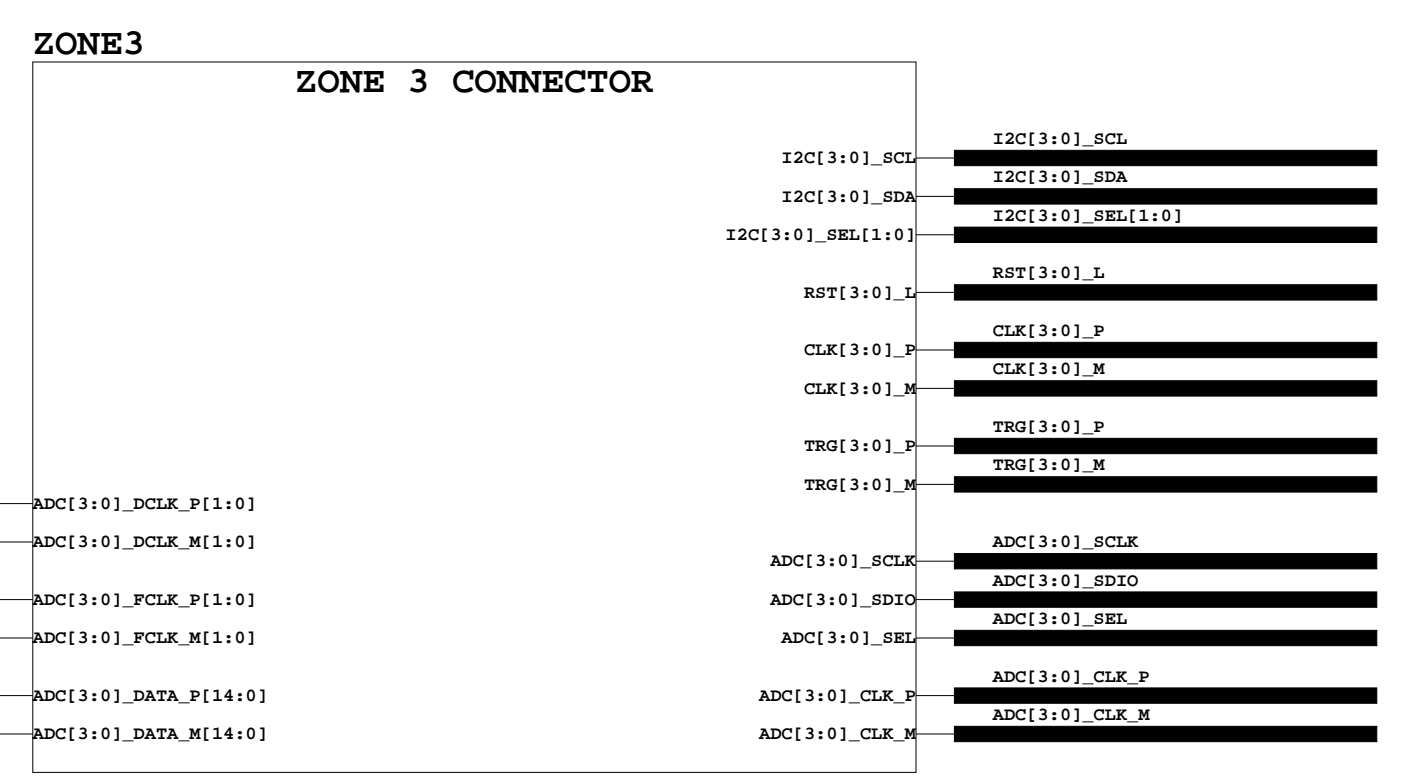
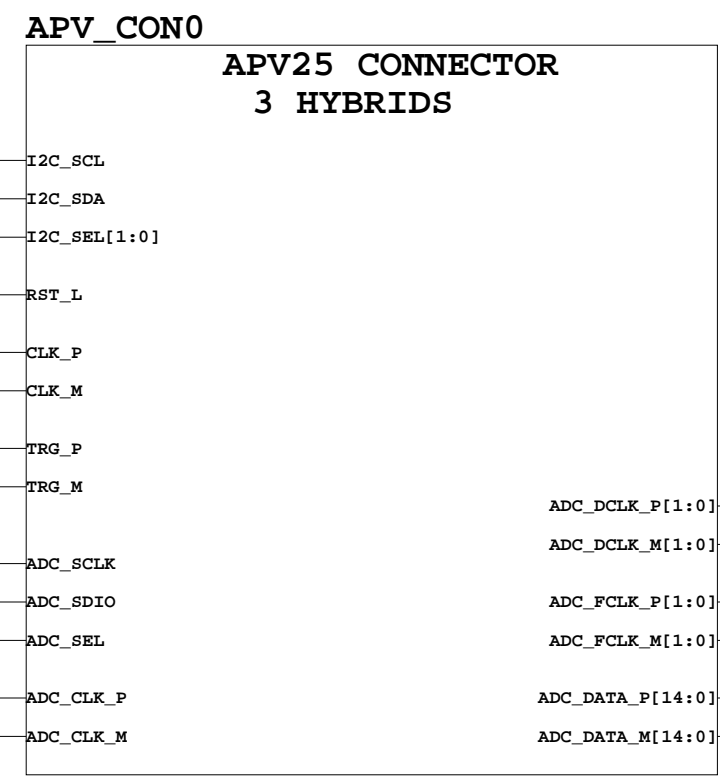
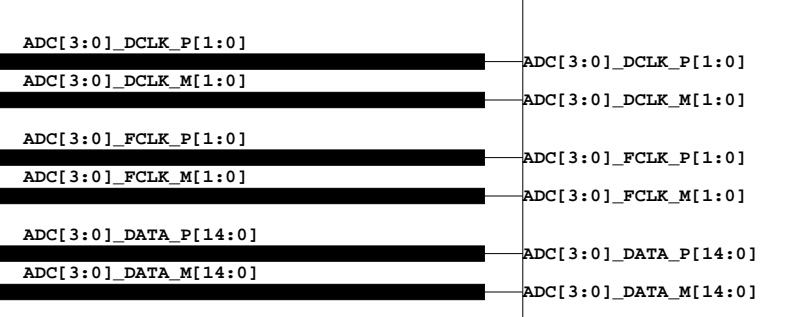


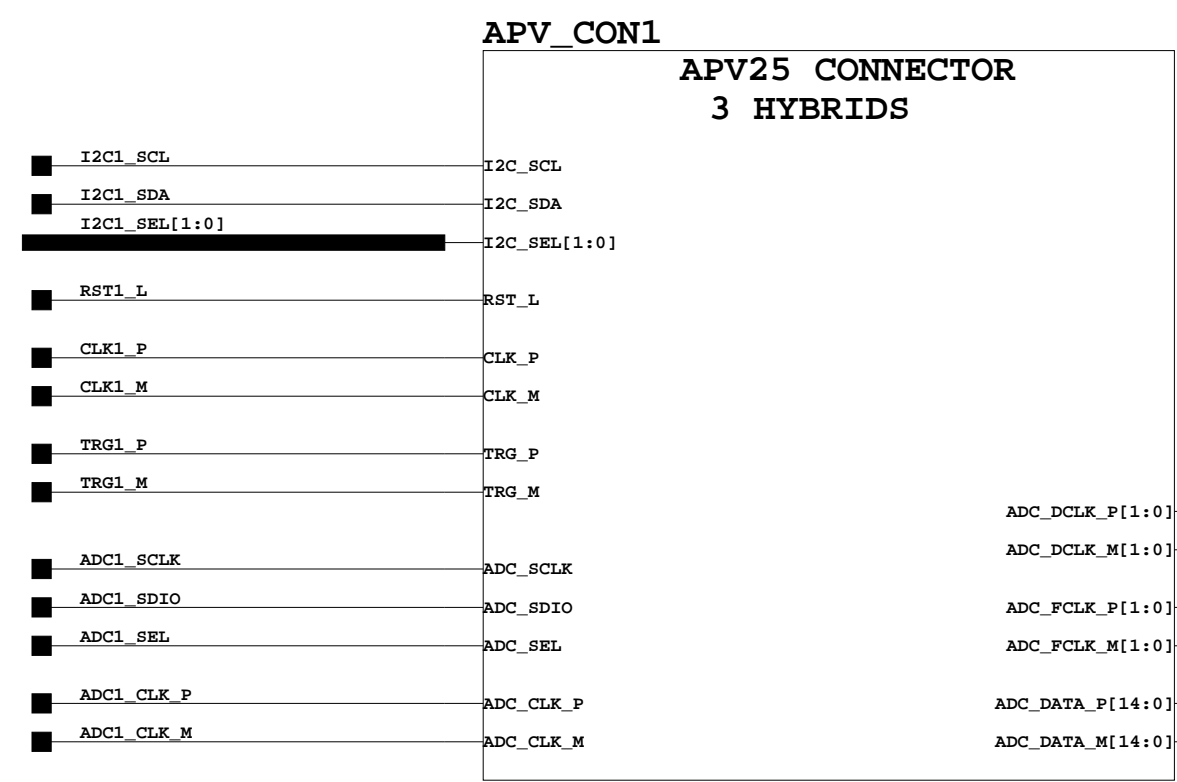
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