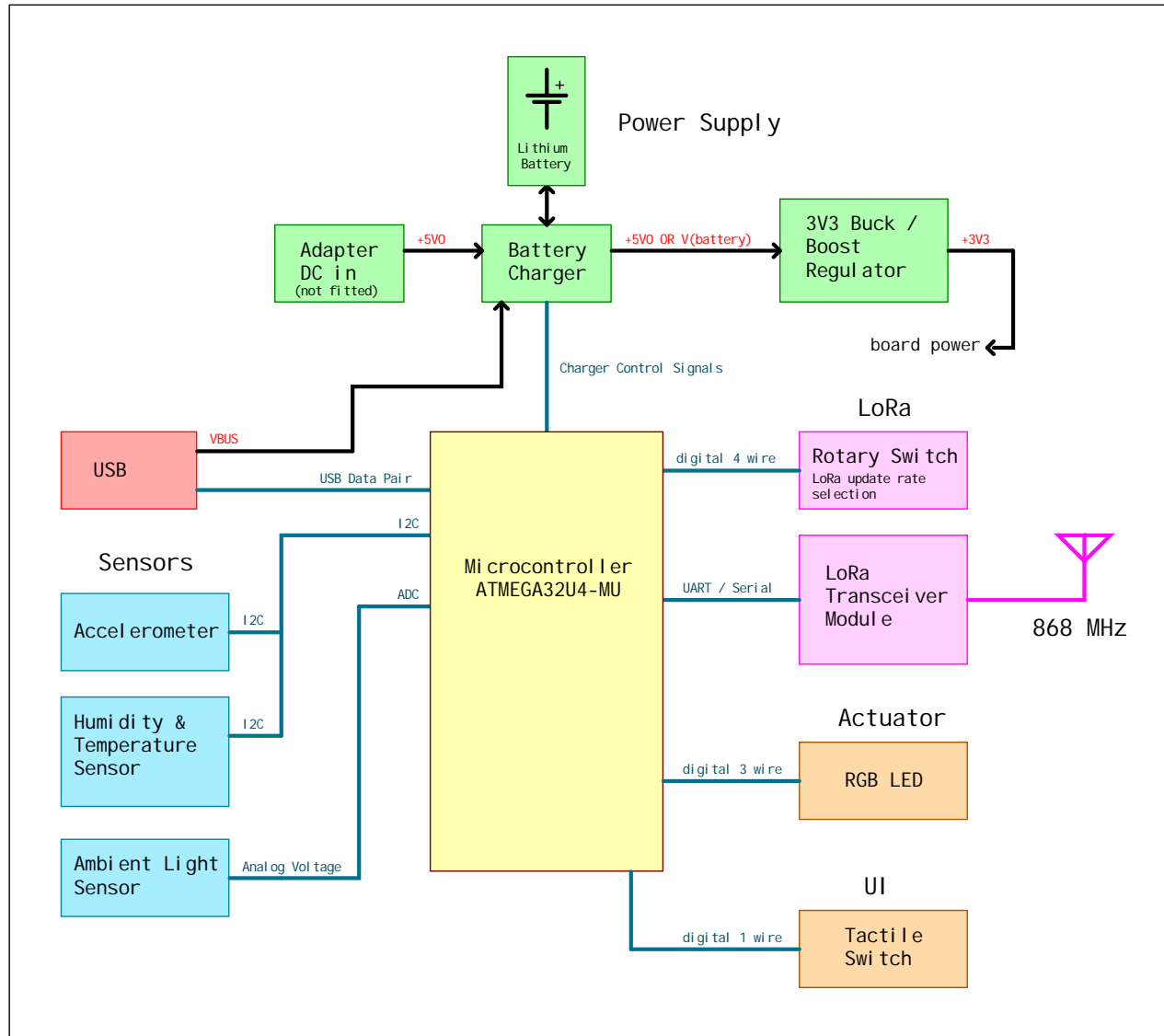


