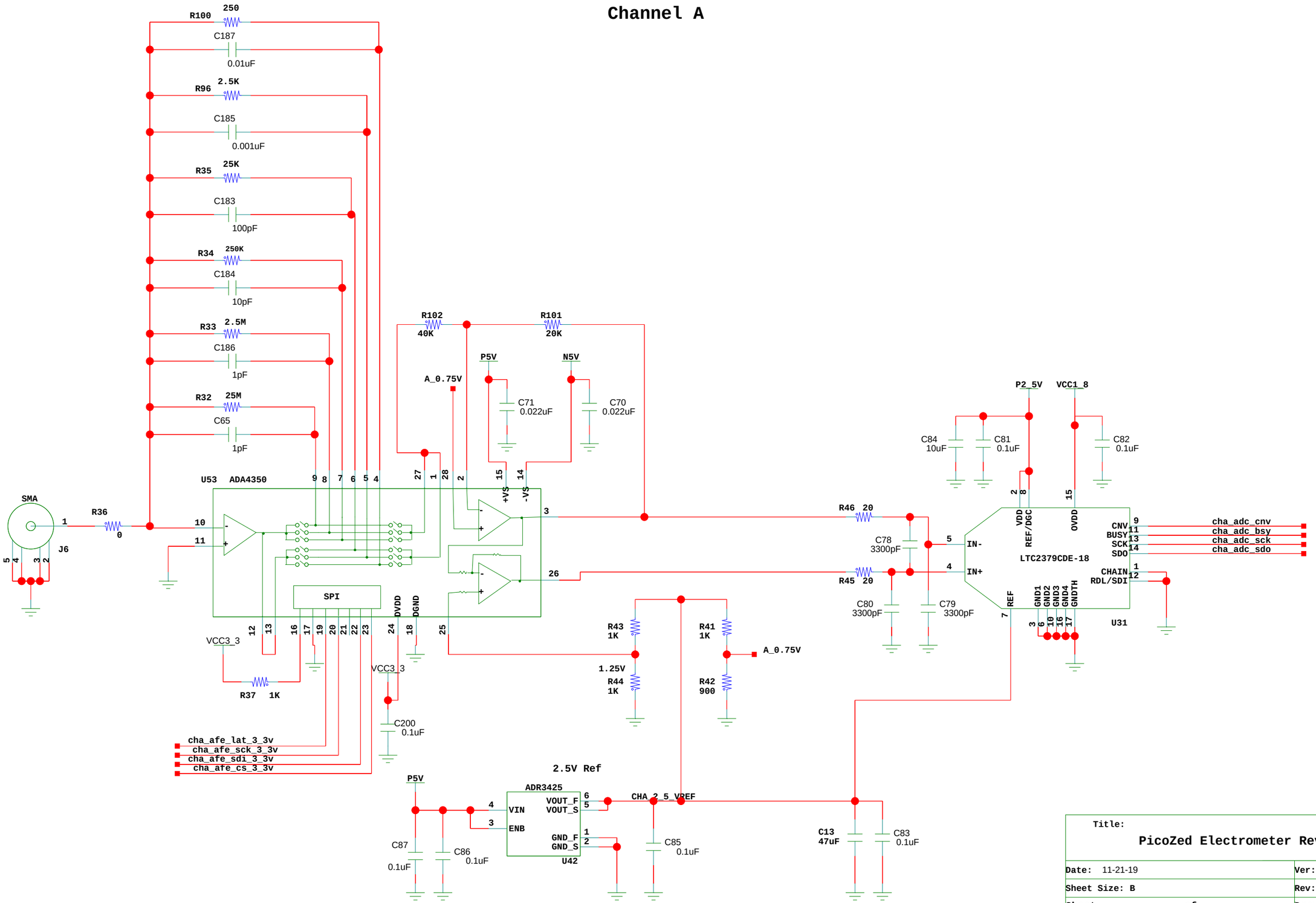
Channel A



Title: PicoZed Electrometer RevB	
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Channel B

R123 250
C133 0.01uF
R122 2.5K
C131 0.001uF
R66 25K
C129 100pF
R65 250K
C130 10pF
R64 2.5M
C132 1pF
R63 25M
C116 1pF

R125 40K
R124 20K
P5V
N5V
B_0.75V
C118 0.022uF
C117 0.022uF

P2_5V
VCC1_8
C125 10uF
C122 0.1uF
C123 0.1uF

SMA
J7
R67 0
U51 ADA4350
SPI
VCC3_3
R74 1K
C134 0.1uF
chb_afe_lat_3_3v
chb_afe_sck_3_3v
chb_afe_sdi_3_3v
chb_afe_cs_3_3v

R73 20
C119 3300pF
R72 20
C121 3300pF
C120 3300pF
LTC2379CDE-18
U11
chb_adc_cnv
chb_adc_bsy
chb_adc_sck
chb_adc_sdo

R70 1K
1.25V
R71 1K
R68 2K
R69 900
B_0.75V

2.5V Ref
ADR3425
U45
C128 0.1uF
C127 0.1uF
CHB_2_5_VREF
C126 0.1uF
C20 47uF
C124 0.1uF

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Channel C

R127 250
C152 0.01uF
R126 2.5K
C150 0.001uF
R78 25K
C148 100pF
R77 250K
C149 10pF
R76 2.5M
C151 1pF
R75 25M
C135 1pF

R129 40K
R128 20K
P5V
N5V
C_0.75V
C137 0.022uF
C136 0.022uF

P2_5V
VCC1_8
C144 10uF
C141 0.1uF
C142 0.1uF

SMA
J8
R79 0
U52 ADA4350
SPI
DVDD
DGND
+VS
-VS

R85 20
C138 3300pF
R84 20
C140 3300pF
C139 3300pF
IN-
IN+
REF
VDD
REF/DGC
OVDD
LTC2379CDE-18
GND1
GND2
GND3
GND4
GNDTH
U13
CNV
BUSY
SCK
SDO
CHAIN
RDL/SDI
chc_adc_cnv
chc_adc_bsy
chc_adc_sck
chc_adc_sdo

R82 1K
R83 1K
1.25V
R80 2K
R81 900
C_0.75V

VCC3_3
R86 1K
C153 0.1uF
chc_afe_lat_3_3v
chc_afe_sck_3_3v
chc_afe_sdi_3_3v
chc_afe_cs_3_3v

2.5V Ref
ADR3425
VIN
ENB
VOUT_F
VOUT_S
GND_F
GND_S
U46
CHC_2_5_VREF
C147 0.1uF
C146 0.1uF
C145 0.1uF
C21 47uF
C143 0.1uF

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Channel D

R131 250
C171 0.01uF
R130 2.5K
C169 0.001uF
R90 25K
C167 100pF
R89 250K
C168 10pF
R88 2.5M
C170 1pF
R87 25M
C154 1pF

SMA J9 (1, 2, 3, 4, 5)
R91 0

U54 ADA4350
(9, 8, 7, 6, 5, 4, 27, 1, 28, 2, 15, 14, 3, 26, 10, 11, 12, 13, 16, 17, 19, 20, 21, 22, 23, 24, 18, 25)
+VS -VS DVDD DGND SPI

R133 40K
R132 20K
P5V
N5V
D_0.75V
C156 0.022uF
C155 0.022uF

R98 20
R97 20
C157 3300pF
C159 3300pF
C158 3300pF
R94 1K
R95 1K
1.25V
R92 2K
R93 900
D_0.75V

VCC3_3
R99 1K
C172 0.1uF

chd_afe_lat_3_3v
chd_afe_sck_3_3v
chd_afe_sdi_3_3v
chd_afe_cs_3_3v

2.5V Ref
P5V
ADR3425 U48 (VIN, ENB, VOUT_F, VOUT_S, GND_F, GND_S)
CHD_2_5_VREF
C166 0.1uF
C165 0.1uF
C164 0.1uF
C22 47uF
C162 0.1uF

P2_5V
VCC1_8
C163 10uF
C160 0.1uF
C161 0.1uF

LTC2379CDE-18 U14
(VDD, REF/DGC, OVDD, IN-, IN+, REF, GND1, GND2, GND3, GND4, GNDTH, CNV, BUSY, SCK, SDO, CHAIN RDL/SDI)
chd_adc_cnv
chd_adc_bsy
chd_adc_sck
chd_adc_sdo