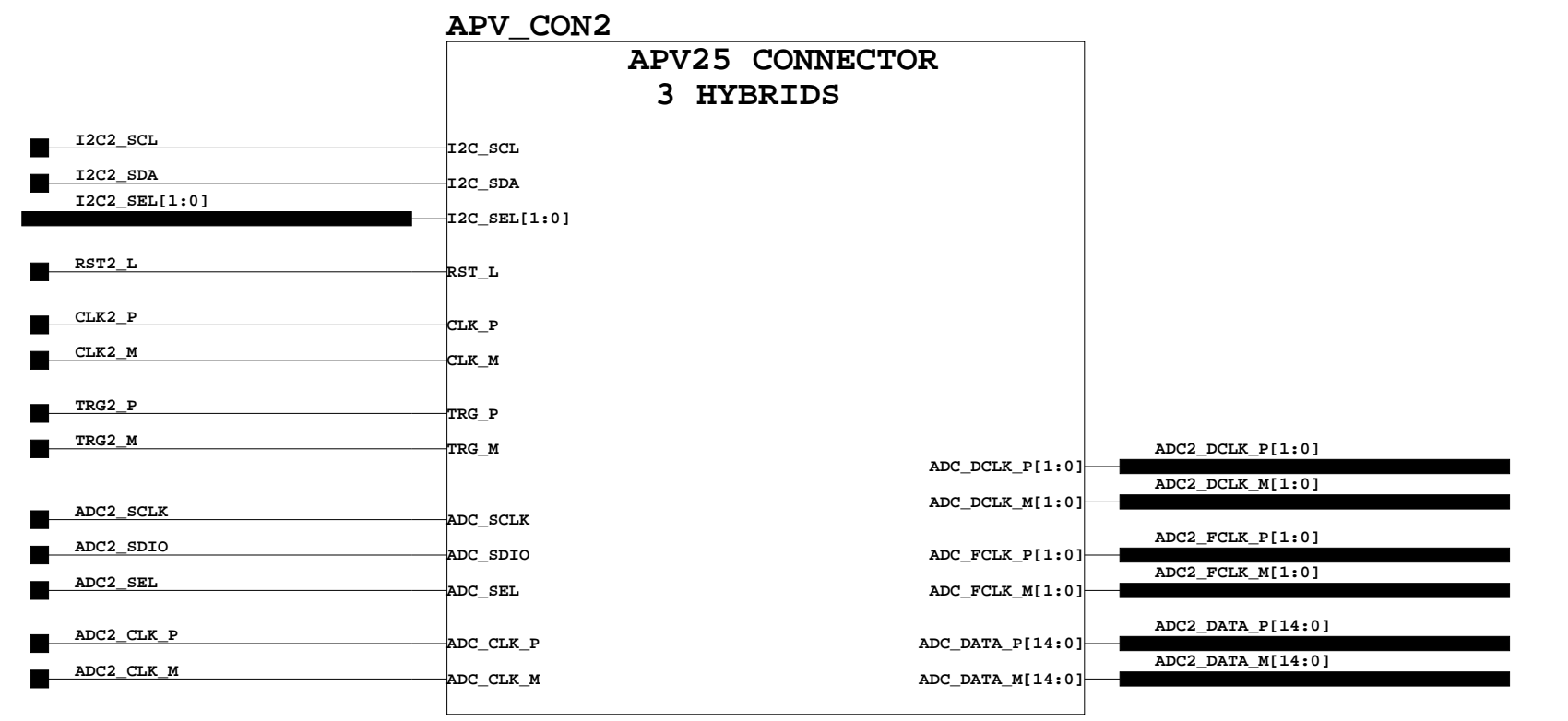
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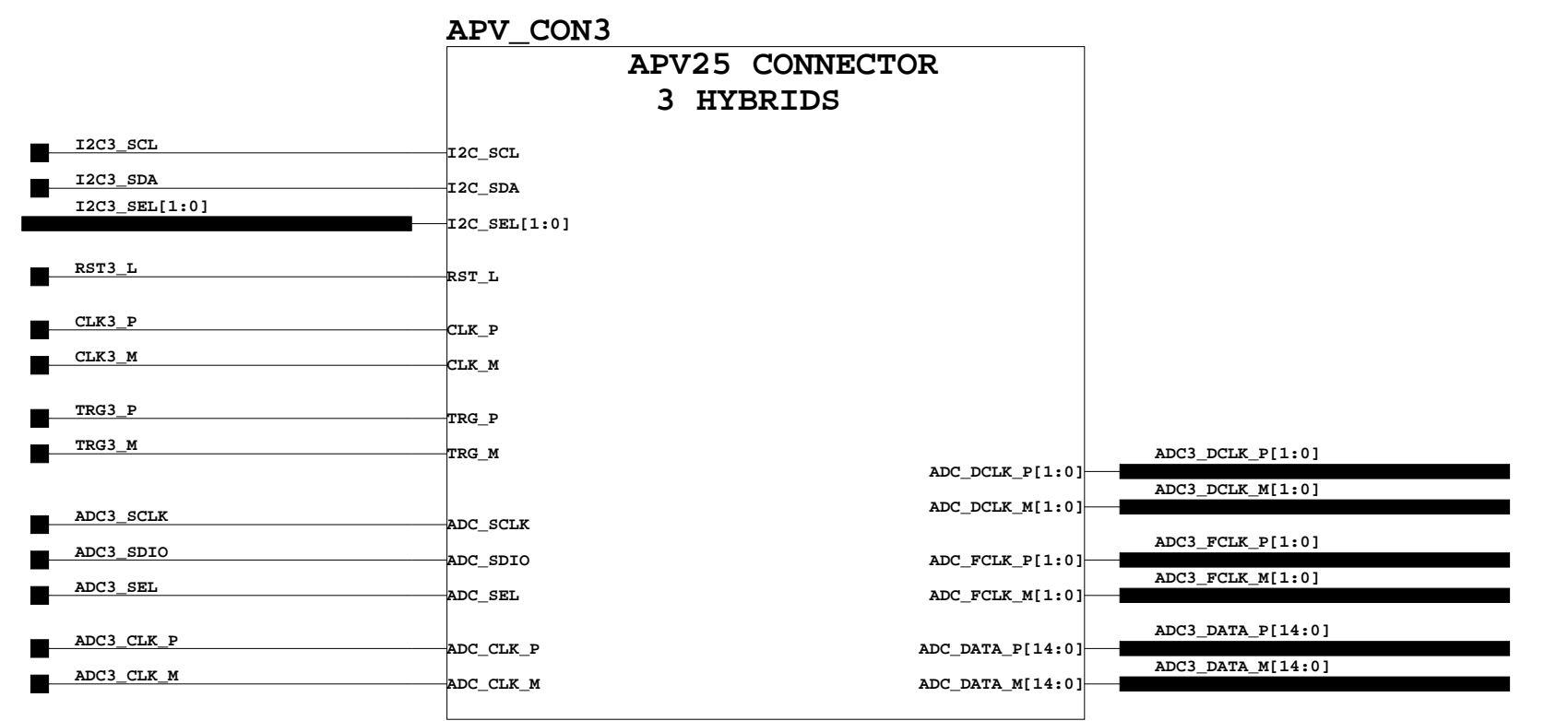
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