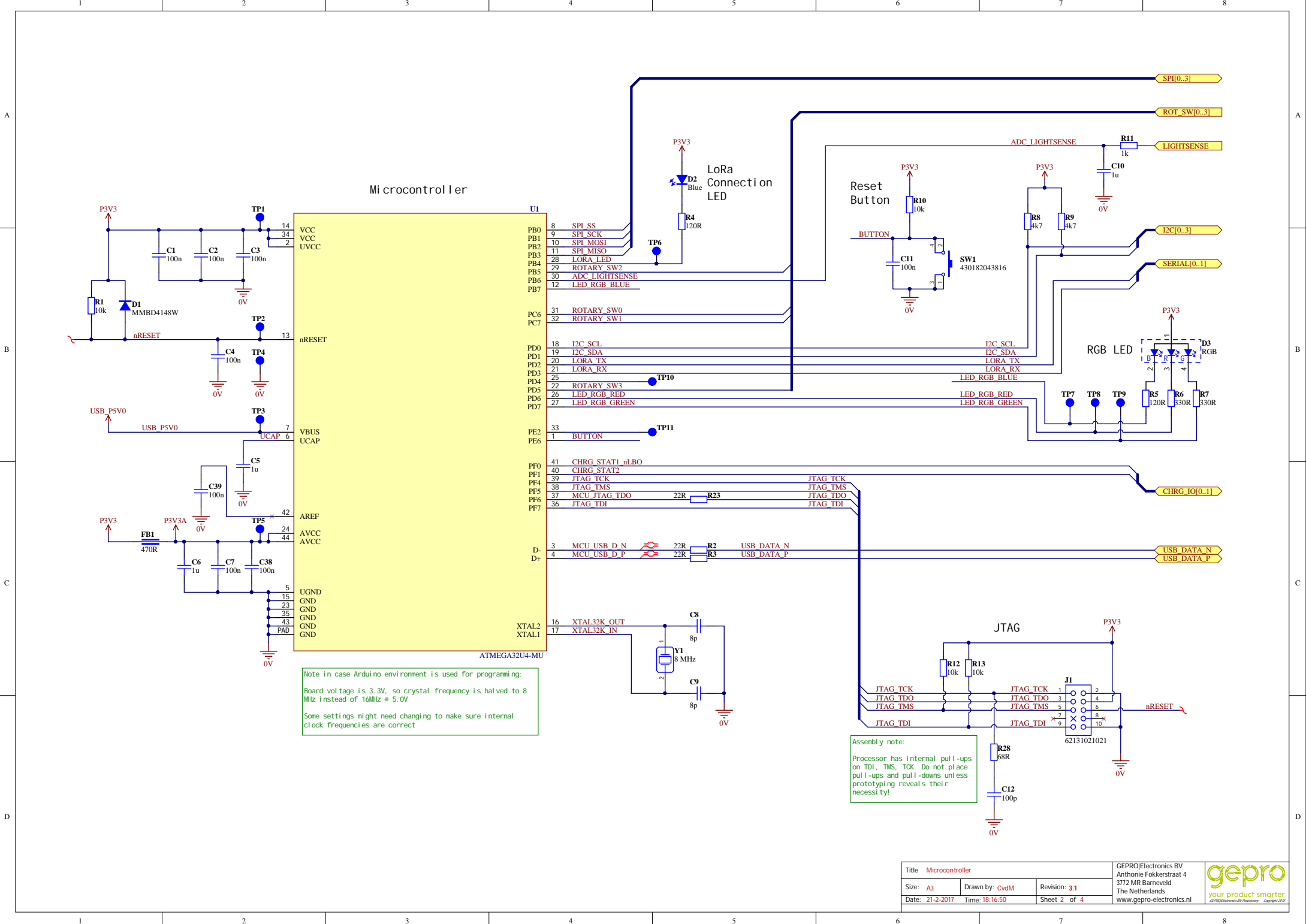
KISS LoRa

Variant: [No Variations]

