+12V Input

File: POS12_Input.kicad_sch

+12V Telemetry

File: POS12_Telemetry.kicad_sch

+5V Power Supply

File: POS5_Power_Supply.kicad_sch

+5V Telemetry

File: POS5_Telemetry.kicad_sch

+3.3V Power Supply

File: POS3P3_Power_Supply.kicad_sch

+3.3V Telemetry

File: POS3P3_Telemetry.kicad_sch

PIC18F Programming

File: PIC18F_Programming.kicad_sch

PIC18F Core

File: PIC18F_Core.kicad_sch

USB UART Bridge

File: USB_UART_Bridge.kicad_sch

PGOOD LEDs

File: PGOOD_LEDs.kicad_sch

Status LEDs

File: Status_LEDs.kicad_sch

Hub LEDs

File: Hub_LEDs.kicad_sch

Display

File: Display.kicad_sch

Pushbuttons

File: Pushbuttons.kicad_sch

Hub Controller

File: Hub_Controller.kicad_sch

Downstream Port 0

File: Downstream_Port_0.kicad_sch

Downstream Port 1

File: Downstream_Port_1.kicad_sch

Downstream Port 2

File: Downstream_Port_2.kicad_sch

Downstream Port 3

File: Downstream_Port_3.kicad_sch

Upstream Port

File: Upstream_Port.kicad_sch

Port Power Control