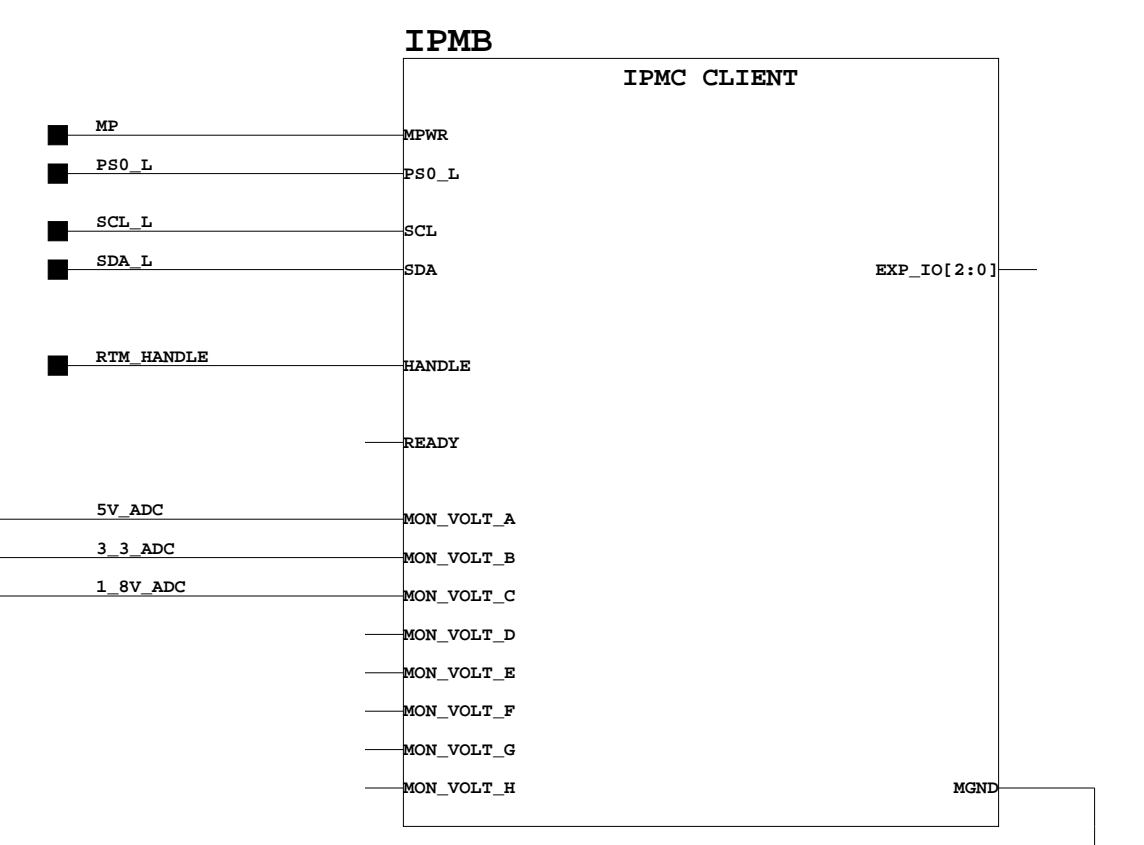
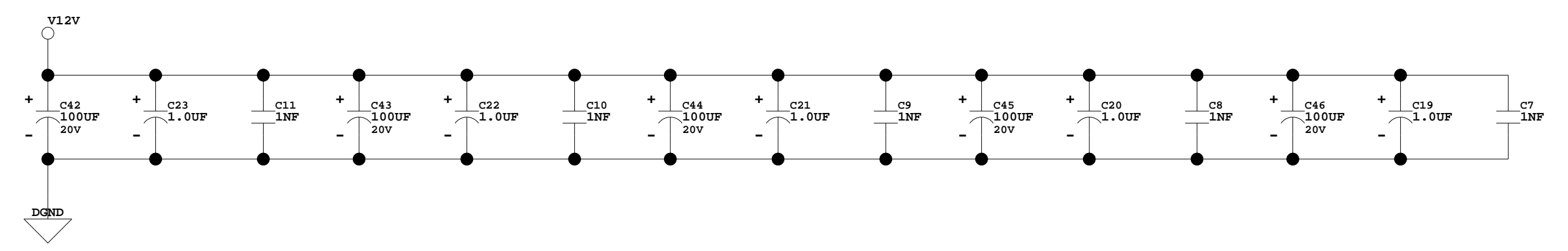
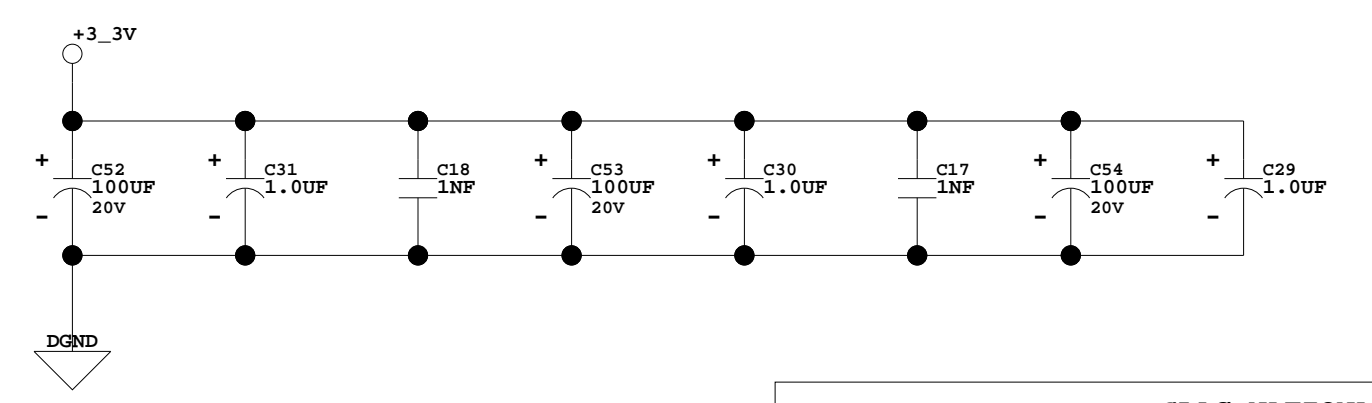
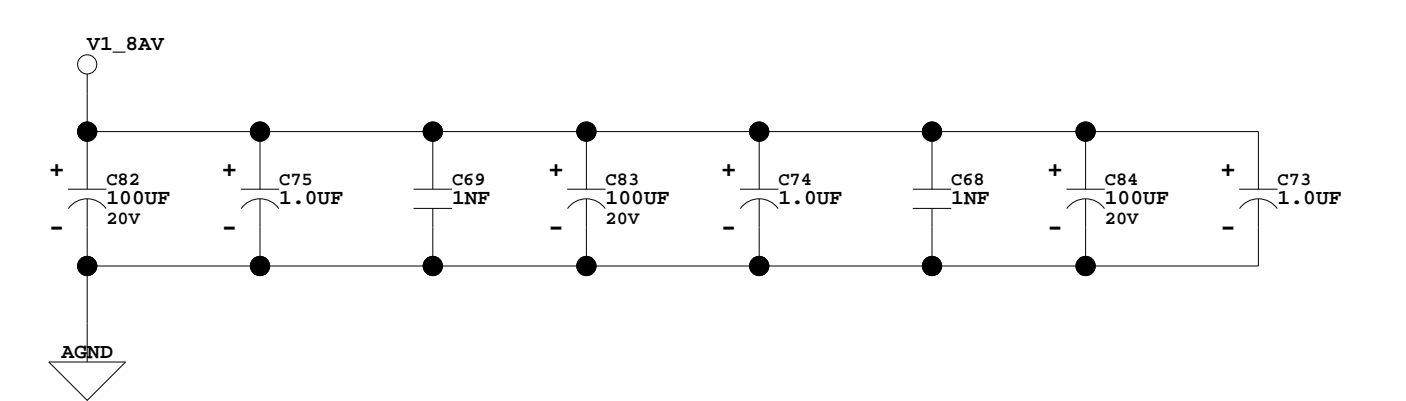
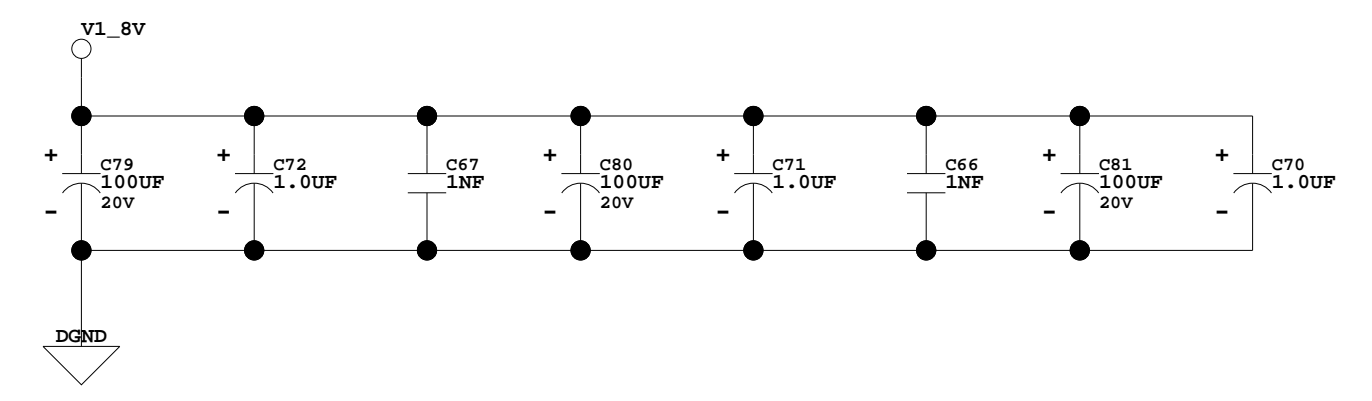
