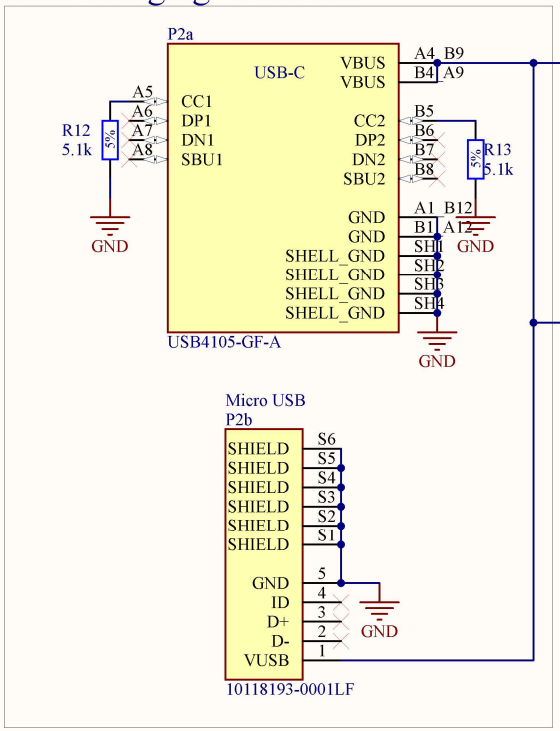
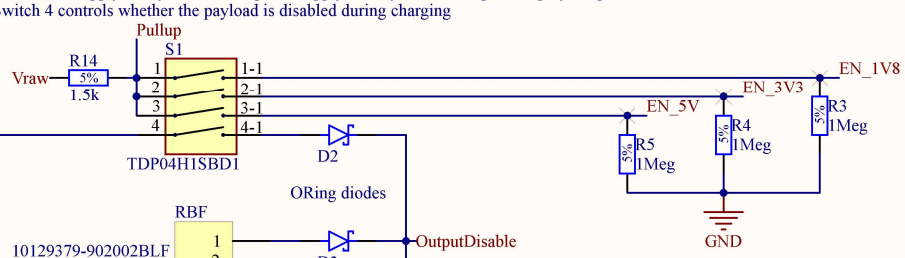
Documentation available in the repository

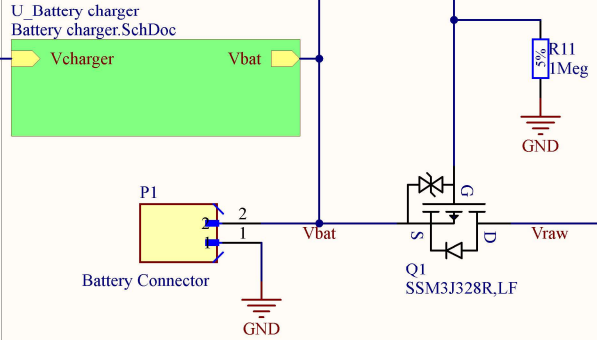
USB Charging - Pick one



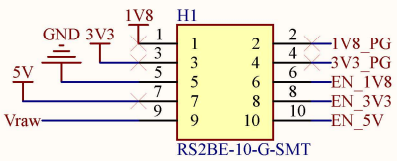
NOTE: Do not plug cables into both the USB-C and microUSB connectors at the same time.

Power supply control. When closed = supply always on, when open = supply weakly off, can be pulled up by uC pin
Switch 4 controls whether the payload is disabled during charging