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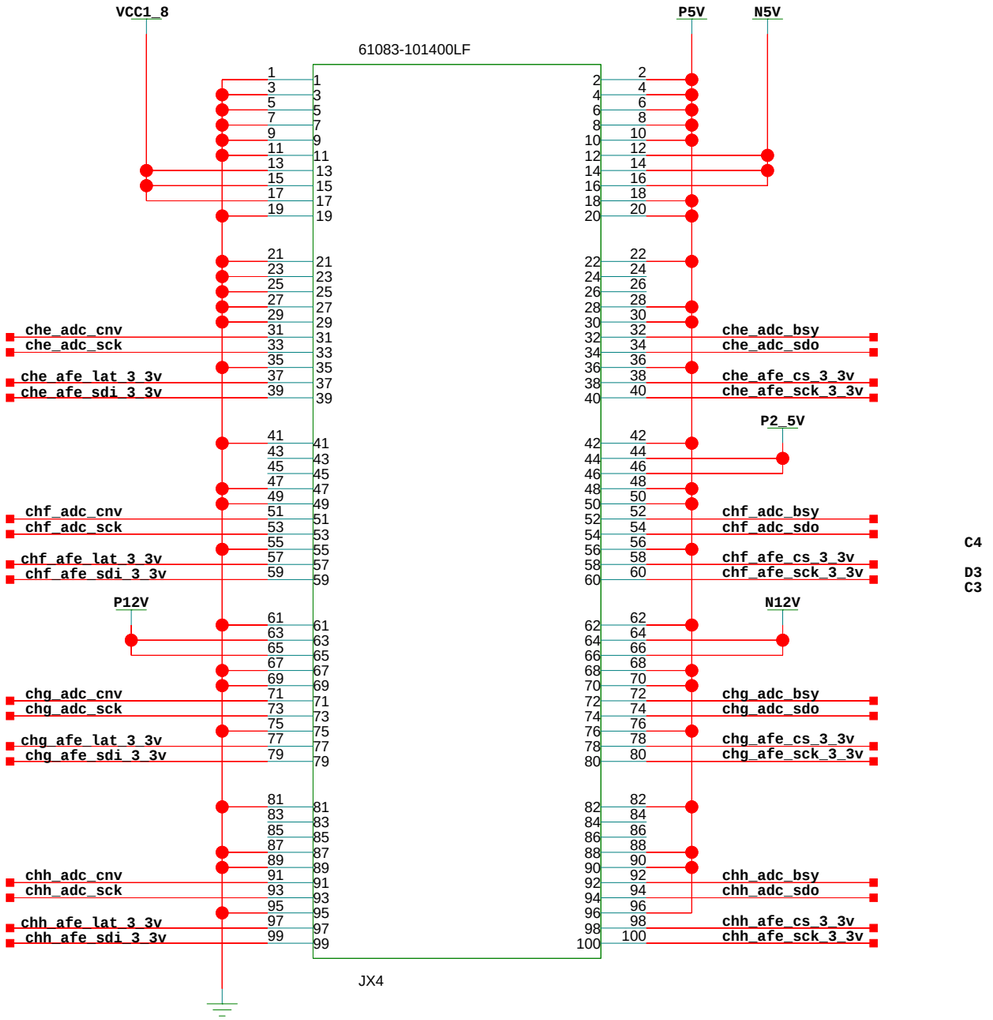
Expansion Connector



H4
H3
E7
C4
D3
C3

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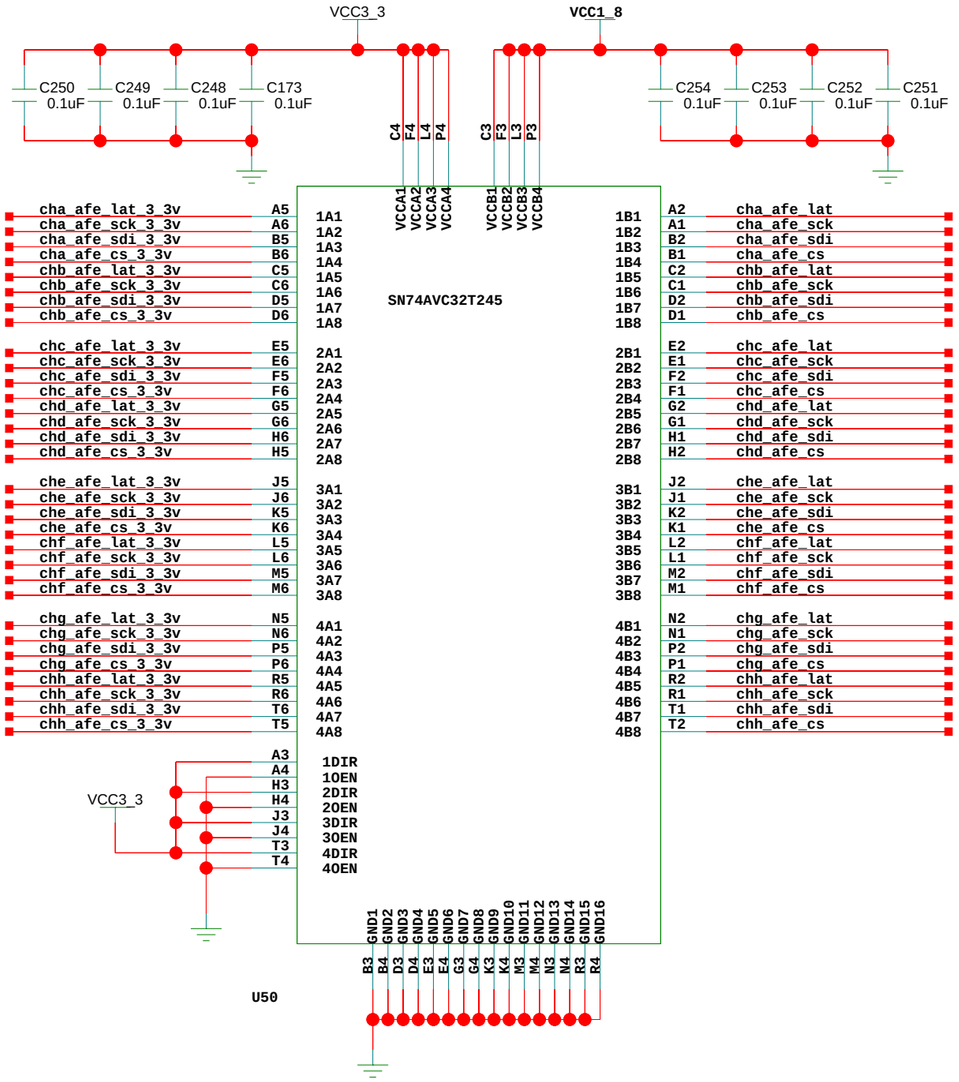
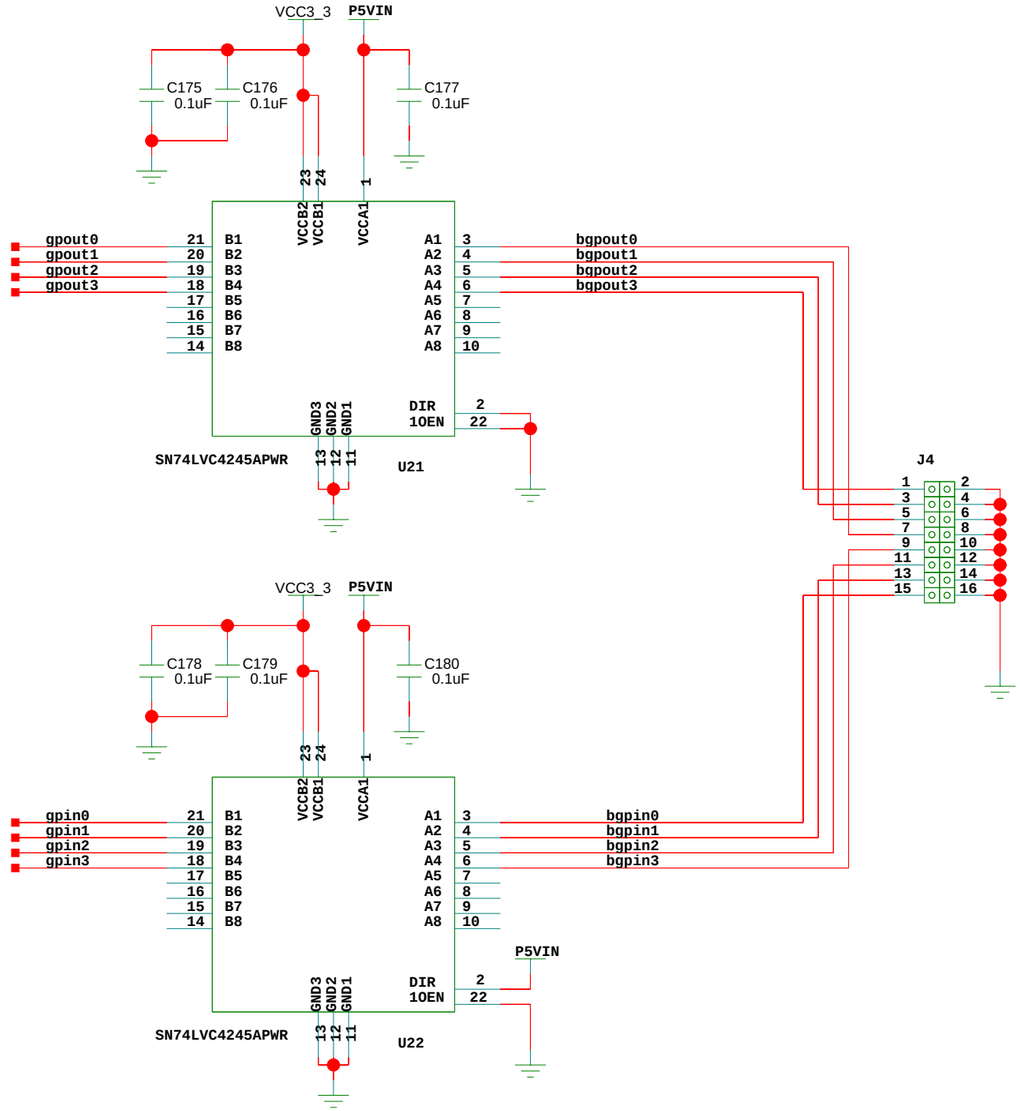
3.3v to 1.8v level translator

