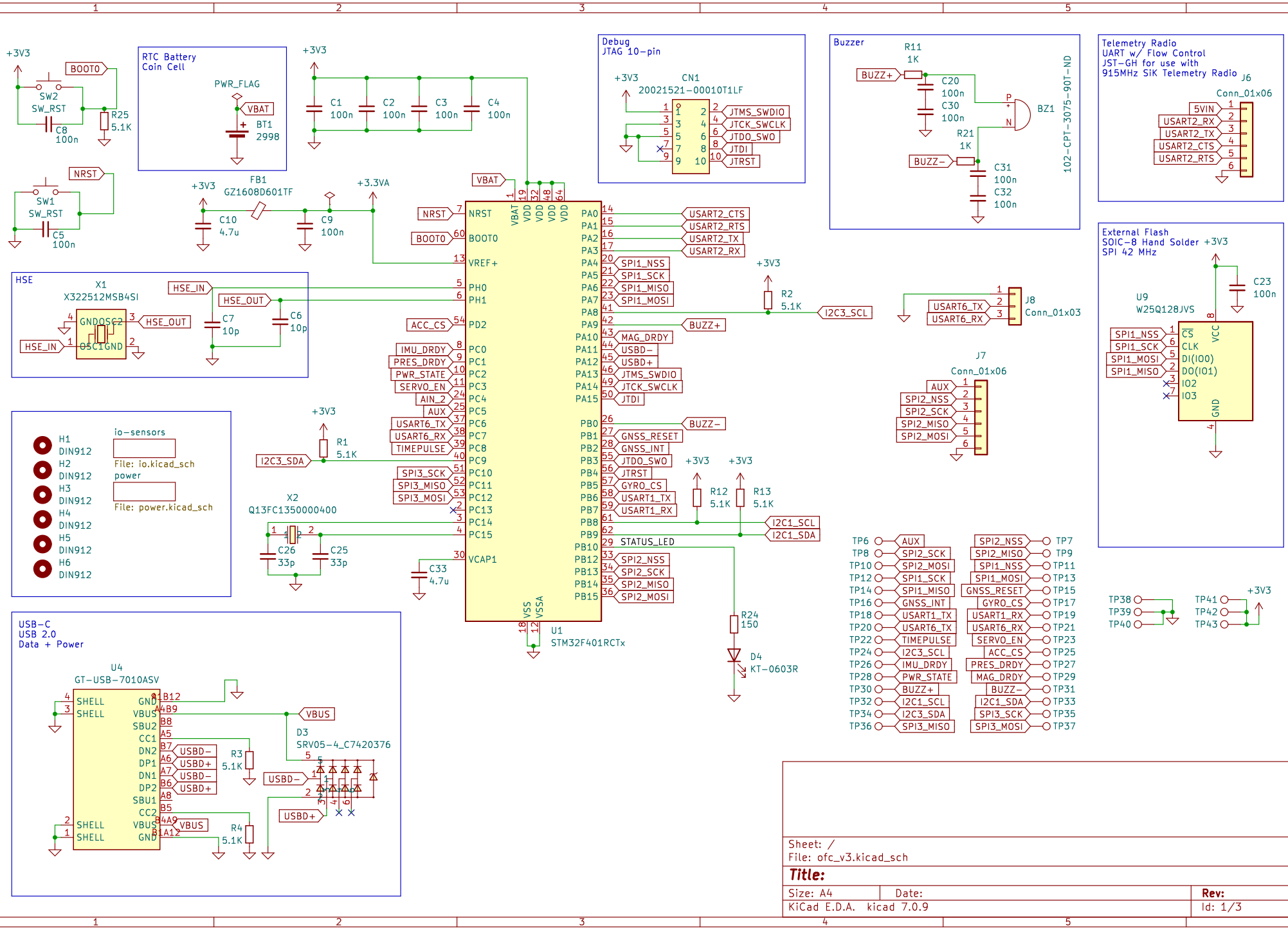
RTC Battery
Coin Cell
Debug
JTAG 10-pin
Buzzer
Telemetry Radio
UART w/ Flow Control
JST-GH for use with
915MHz SiK Telemetry Radio
External Flash
SOIC-8 Hand Solder +3V3
SPI 42 MHz
HSE
io-sensors
power
USB-C
USB 2.0
Data + Power
U1
STM32F401RCTx
U4
GT-USB-7010ASV
X1
X322512MSB4SI
X2
Q13FC1350000400
U9
W25Q128JVS
J6
J7
J8
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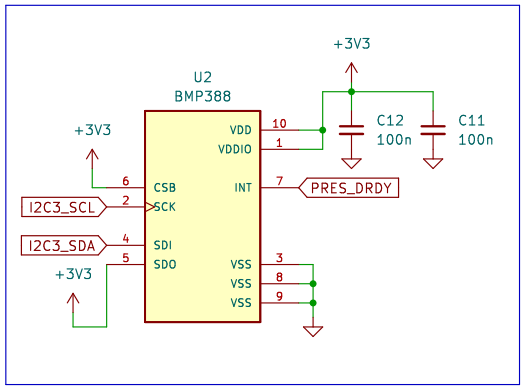