Revisions

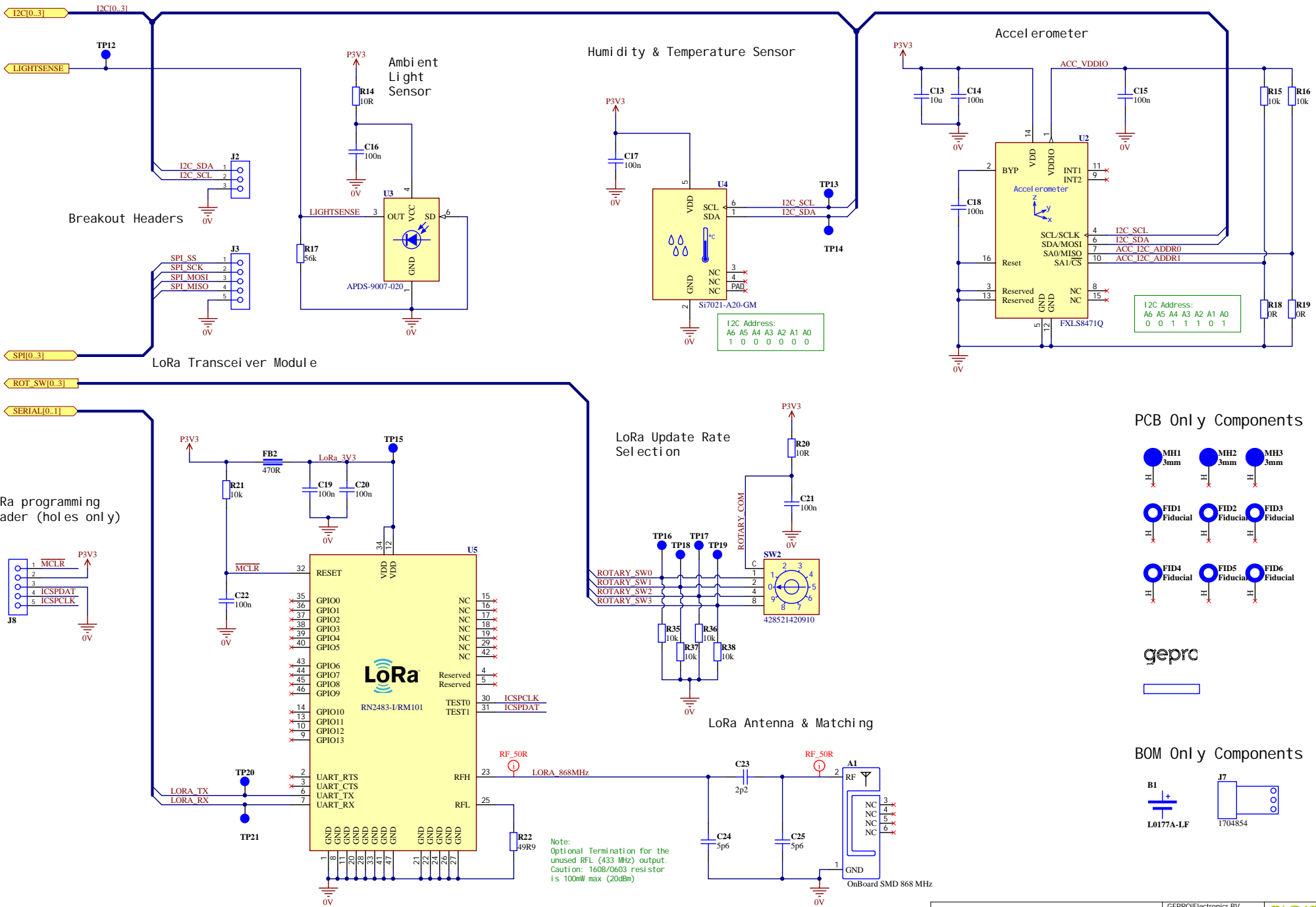
REV #	Comments (Page title, page number; changes made)	Date	By
1	Initial file	2016-12-20	CvdM
2	Updated to REV3	2017-01-24	AJM
3.1	Updated to REV3.1	2017-02-21	AJM





Note in case Arduino environment is used for programming:
 Board voltage is 3.3V, so crystal frequency is halved to 8 MHz instead of 16MHz = 5.0V
 Some settings might need changing to make sure internal clock frequencies are correct

Assembly note:
 Processor has internal pull-ups on TDI, TMS, TCK. Do not place pull-ups and pull-downs unless prototyping reveals their necessity!



PCB Only Components

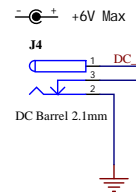
- MH1 3mm
- MH2 3mm
- MH3 3mm
- FID1 Fiducial
- FID2 Fiducial
- FID3 Fiducial
- FID4 Fiducial
- FID5 Fiducial
- FID6 Fiducial



