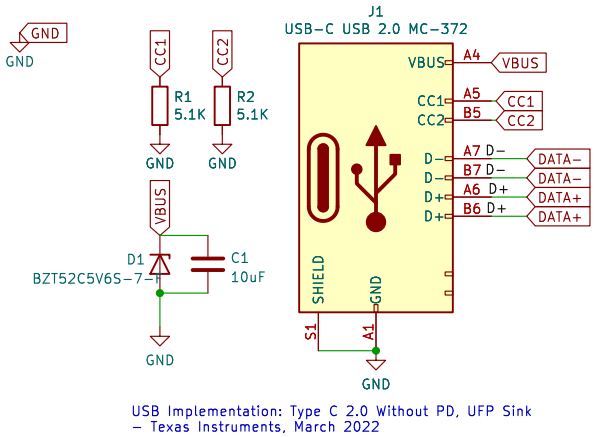

USB Implementation: Type C 2.0 Without PD, UFP Sink
– Texas Instruments, March 2022

MCU & Comms

File: MCUnrf.kicad_sch

Power

File: Power.kicad_sch

USB to UART

File: USB2UART.kicad_sch

Ingebedde DSP-systemen – 007841
Vrije Universiteit Brussel
Verantwoordelijke: Laurent Segers

– Sam Dilmaghanian
– Daoud Uahabi

github.com/dersian/embeddedBikeSafety

Sheet: /
File: SenseU_Mainboard.kicad_sch

Title: Embedded Bike Safety: Sense U Board (Concept)

Size: A4	Date: 12/06	**Rev:**
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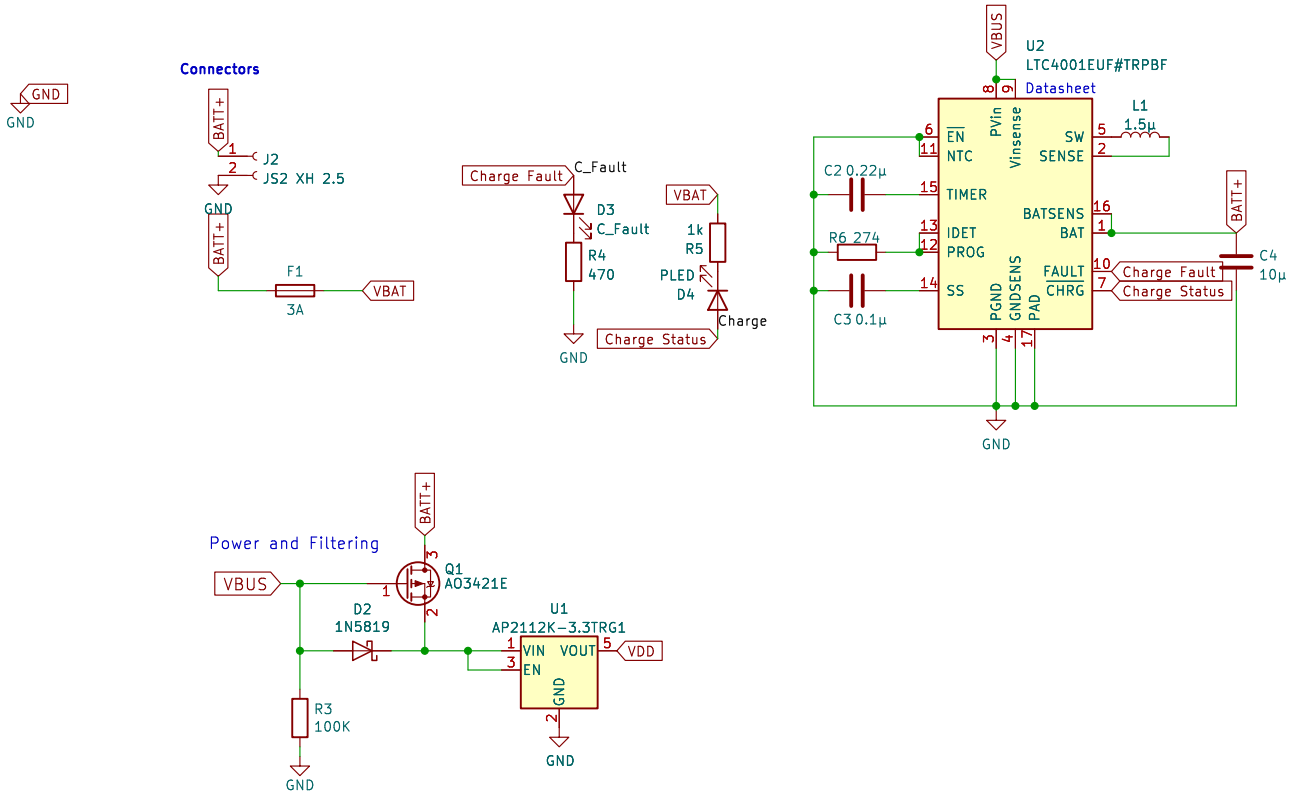

