Microcontroller

Microcontroller.sch

Microcontroller Programming

Microcontroller_Programming.sch

Microcontroller Bypass

Microcontroller_Bypass.sch

USB UART Bridge

USB_UART_Bridge.sch

USB UART Isolation

USB_UART_Isolation.sch

Status LEDs

Status_LEDs.sch

PGOOD LEDs

PGOOD_LEDs.sch

Rotary Encoder

Rotary_Encoder.sch

Temperature Sensors

Temperature_Sensors.sch

Mechanical

Mechanical.sch

Analog Conditioning

Analog_Conditioning.sch

+12V Input

POS12_Input.sch

+3.3V Power Supply

POS3P3_Power_Supply.sch

+5V Power Supply

POS5_Power_Supply.sch

+60V VAN Power Supply

POS60_VAN_Power_Supply.sch

+1.2V VFF Power Supply

POS1P2_VFF_Power_Supply.sch

+3.3V BCKP Supply

POS3P3_BCKP_Supply.sch

IO Connectors

IO_Connectors.sch

IO Buffers 1

IO_Buffers_1.sch

IO Buffers 2

IO_Buffers_2.sch

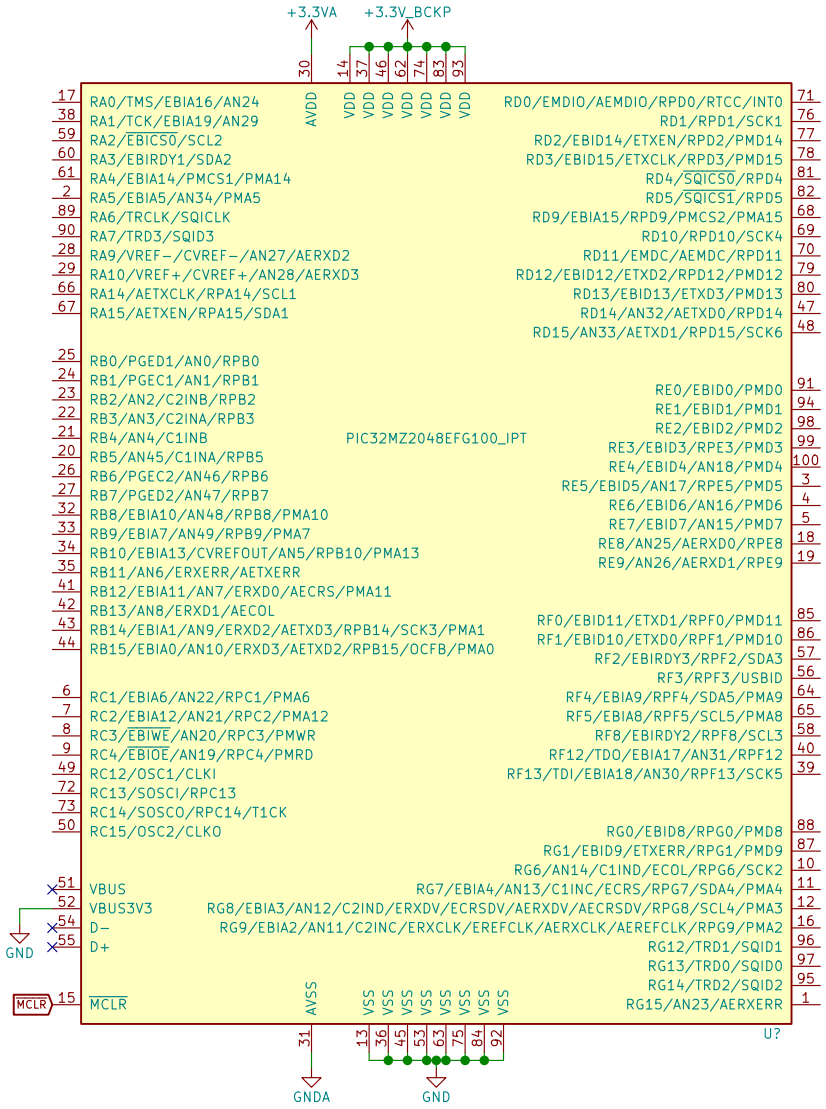
Drew Maatman

Sheet: /

