

If you think this sheet is boring,  
take it up with ANTTTO!

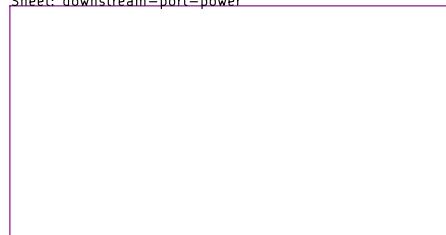
Sheet: upstream-config-leds



File: upstream-config-leds.sch

Feeling uppitty, into configuration  
and the world at large?

Sheet: downstream-port-power



File: downstream-port-power.sch

Feeling down, feeling like power  
switching and chunks of metal?

one up, one down  
three double ports for discos w/ user usb  
intended for controlling libopencm3 regression test boards

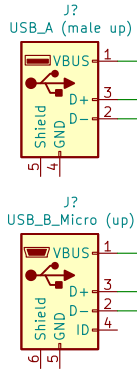
Sheet: /  
File: usb-test-harness.sch

**Title: Cascading per port controllable USB hub**

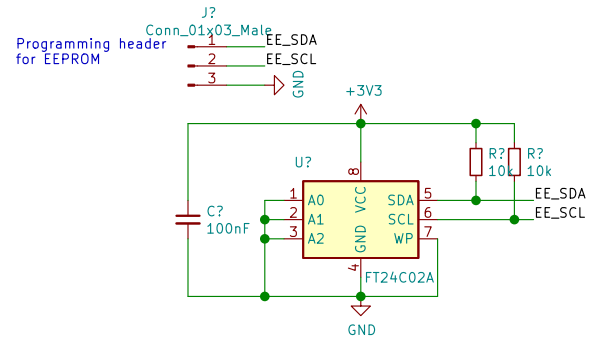
Size: A4 Date: 2019-12-03  
KiCad E.D.A. kicad 5.99.0-unknown-r17398-a8d9fcb4

Rev:  
Id: 1/3

usb A MALE for plugging directly into an upstream  
 +  
 usb b micro for cable connecting as top level



sheet, could even use on of those new  
 usb-c with only usb2 pins on it here  
 option ALLLLL the things

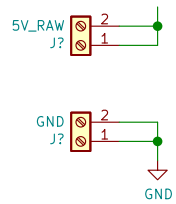


Optional, pin straps cover everything but usb device serial!

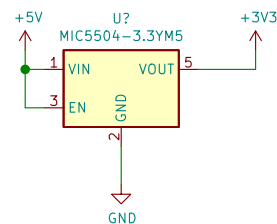
Screw terminals for 5-12V input?  
 Jumper for whether to use a regulator  
 or just expect perfect 5V input?



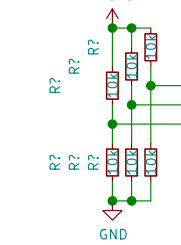
+5V



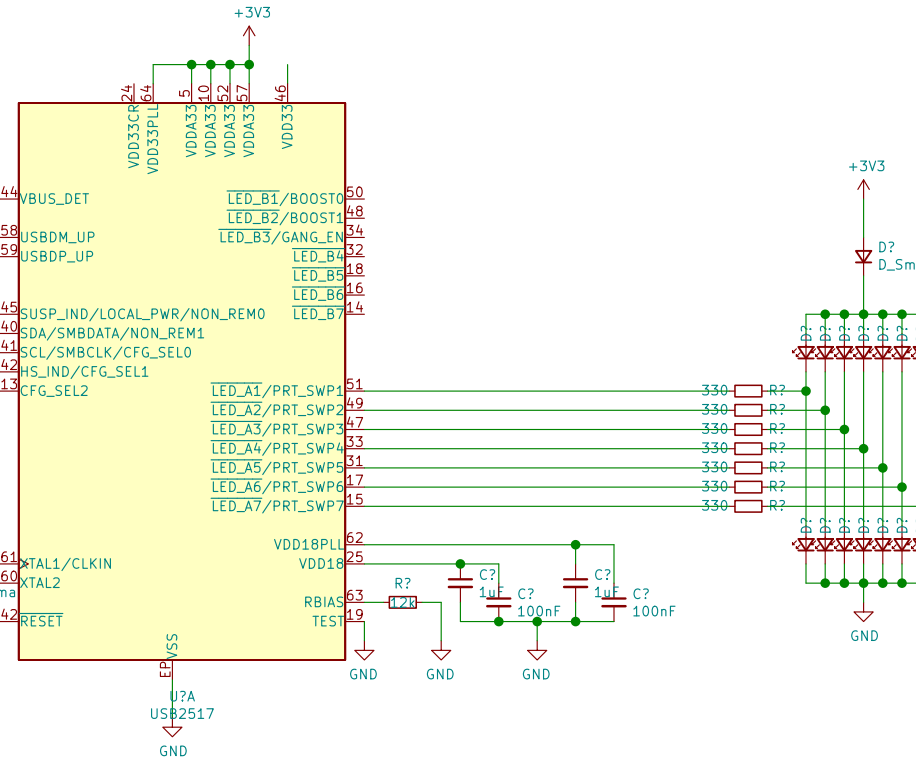
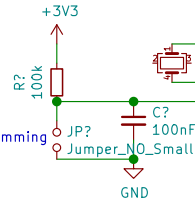
Need as much as 460mA at 3.3V for 7xHS ports enabled!



