Sheet: +12V Input

File: POS12_Input.sch

Sheet: +12V Telemetry

File: POS12_Telemetry.sch

Sheet: +3.3V Power Supply

File: POS3P3_Power_Supply.sch

Sheet: +5V Power Supply

File: POS5_Power_Supply.sch

Sheet: Microcontroller

File: Microcontroller.sch

Sheet: Microcontroller Programming

File: Microcontroller_Programming.sch

Sheet: Microcontroller Bypass

File: Microcontroller_Bypass.sch

Sheet: TELEM I2C Buffer

File: TELEM_I2C_Buffer.sch

Sheet: Status LEDs

File: Status_LEDs.sch

Sheet: PGOOD LEDs

File: PGOOD_LEDs.sch

Sheet: +60V VAN Power Supply

File: POS60_VAN_Power_Supply.sch

Sheet: +1.2V VFF Power Supply

File: POS1P2_VFF_Power_Supply.sch

Sheet: +3.3V BCKP Supply

File: POS3P3_BCKP_Supply.sch

Sheet: USB UART Bridge

File: USB_UART_Bridge.sch

Sheet: USB UART Isolation

File: USB_UART_Isolation.sch

Sheet: IO Connectors

File: IO_Connectors.sch

Sheet: IO Buffers 1

File: IO_Buffers_1.sch

Sheet: IO Buffers 2

File: IO_Buffers_2.sch

Sheet: Mechanical

File: Mechanical.sch

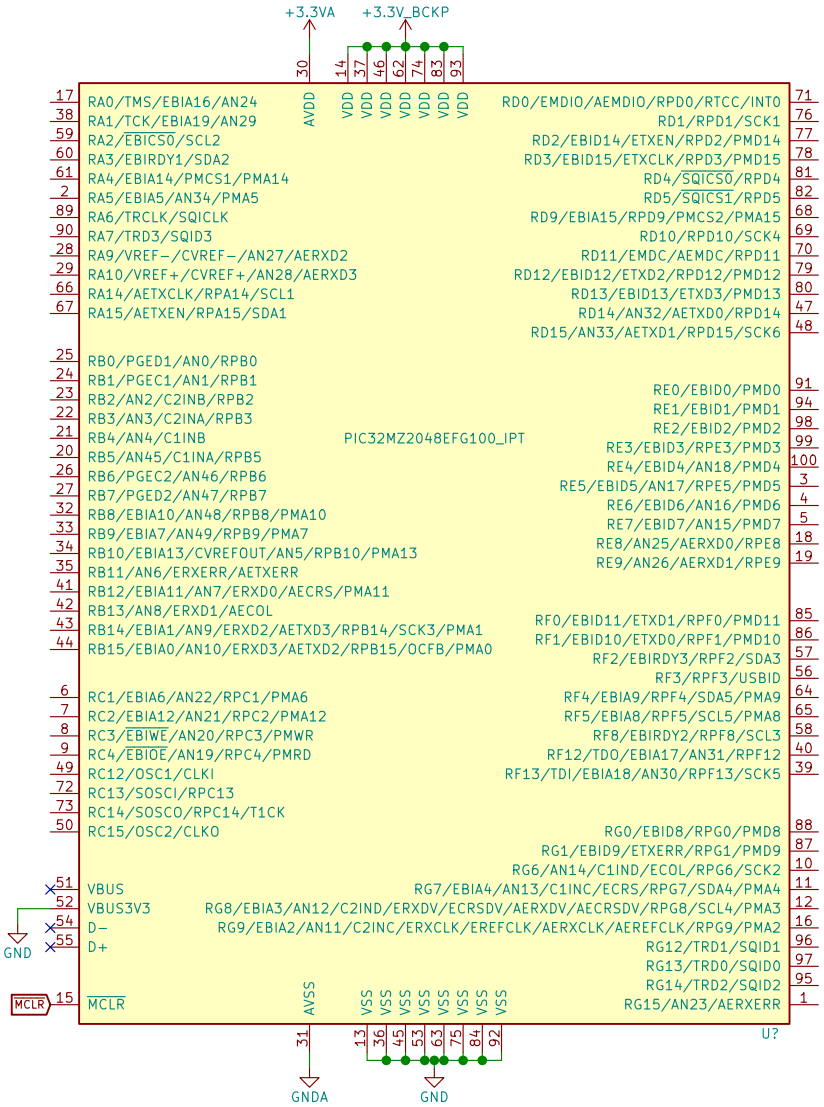
**Drew Maatman**

Sheet: /

File: VFD_Clock.sch

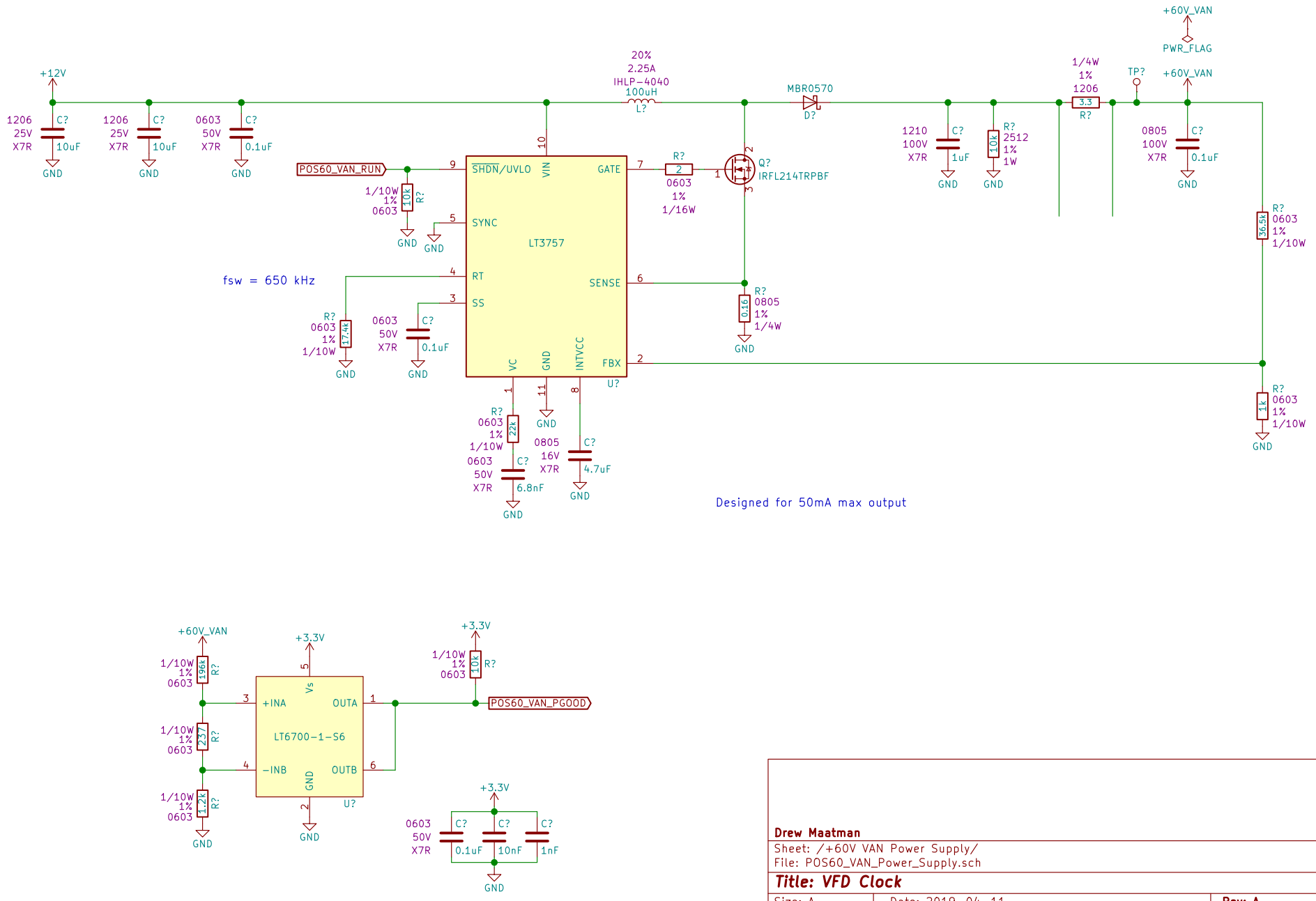
**Title: VFD Clock**

| Size: A | Date: 2019-04-11 | **Rev: A** |
|---|---|---|
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 1/20 |




| | | |
|---|---|---|
| **Drew Maatman** | | |
| Sheet: /Microcontroller/ | | |
| File: Microcontroller.sch | | |
| ***Title: VFD Clock*** | | |
| Size: A | Date: 2019-04-11 | **Rev: A** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 2/20 |

# Anode/Grid +60V, 50mA Power Supply




| | |
|---|---|
| **Drew Maatman** | |
| Sheet: /+60V VAN Power Supply/ | |
| File: POS60_VAN_Power_Supply.sch | |
| ***Title: VFD Clock*** | |
| Size: A \| Date: 2019-04-11 | **Rev: A** |
| KiCad E.D.A. kicad (5.1.4)-1 | Id: 3/20 |

