 3.8 V
 - Operating Temp => -40 – +125 C
 - 80 Mhz
 - EM2/EM3 => Approx. 5–10 uA
 - Current Reset Held => 146 uA
 - Internal Pull Up/Down => 44k Ohm Typ.

MCU – BGM210PA22JIA

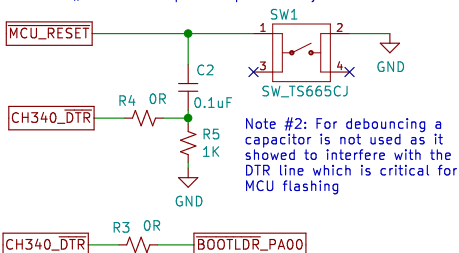


Pinout



MCU Reset Button

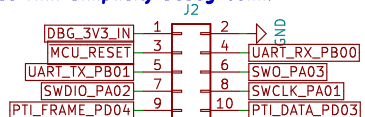
Note #1: RESET is pulled up internally to VDD



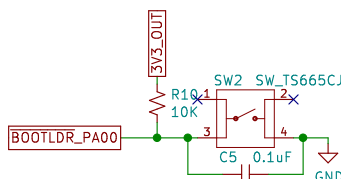
Note #2: For debouncing a capacitor is not used as it showed to interfere with the DTR line which is critical for MCU flashing

Note #3: Tbh we are not sure about these DTR lines when flashing a SiLabs MCUs. We connected them now for testing and have a 0 R resistors in place to disconnect if needed

SiLabs Mini Simplicity Debug Conn.



Additional Button (for Bootloader Entry -> Hold on Reset)



For debounce:
 C = 1ms/10K
 C = 0.1uF

Khalid AlAwadhi

Remal IoT

Sheet: /
 File: Shabakah_v2.sch

Title: Shabakah v2

Size: A4 Date: 2020-12-01
 KiCad E.D.A. kicad (5.1.10)-1

Rev: v2
 Id: 1/1