File: VFD_Clock.sch

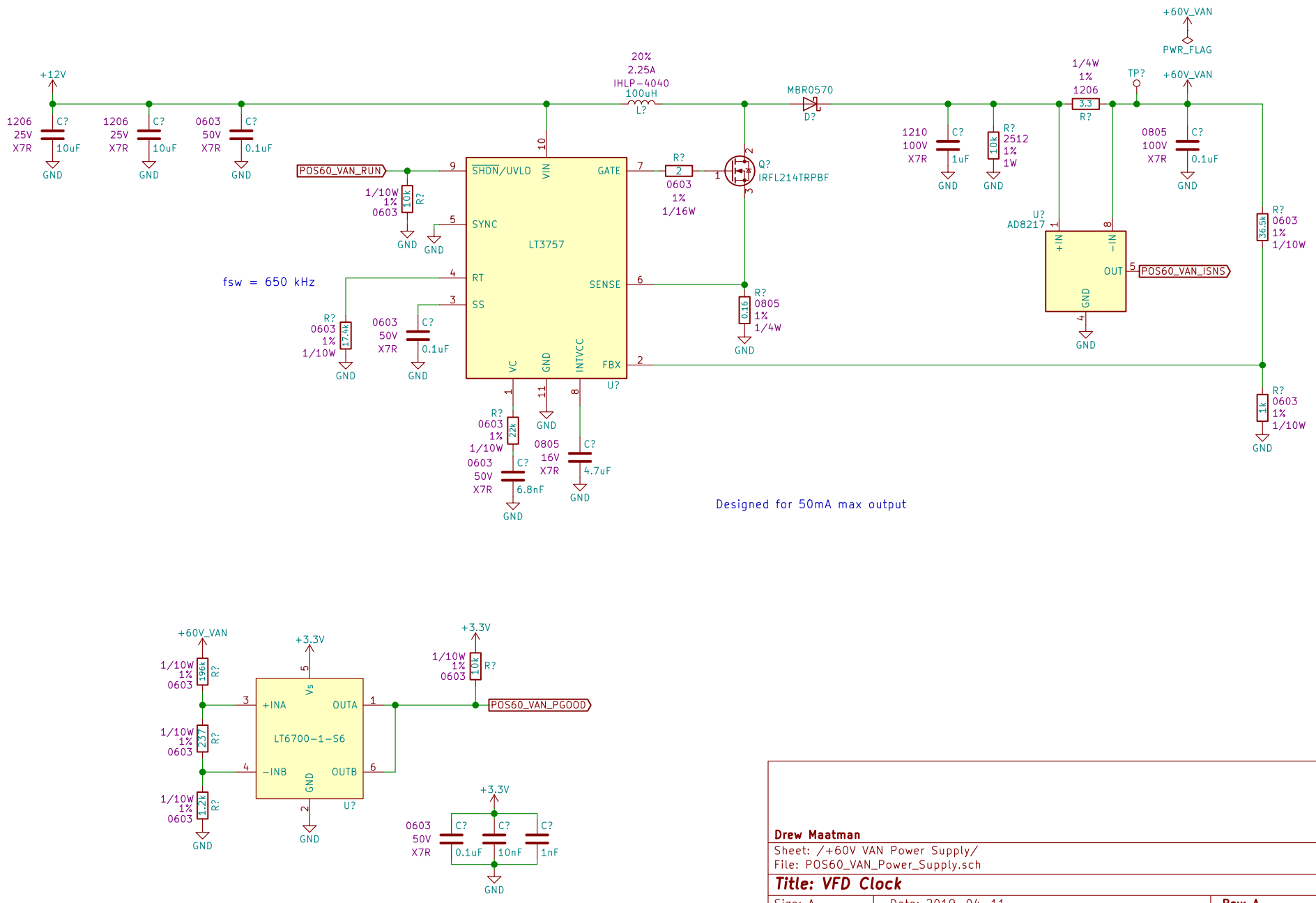
Title: VFD Clock

Size: A	Date: 2019-04-11	**Rev: A**
KiCad E.D.A. kicad (5.1.0)-1		Id: 1/21



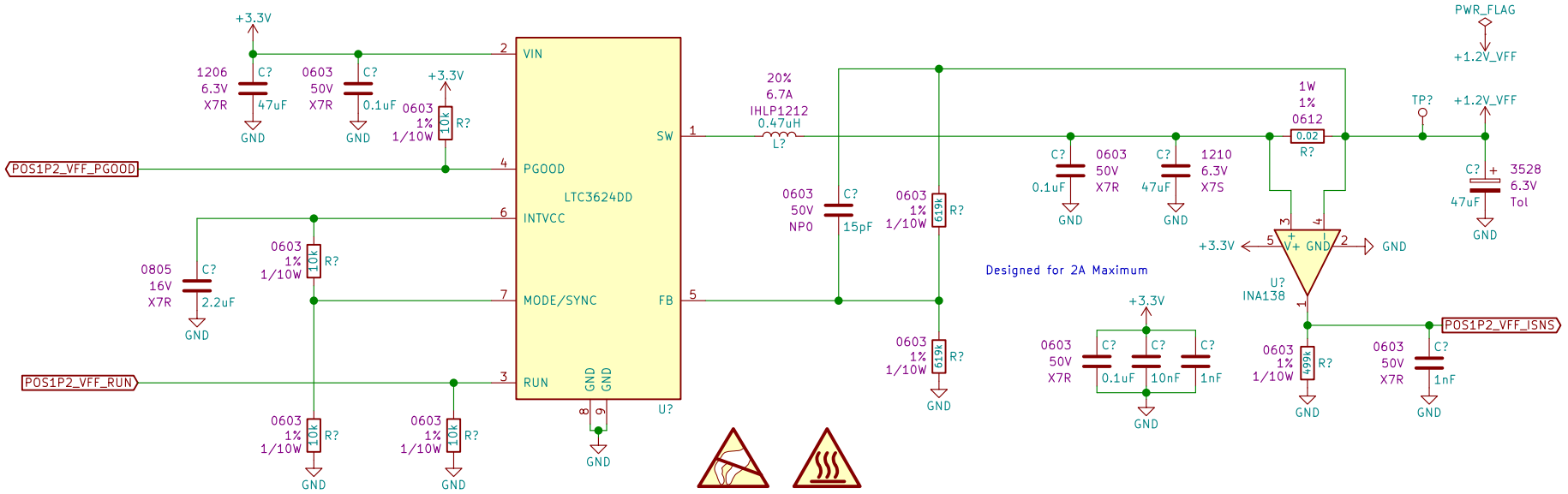
Drew Maatman		
Sheet: /Microcontroller/		
File: Microcontroller.sch		
Title: VFD Clock		
Size: A	Date: 2019-04-11	**Rev: A**
KiCad E.D.A. kicad (5.1.0)-1		Id: 2/21

Anode/Grid +60V, 50mA Power Supply



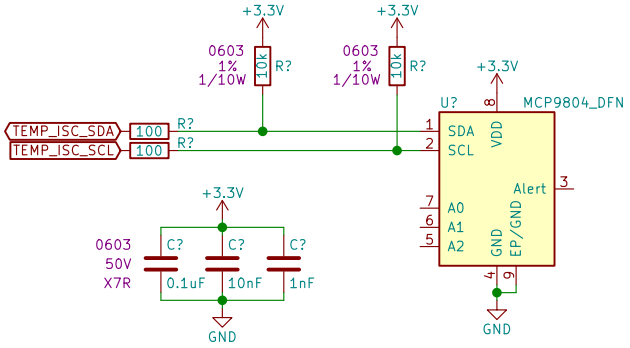
Drew Maatman	
Sheet: /+60V VAN Power Supply/	
File: POS60_VAN_Power_Supply.sch	
Title: VFD Clock	
Size: A	Date: 2019-04-11
KiCad E.D.A. kicad (5.1.0)-1	Id: 3/21

+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 (5.1.0)-1		Id: 4/21

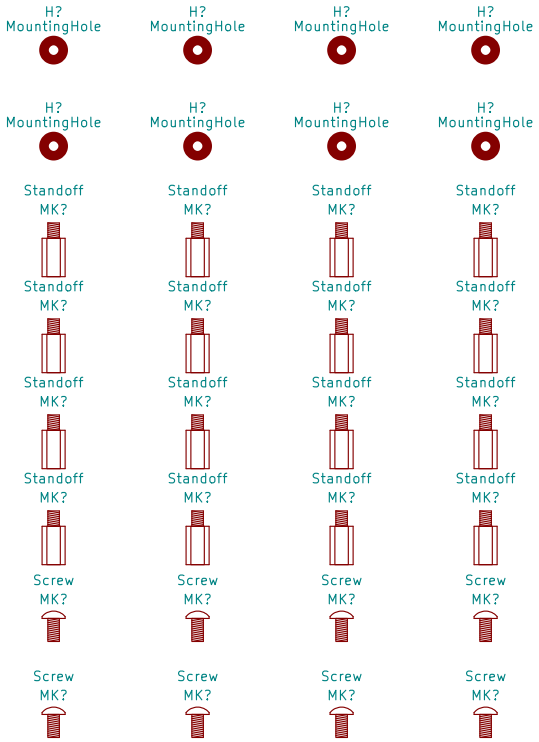
1.996 V/A



Drew Maatman	
Sheet: /Temperature Sensors/	
File: Temperature_Sensors.sch	
Title: VFD Clock	
Size: A	Date: 2019-04-11
KiCad E.D.A. kicad (5.1.0)-1	Id: 5/21