# +1.2V VFF Power Supply

**Drew Maatman**

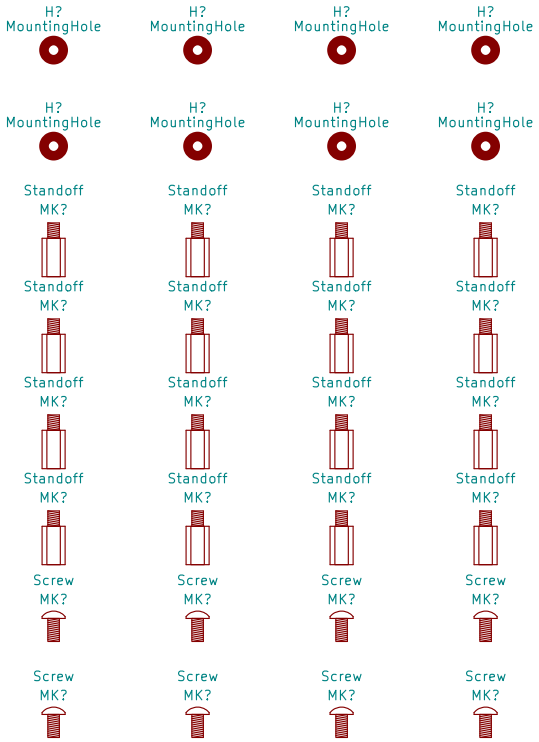
Sheet: /+1.2V VFF Power Supply/
File: POS1P2_VFF_Power_Supply.sch

***Title: VFD Clock***

| Size: A | Date: 2019-04-11 | **Rev: A** |
|---|---|---|
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 4/20 |

1.996 V/A

# Mechanical Components




| | | |
|---|---|---|
| **Drew Maatman** | | |
| Sheet: /Mechanical/ | | |
| File: Mechanical.sch | | |
| ***Title: VFD Clock*** | | |
| Size: A | Date: 2019-04-11 | **Rev: A** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 5/20 |