File: port_power_control.kicad_sch

Port Telemetry

File: Port_Telemetry.kicad_sch

Power ORing

File: power_oring.kicad_sch

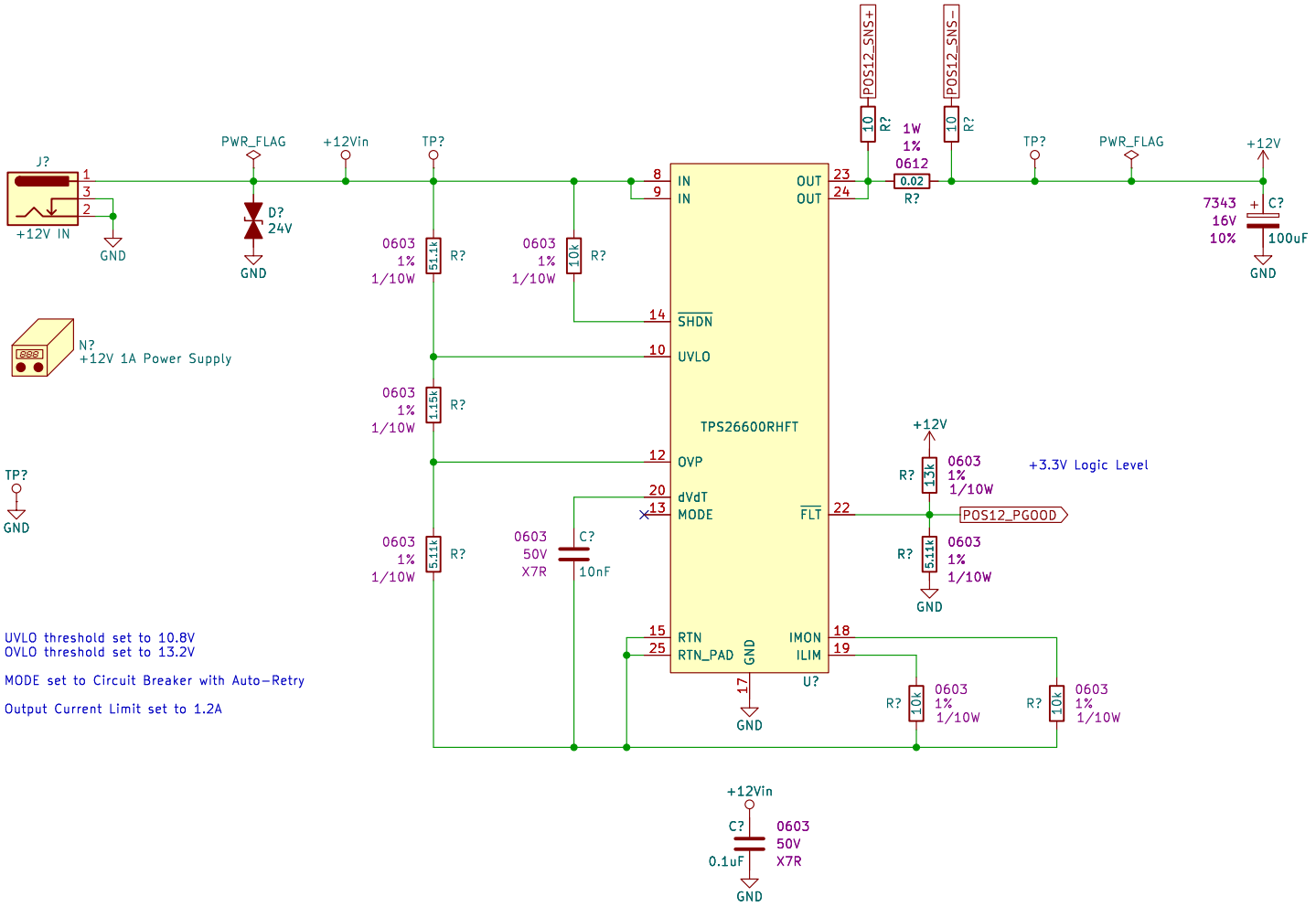
Add Mechanical
Reorder Sheets

Drew Maatman

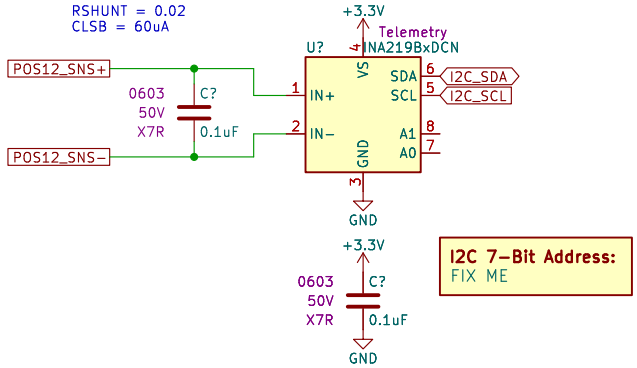
Sheet: /
File: USB_Hub.kicad_sch

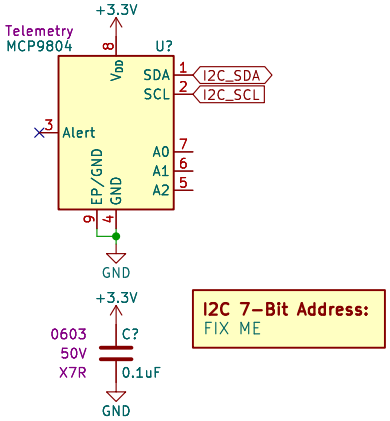
Title: USB Hub

Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 1/24

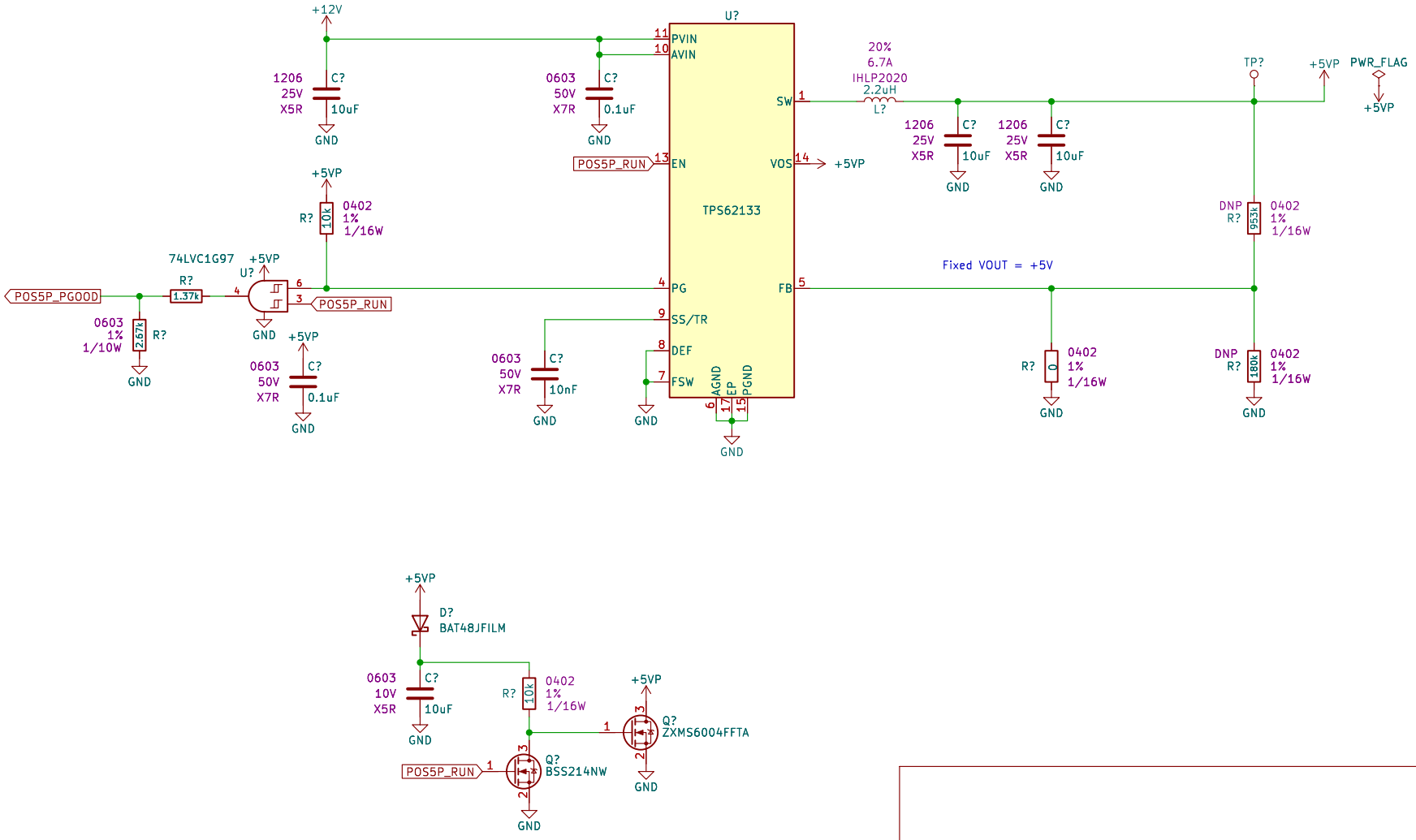


Drew Maatman		
Sheet: /+12V Input/		
File: POS12_Input.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 2/24



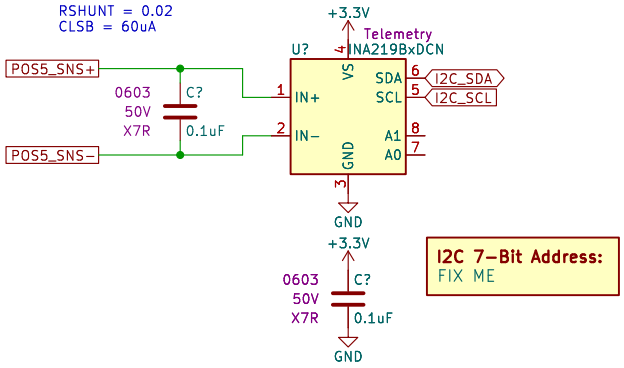


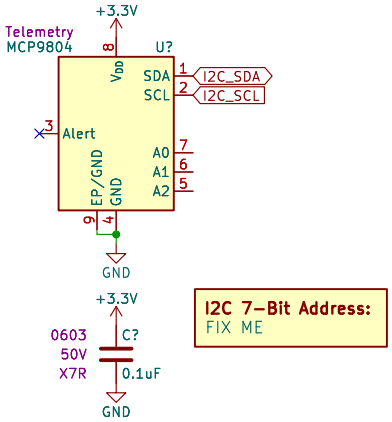
Drew Maatman		
Sheet: /+12V Telemetry/		
File: POS12_Telemetry.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 3/24



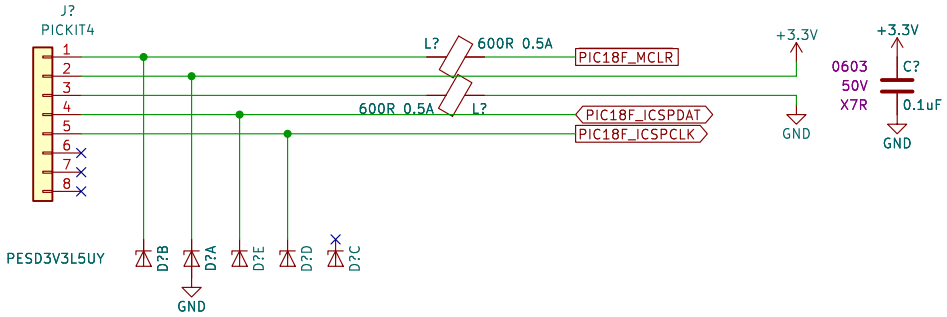
Drew Maatman	
Sheet: /+5V Power Supply/	
File: POS5_Power_Supply.kicad_sch	
Title: USB Hub	
Size: A	Date: 2023-08-18
KiCad E.D.A. kicad 7.0.1	Id: 4/24

