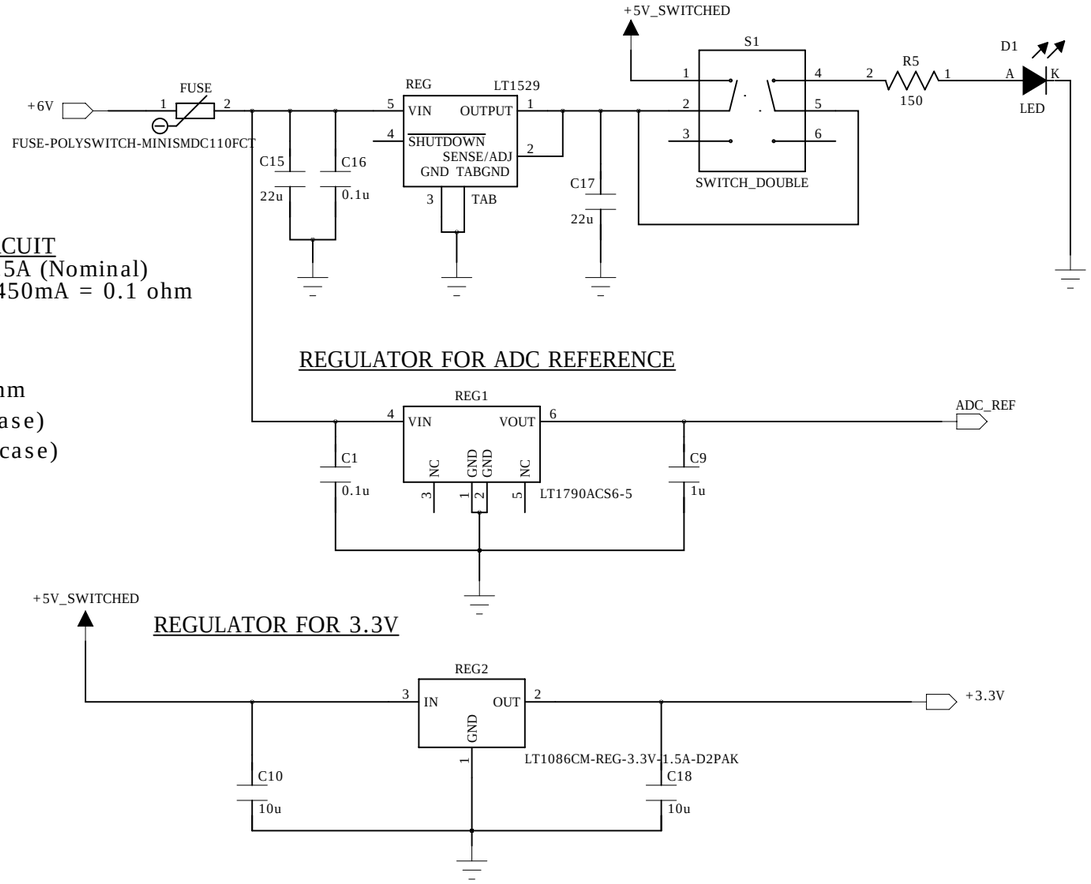


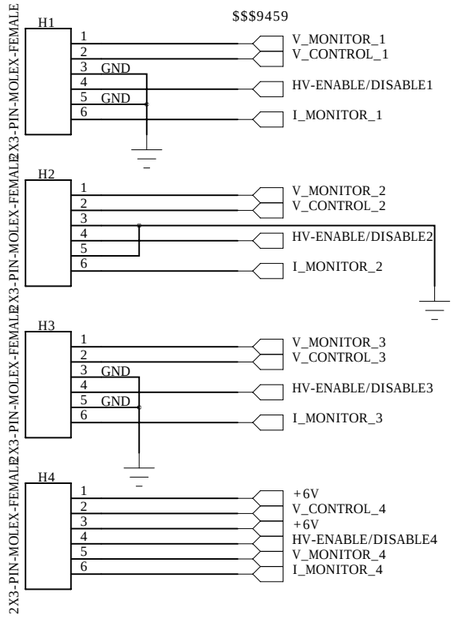
REGULATOR/ POWER ON CIRCUIT
LT1529Dropout = 0.43V @ 1.5A (Nominal)
Polyswitch resistance with 1450mA = 0.1 ohm
1.45A*0.1ohm=0.145