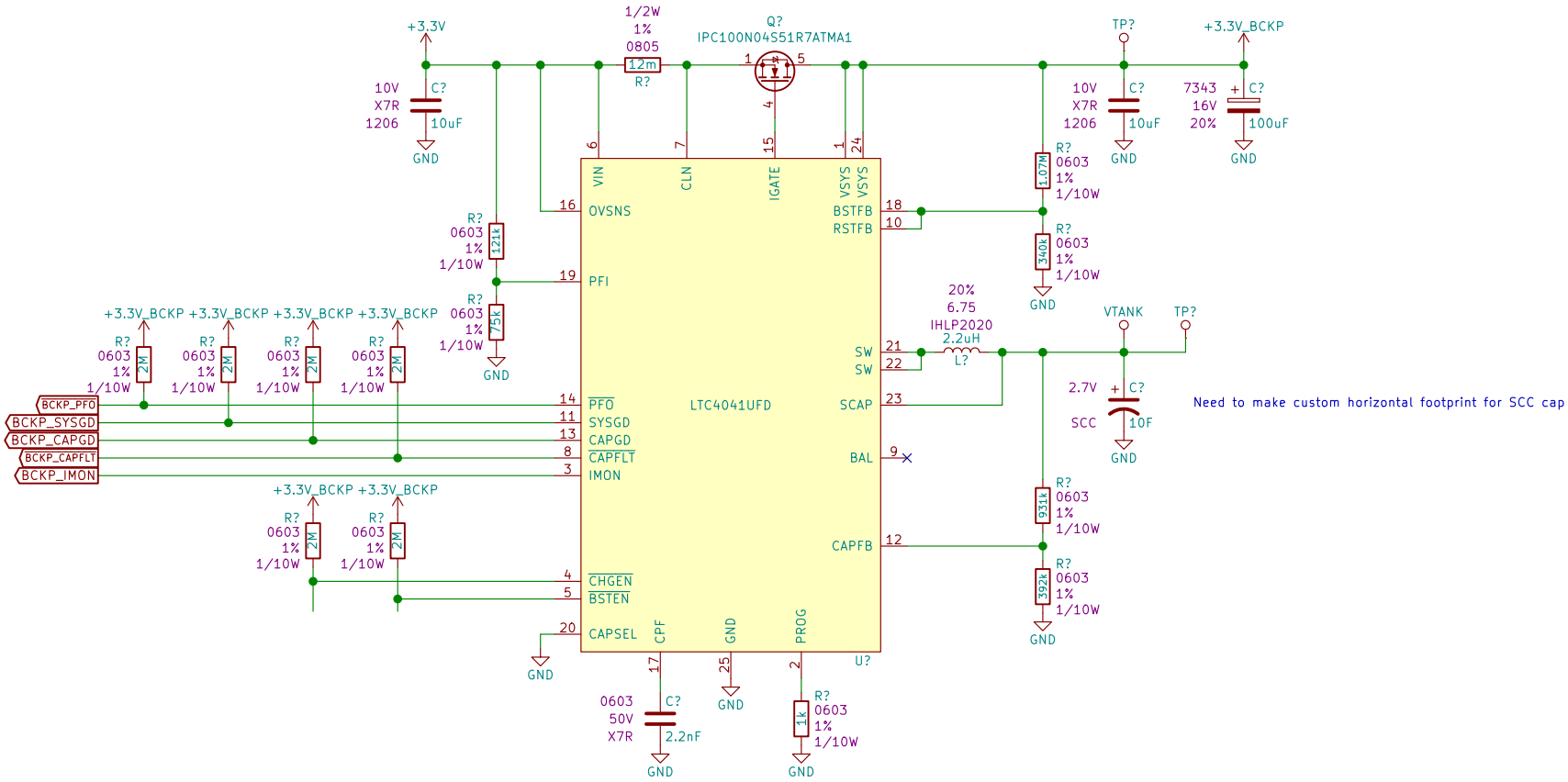
Rev: A

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 (5.1.0)-1		Id: 6/21

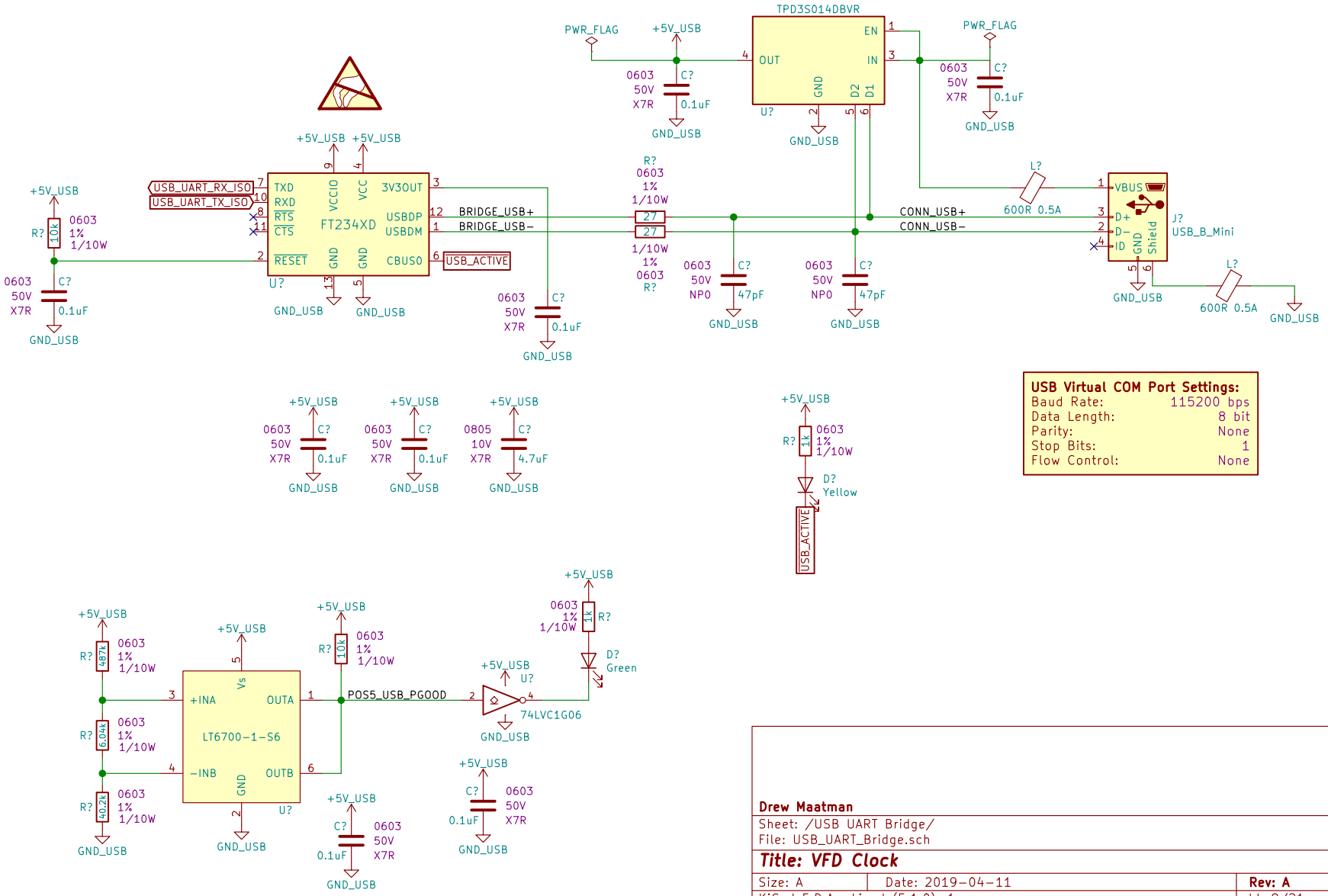
Supercap Backup Circuit