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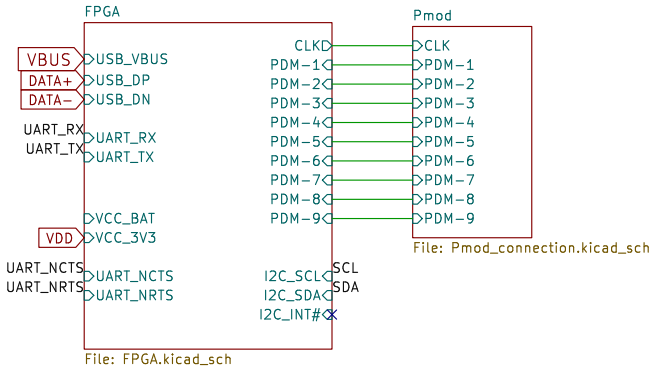

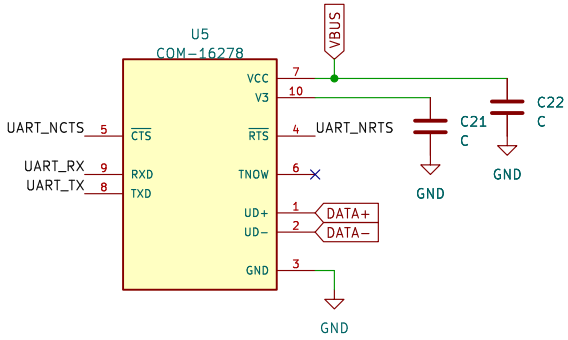

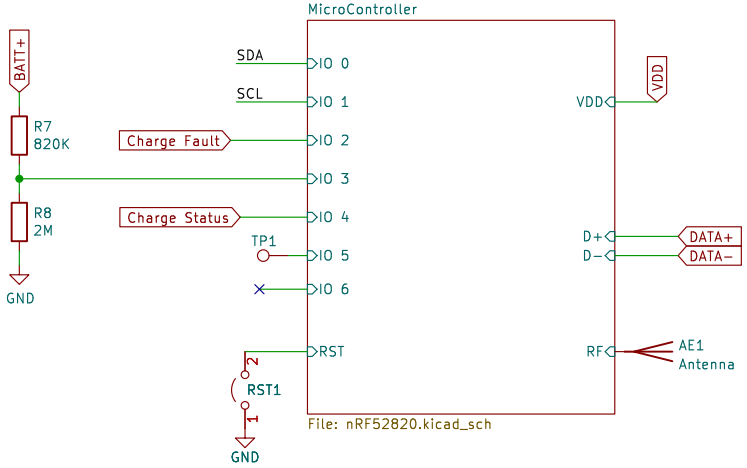

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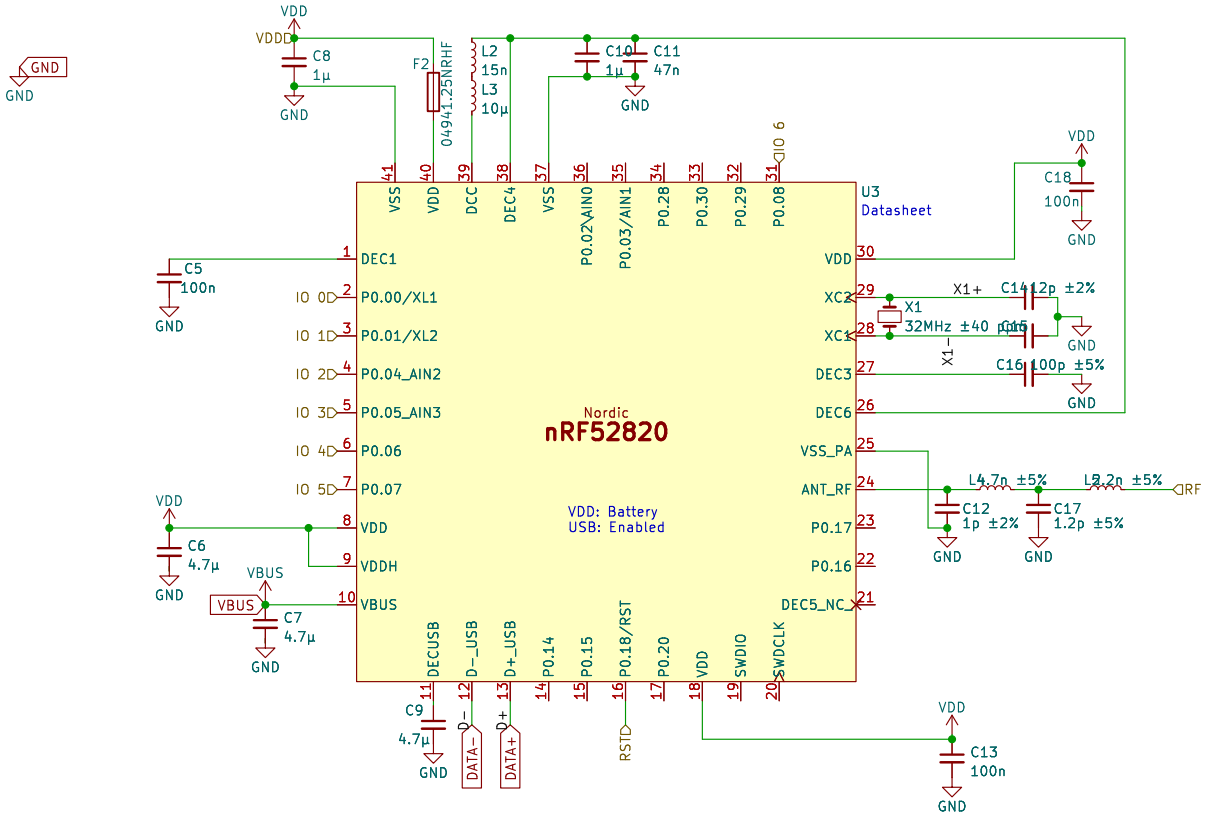

TWI master with EasyDMA (TWIM) is a two−wire half−duplex master which can communicate with multiple slave devices connected to the same bus.
Listed here are the main features for TWIM:

- I2C compatible
- Supported baud rates: 100, 250, 400 kbps
- Support for clock stretching (non I2C compliant)
- EasyDMA

The two−wire interface can communicate with a bi−directional wired−AND bus with two lines (SCL, SDA).
The protocol makes it possible to interconnect up to 127 individually addressable devices. TWIM is not compatible with CBUS.
The GPIOs used for each two−wire interface line can be chosen from any GPIO on the device and are independently configurable. This enables great flexibility in device pinout and efficient use of board space and signal routing.

Page 309 in datasheet : https://infocenter.nordicsemi.com/pdf/nRF52820_PS_v1.3.pdf

Sheet: /MCU & Comms/MicroController/
File: nRF52820.kicad_sch

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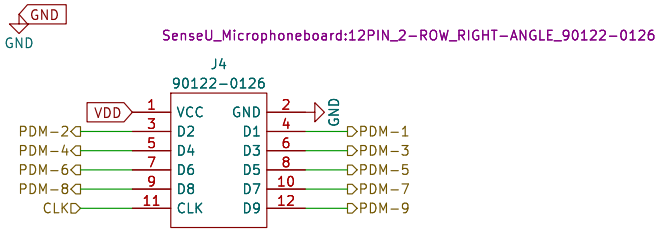