Polyswitch MAX res =0.21 ohm
LT1529Dropout 0.7 (Worst case)
LT1790Dropout 0.45 (Worst case)

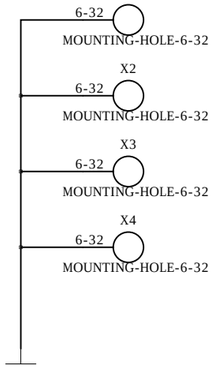
REGULATOR FOR ADC REFERENCE

REGULATOR FOR 3.3V

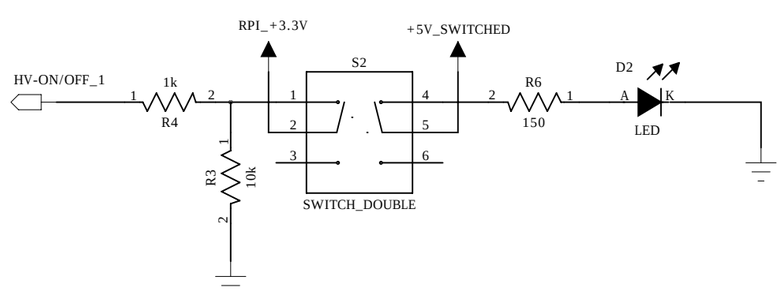
BOARD CONNECTORS

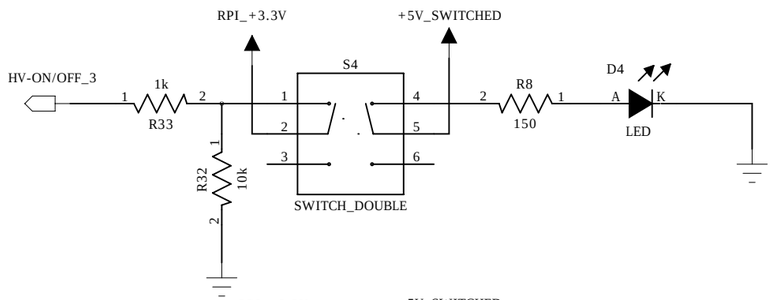


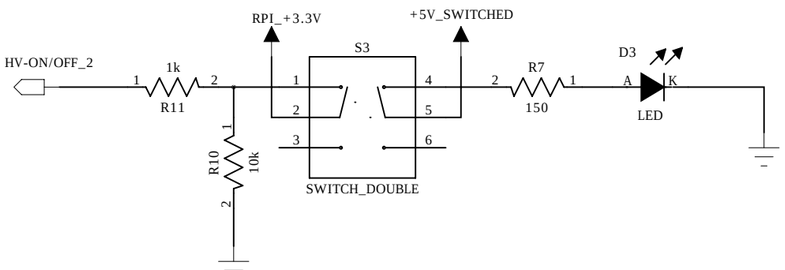
BOARD MOUNTING HOLES

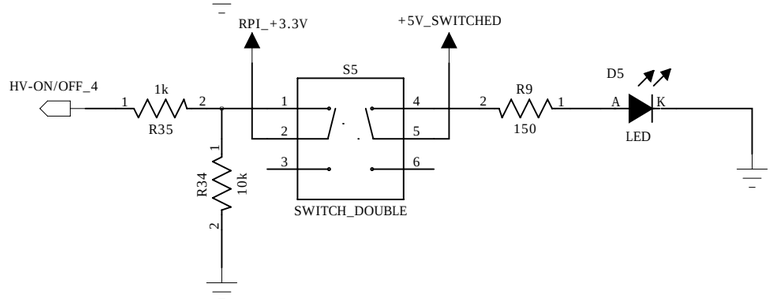


HV ON/OFF SWITCHES



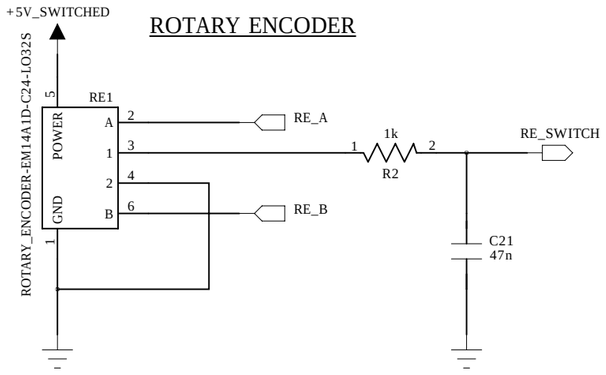






institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	NIM-HV-PSU-DISPLAY_BOARD
revision:	A
IDLAB design #:	IDL_15_008
circuit design:	LVV
PCB design:	LVV
sheet #:	1 of 4
sheet description:	TOP
date last modified:	23 MARCH 2015