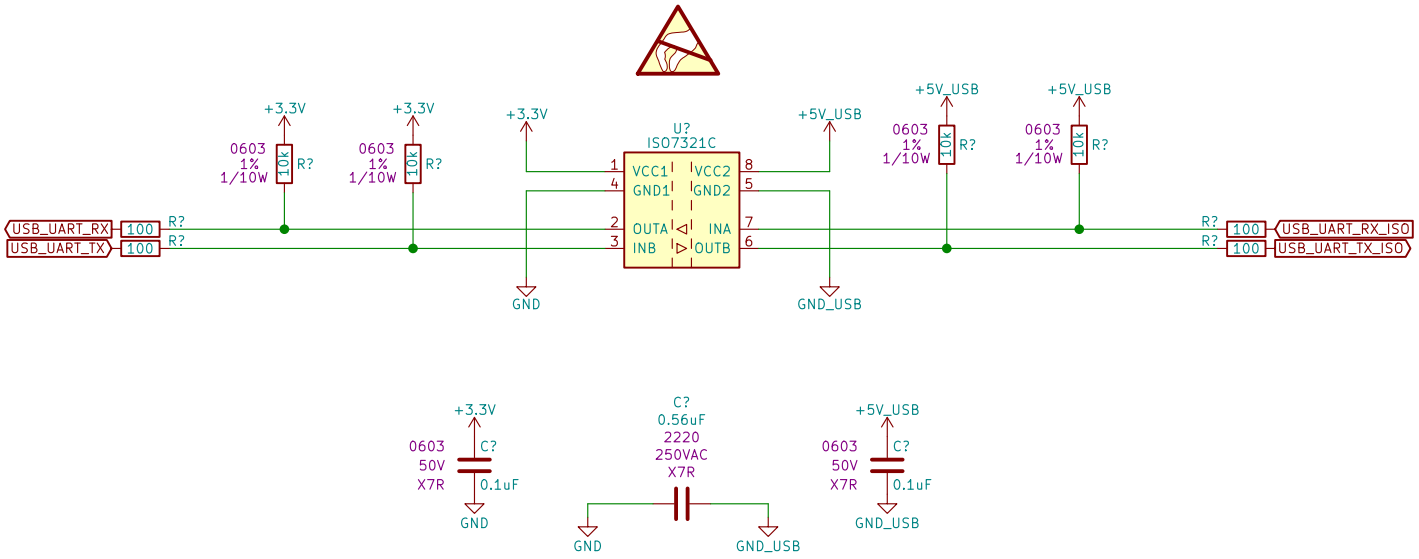
Drew Maatman	
Sheet: /+3.3V BCKP Supply/	
File: POS3P3_BCKP_Supply.sch	
Title: VFD Clock	
Size: A	Date: 2019-04-11
KiCad E.D.A. kicad (5.1.0)-1	Id: 7/21