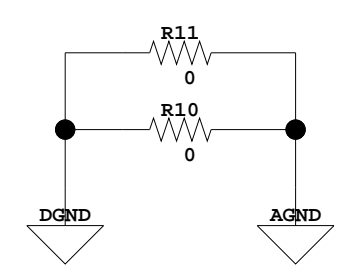
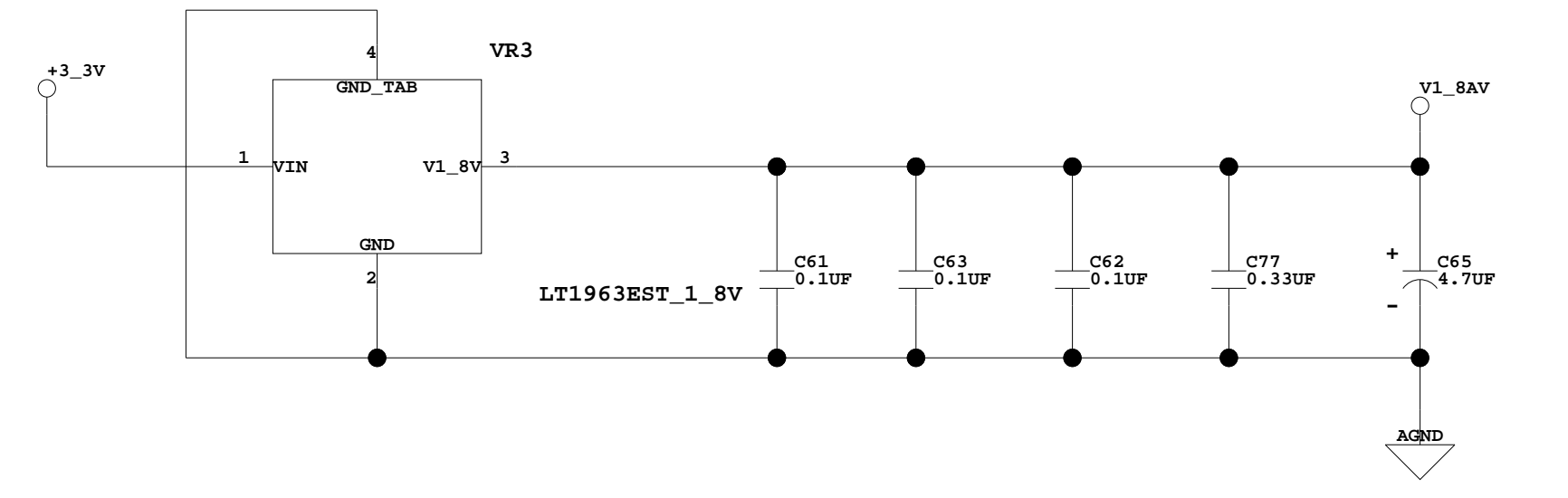
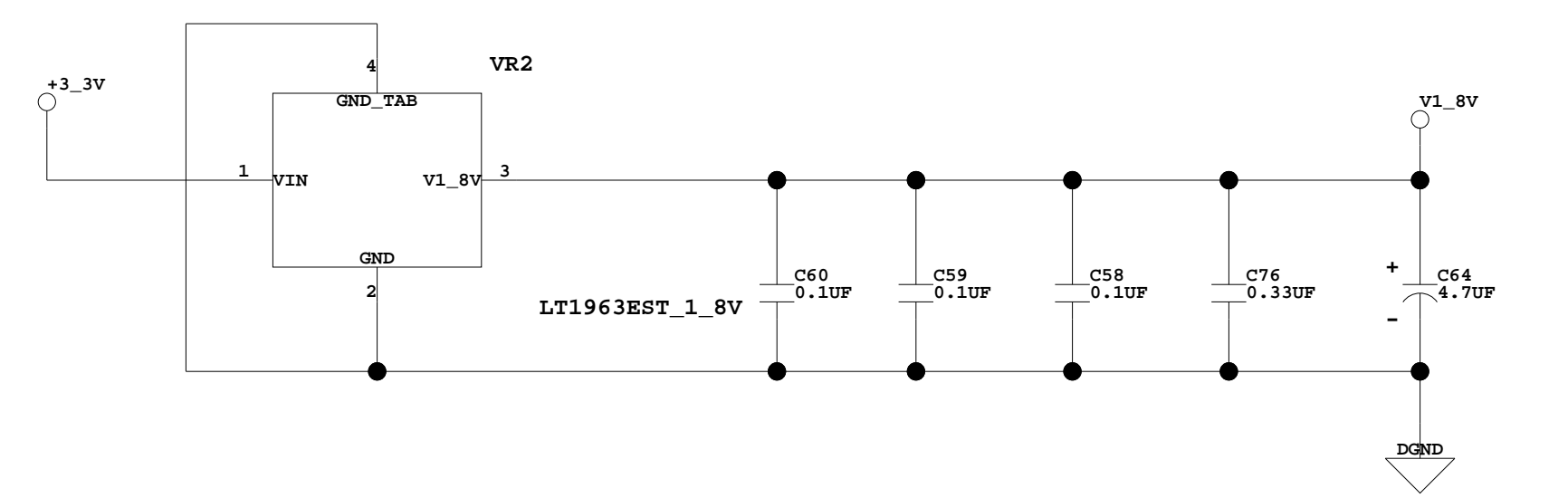
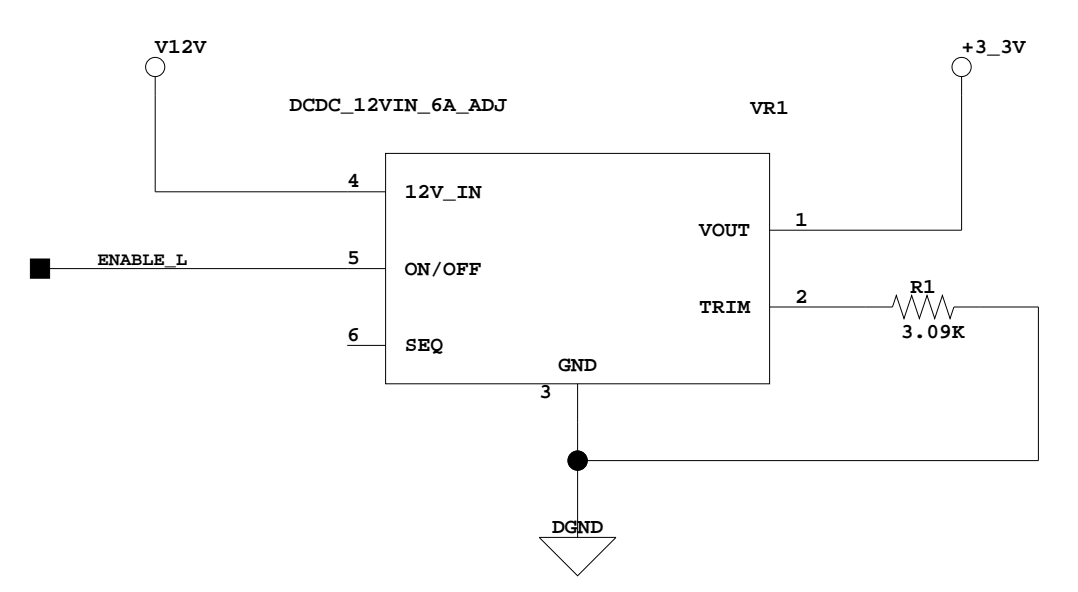
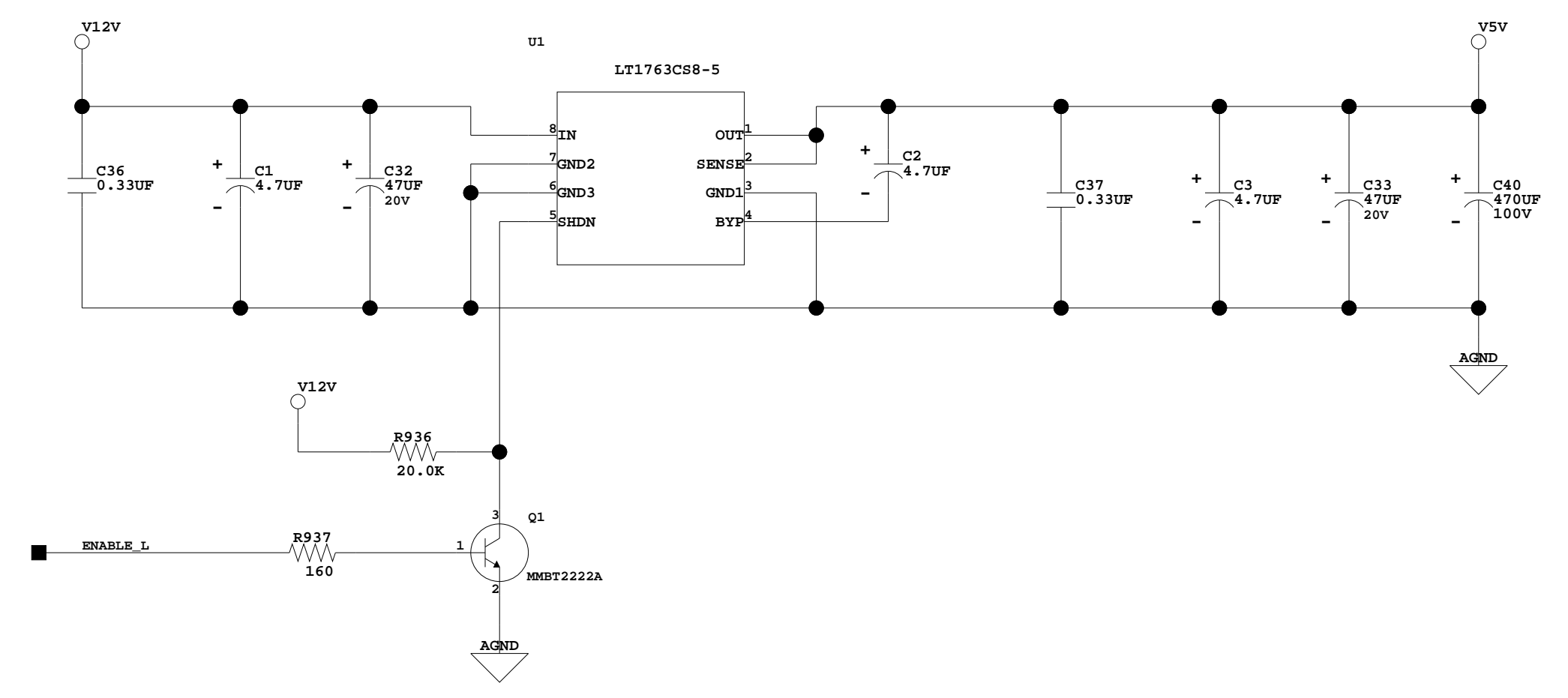