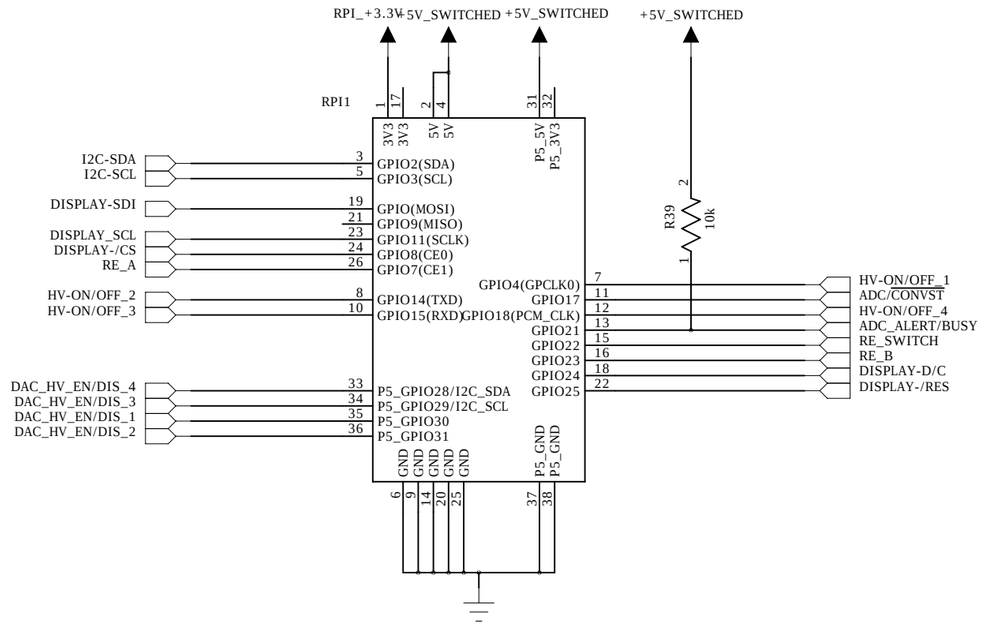
ROTARY ENCODER



RPI P1/P5 Header

RPI GPIO Signals uses 3.3V

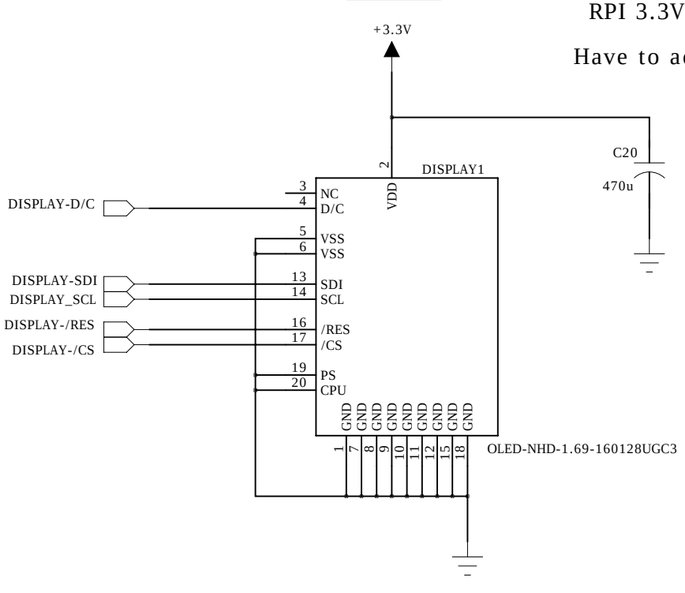
RPI 3.3V can provide 50mA MAX



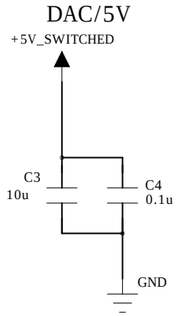
DISPLAY

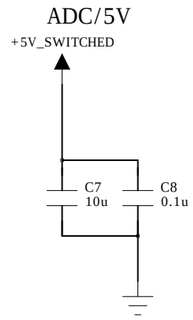
RPI 3.3V can provide 50mA MAX

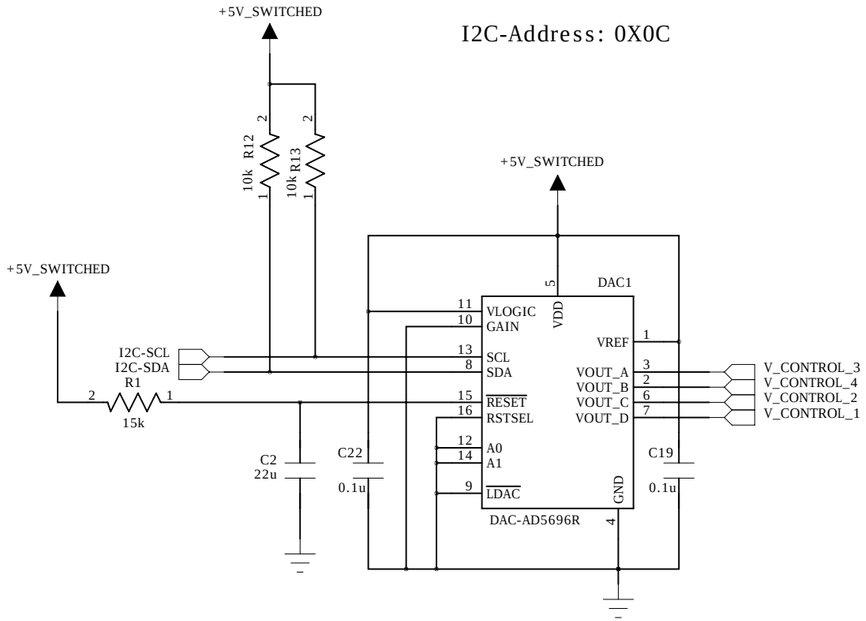