Rev: A

11. USB UART Bridge

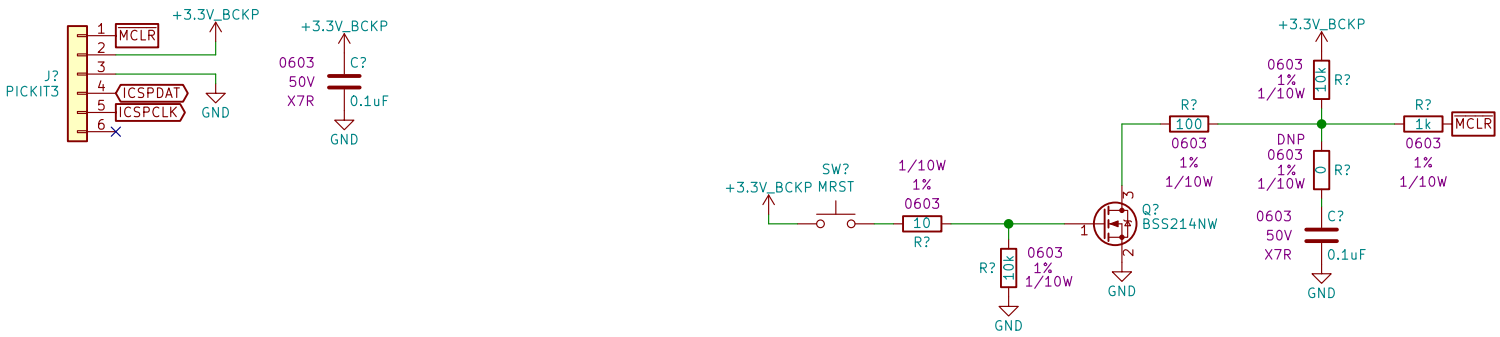


10. USB UART Digital Isolation

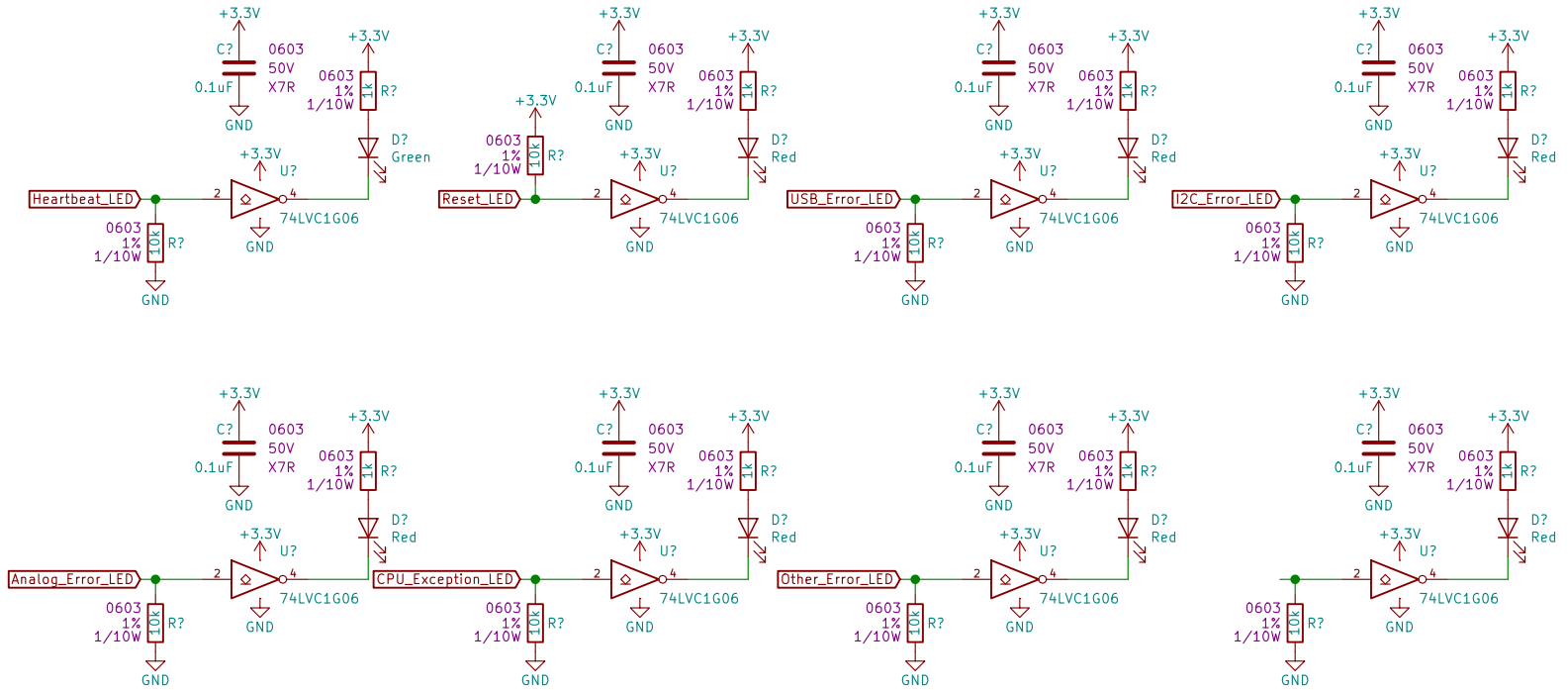


Drew Maatman		
Sheet: /USB UART Isolation/		
File: USB_UART_Isolation.sch		
Title: VFD Clock		
Size: A	Date: 2019-04-11	**Rev: A**
KiCad E.D.A. kicad (5.1.0)-1		Id: 9/21