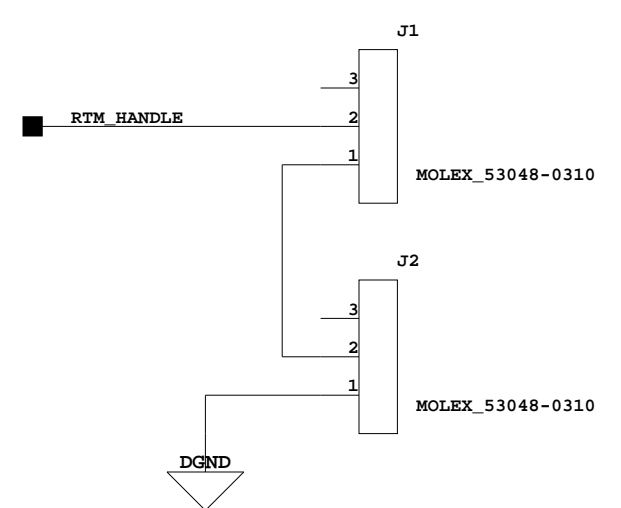
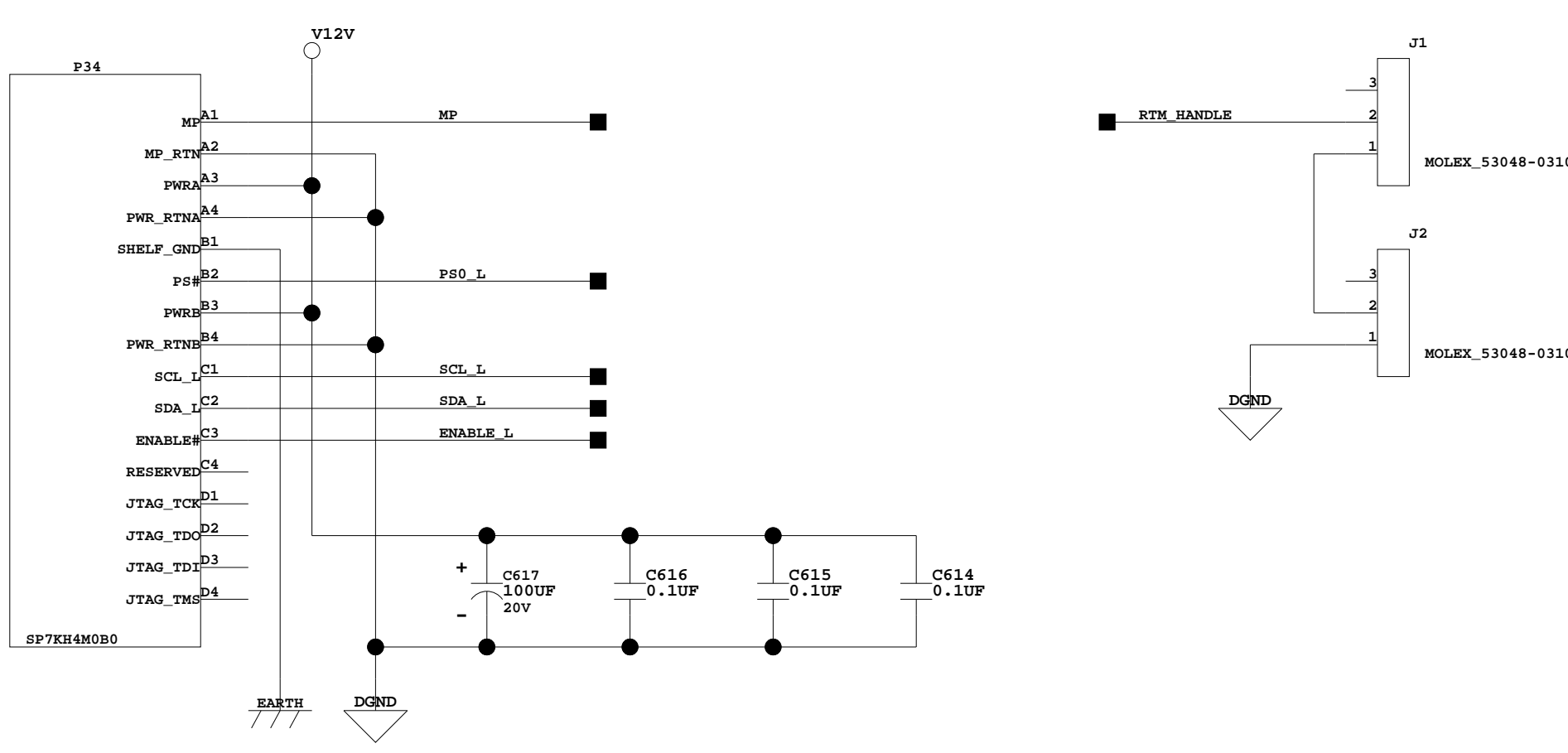


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SHEET=18

4-11-2011_15:40