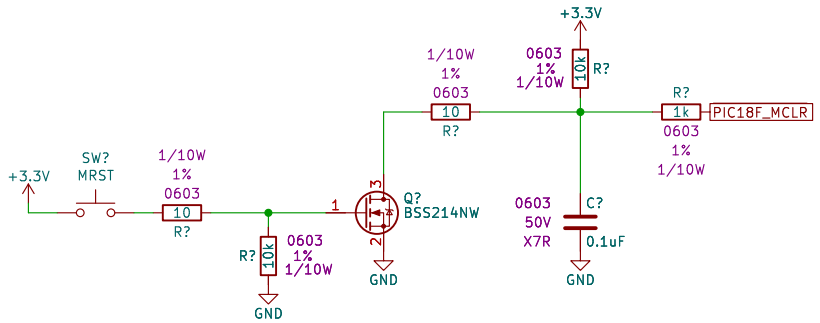
Rev: PRELIM



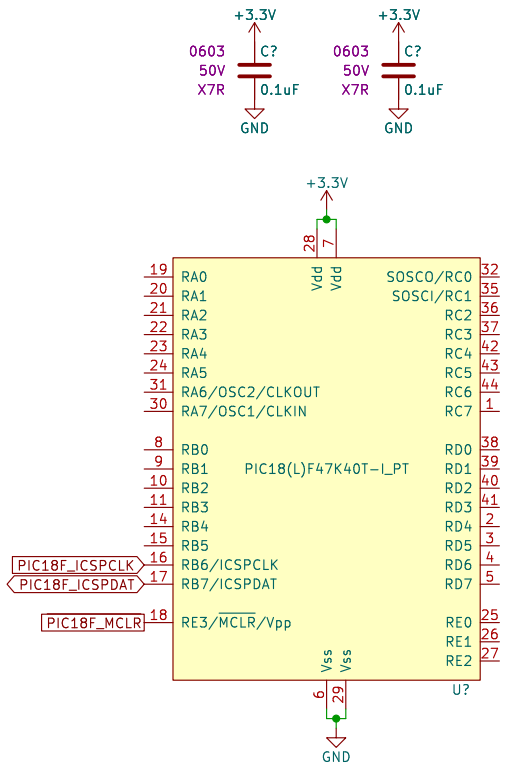


Drew Maatman		
Sheet: /+5V Telemetry/		
File: POS5_Telemetry.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023−08−18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 5/24





Drew Maatman		
Sheet: /PIC18F Programming/		
File: PIC18F_Programming.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 6/24