Front End to picoZed



Front panel GPIO

3.3v to 5v level translator



Title: PicoZed Electrometer RevB	
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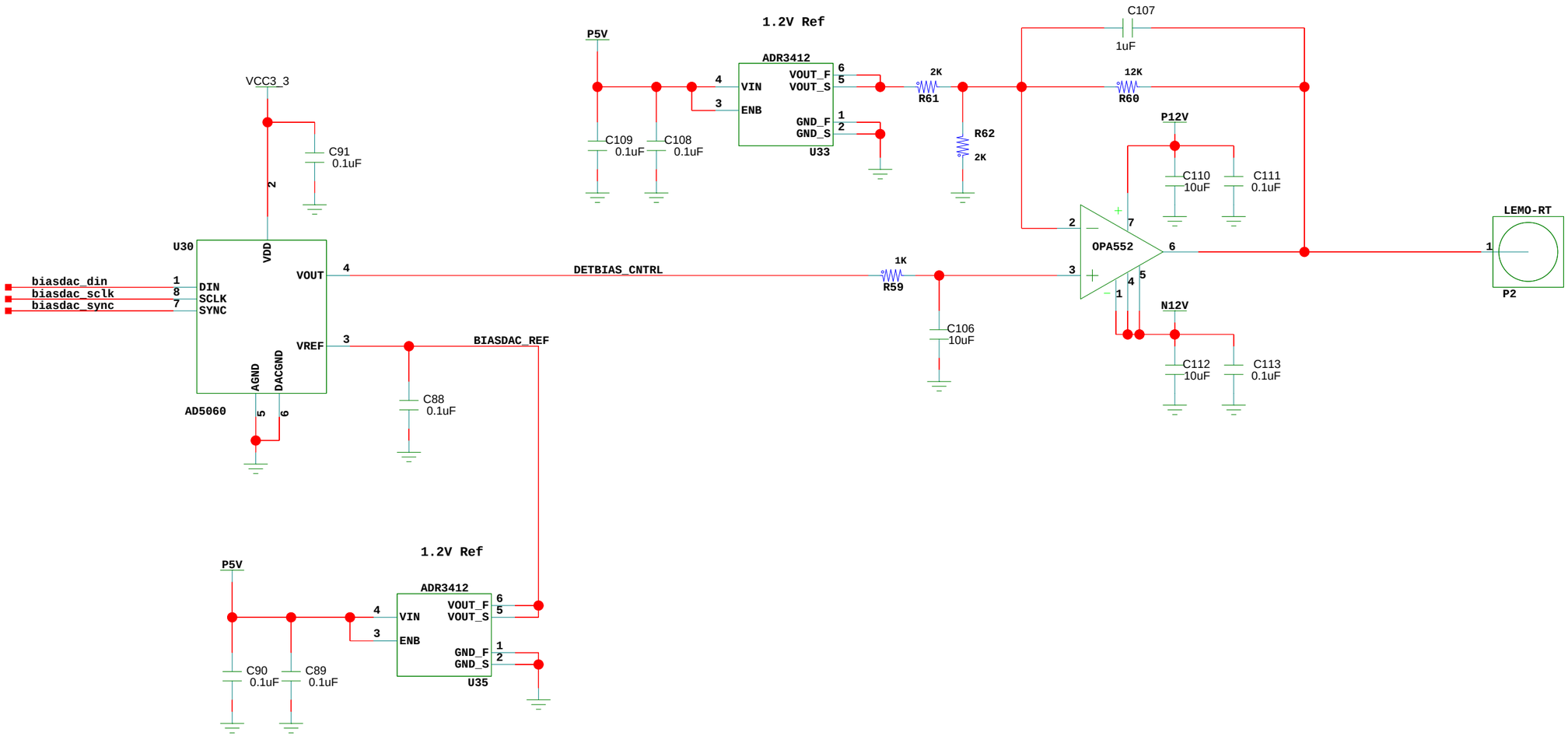
Detector BIAS



Title: PicoZed Electrometer RevB	
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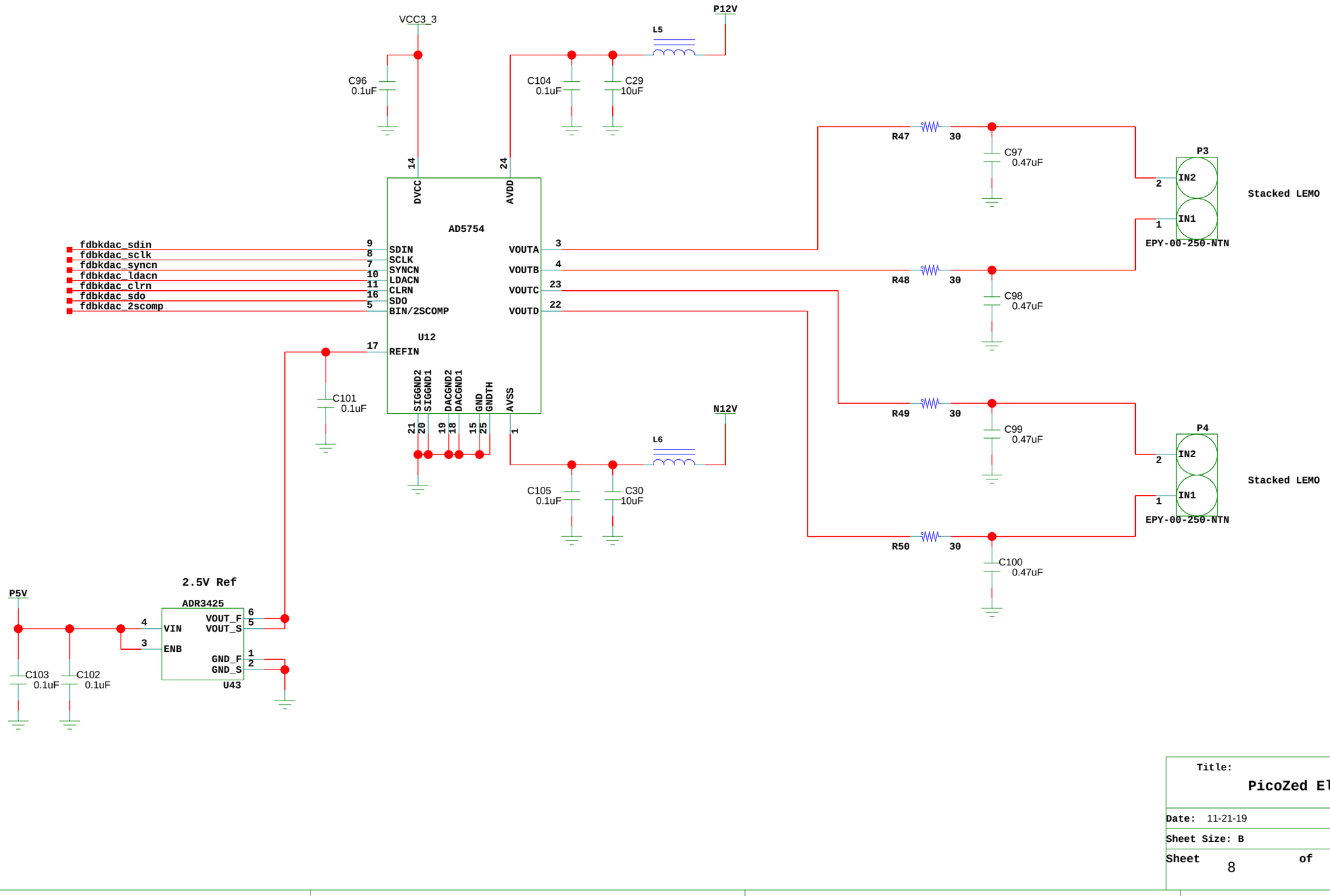
Motion Feedback DAC Outputs



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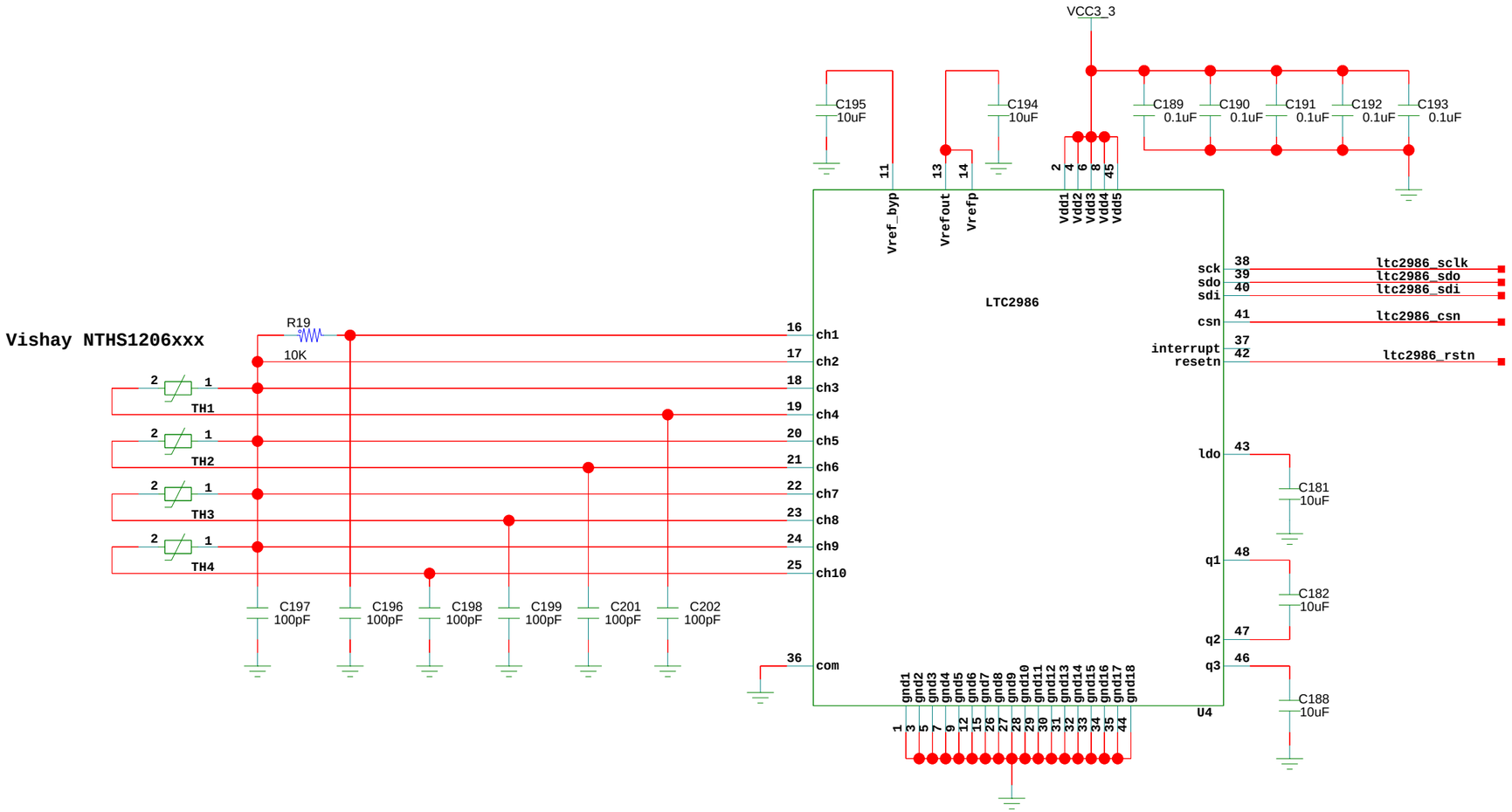
Temperature Control: Thermistor Readback