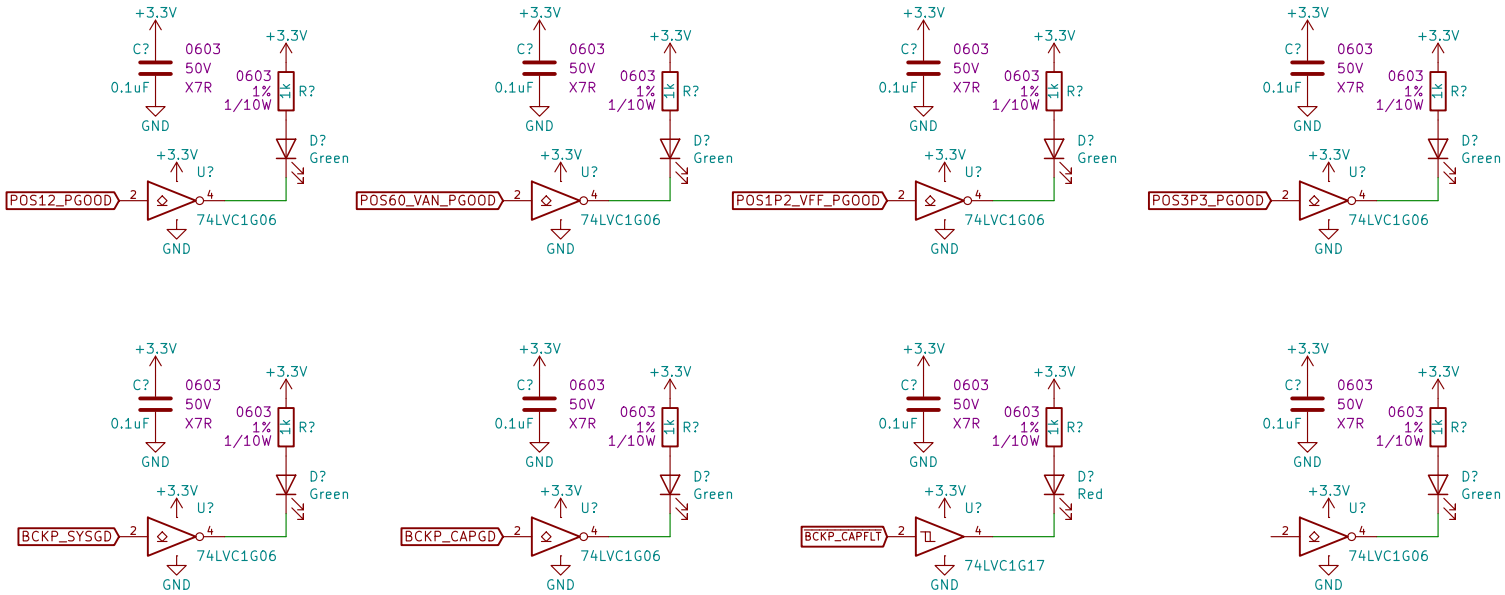
Microcontroller Programming



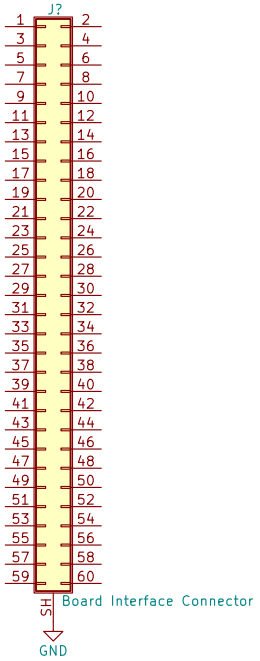
Drew Maatman		
Sheet: /Microcontroller Programming/		
File: Microcontroller_Programming.sch		
Title: VFD Clock		
Size: A	Date: 2019-04-11	**Rev: A**
KiCad E.D.A. kicad (5.1.0)-1		Id: 10/21



Sheet: /Status LEDs/		
File: Status_LEDs.sch		
Title:		
Size: A	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.0)-1		Id: 11/21

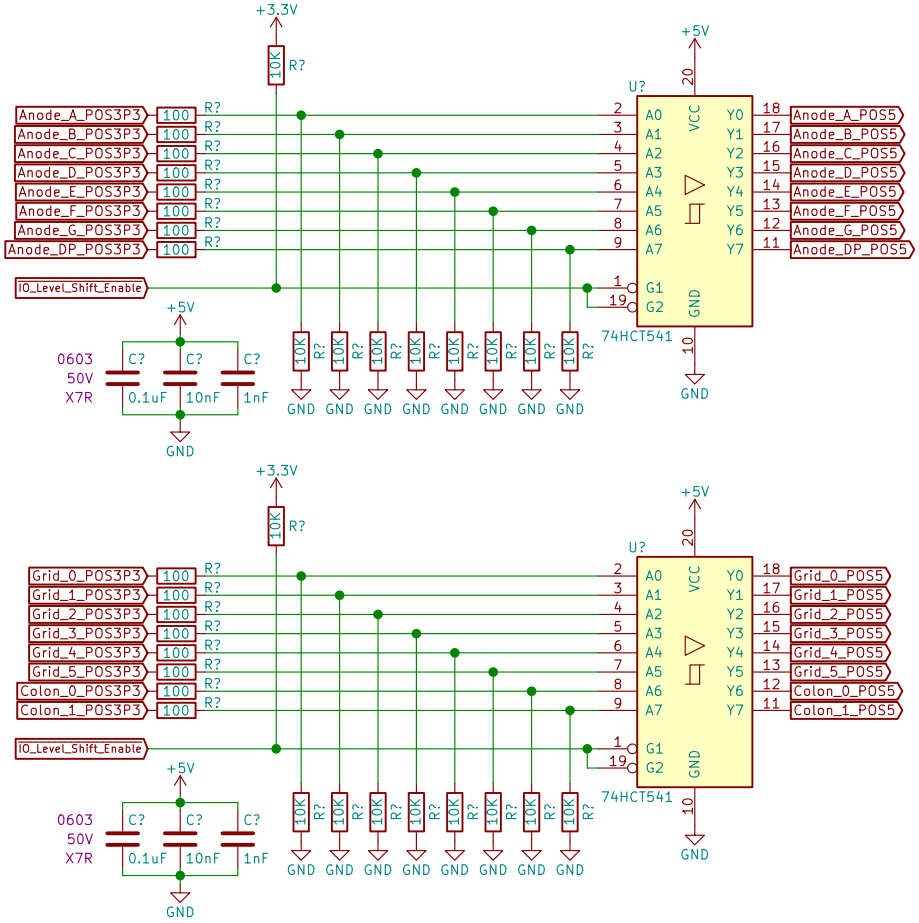


Sheet: /PGOOD LEDs/		
File: PGOOD_LEDs.sch		
Title:		
Size: A	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.0)-1		Id: 12/21

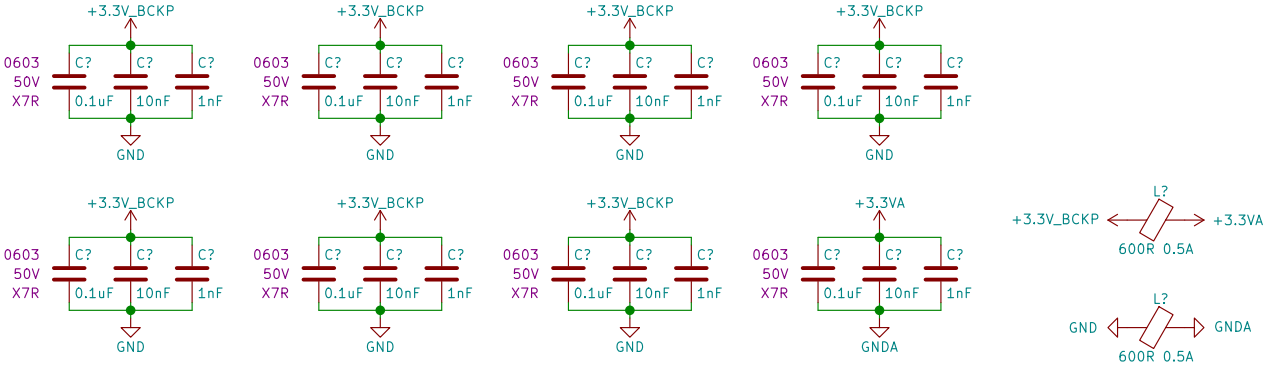


Sheet: /IO Connectors/ File: IO_Connectors.sch		
Title:		
Size: A	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.0)-1		Id: 13/21