Have to add externall 3.3V regulator

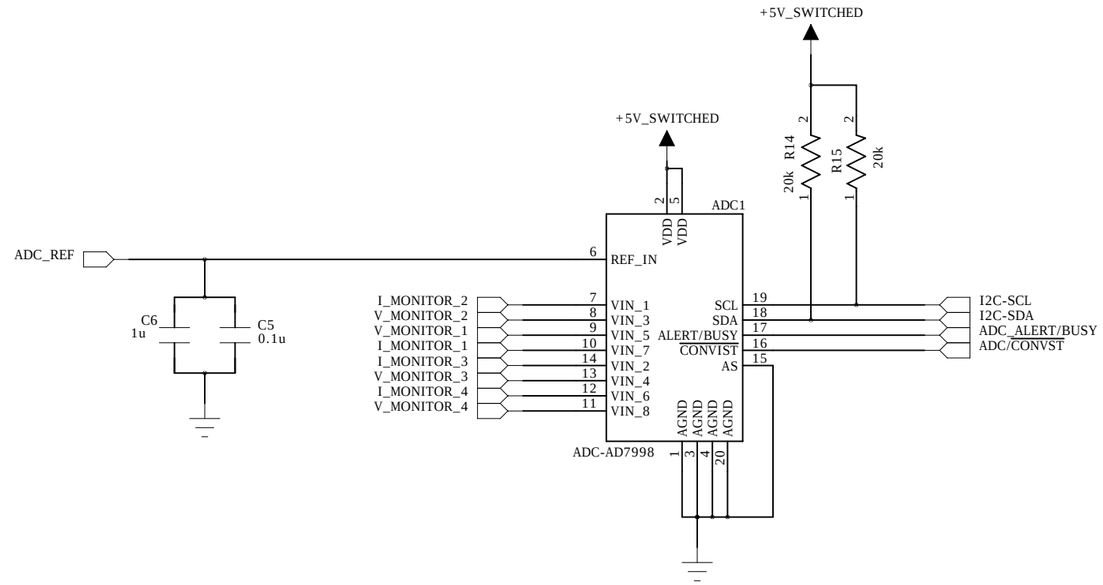


institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	NIM-HV-PSU-DISPLAY_BOARD
revision:	A
IDLAB design #:	IDL_15_008
circuit design:	LVV
PCB design:	LVV
sheet #:	2 of 4
sheet description:	RPI, Display and RE
date last modified:	23 MARCH 2015