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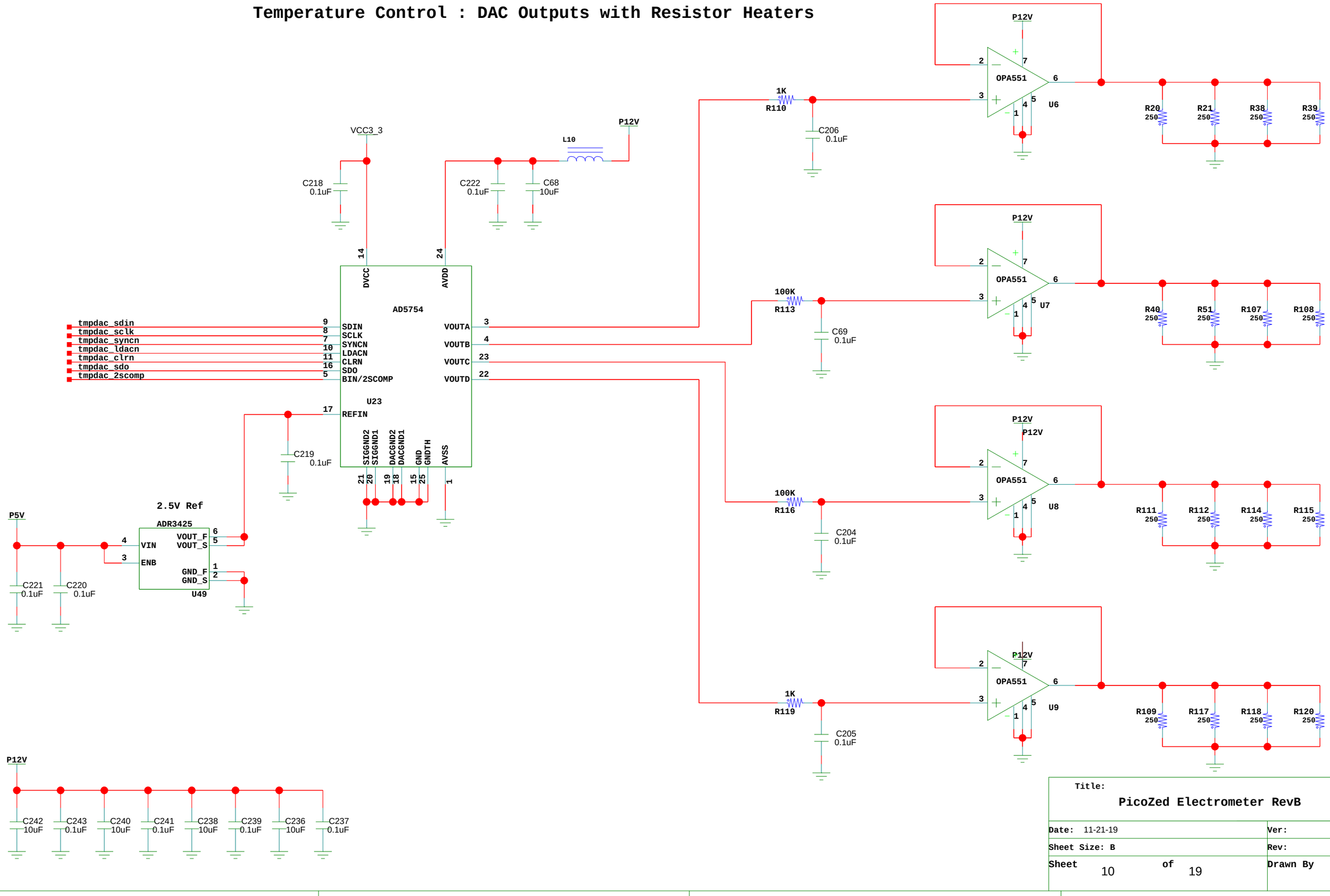
Temperature Control : DAC Outputs with Resistor Heaters



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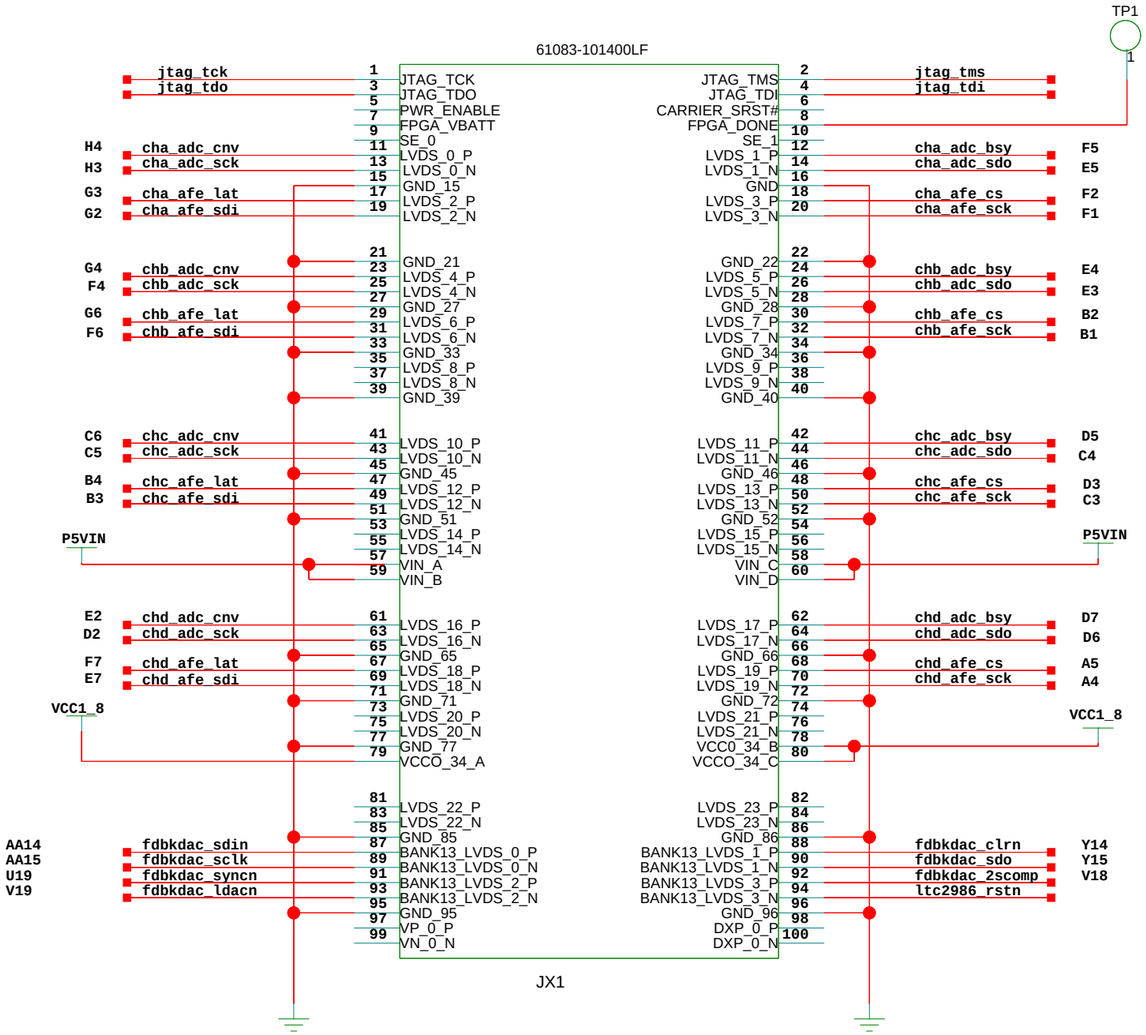
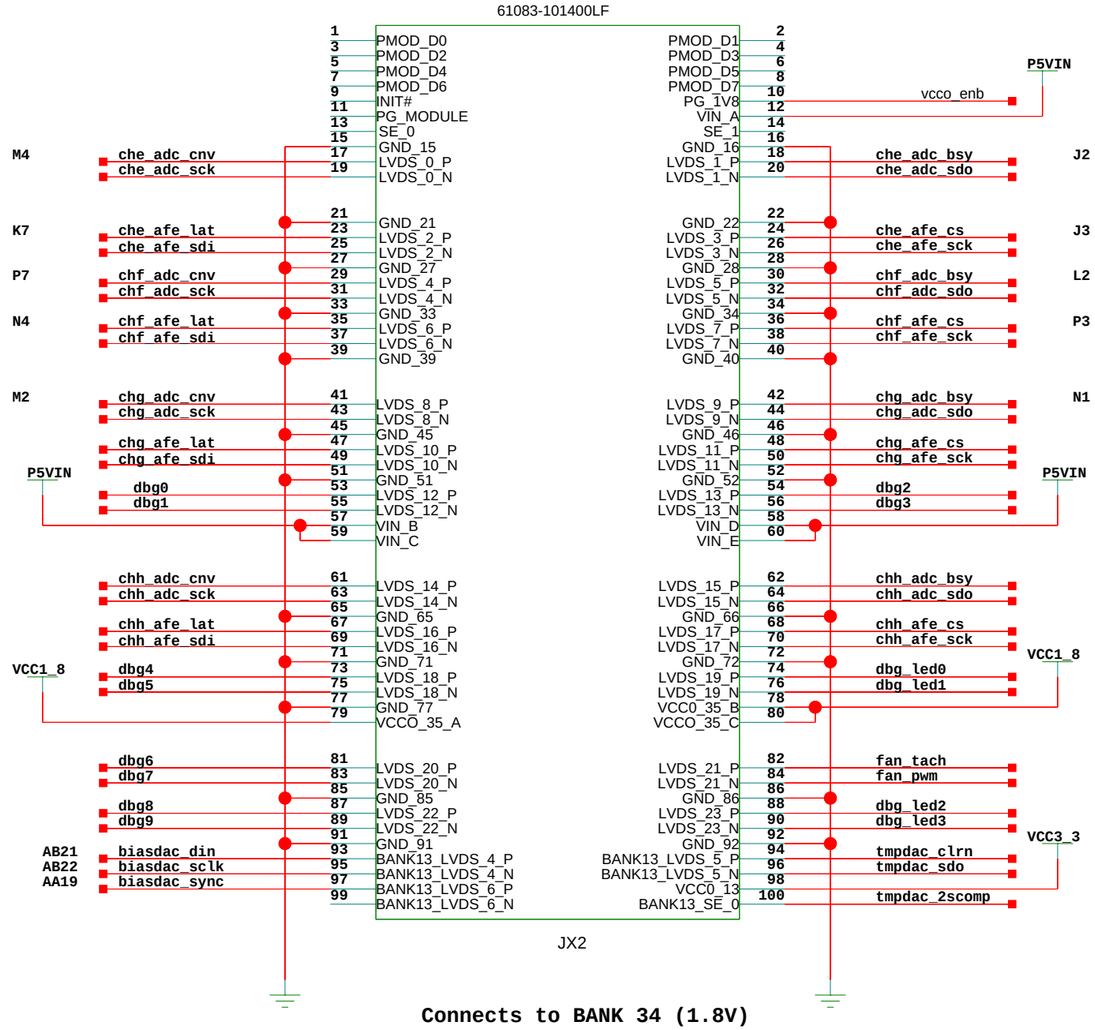
picoZED Connectors JX1 & JX2