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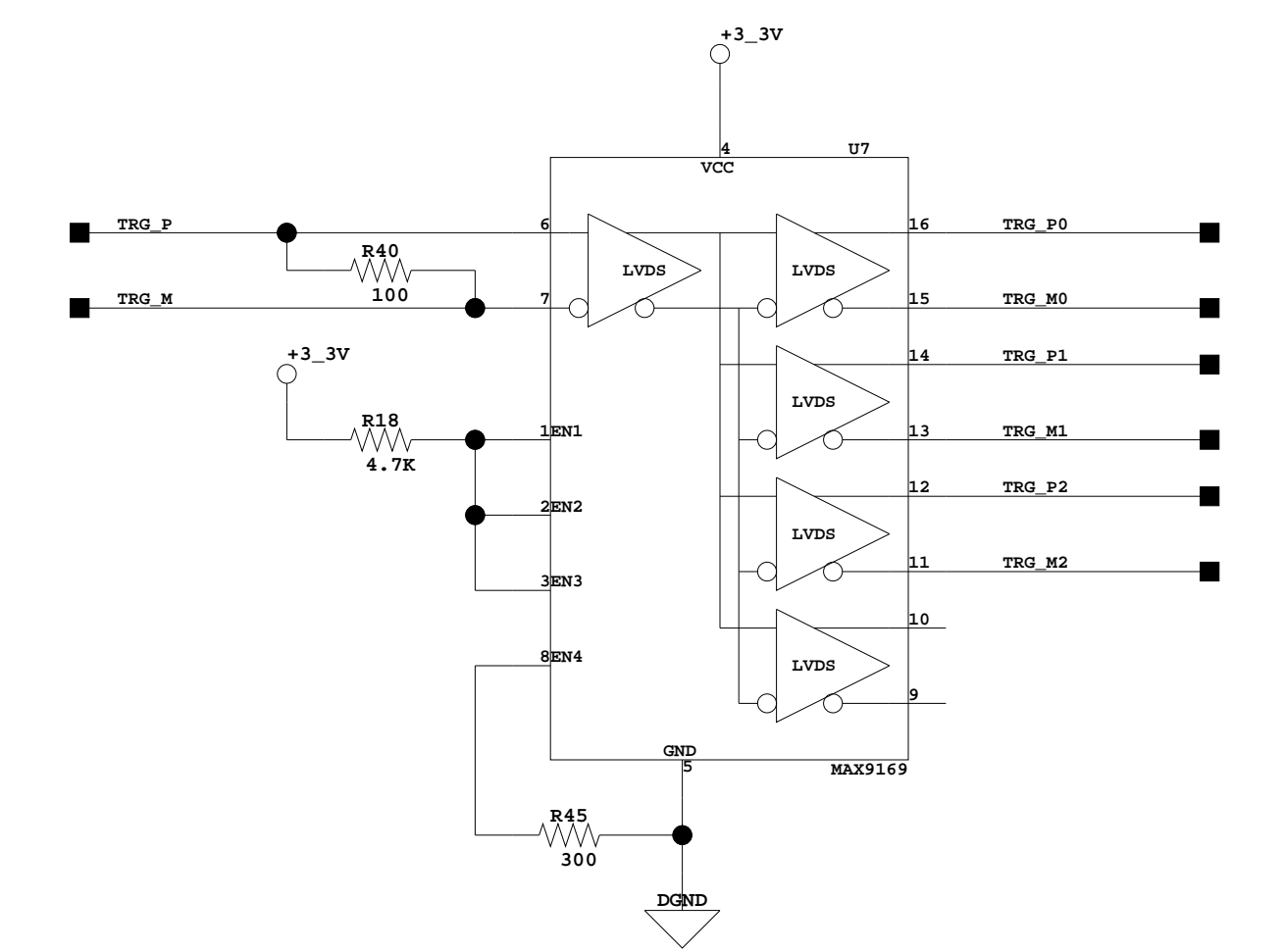
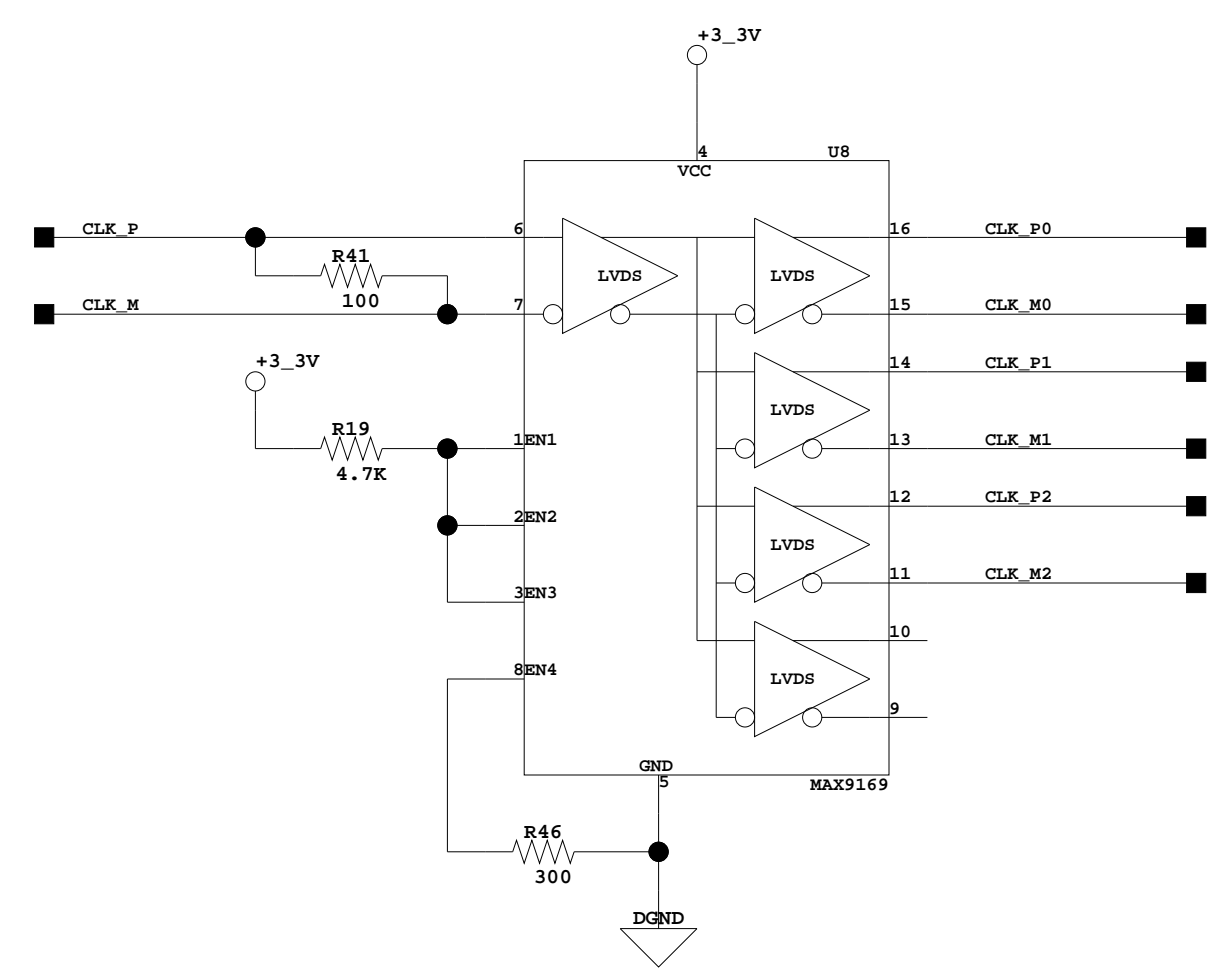
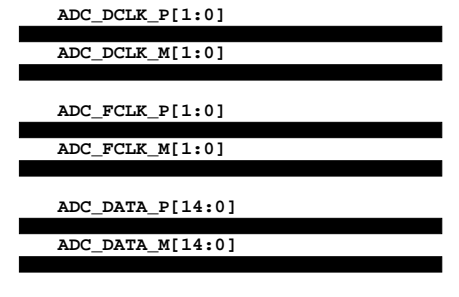
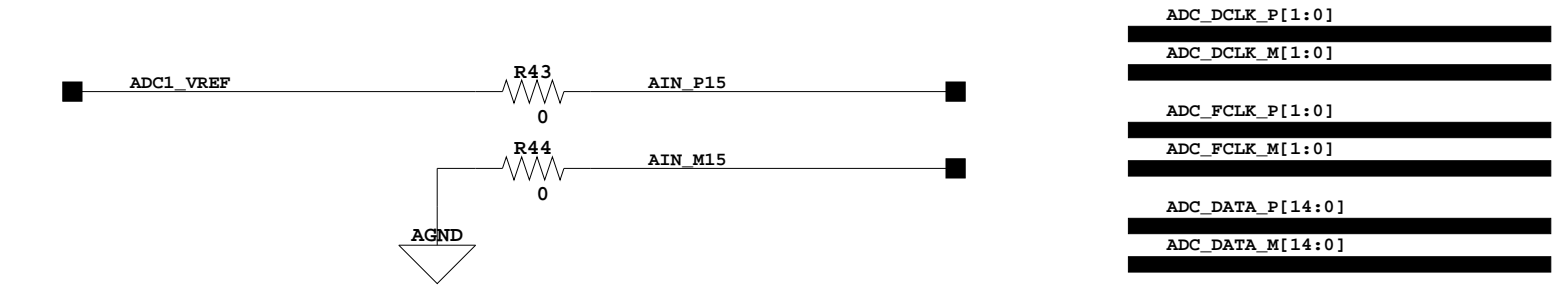