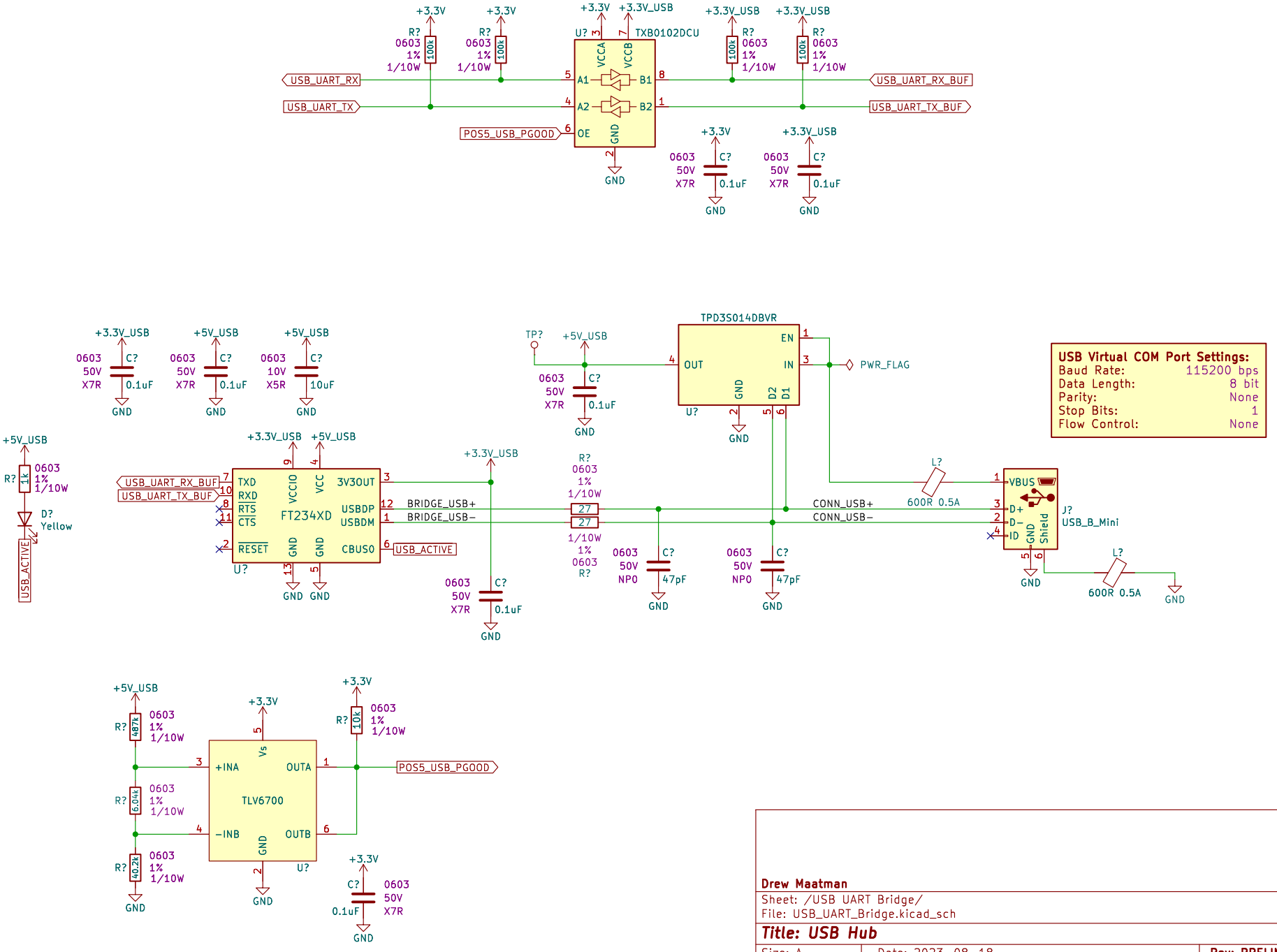


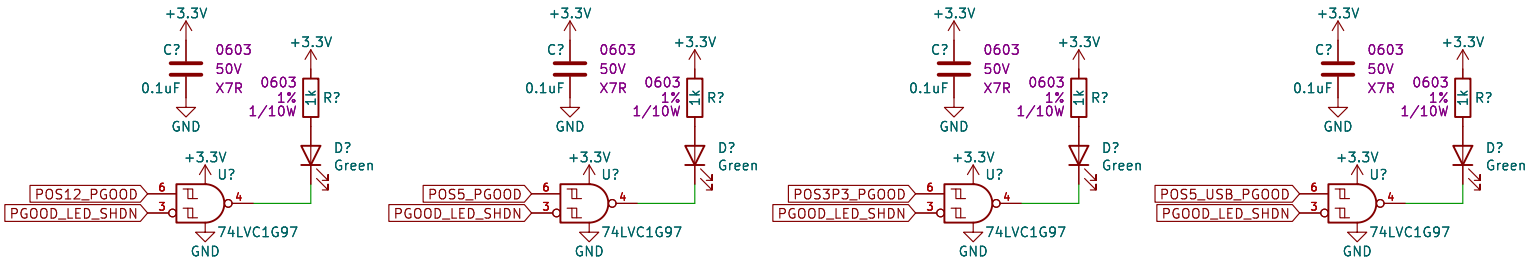
Drew Maatman

Sheet: /PIC18F Core/
File: PIC18F_Core.kicad_sch

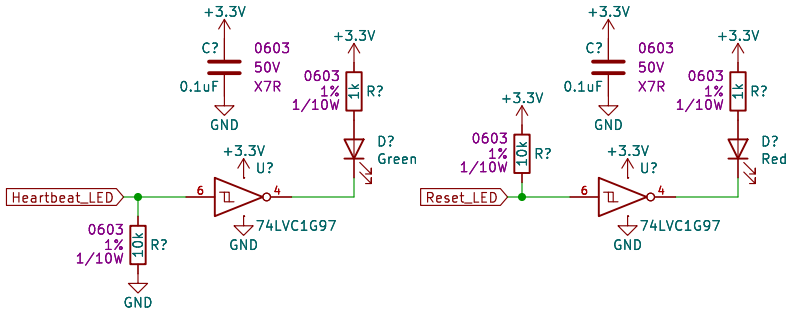
Title: USB Hub

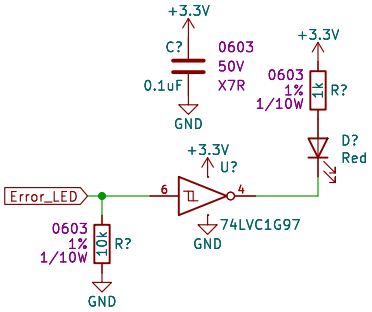
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 7/24


+3.3V
+3.3V_USB
+5V_USB
TXB0102DCU
TPD3S014DBVR
FT234XD
TLV6700
USB_UART_RX
USB_UART_TX
USB_UART_RX_BUF
USB_UART_TX_BUF
POS5_USB_PGOOD
USB_ACTIVE
BRIDGE_USB+
BRIDGE_USB−
CONN_USB+
CONN_USB−
PWR_FLAG
USB_B_Mini
USB Virtual COM Port Settings:
Baud Rate: 115200 bps
Data Length: 8 bit
Parity: None
Stop Bits: 1
Flow Control: None
Drew Maatman
Sheet: /USB UART Bridge/
File: USB_UART_Bridge.kicad_sch
Title: USB Hub
Size: A
Date: 2023-08-18
Rev: PRELIM
KiCad E.D.A. kicad 7.0.1
Id: 8/24

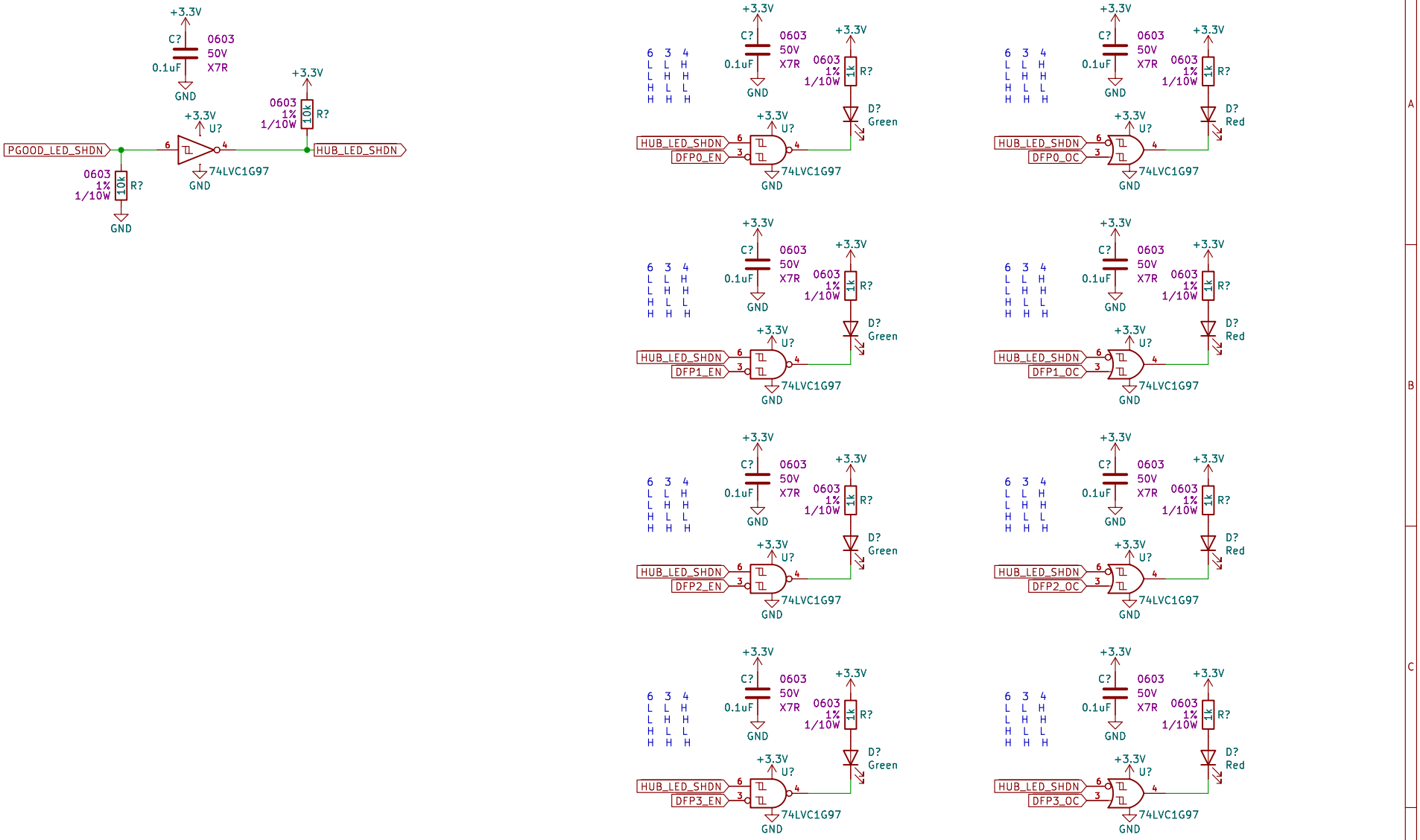


Drew Maatman		
Sheet: /PGOOD LEDs/		
File: PGOOD_LEDs.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 9/24





Drew Maatman		
Sheet: /Status LEDs/		
File: Status_LEDs.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 10/24