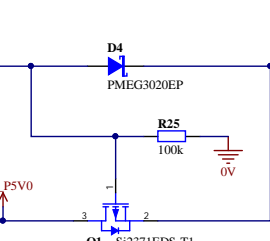
BOM Only Components

- B1 L0177A-LF
- J7 1704854

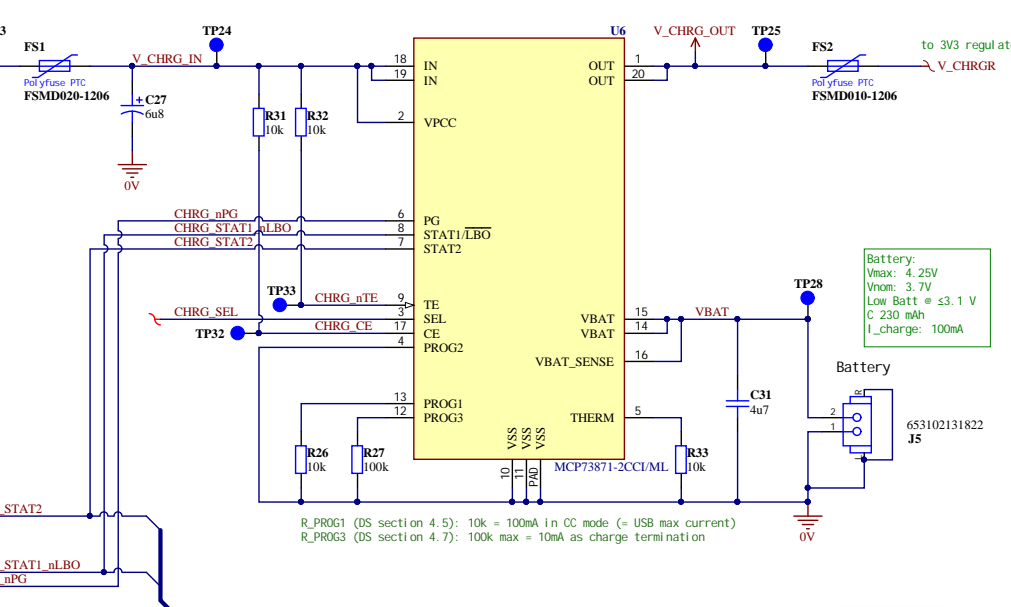
DC Input Jack



DC Input Switchover



Battery Charger

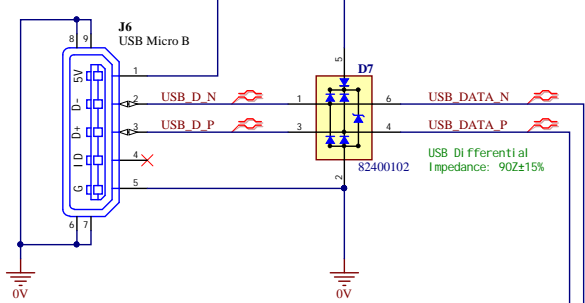


Battery:
 Vmax: 4.25V
 Vnom: 3.7V
 Low Batt @ ≤3.1V
 C 230 mAh
 I_charge: 100mA

Charging + Power Good
 Status LEDs

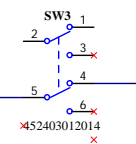
Status	Green	Red
Charging	On	On
Low Battery	Off	On
Battery Full	On	Off

USB

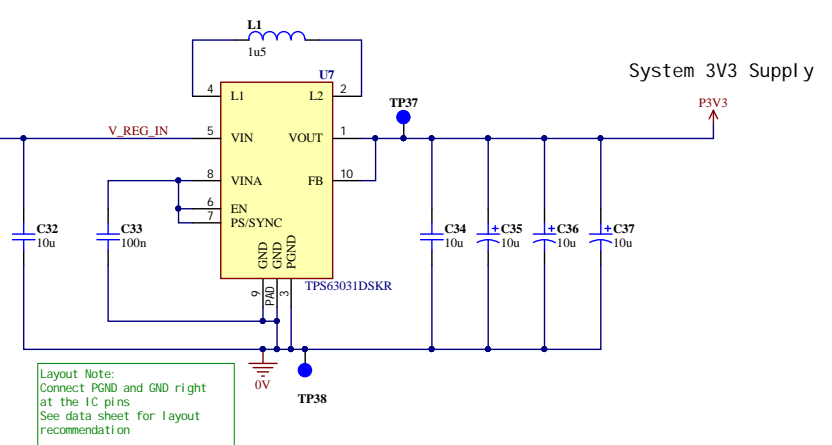


Layout Notes:
 - Place 47pF of rectly 'over' TVS, between connector and TVS.
 - Place 100nF of rectly 'over' TVS, di rectly 'after' TVS as seen from the connector.
 Both serve to damp transients and aid the TVS's function

Power On/Off



3V3 Buck/Boost Regulator



Layout Note:
 Connect PGND and GND right at the IC pins
 See data sheet for layout recommendation

System 3V3 Supply