Connects to BANK 35 (1.8V) LVDS



Connects to BANK 34 (1.8V)

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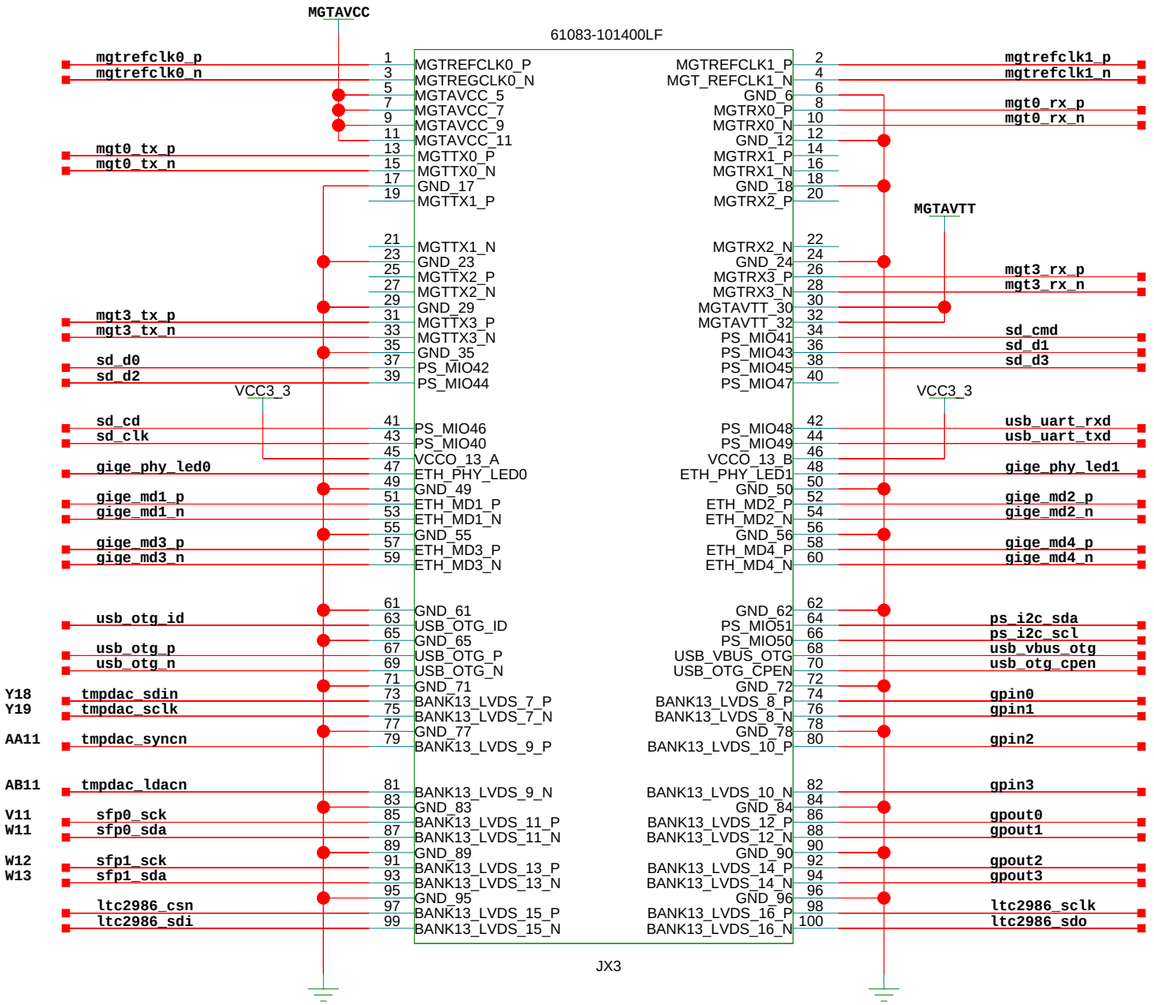
picoZED Connector JX3



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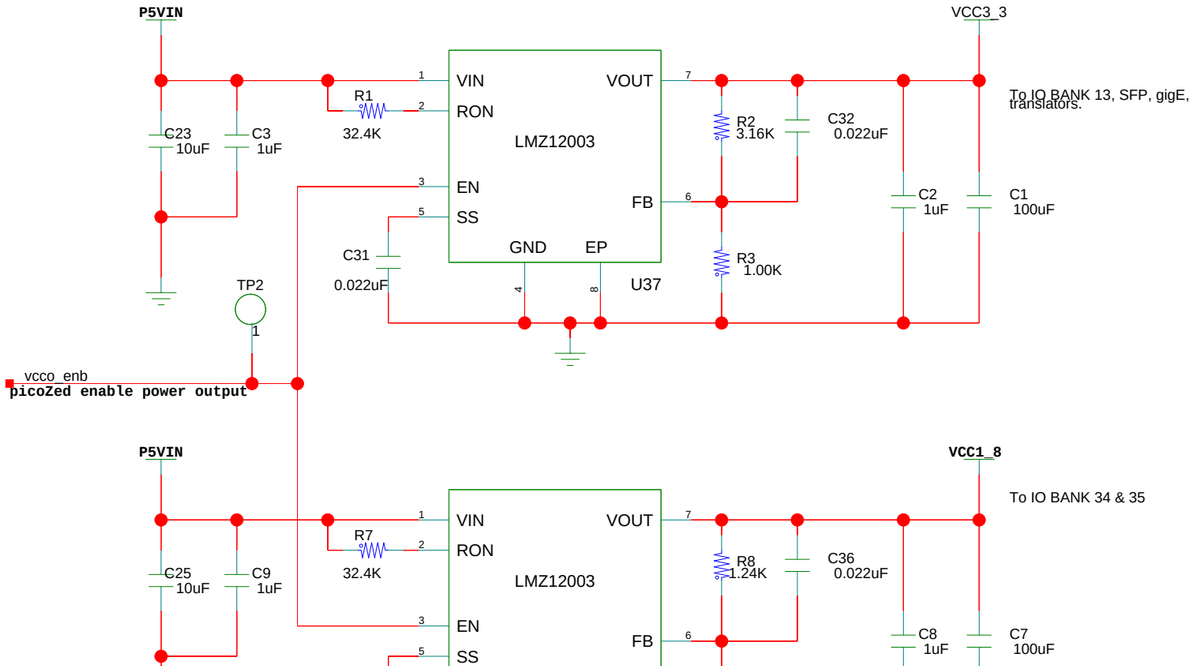
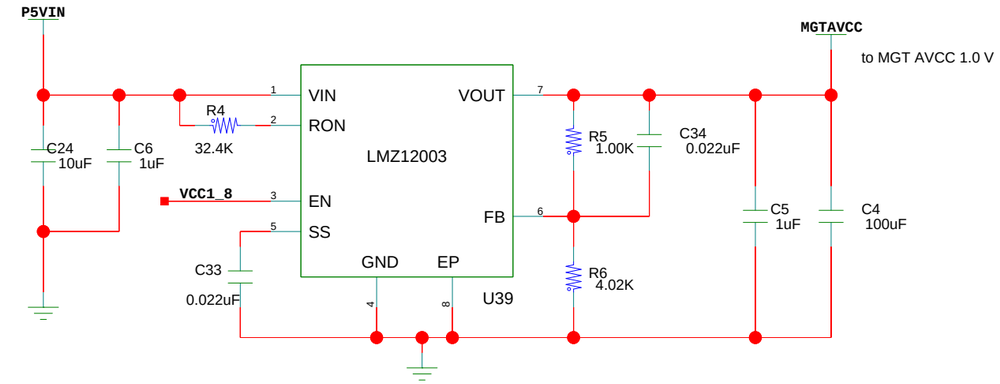
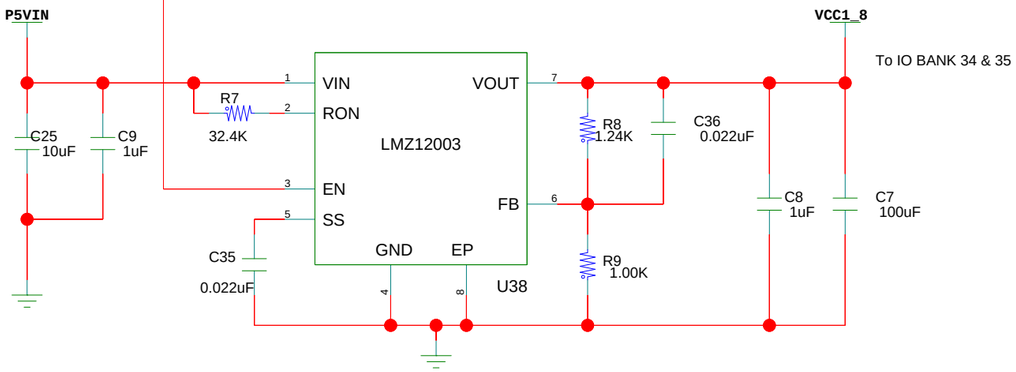
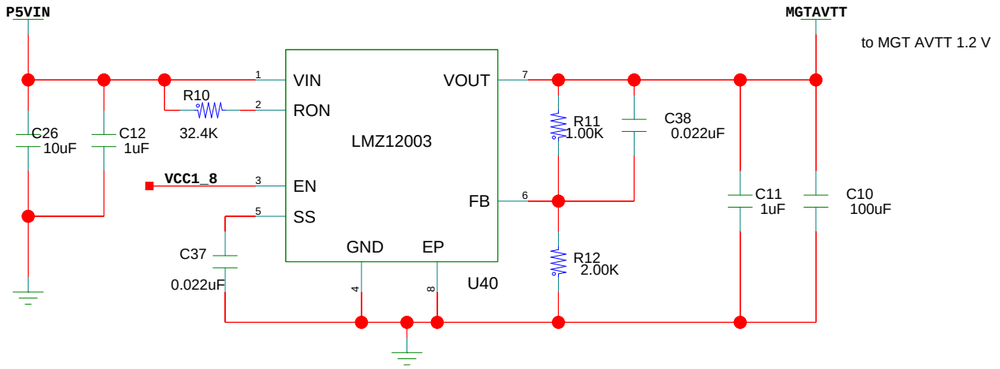
Digital Power Regulators