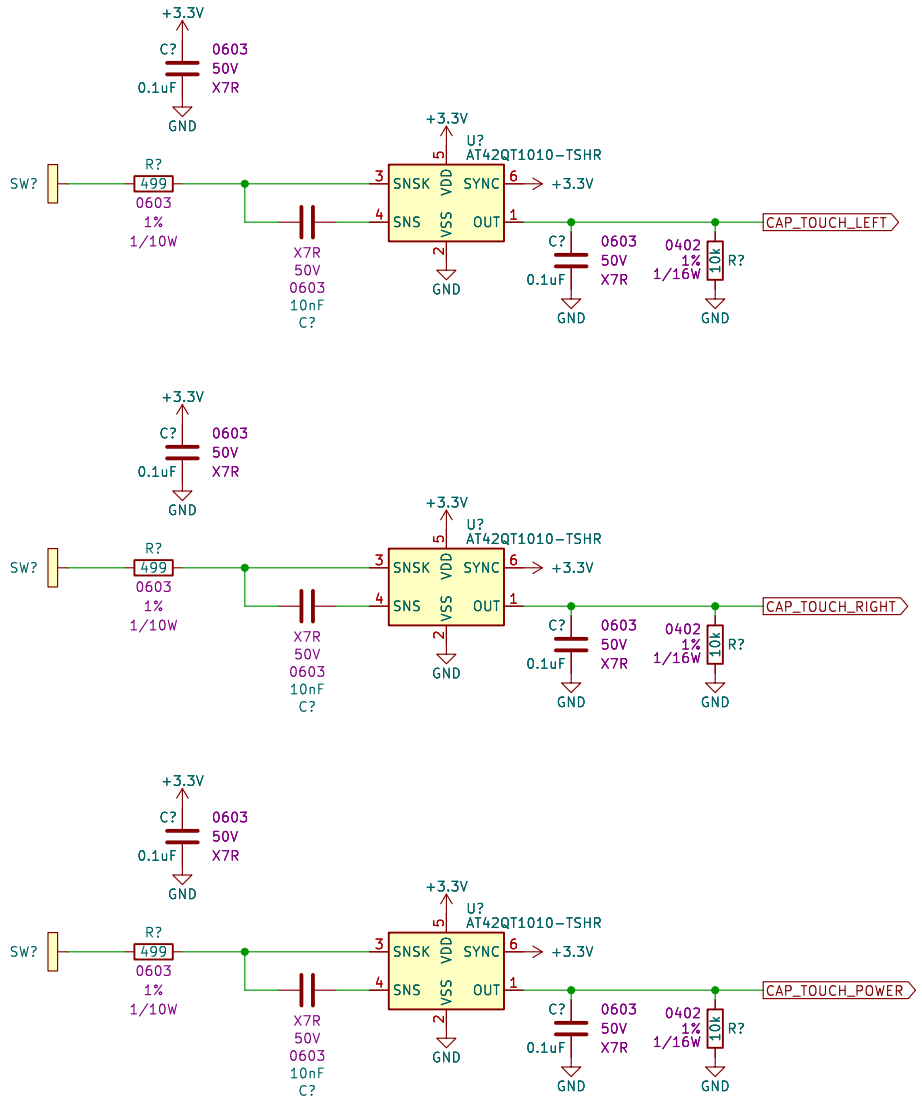
Drew Maatman		
Sheet: /Hub LEDs/		
File: Hub_LEDs.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 11/24

Drew Maatman

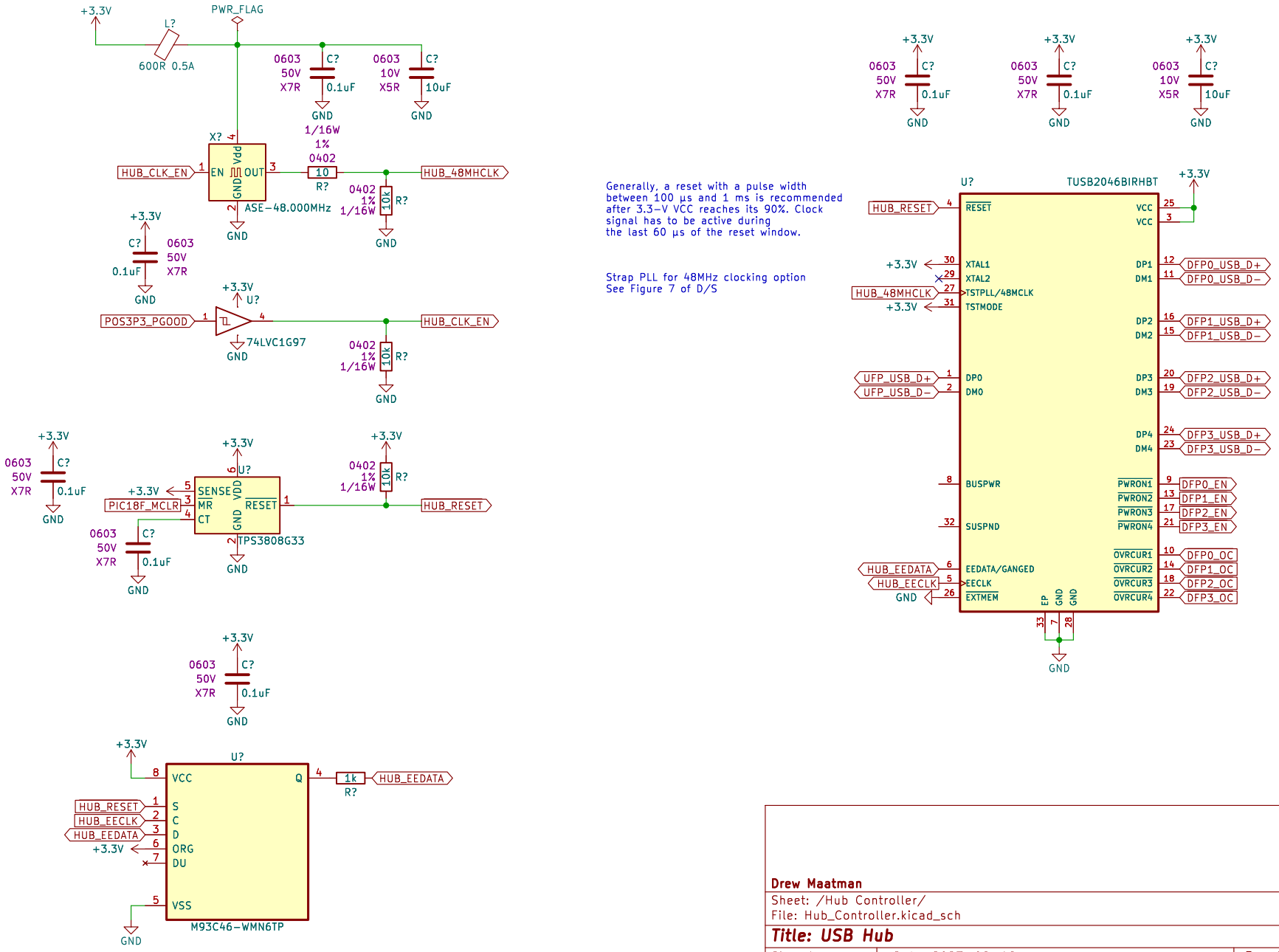
Sheet: /Display/
File: Display.kicad_sch