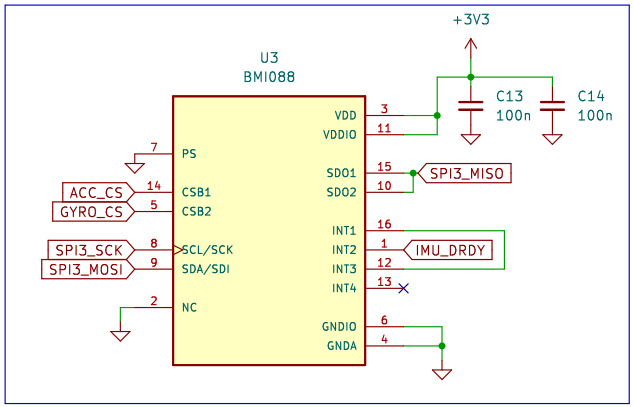

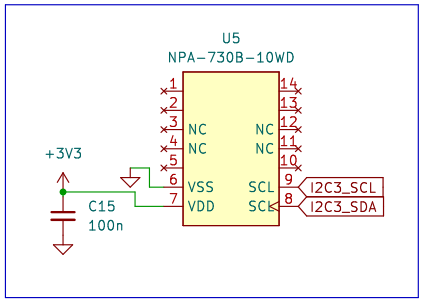

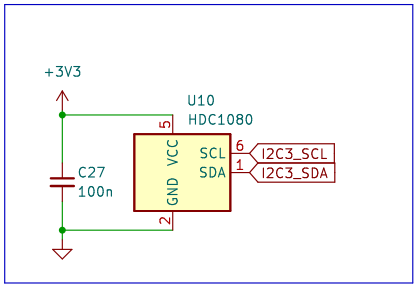

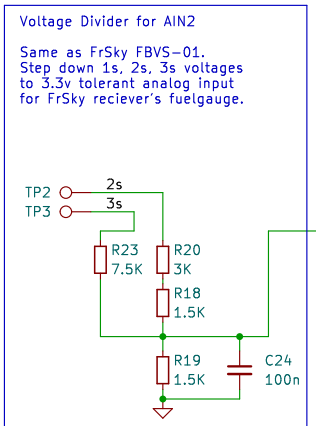

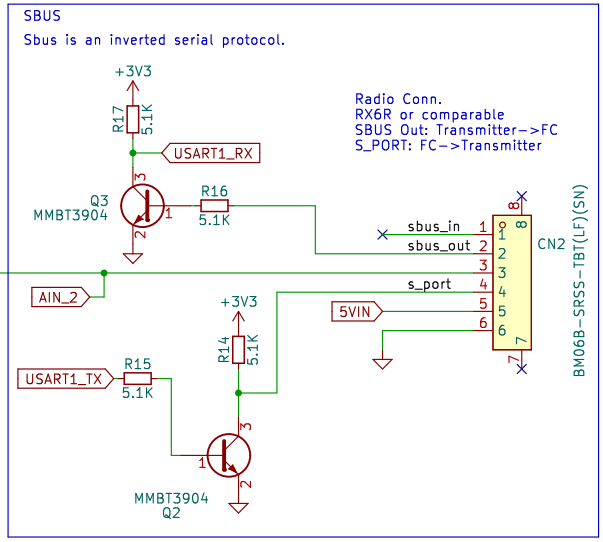

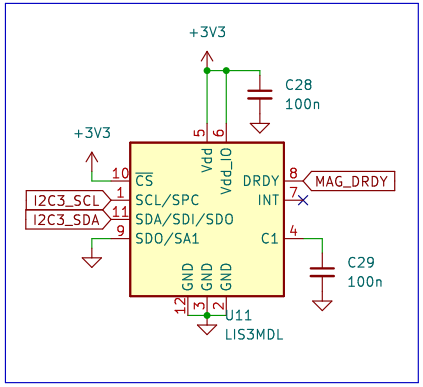

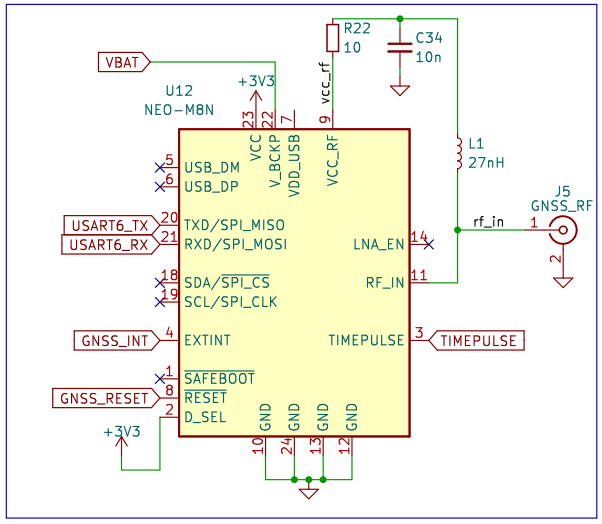

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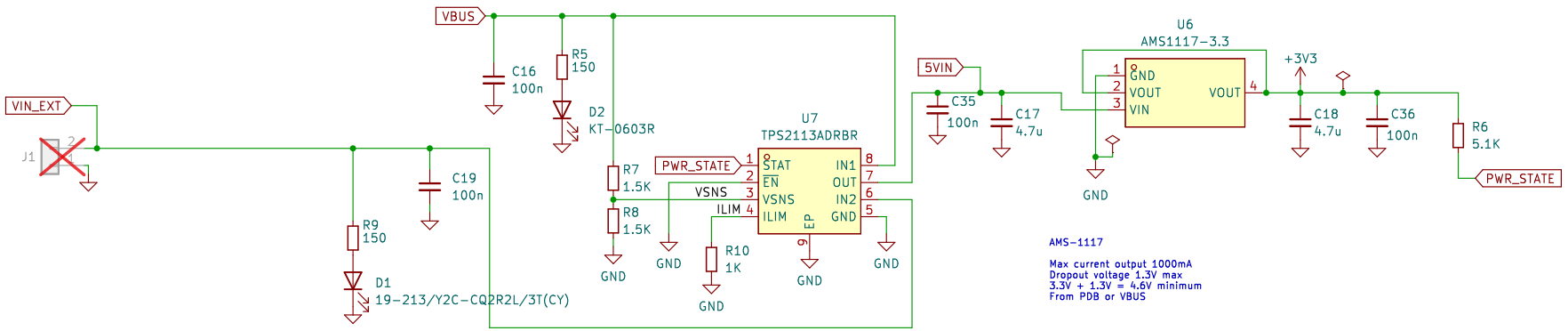


AMS-1117

Max current output 1000mA
Dropout voltage 1.3V max
3.3V + 1.3V = 4.6V minimum
From PDB or VBUS

VIN: Battery in from PDB 5V+-10%
VBUS: USB in 5V+-5%

TPS2113APW

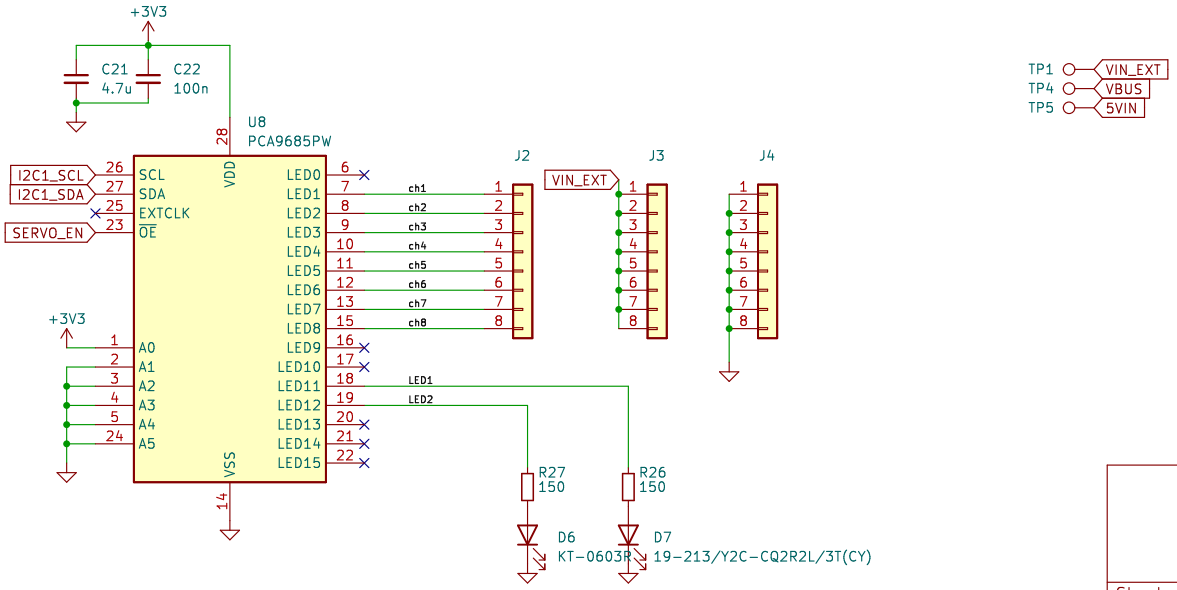
This configuration prefer VBUS for power input.

When V_SNS is greater than 0.8V, the IC will prefer IN1 to IN2. This means that when VBUS is active, the device will draw from IN1. When VBUS is Hi-Z (USB disconnected) VSNS will be pulled low and we will switch to IN2.

STAT is the output, which is HI-Z when IN2 is preferred (pulled to 3v3) and low otherwise. Therefore, we use stat to measure which source is being used.

A current limiter on ILIM of 1K means we limit current on OUT to 500/1K == 500 mA to match USB specification.

See SBVS045C Fig 14.



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