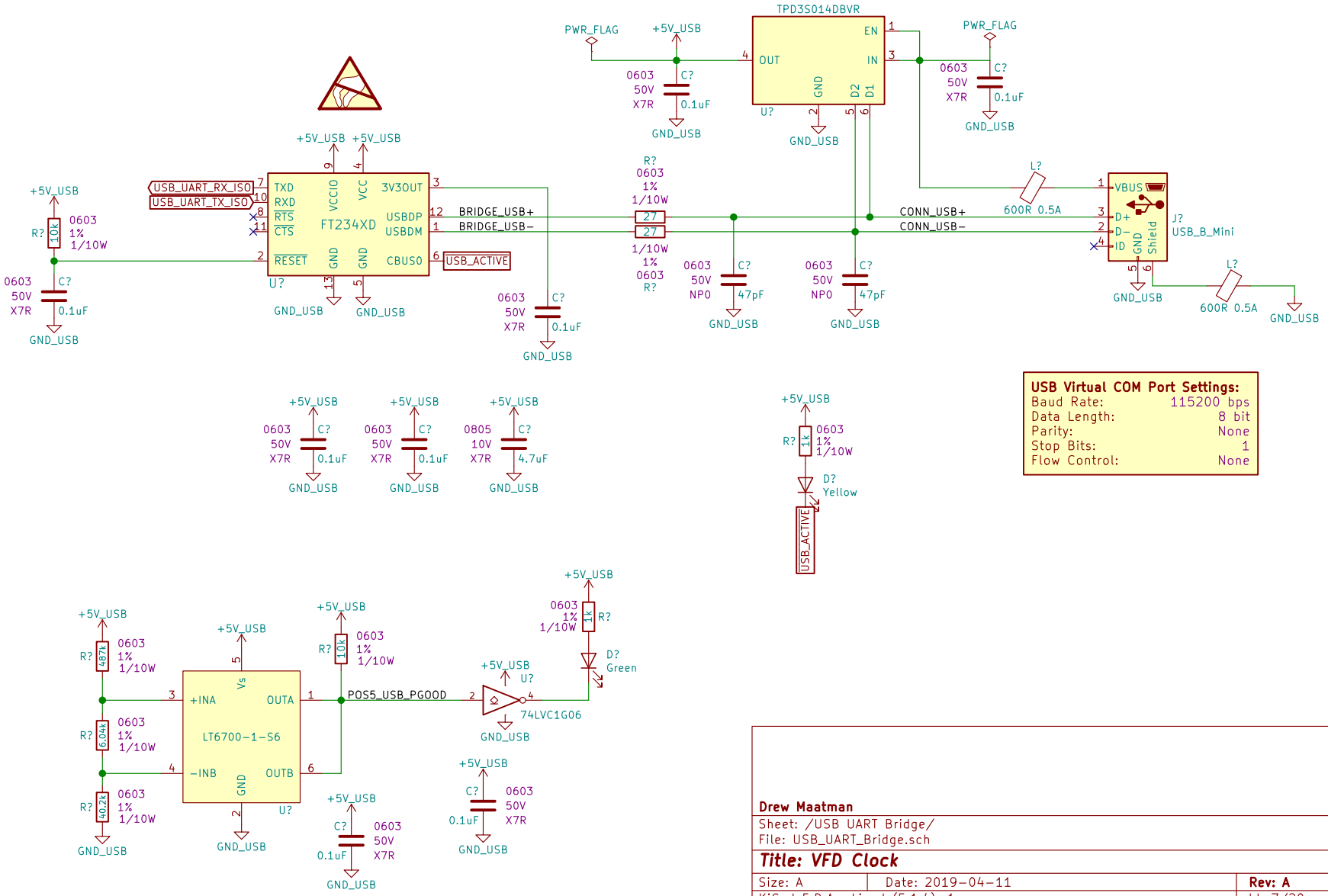
**Drew Maatman**

Sheet: /+3.3V BCKP Supply/
File: POS3P3_BCKP_Supply.sch

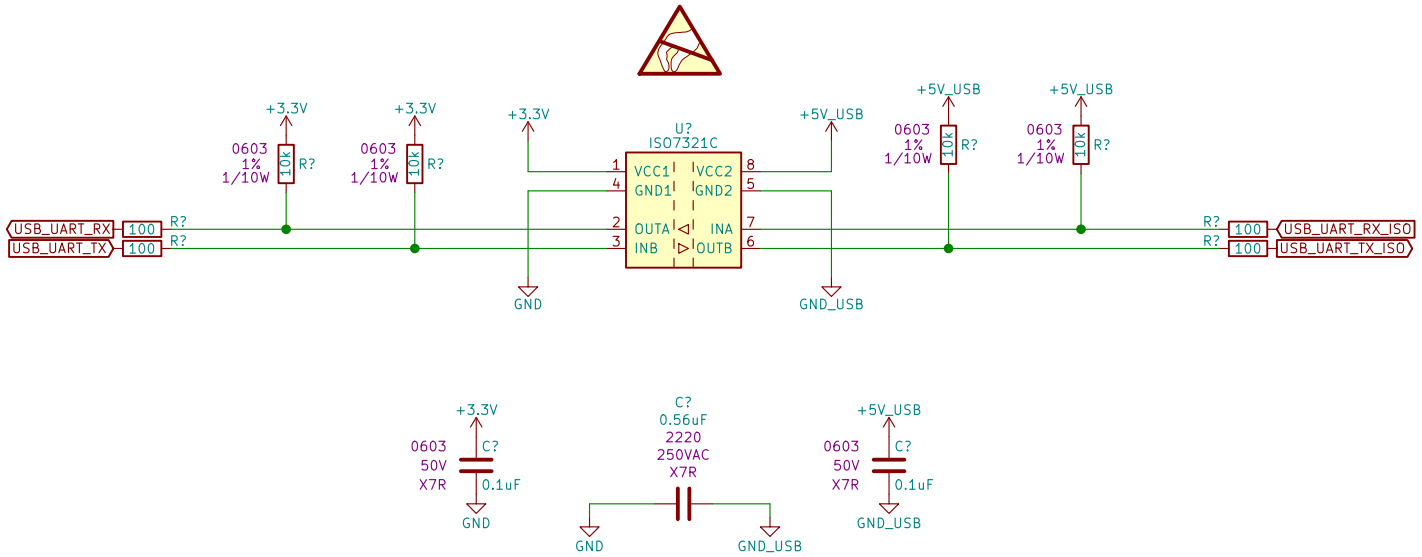
***Title: VFD Clock***

| Size: A | Date: 2019-04-11 | **Rev: A** |
|---|---|---|
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 6/20 |