Title: USB Hub

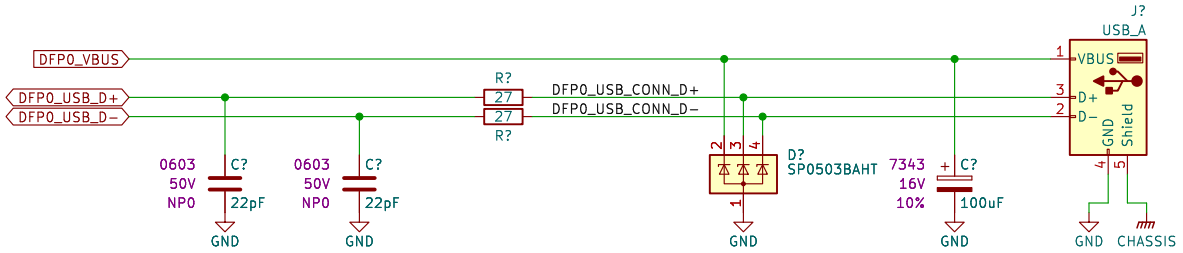
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 12/24



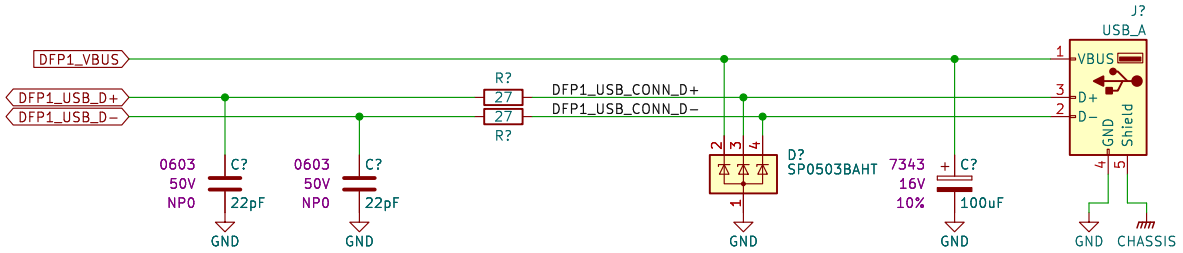
Drew Maatman		
Sheet: /Pushbuttons/		
File: Pushbuttons.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 13/24



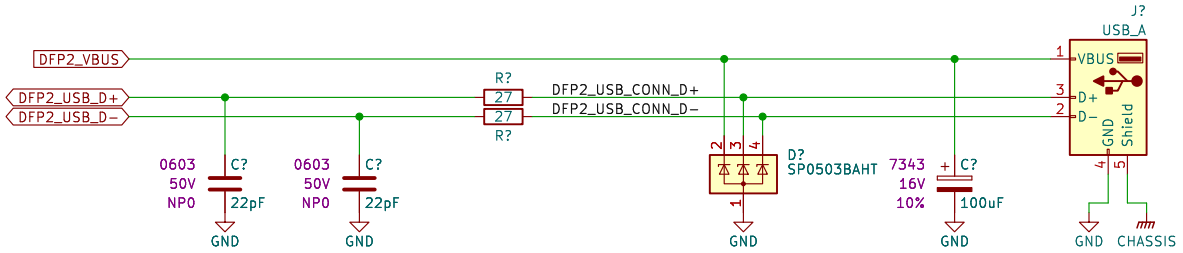
Drew Maatman		
Sheet: /Hub Controller/		
File: Hub_Controller.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 15/24



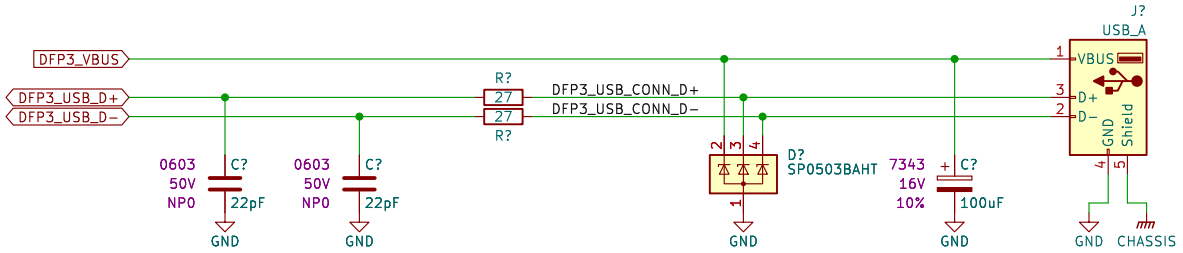
Drew Maatman		
Sheet: /Downstream Port 0/		
File: Downstream_Port_0.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 16/24



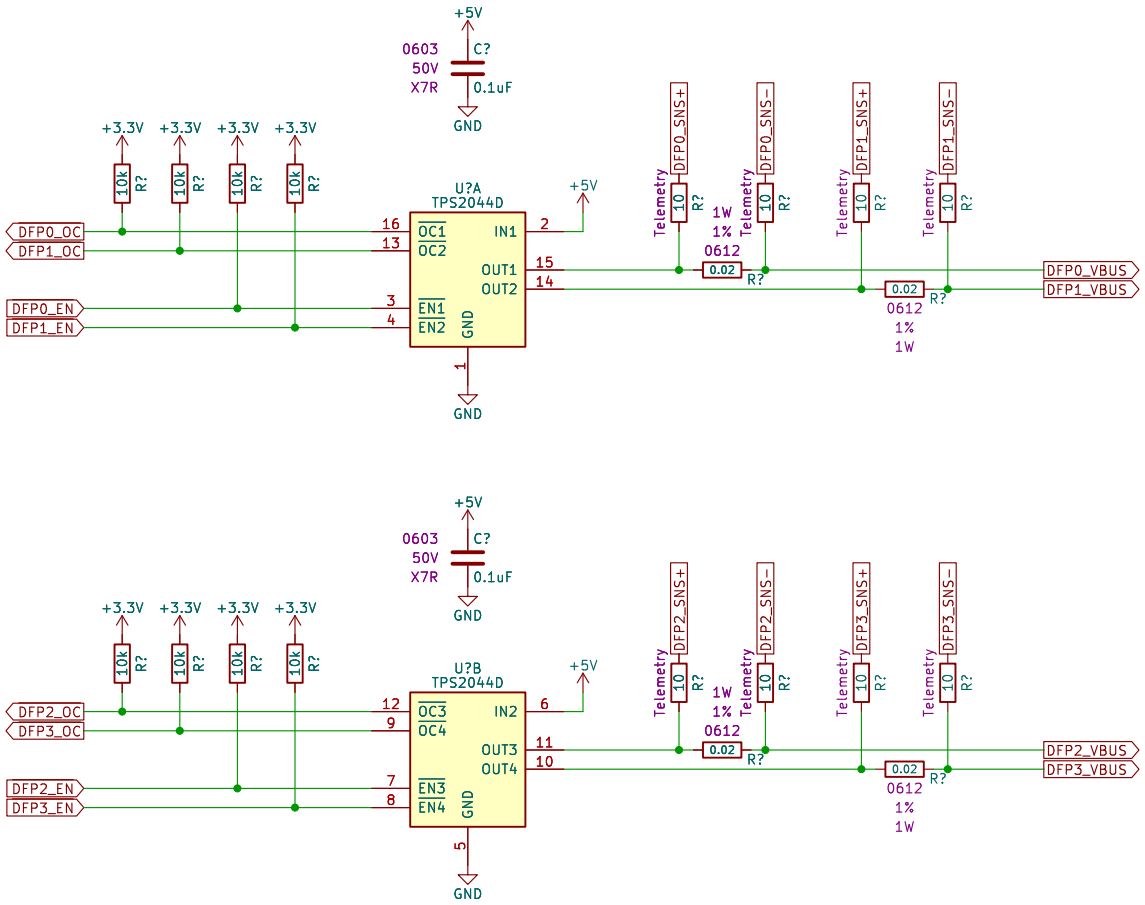
Drew Maatman		
Sheet: /Downstream Port 1/		
File: Downstream_Port_1.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 17/24