I/O Buffers

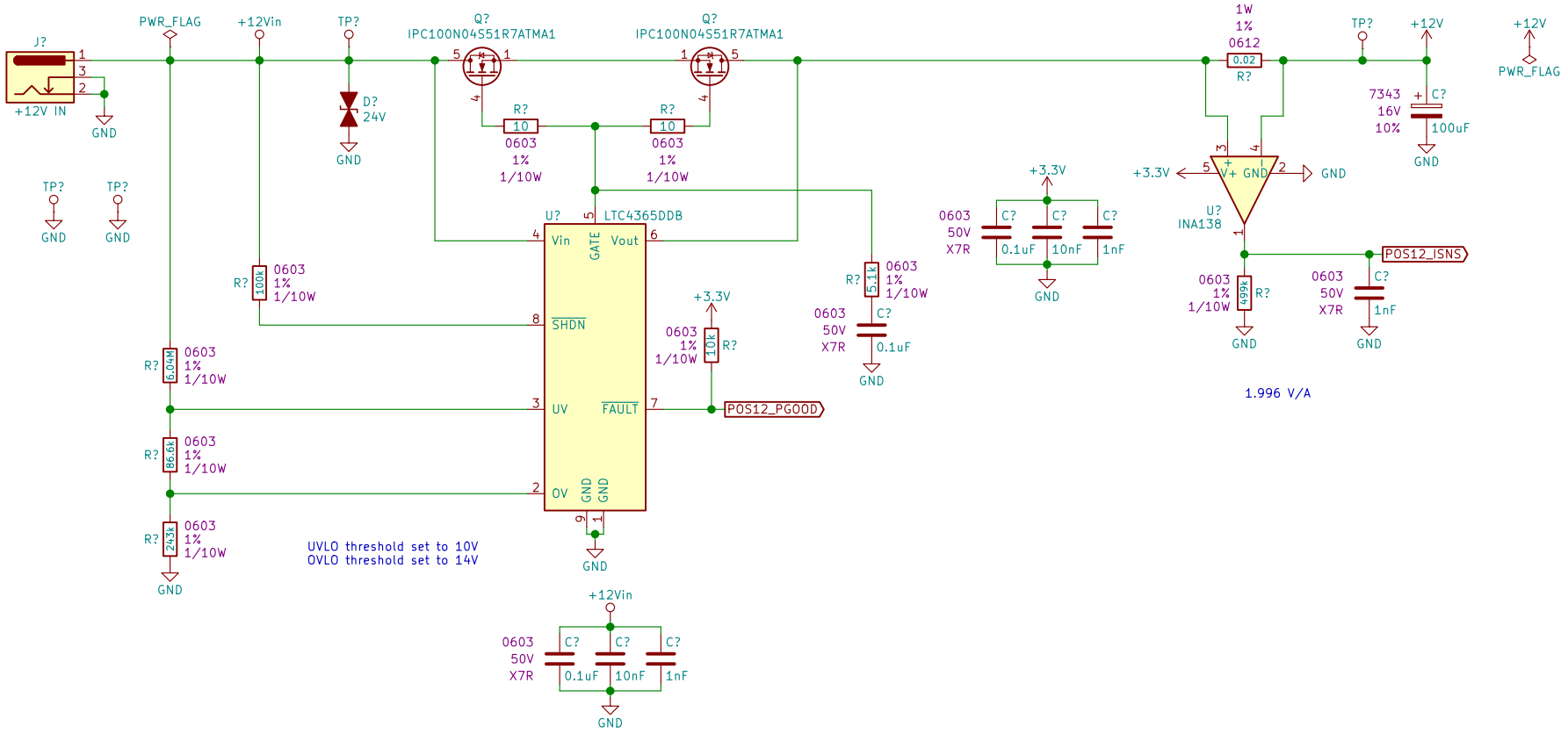


Marquette University Senior Design 2018/2019 Group E44		
Sheet: /IO Buffers 1/		
File: IO_Buffers_1.sch		
Title: Electronic Display Logic Board		
Size: A	Date: 2018-12-15	**Rev: A**
KiCad E.D.A. kicad (5.1.0)-1		Id: 14/21