# 11. USB UART Bridge

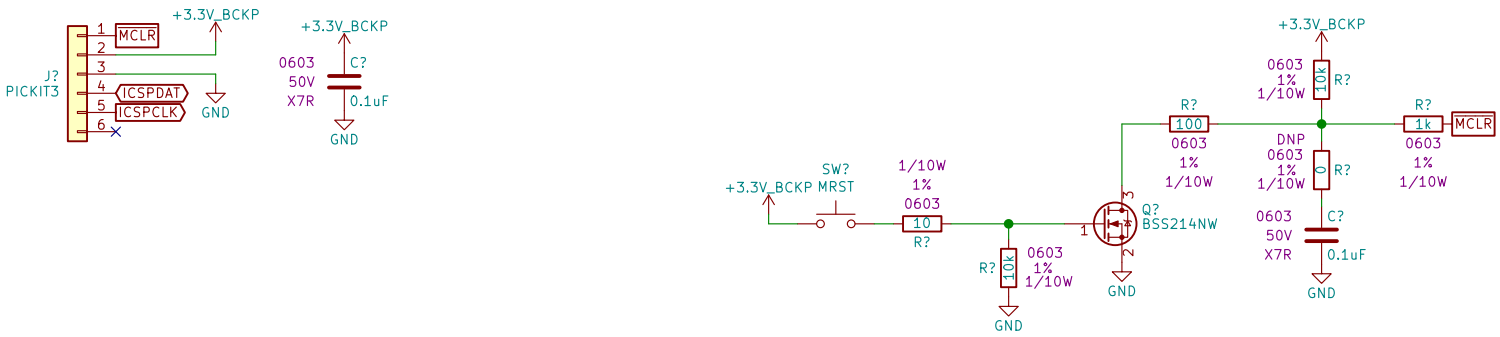


# 10. USB UART Digital Isolation

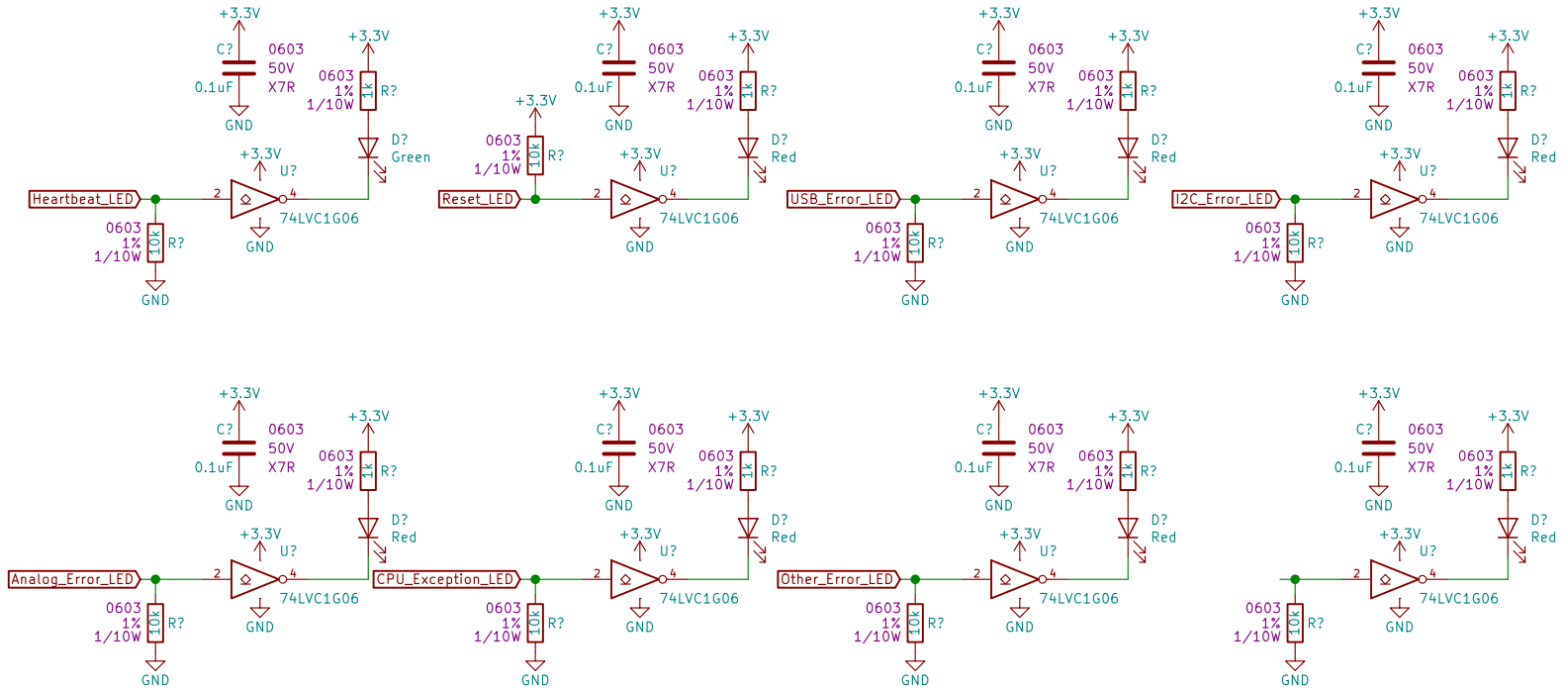



| | | |
|---|---|---|
| Drew Maatman | | |
| Sheet: /USB UART Isolation/ | | |
| File: USB_UART_Isolation.sch | | |
| **Title: VFD Clock** | | |
| Size: A | Date: 2019-04-11 | **Rev: A** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 8/20 |

