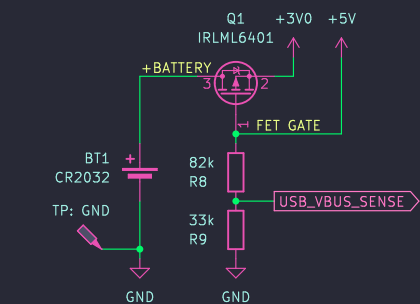
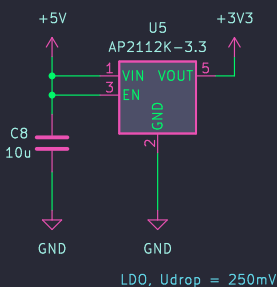


## BATTERY & PROTECTION & OR



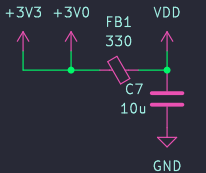
Q1 works as a reverse polarity protection, closes on 5V presence from USB (Ugate > Usource)  
CR2032 will have ~200mA till 2V5 discharge  
Energizer CR2032

## LDO: 5V -> 3V3

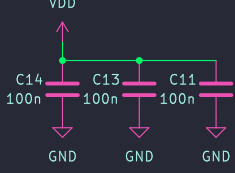


LDO, Udrop = 250mV

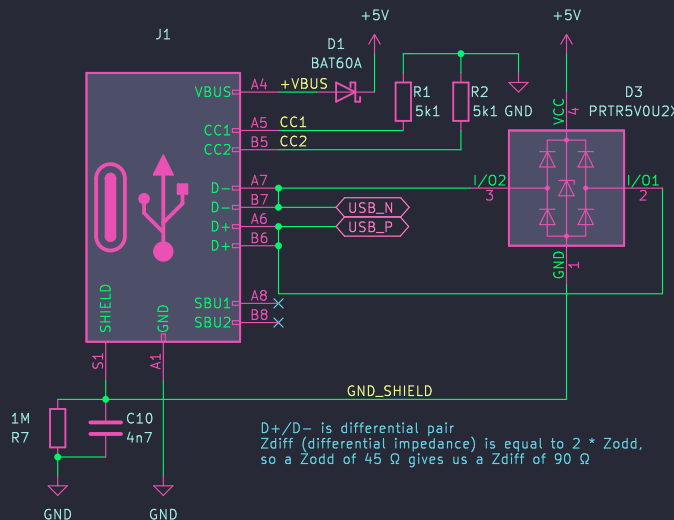
## LOW-PASS FILTER



## MCU CAPS



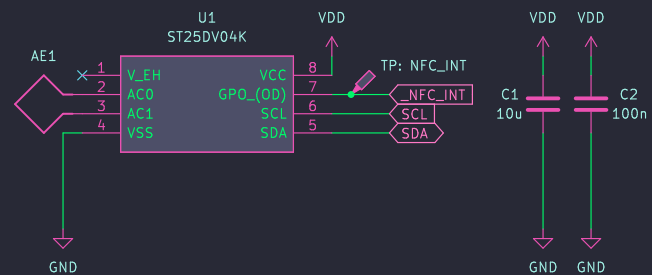
## USB-C: POWER & MSD



D+/D- is differential pair  
Zdiff (differential impedance) is equal to 2 \* Zodd,  
so a Zodd of 45 Ω gives us a Zdiff of 90 Ω

## NFC

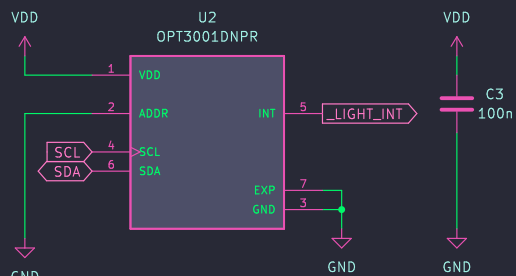
ST25DV ultra-low power: AN5733  
Antenna design: AN2972  
Antenna design double-layer : AN5605  
FTM Data exchange: AN4910