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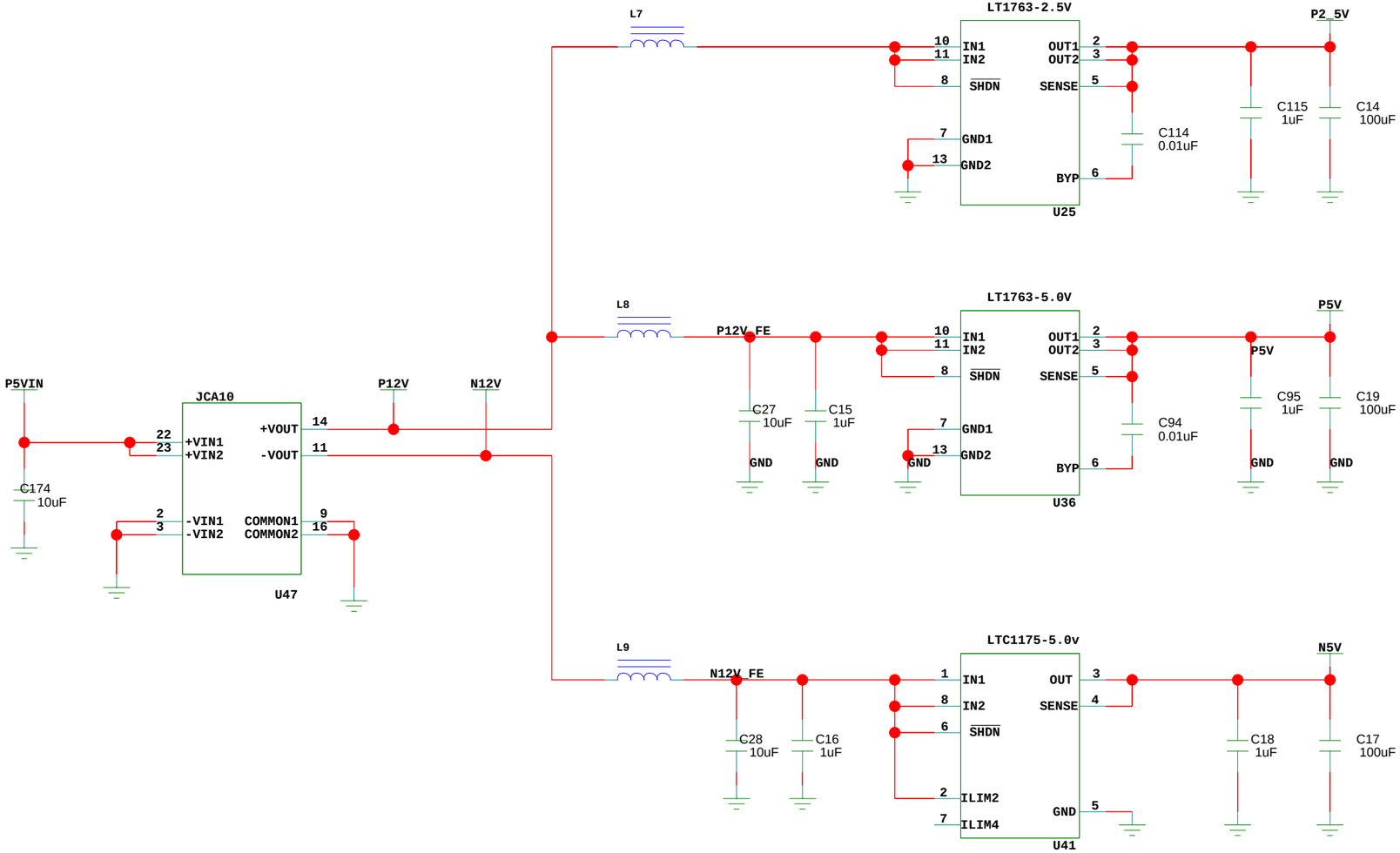
Front End Regulators



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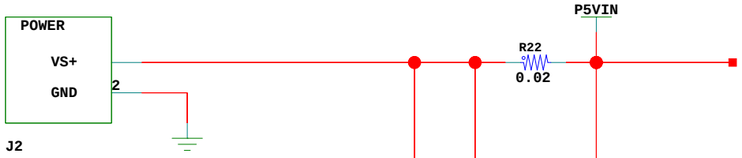
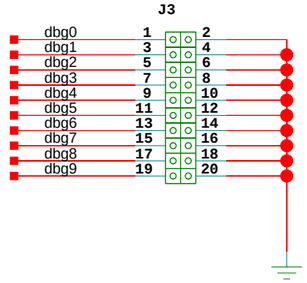
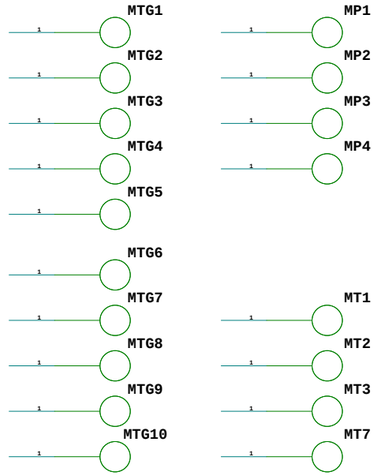
Miscellaneous