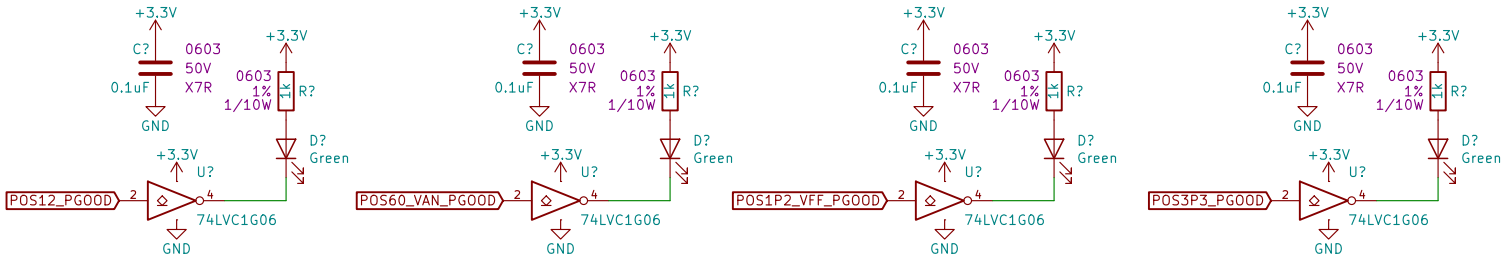
# Microcontroller Programming



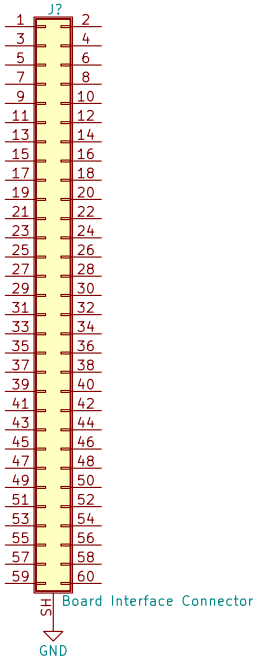

| | | |
|---|---|---|
| **Drew Maatman** | | |
| Sheet: /Microcontroller Programming/ | | |
| File: Microcontroller_Programming.sch | | |
| ***Title: VFD Clock*** | | |
| Size: A | Date: 2019-04-11 | **Rev: A** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 9/20 |




| | | |
|---|---|---|
| Sheet: /Status LEDs/<br>File: Status_LEDs.sch | | |
| **Title:** | | |
| Size: A | Date: | **Rev:** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 10/20 |

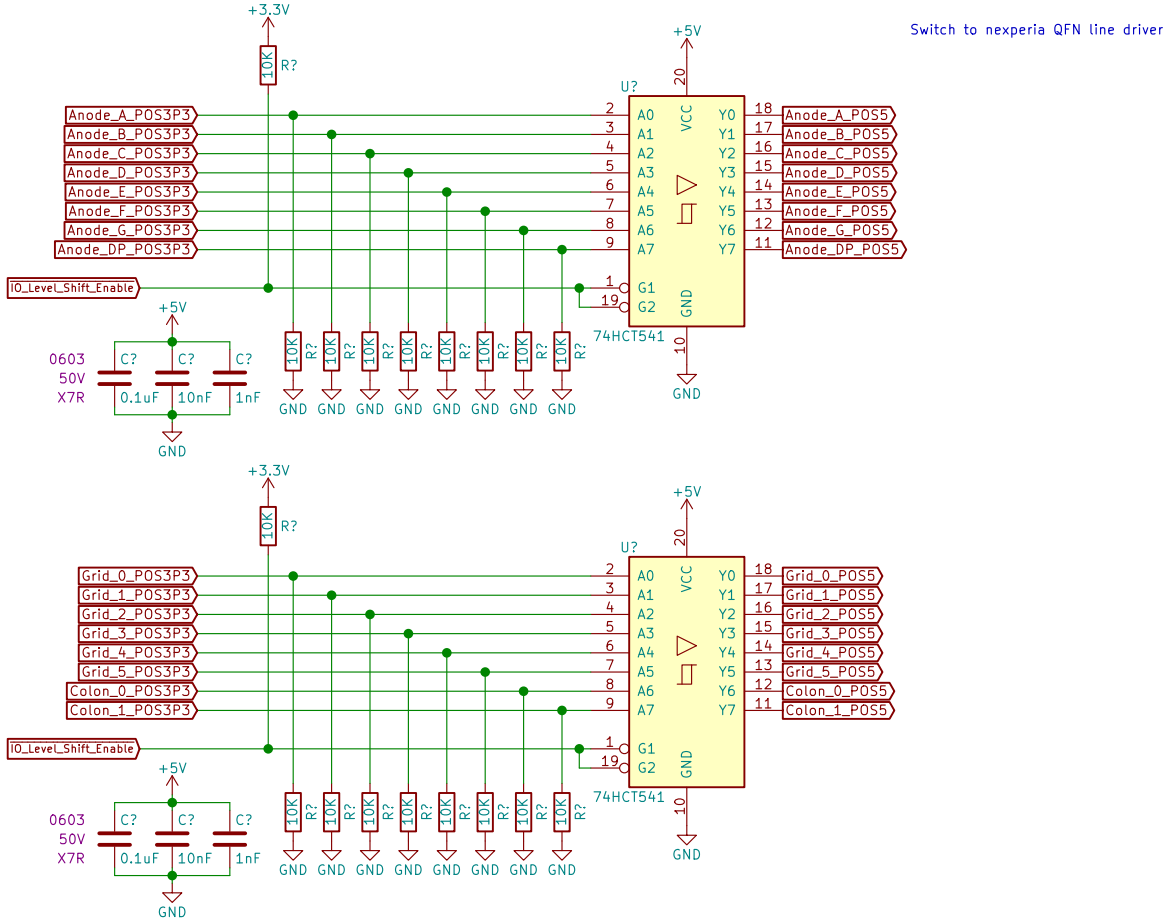



| | | |
|---|---|---|
| Sheet: /PGOOD LEDs/<br>File: PGOOD_LEDs.sch | | |
| **Title:** | | |
| Size: A | Date: | **Rev:** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 11/20 |