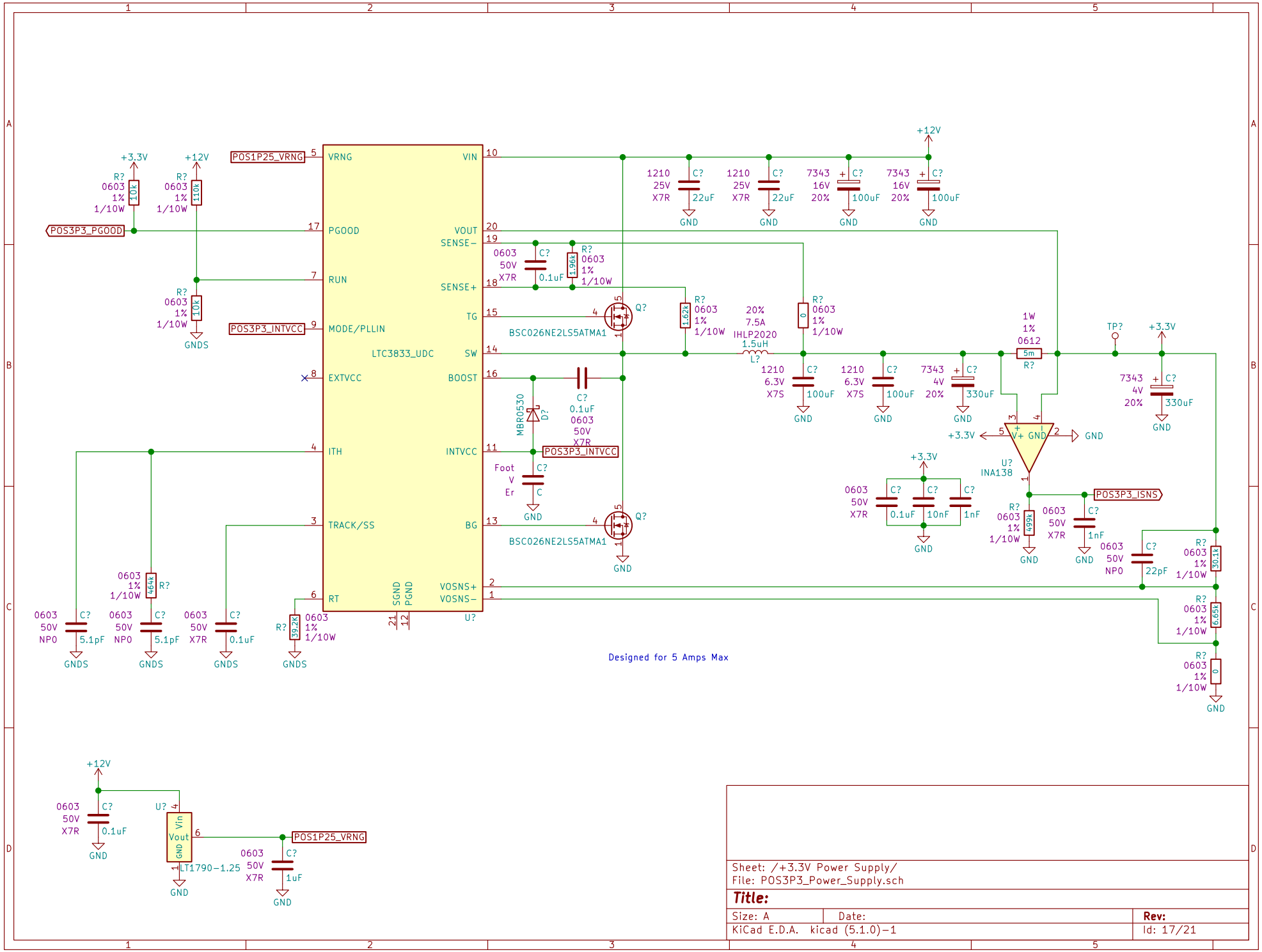


Sheet: /Microcontroller Bypass/		
File: Microcontroller_Bypass.sch		
Title:		
Size: A	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.0)-1		Id: 15/21

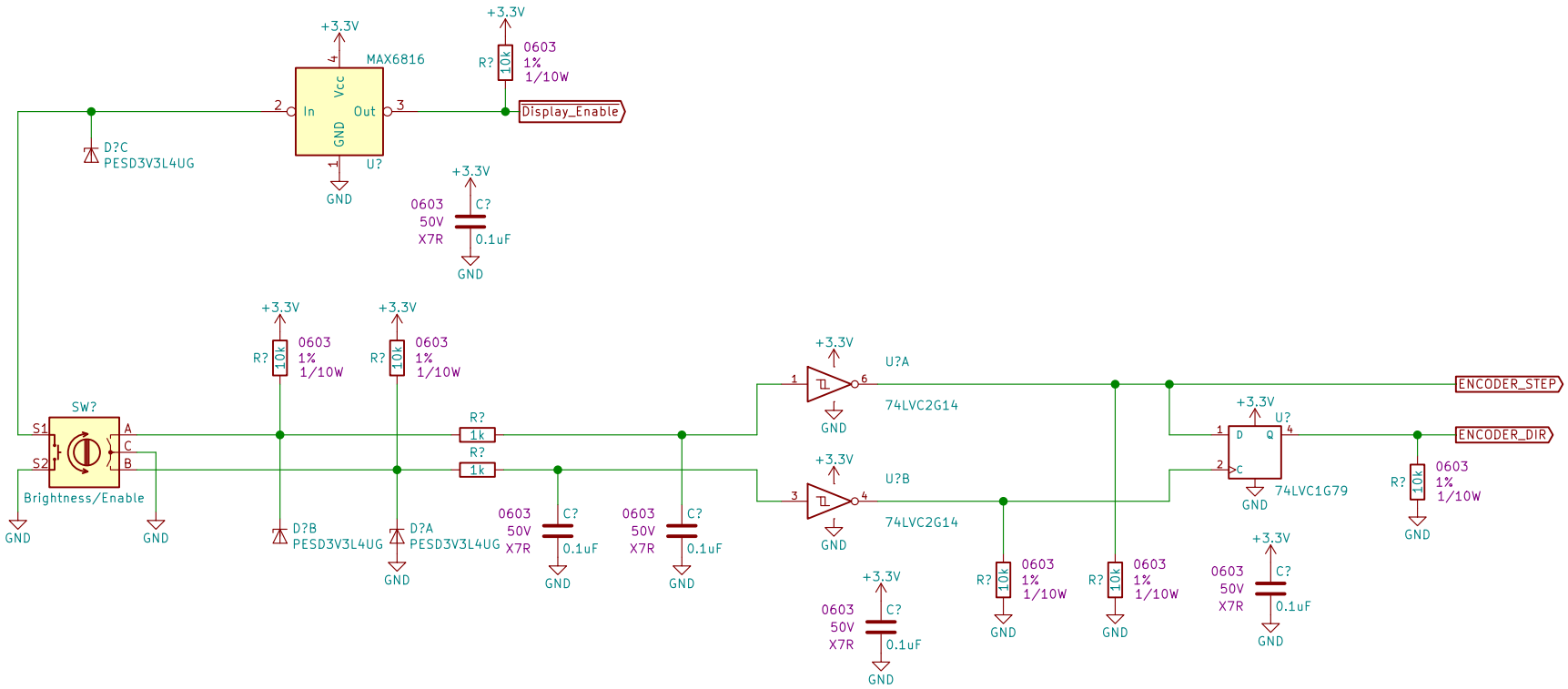
02. +12V Input



Sheet: /+12V Input/	
File: POS12_Input.sch	
Title: QI Charger	
Size: A	Date: 2019-01-03
KiCad E.D.A. kicad (5.1.0)-1	Id: 16/21


LTC3833_UDC
VRNG
PGOOD
RUN
MODE/PLLIN
EXTVCC
ITH
TRACK/SS
RT
SGND
PGND
VIN
VOUT
SENSE–
SENSE+
TG
SW
BOOST
INTVCC
BG
VOSNS+
VOSNS–
U?
POS1P25_VRNG
POS3P3_PGOOD
POS3P3_INTVCC
POS3P3_ISNS
BSC026NE2LS5ATMA1
MBR0530
IHLP2020
1.5uH
L?
20%
7.5A
INA138
LT1790-1.25
Designed for 5 Amps Max
Sheet: /+3.3V Power Supply/
File: POS3P3_Power_Supply.sch
Title:
Size: A
Date:
Rev:
KiCad E.D.A. kicad (5.1.0)-1
Id: 17/21

Rotary Encoder



Marquette University Senior Design 2018/2019 Group E44		
Sheet: /Rotary Encoder/		
File: Rotary_Encoder.sch		
Title: Electronic Display Logic Board		
Size: A	Date: 2018-12-15	**Rev: A**
KiCad E.D.A. kicad (5.1.0)-1		Id: 18/21

Sheet: /Analog Conditioning/
File: Analog_Conditioning.sch

Title:

Size: A	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.0)-1		Id: 19/21

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

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.0)-1		Id: 20/21

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

Sheet: /IO Buffers 2/ File: IO_Buffers_2.sch		
Title:		
Size: A	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.0)-1		Id: 21/21