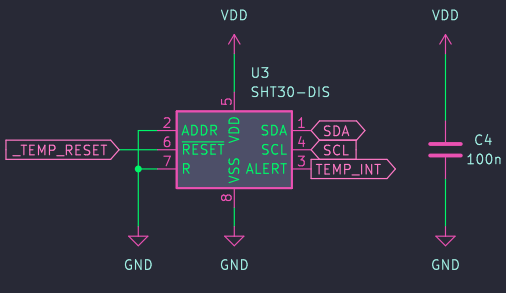
C=28.5pF  
equivalent L=4.9uH

## AMBIENT LIGHT SENSOR

I2C 0x??, ADDR=GND



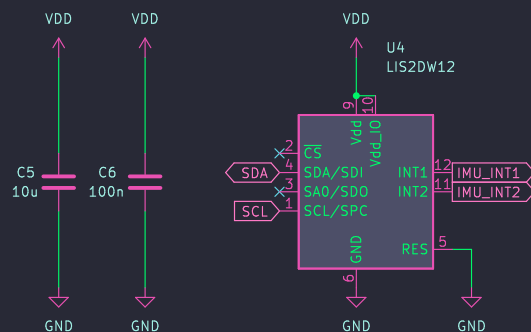
## TEMPERATURE & HUMIDITY SENSOR



SHT3x-DIS  
0x44, ADDR=L

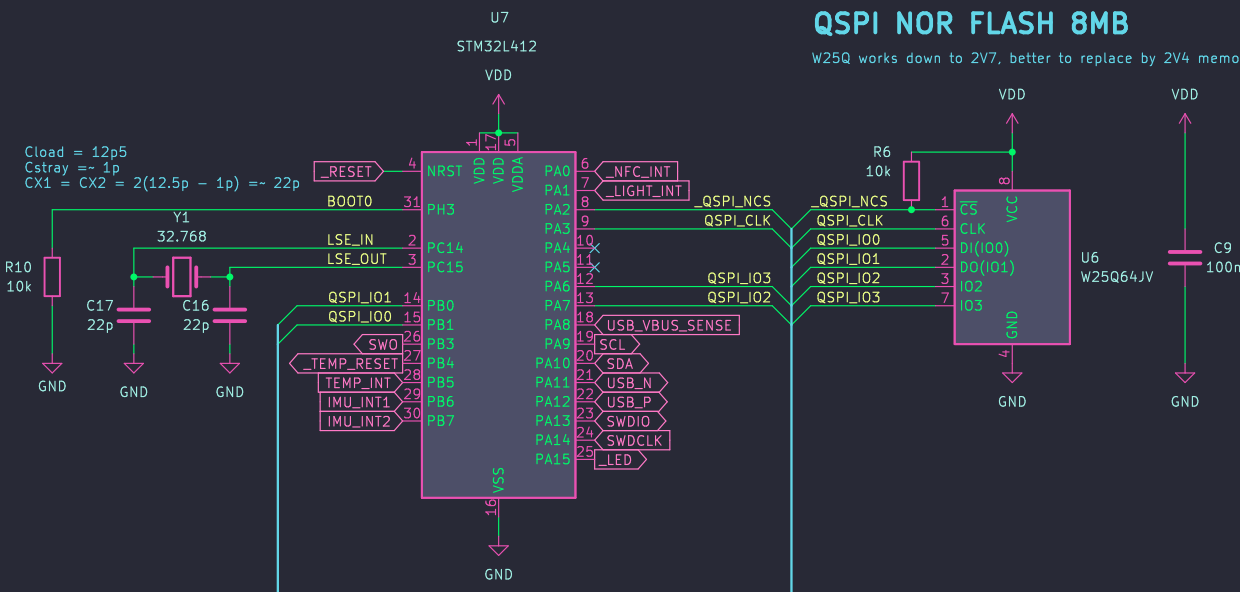
## 3-AXIS ACCELEROMETER

Orientation: Can detect logger tilt  
Shock and vibration monitoring: Shipping and warranty usage logging  
Freefall: Logger fall detection



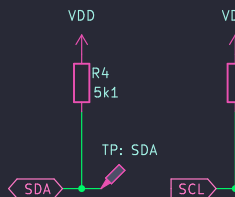
## QSPI NOR FLASH 8MB

W25Q works down to 2V7, better to replace by 2V4 memory

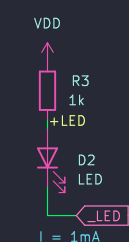


Cload = 12p5  
Cstray = -1p  
CX1 = CX2 = 2(12.5p - 1p) = -22p

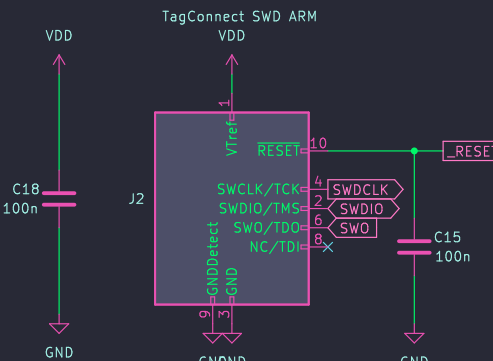
## I2C PULL-UPS



## LED



## ARM SWD



Sheet: /  
File: iot-risk-logger-stm32l4.kicad\_sch

Title: IoT Risk data logger

Size: A3 Date: 2024-01-24

KiCad E.D.A. kicad 7.0.9

Rev:

Id: 1/1