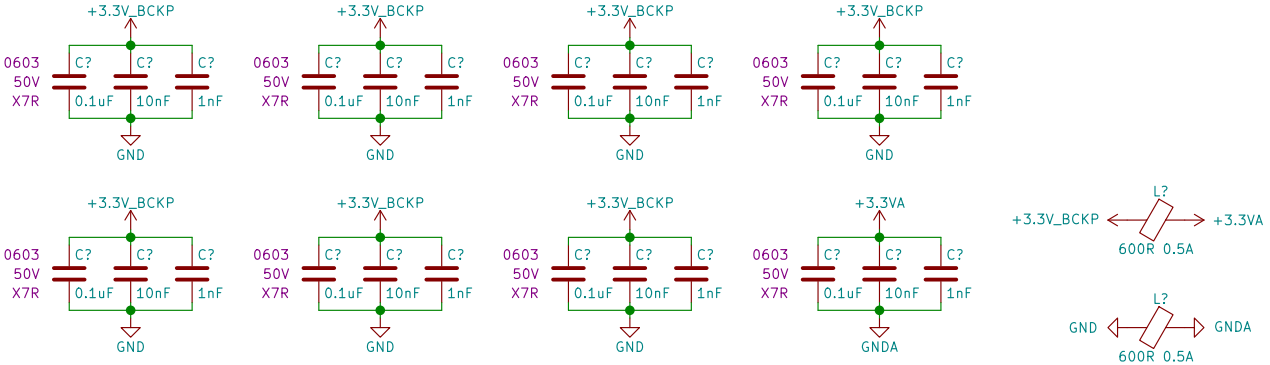



| | | |
|---|---|---|
| Sheet: /IO Connectors/<br>File: IO_Connectors.sch | | |
| **Title:** | | |
| Size: A | Date: | **Rev:** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 12/20 |

