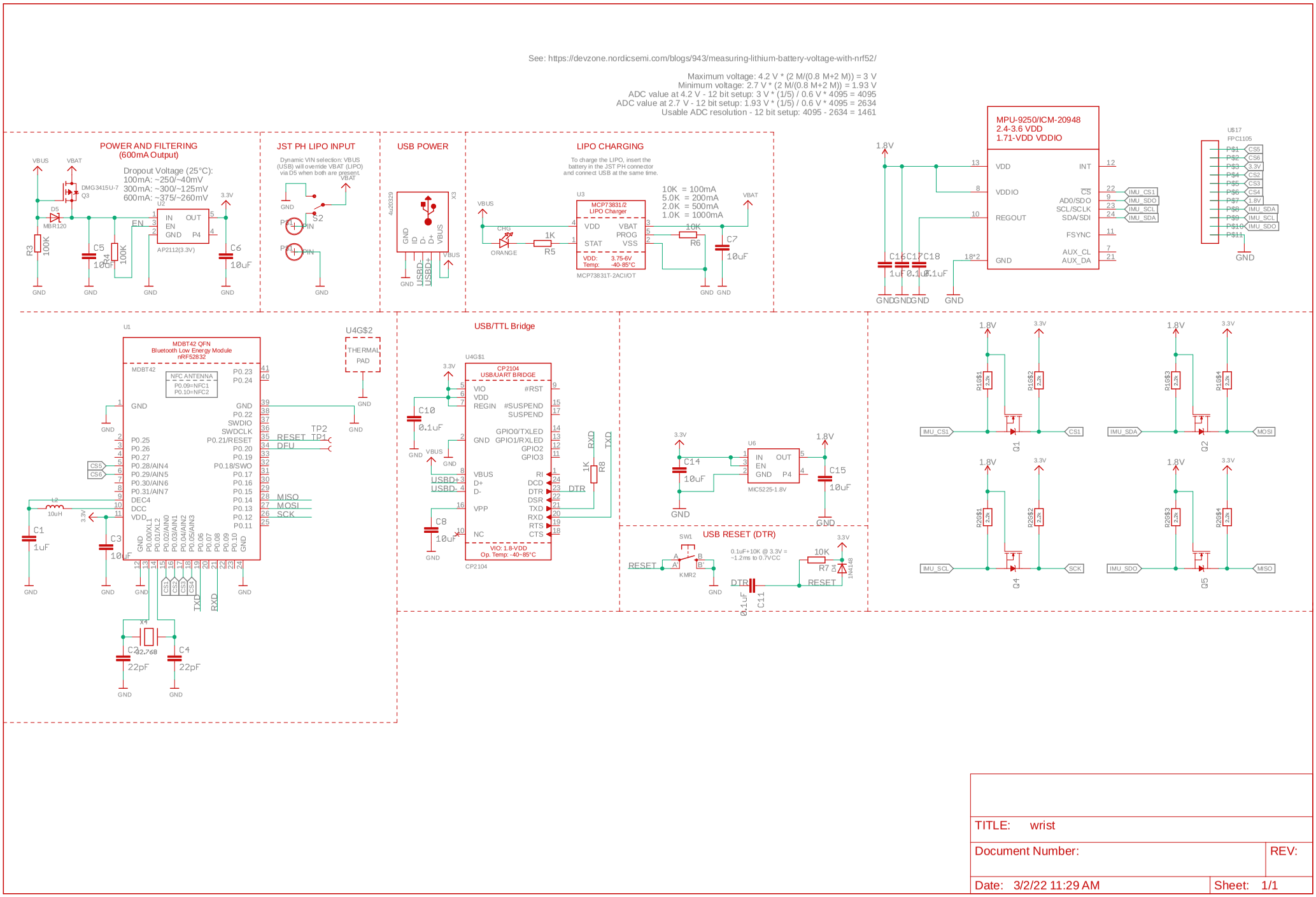
See: https://devzone.nordicsemi.com/blogs/943/measuring-lithium-battery-voltage-with-nrf52/
Maximum voltage: 4.2 V * (2 M/(0.8 M+2 M)) = 3 V
Minimum voltage: 2.7 V * (2 M/(0.8 M+2 M)) = 1.93 V
ADC value at 4.2 V - 12 bit setup: 3 V * (1/5) / 0.6 V * 4095 = 4095
ADC value at 2.7 V - 12 bit setup: 1.93 V * (1/5) / 0.6 V * 4095 = 2634
Usable ADC resolution - 12 bit setup: 4095 - 2634 = 1461
POWER AND FILTERING
(600mA Output)
Dropout Voltage (25°C):
100mA: ~250/~40mV
300mA: ~300/~125mV
600mA: ~375/~260mV
AP2112(3.3V)
JST PH LIPO INPUT
Dynamic VIN selection: VBUS (USB) will override VBAT (LIPO) via D5 when both are present.
USB POWER
LIPO CHARGING
To charge the LIPO, insert the battery in the JST PH connector and connect USB at the same time.
MCP73831/2 LIPO Charger
MCP73831T-2ACI/OT
10K = 100mA
5.0K = 200mA
2.0K = 500mA
1.0K = 1000mA
MPU-9250/ICM-20948
2.4-3.6 VDD
1.71-VDD VDDIO
FPC1105
MDBT42 QFN
Bluetooth Low Energy Module
nRF52832
NFC ANTENNA
P0.09=NFC1
P0.10=NFC2
USB/TTL Bridge
CP2104
USB/UART BRIDGE
MIC5225-1.8V
USB RESET (DTR)
KMR2
1N4148
TITLE: wrist
Document Number:
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Date: 3/2/22 11:29 AM
Sheet: 1/1