2.1 mm Power Jack

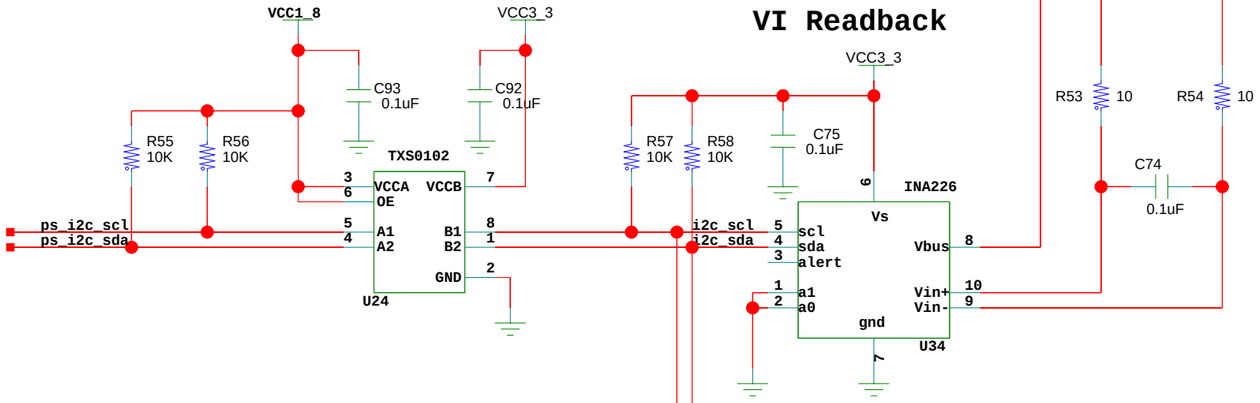


Debug Header

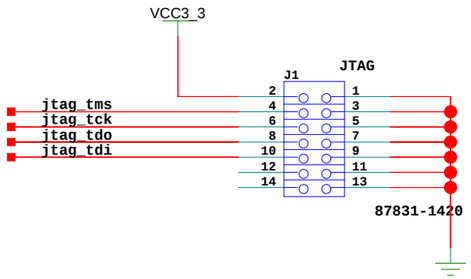




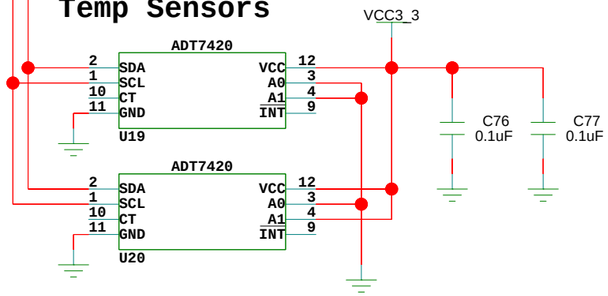
VI Readback



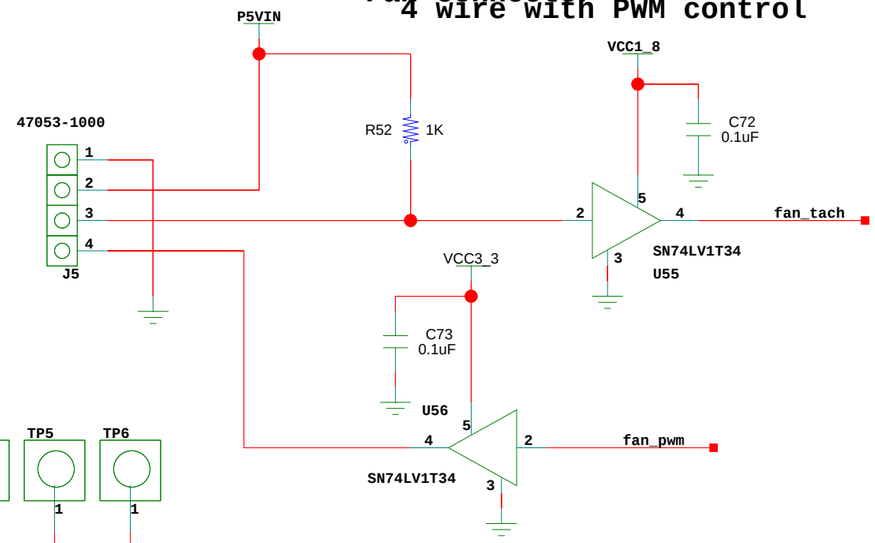
JTAG Header



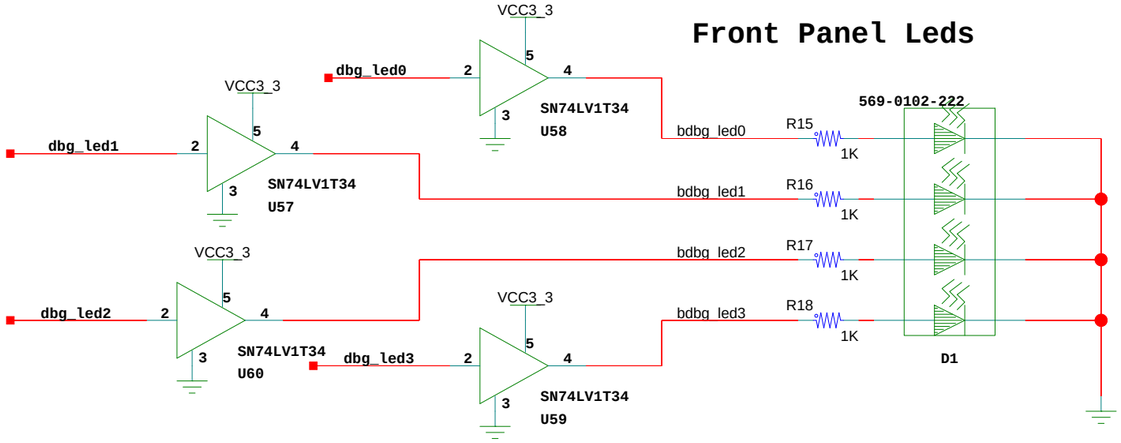
Temp Sensors

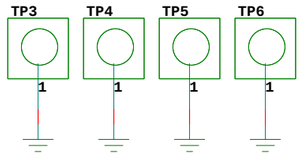


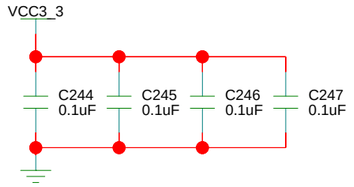
Fan Connector
4 wire with PWM control



Front Panel Leds







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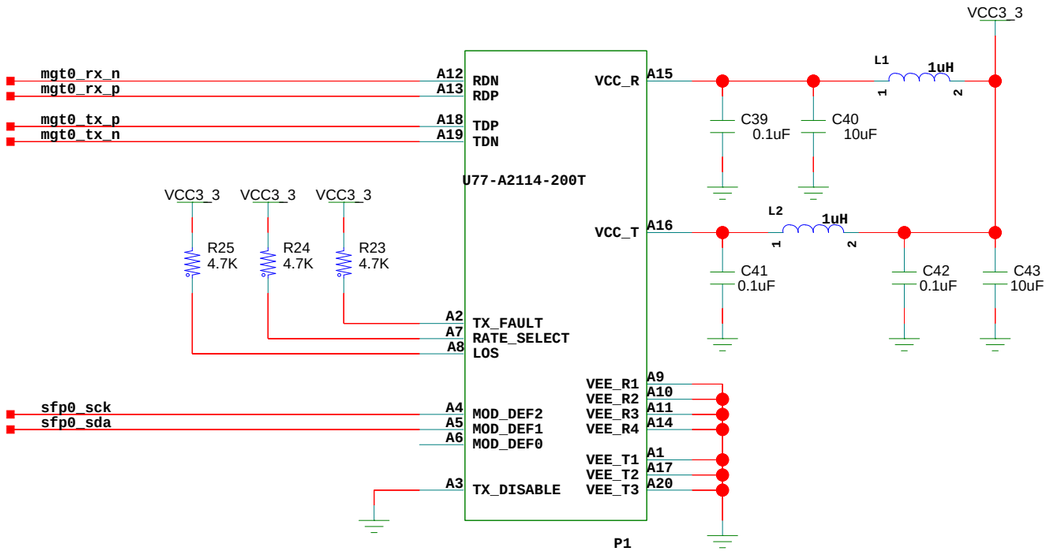
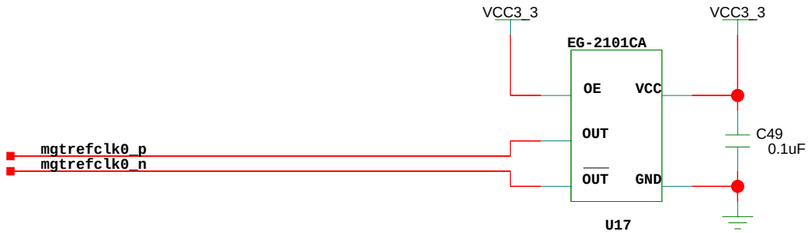
SFP Connecters