# I/O Buffers

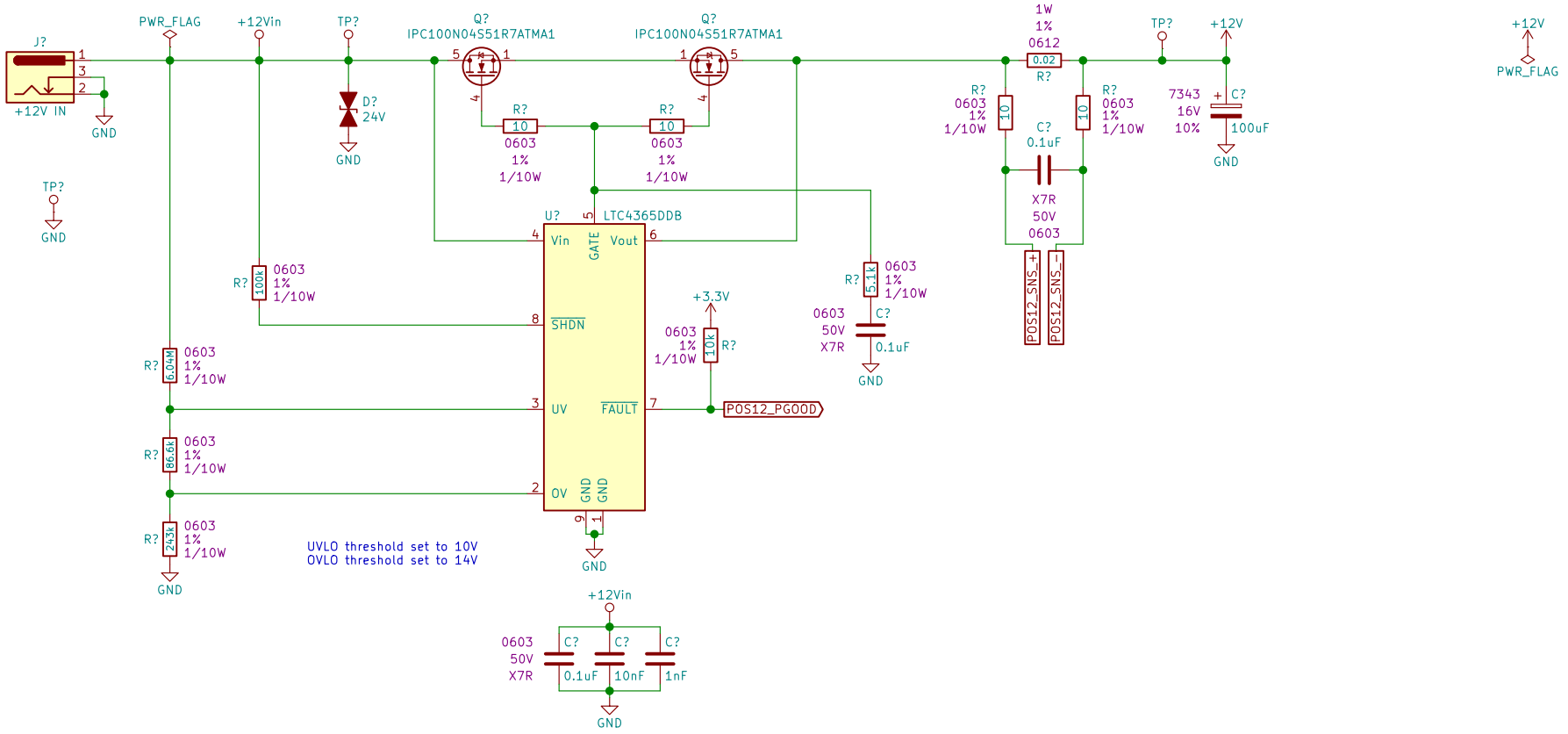



| | | |
|---|---|---|
| Marquette University Senior Design 2018/2019 Group E44 | | |
| Sheet: /IO Buffers 1/ | | |
| File: IO_Buffers_1.sch | | |
| **Title: Electronic Display Logic Board** | | |
| Size: A | Date: 2018-12-15 | **Rev: A** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 13/20 |




| | | |
|---|---|---|
| Sheet: /Microcontroller Bypass/ | | |
| File: Microcontroller_Bypass.sch | | |
| **Title:** | | |
| Size: A | Date: | **Rev:** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 14/20 |

# 02. +12V Input




| | | |
|---|---|---|
| Sheet: /+12V Input/ | | |
| File: POS12_Input.sch | | |
| **Title: QI Charger** | | |
| Size: A | Date: 2019-01-03 | **Rev: A** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 15/20 |

Sheet: /+3.3V Power Supply/
File: POS3P3_Power_Supply.sch

**Title:**

| Size: A | Date: | **Rev:** |
|---|---|---|
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 16/20 |

LT8606? LT8607?

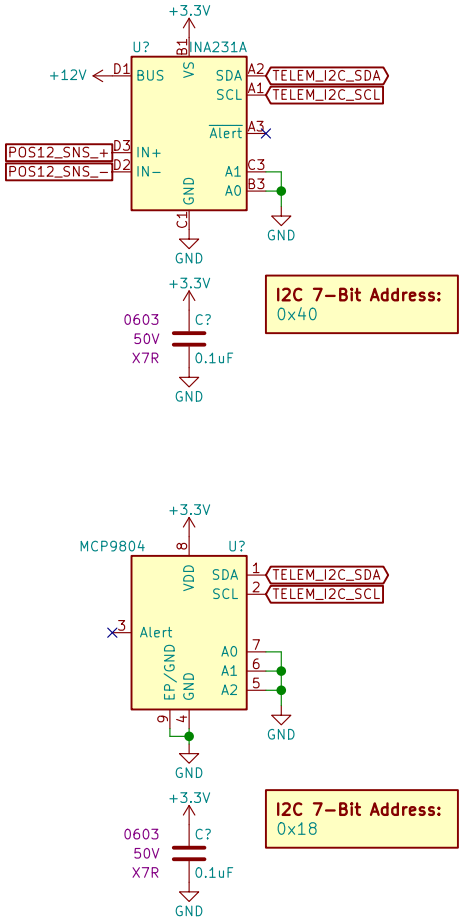
Sheet: /+5V Power Supply/
File: POS5_Power_Supply.sch

**Title:**

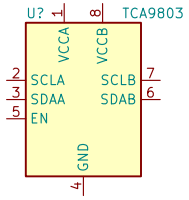
| Size: A | Date: | **Rev:** |
|---|---|---|
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 17/20 |

Add cap touch input buffers, menu LED outptu buffers, display board detection, etc

| | | |
|---|---|---|
| Sheet: /IO Buffers 2/<br>File: IO_Buffers_2.sch | | |
| **Title:** | | |
| Size: A | Date: | **Rev:** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 18/20 |




| | | |
|---|---|---|
| Sheet: /+12V Telemetry/ | | |
| File: POS12_Telemetry.sch | | |
| **Title:** | | |
| Size: A | Date: | **Rev:** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 19/20 |




READ DATASHEET, PULLUP/DECOUPLING WEIRDNESS

| | | |
|---|---|---|
| Sheet: /TELEM I2C Buffer/<br>File: TELEM_I2C_Buffer.sch | | |
| **Title:** | | |
| Size: A | Date: | **Rev:** |
| KiCad E.D.A. kicad (5.1.4)-1 | | Id: 20/20 |