Reset input logic HIGH = 0.7*5V = 3.5 V

Delay = 4397 ms

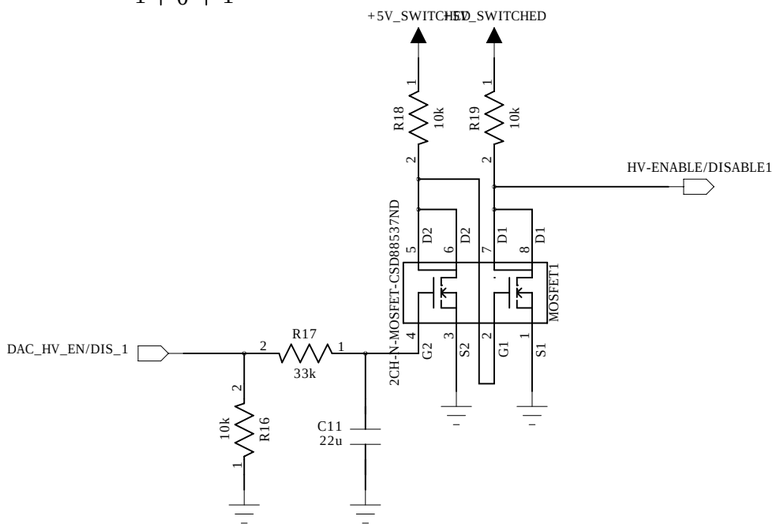
institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	NIM-HV-PSU-DISPLAY_BOARD
revision:	A
IDLAB design #:	IDL_15_008
circuit design:	LVV
PCB design:	LVV
sheet #:	3 of 4
sheet description:	ADC/DAC Connections
date last modified:	23 MARCH 2015