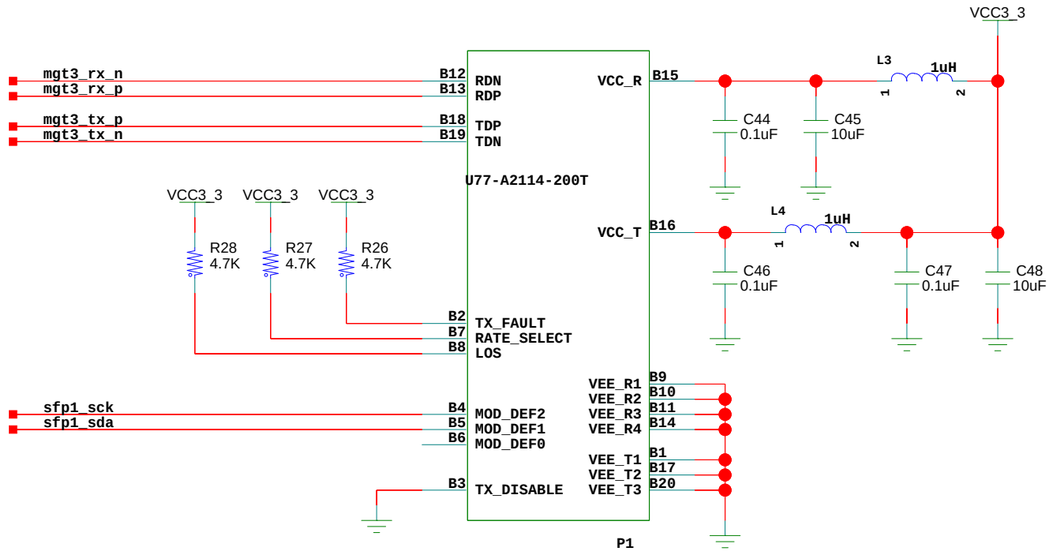
Event Receiver



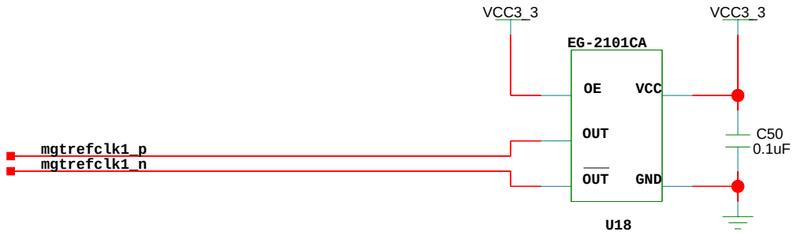
124.92MHz

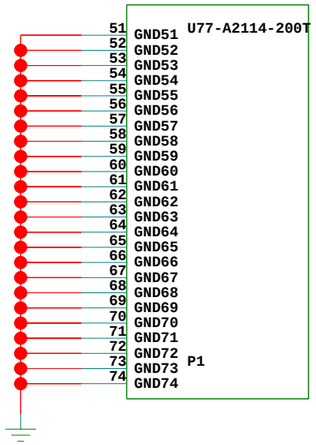


Data Transceiver



200MHz





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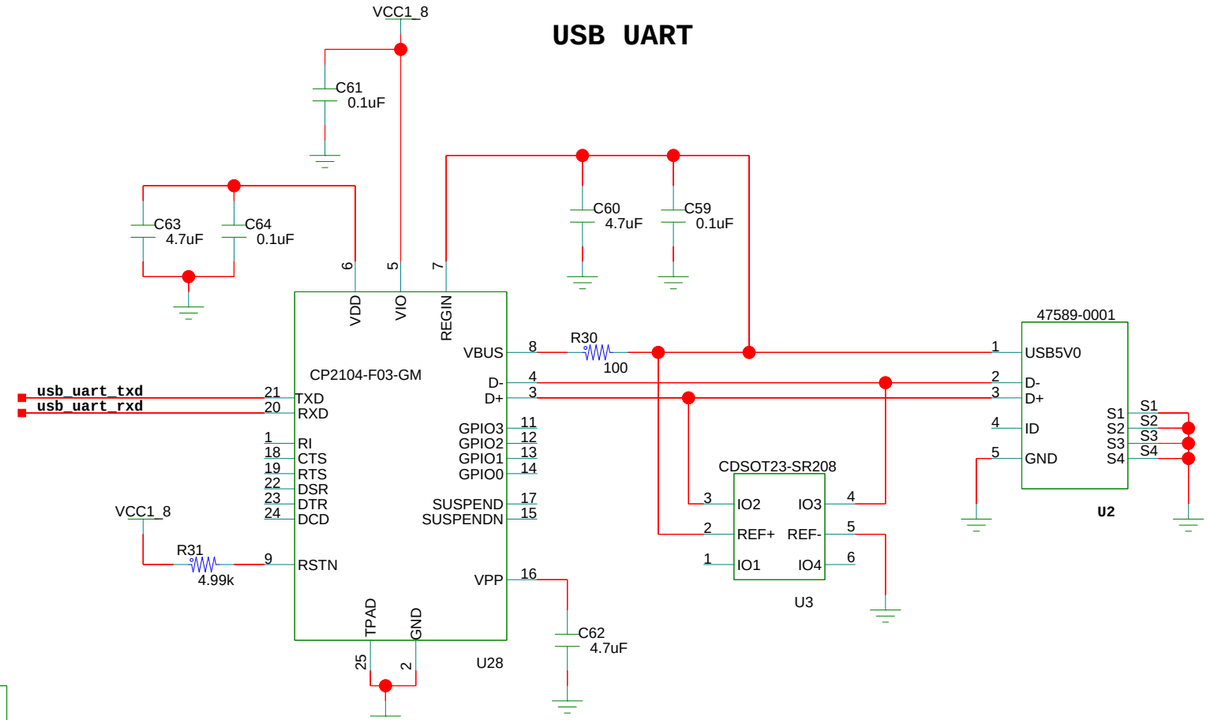
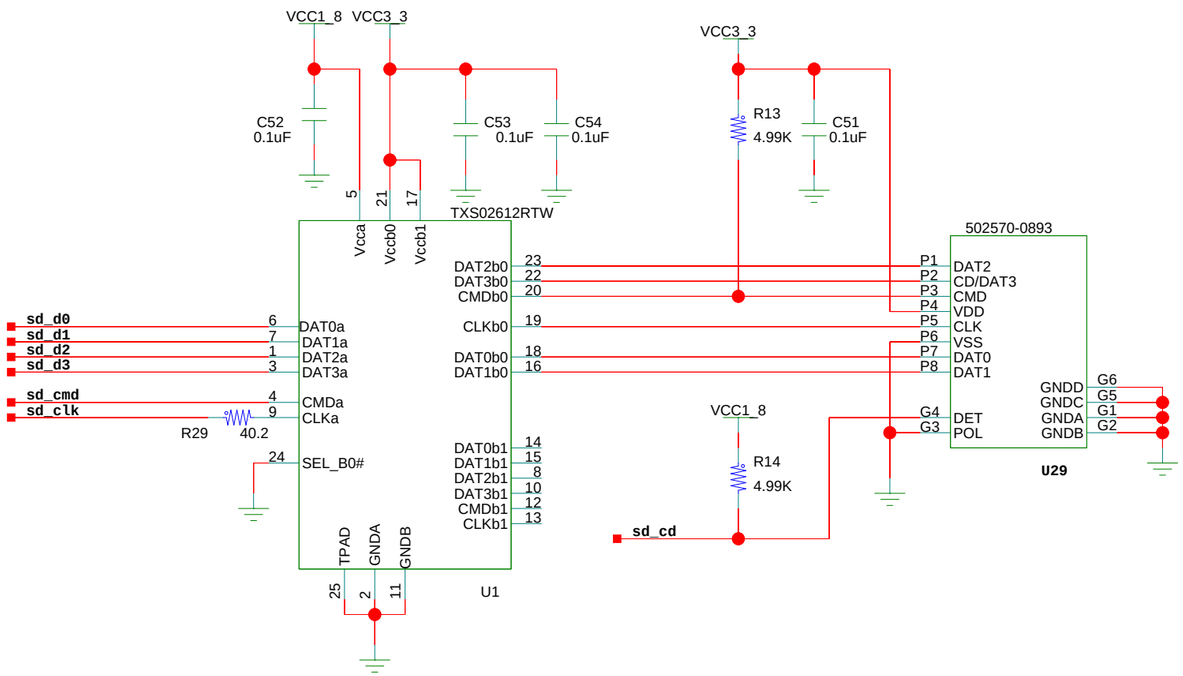
Zynq Peripherals : SDCARD / UART

USB UART



SD card



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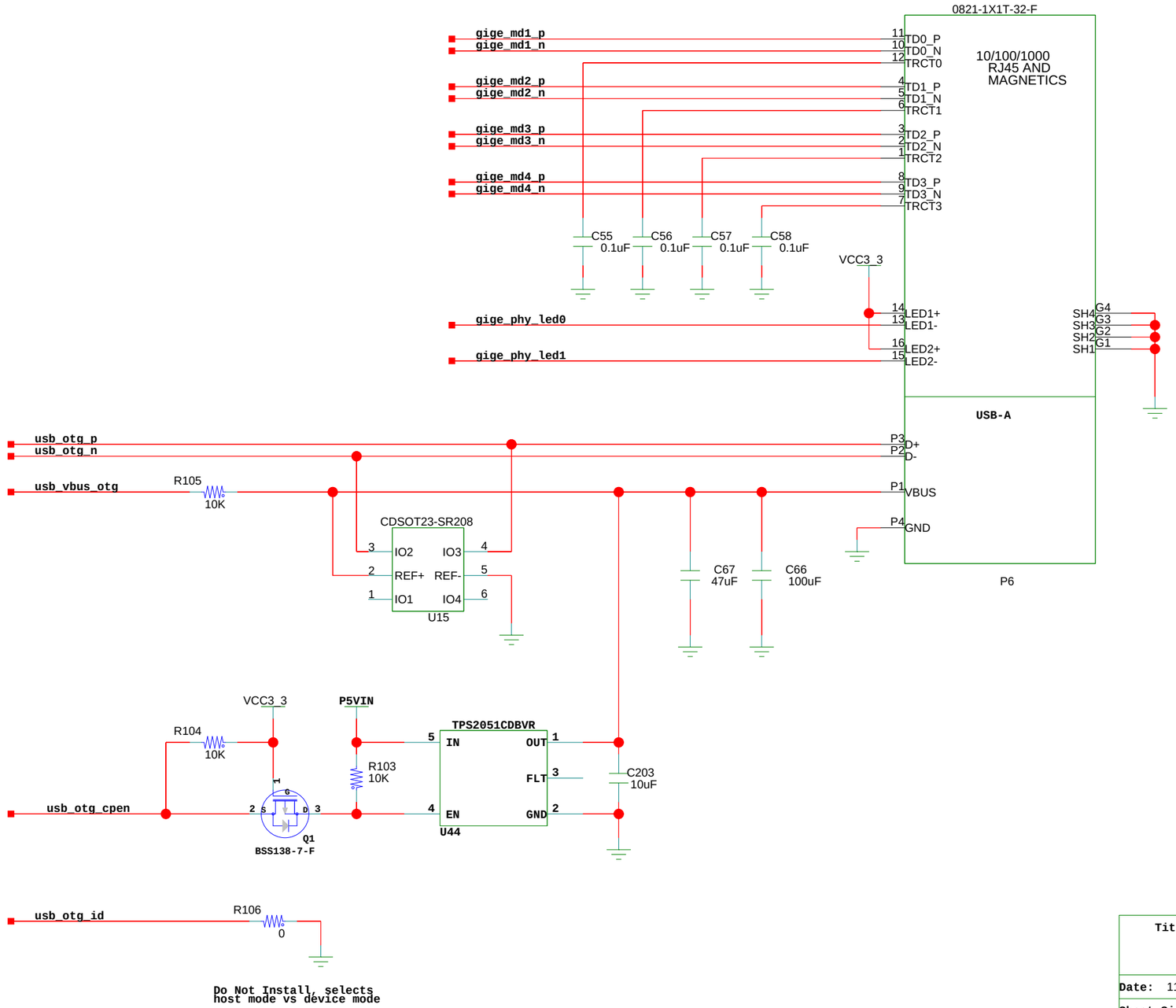
Zynq Peripherals : Gigabit Ethernet / USB



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