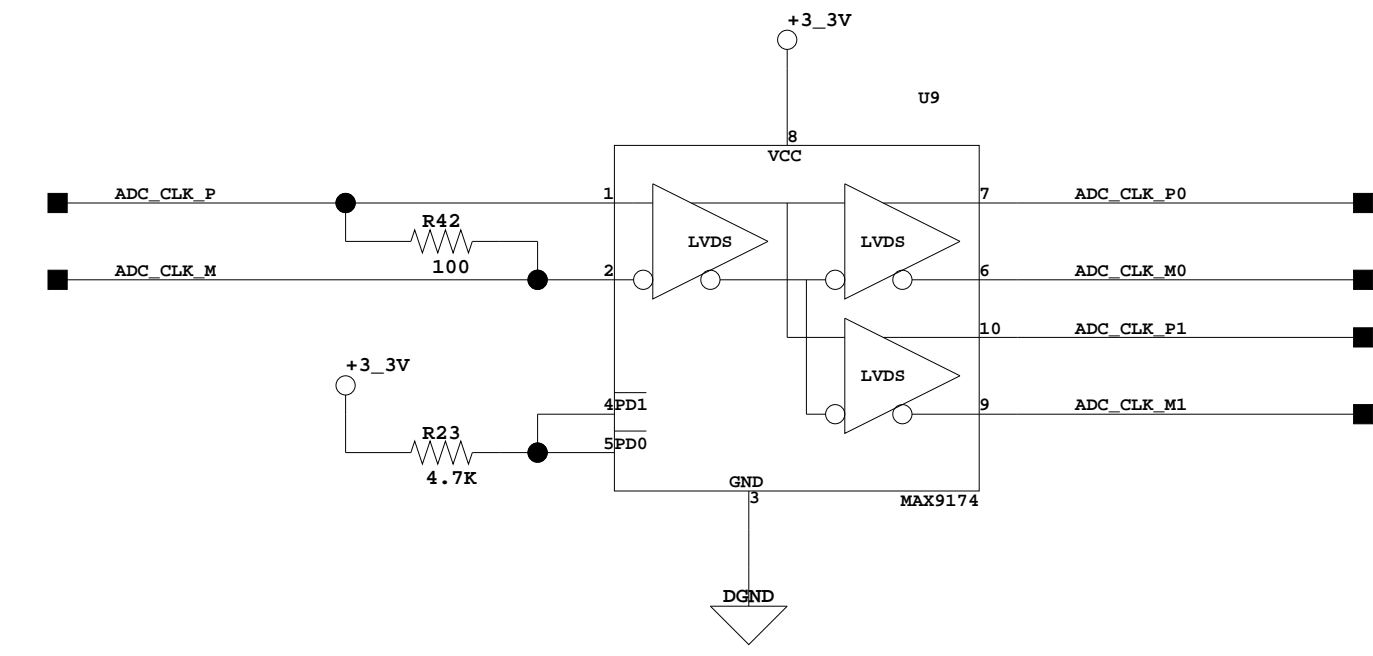
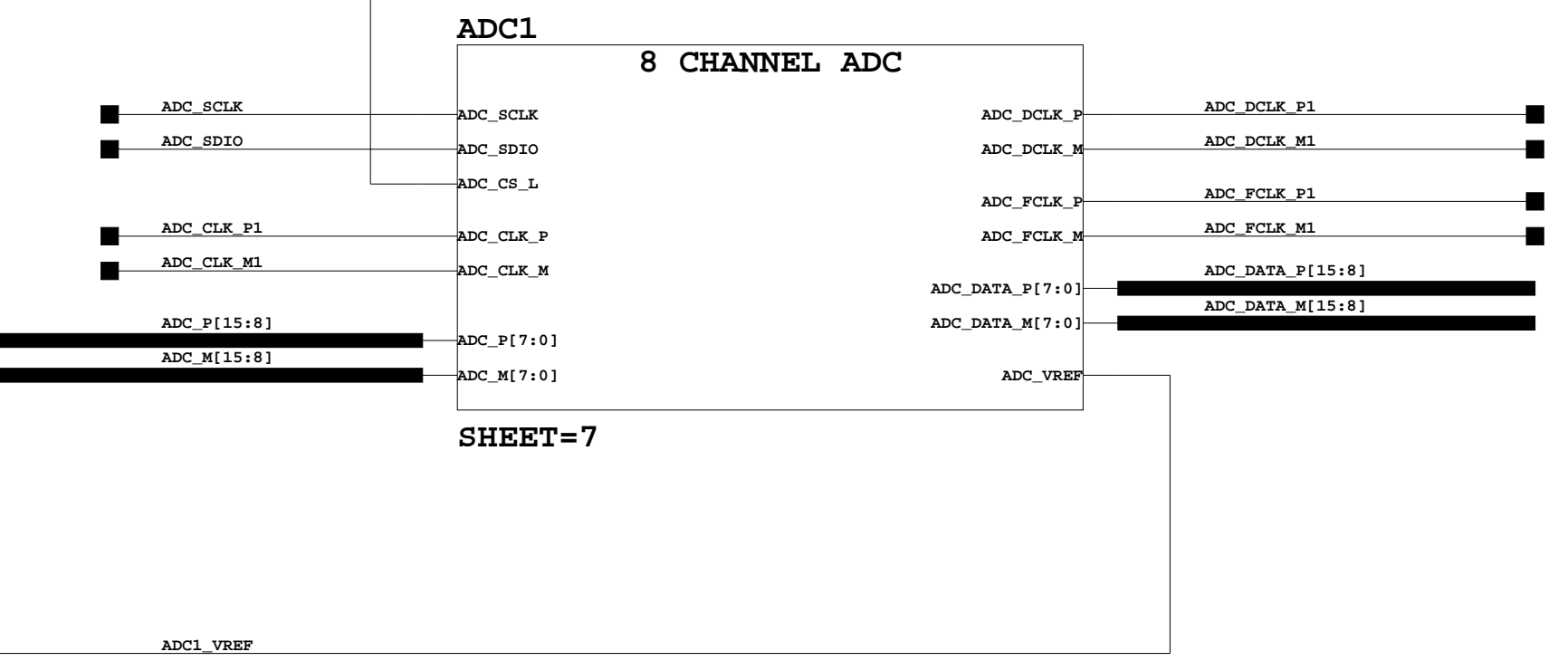
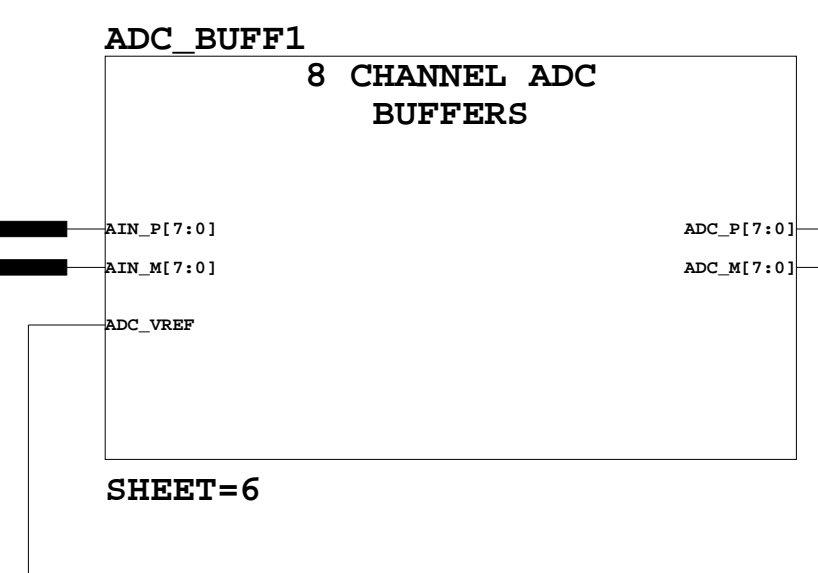
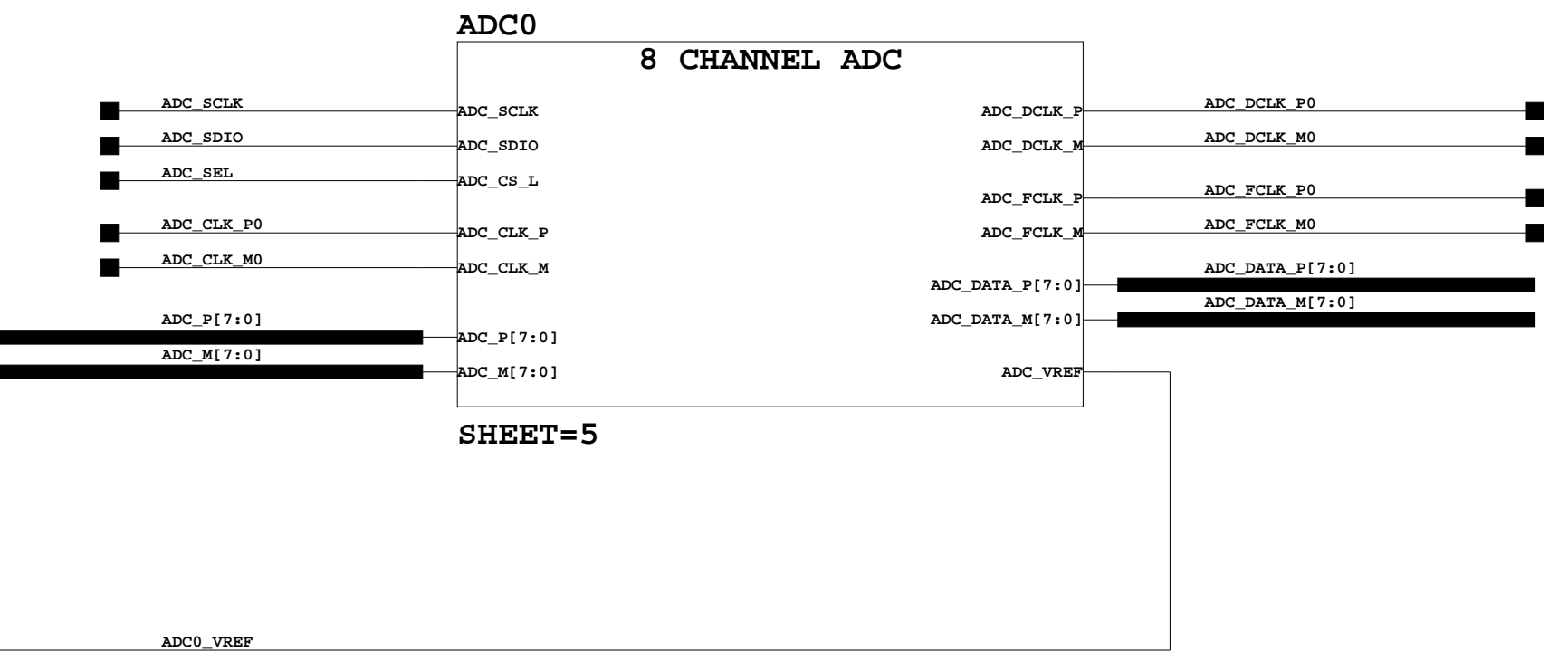
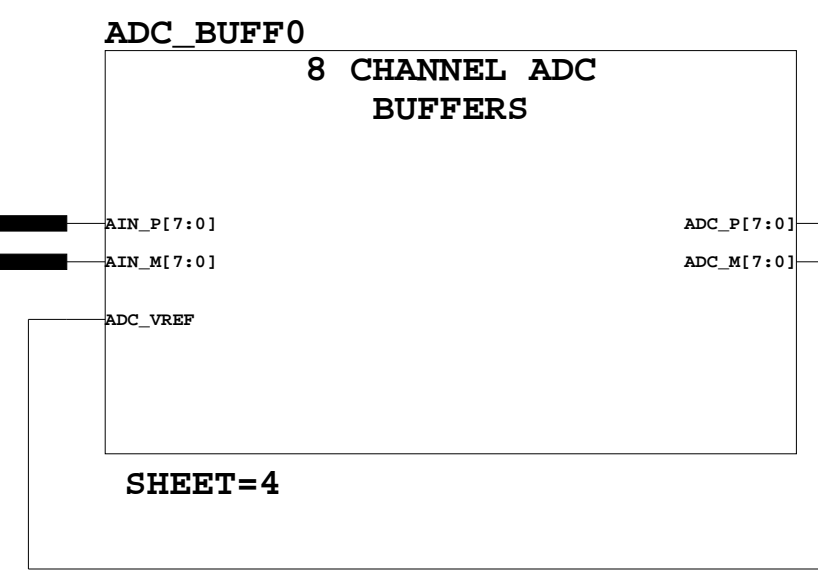