CH1

Truth table		
0	1	0
1	0	1

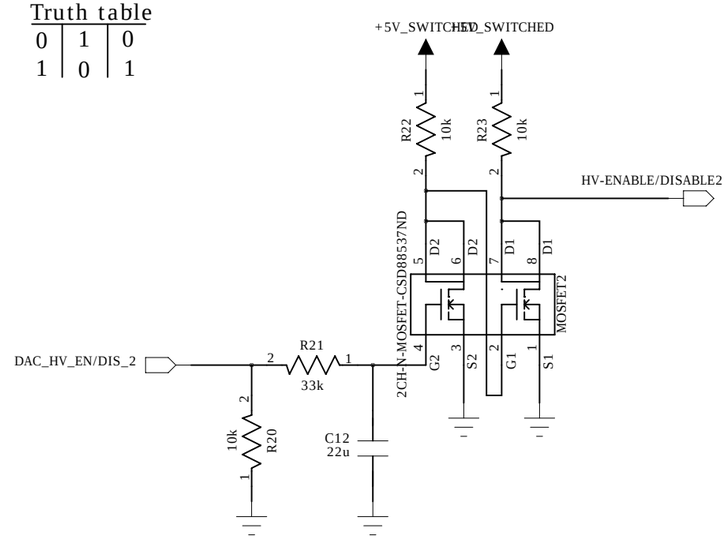
Vgs treshold min = 2.6V

Delay 475 ms



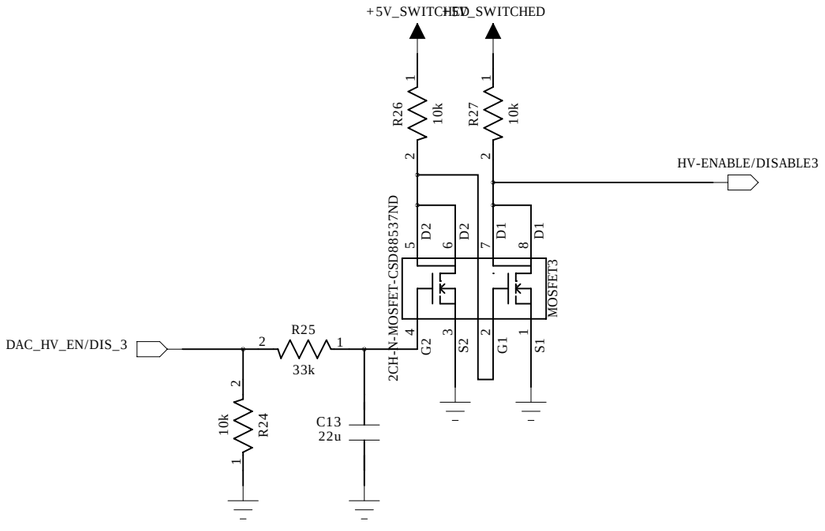
CH2

Truth table		
0	1	0
1	0	1



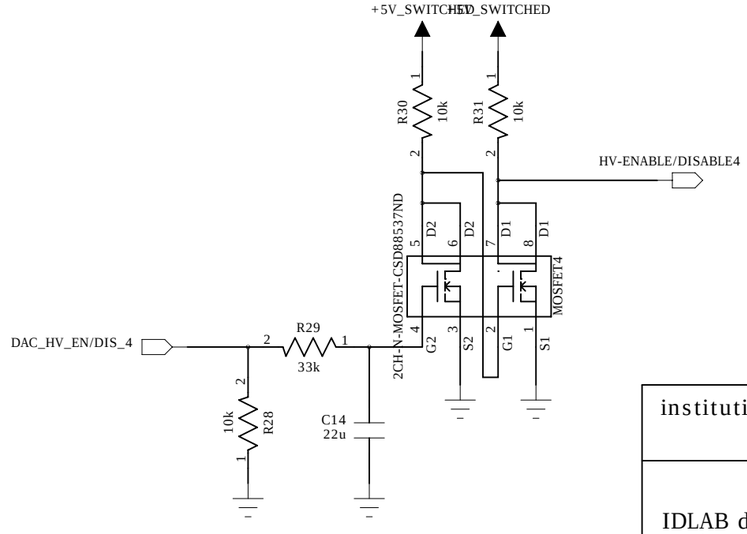
Ch3

Truth table		
0	1	0
1	0	1



CH4

Truth table		
0	1	0
1	0	1



institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	NIM-HV-PSU-DISPLAY_BOARD
revision:	A
IDLAB design #:	IDL_15_008
circuit design:	LVV
PCB design:	LVV
sheet #:	4 of 4
sheet description:	Delay Circuit connections
date last modified:	23 MARCH 2015