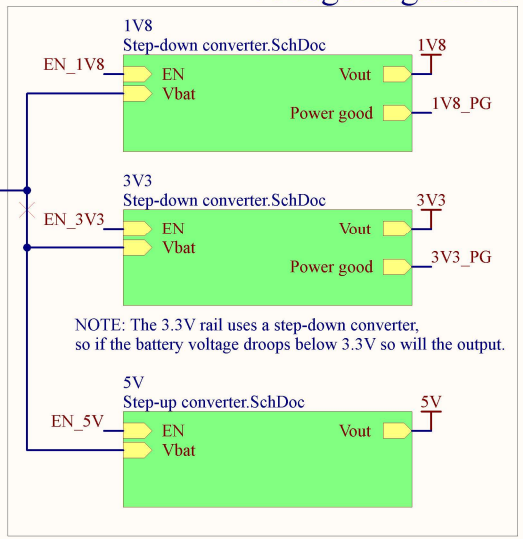




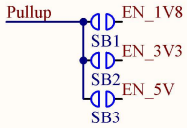
Output Header



Voltage Regulators

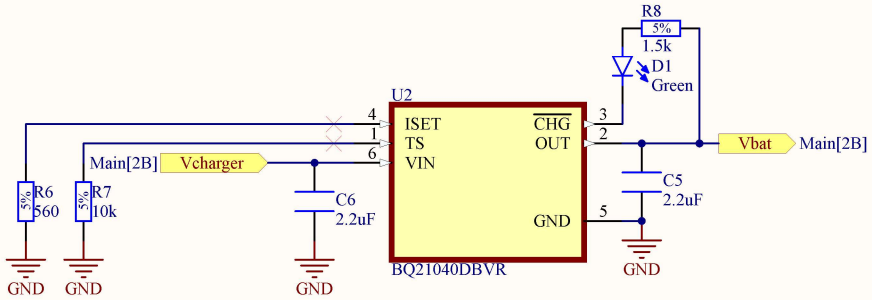


Auxiliary power supply jumpers, in case S1 isn't soldered. Open = S1 controls supply, closed = supply always on

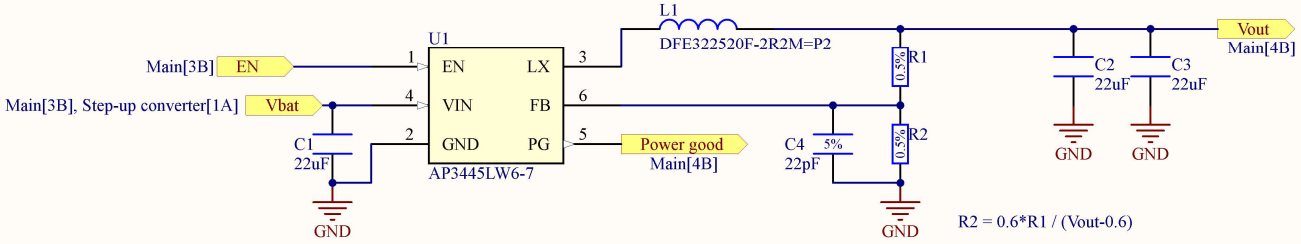


Title: **Main**	
Design Name:	Revision:
Project:	Designer:
Date: 26/11/2025	File: Main.SchDoc
Time: 9:44:41 pm	Document Size: A4

Note: This chip is somewhat underpowered for our LP803860 batteries. Max speed is 800mA, our batteries rated to 2A
Maybe consider the LTC1732? A lot bigger, but can do 2A charging with a fairly simple circuit

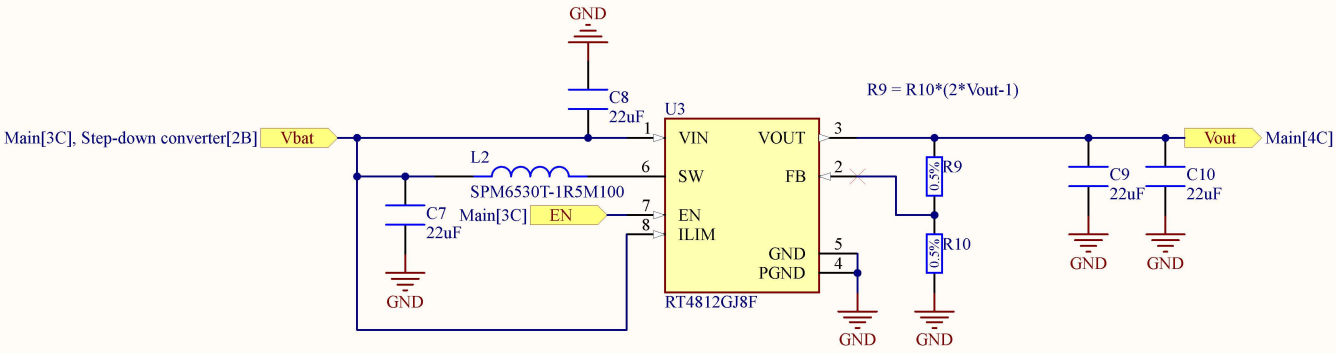


Title: **Battery Charger**	
Design Name:	Revision:
Project:	Designer:
Date: 26/11/2025	File: Battery charger.SchDoc
Time: 9:44:41 pm	Document Size: A4



Note: Ceramic capacitors need to be overrated in terms of capacitance, as it drops with applied voltage

Title: **Step-down Converter**	
Design Name:	Revision:
Project:	Designer:
Date: 26/11/2025	File: Step-down converter.SchDoc
Time: 9:44:41 pm	Document Size: A4



Maybe consider a different chip? This one doesn't have a 'power good' indicator like the others.

Note: Ceramic capacitors need to be overrated in terms of capacitance, as it drops with applied voltage

Title: **Step-up Converter**	
Design Name:	Revision:
Project:	Designer:
Date: 26/11/2025	File: Step-up converter.SchDoc
Time: 9:44:42 pm	Document Size: A4