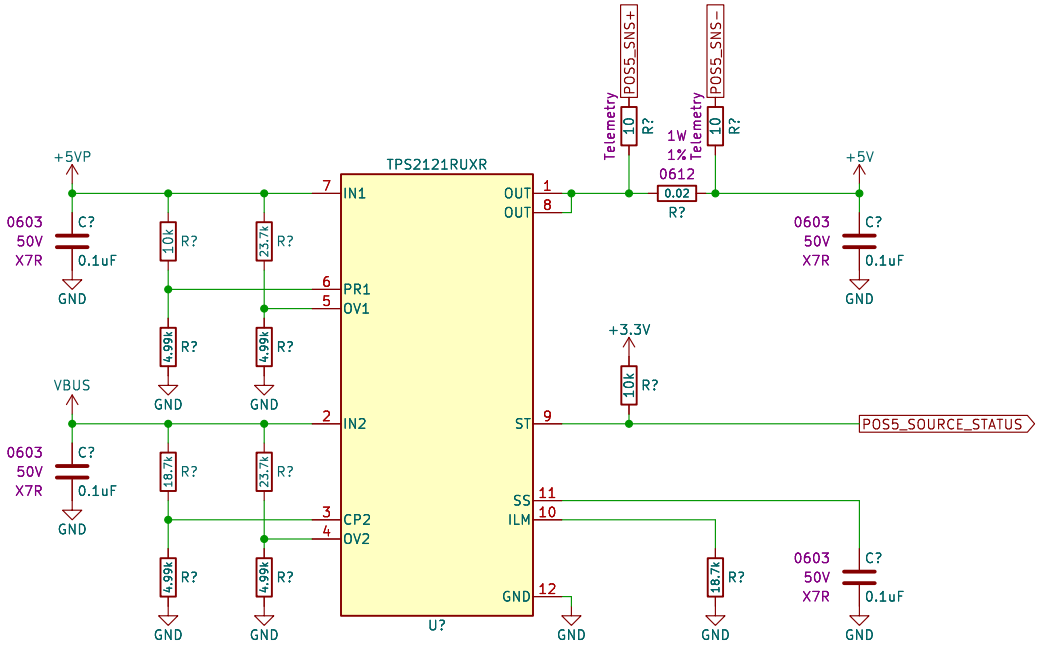
Drew Maatman		
Sheet: /Downstream Port 2/		
File: Downstream_Port_2.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 18/24



Drew Maatman		
Sheet: /Downstream Port 3/		
File: Downstream_Port_3.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 19/24



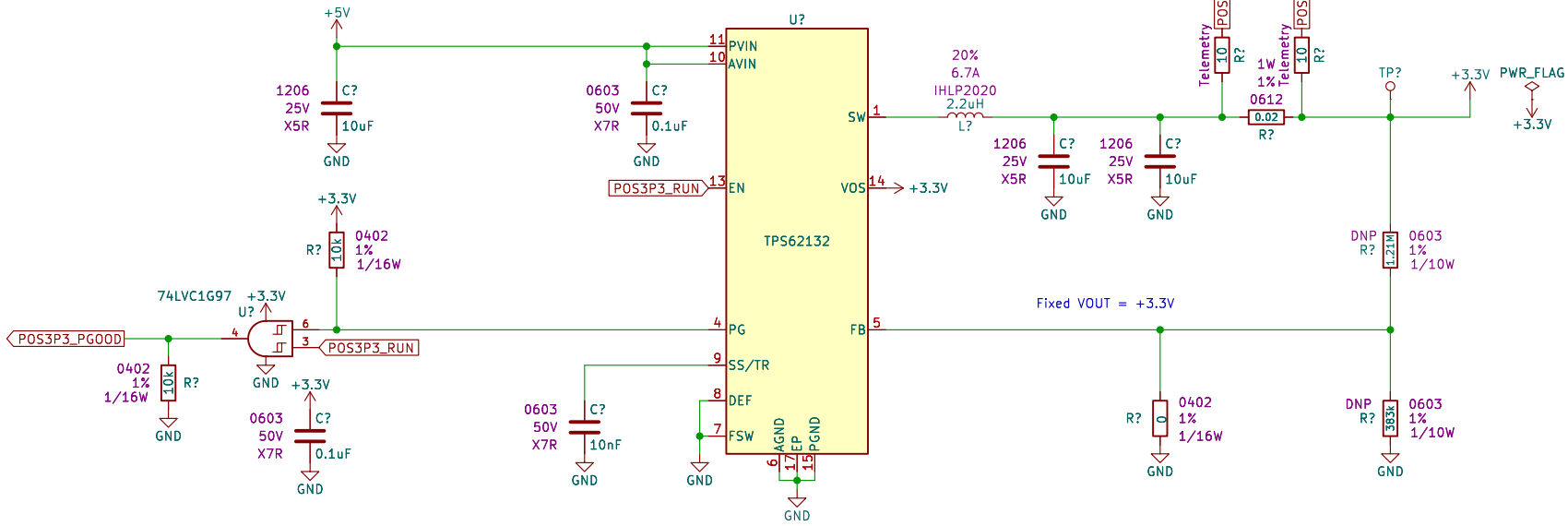
Drew Maatman		
Sheet: /Port Power Control/		
File: port_power_control.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 20/24