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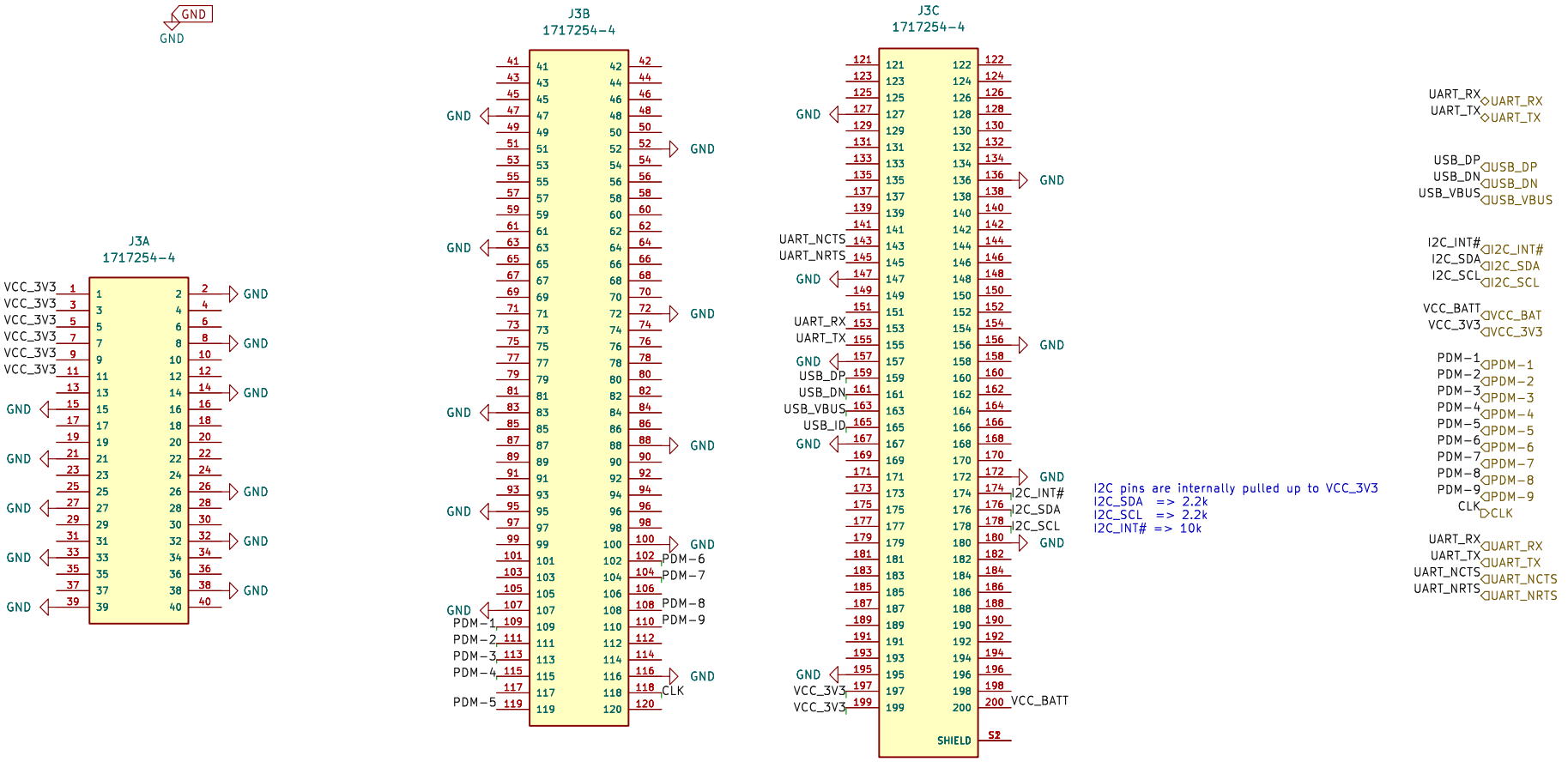
KiCad E.D.A. kicad 7.0.2		Id: 5/7

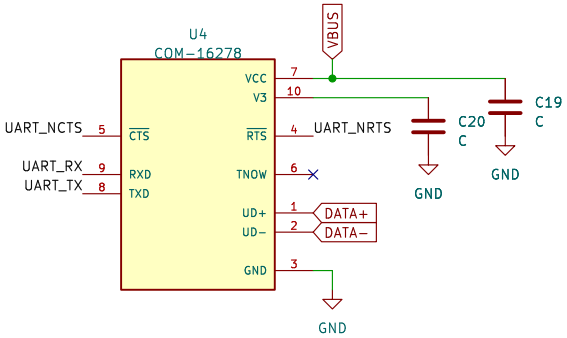


Q&A:
-feedback clk option pin MIO8 enabked in zynq configuration for clock rates higher than 30MHz
-positive and negative polarity IO pins

Sheet: /MCU & Comms/FPGA/
File: FPGA.kicad_sch

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 6/7



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