CFG straps  
 011: EEPROM  
 101: defaults+dyn+led=usb  
 100: defaults+dyn?



Connect for EEP programming  
 (holds hub in reset)



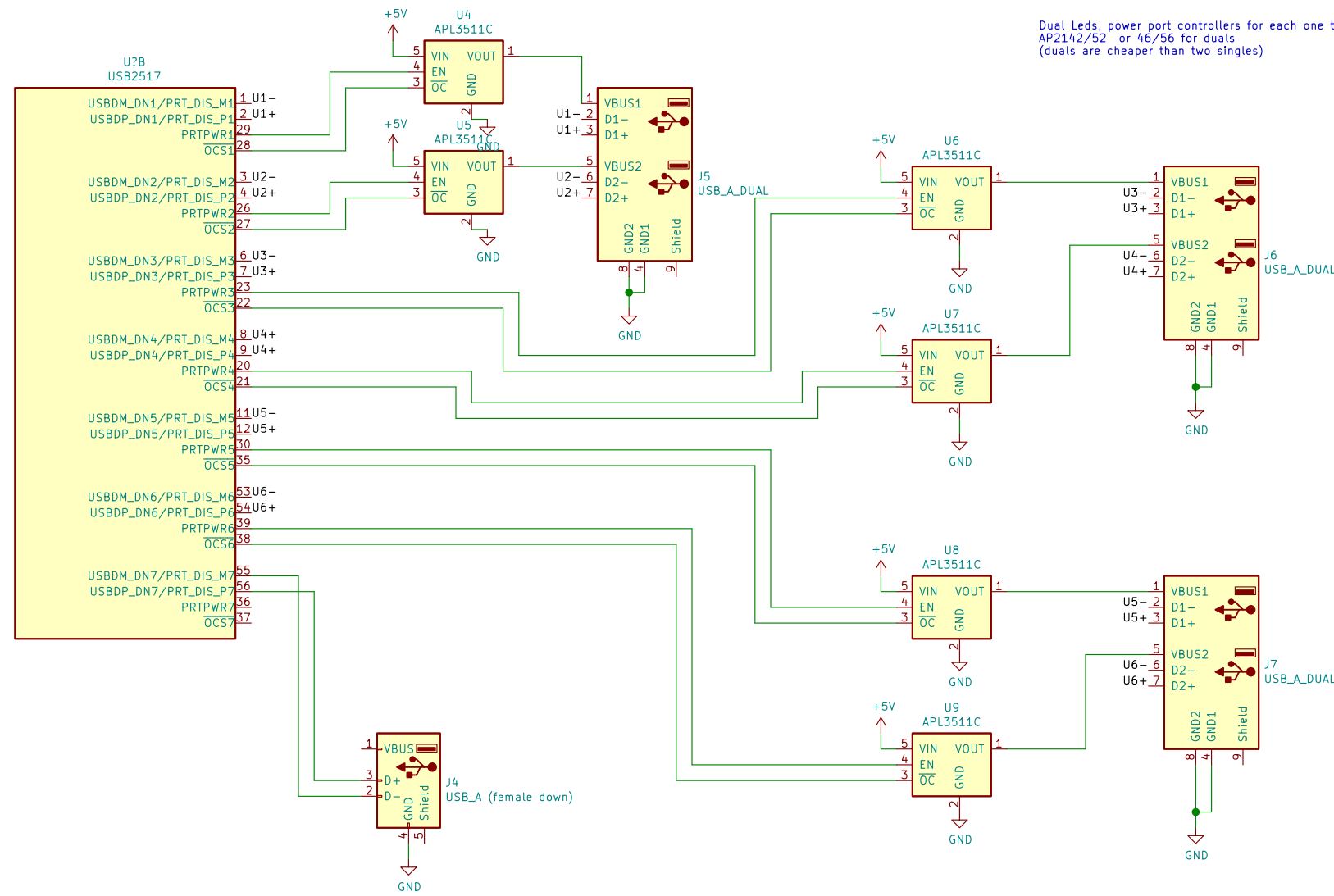
USB Speed indication leds\_only\_  
 (They seem more useful than USB  
 standard leds)

KARRLLL

- \* just focus on pin strapped
- \* eeprom is ONLY to save us if we screw up
- \* we don't normally care about \_hub\_ serial  
 just make the hub work!

Sheet: /upstream-config-leds/ File: upstream-config-leds.sch		
<b>Title:</b>		
Size: A3	Date:	Rev:
KiCad E.D.A. kicad 5.99.0-unknown-r17398-a8d9fcb4		Id: 2/3

Remember: Some nice big bulk caps per port!



Dual Leds, power port controllers for each one too please  
AP2142/52 or 46/56 for duals  
(duals are cheaper than two singles)

Each pair a Double stack USB port  
C12049 on lscs or similar