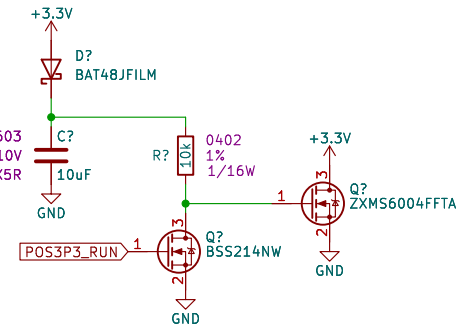


OVP ~ 6V on IN1, IN2
IN1 is prioritized unless IN1 is under PR1 threshold

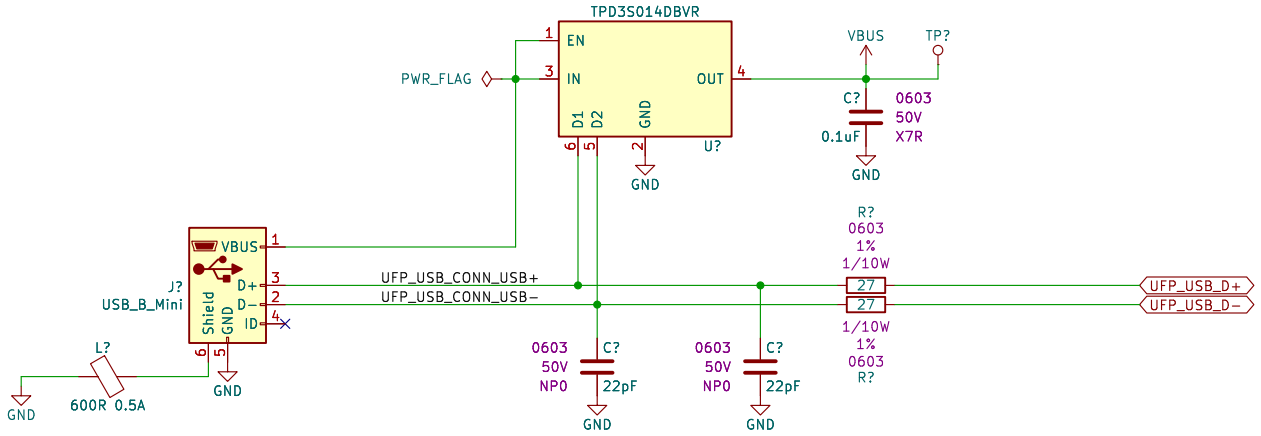
Output current limit = 5.2A (4.6A min, 5.8A max)
Output slew rate = 780mV/ms

Drew Maatman		
Sheet: /Power ORing/		
File: power_oring.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 21/24

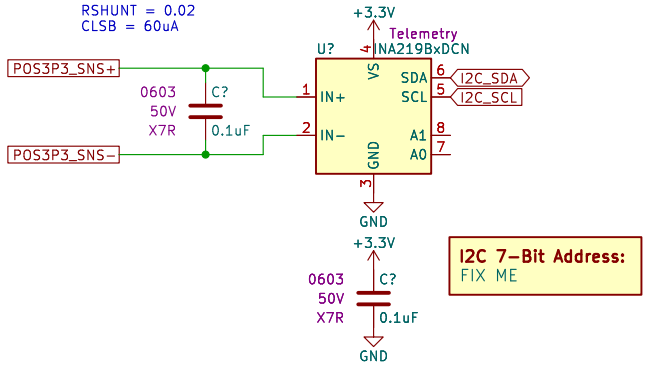


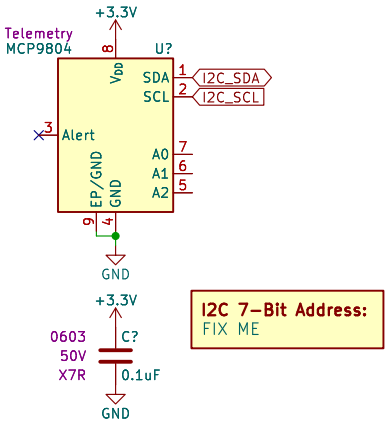


Drew Maatman		
Sheet: /+3.3V Power Supply/		
File: POS3P3_Power_Supply.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 22/24

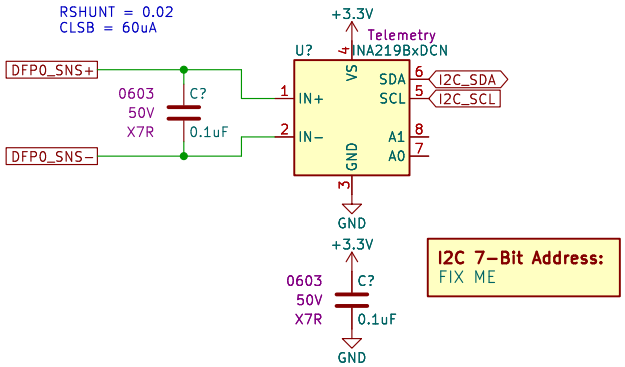


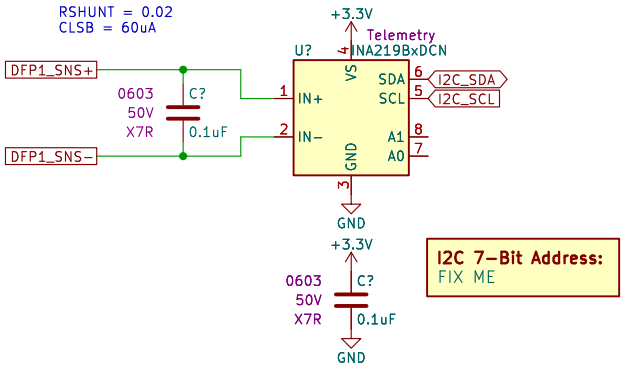
Drew Maatman		
Sheet: /Upstream Port/		
File: Upstream_Port.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023-08-18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 22/24

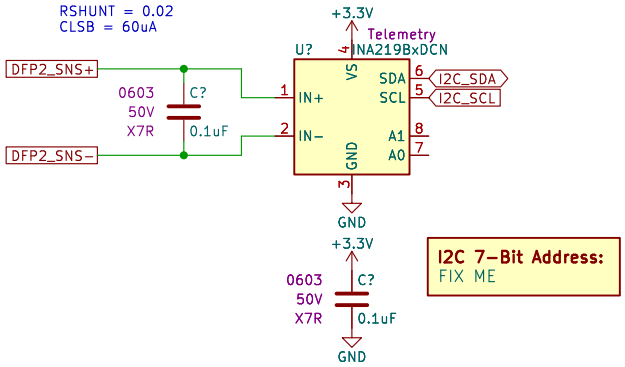


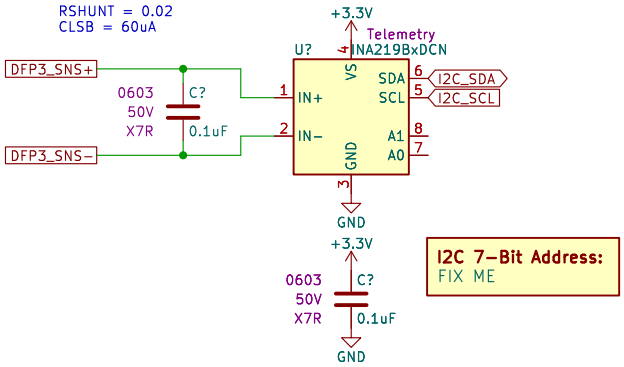


Drew Maatman		
Sheet: /+3.3V Telemetry/		
File: POS3P3_Telemetry.kicad_sch		
Title: USB Hub		
Size: A	Date: 2023−08−18	**Rev: PRELIM**
KiCad E.D.A. kicad 7.0.1		Id: 23/24









Sheet: /Port Telemetry/
File: Port_Telemetry.kicad_sch

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.1		Id: 24/24