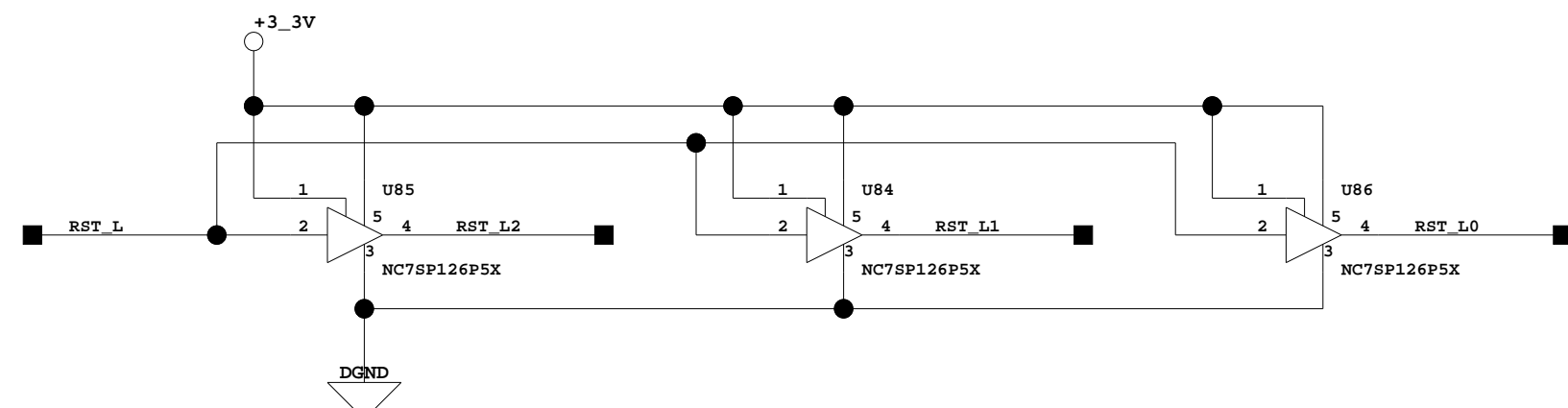
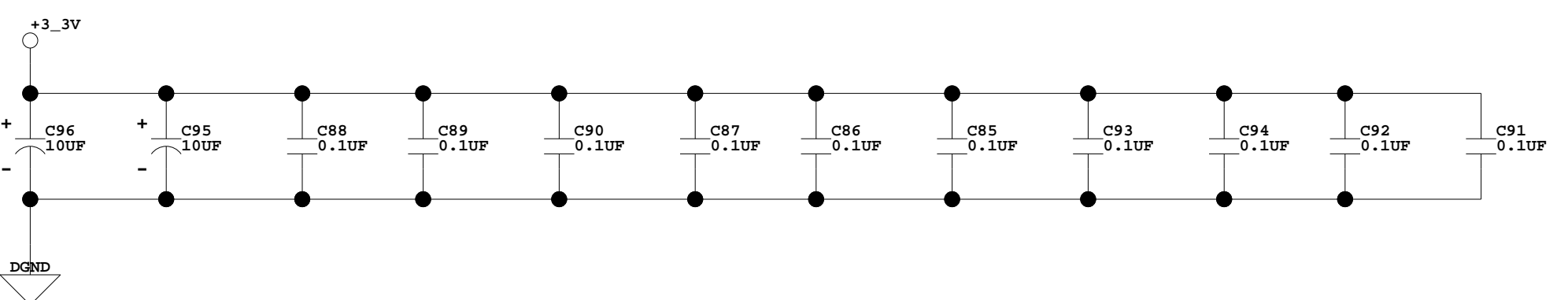
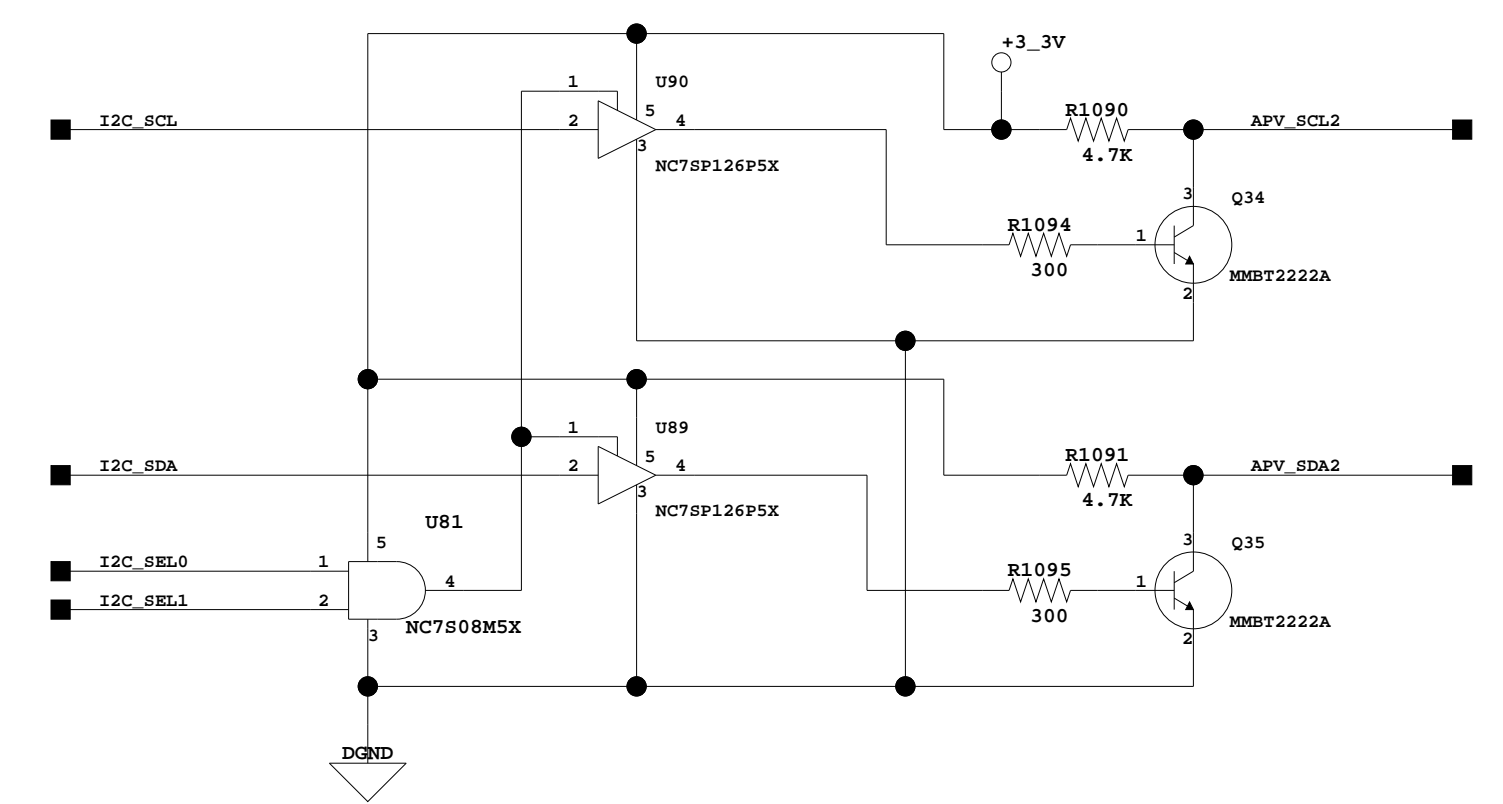
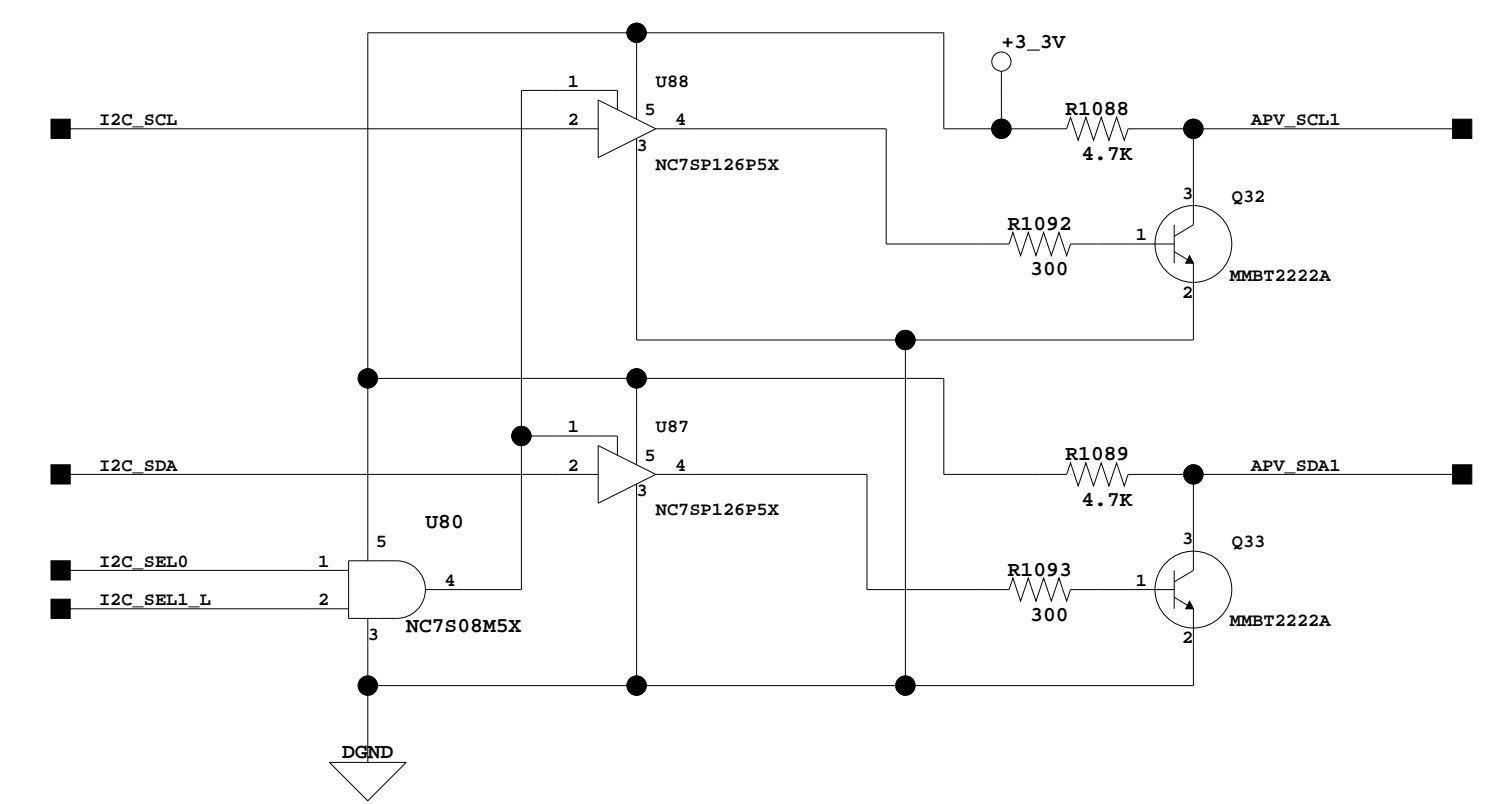
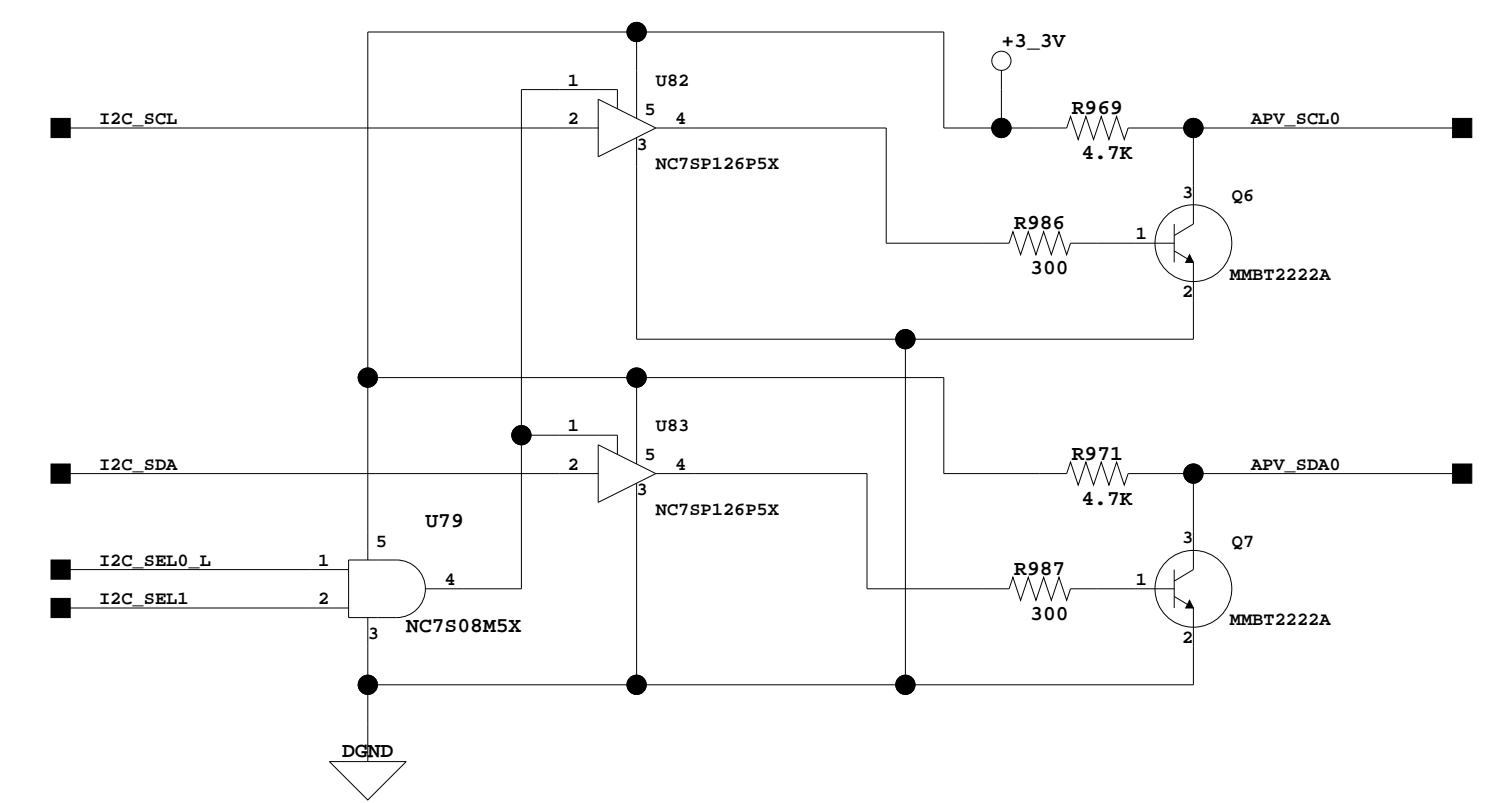
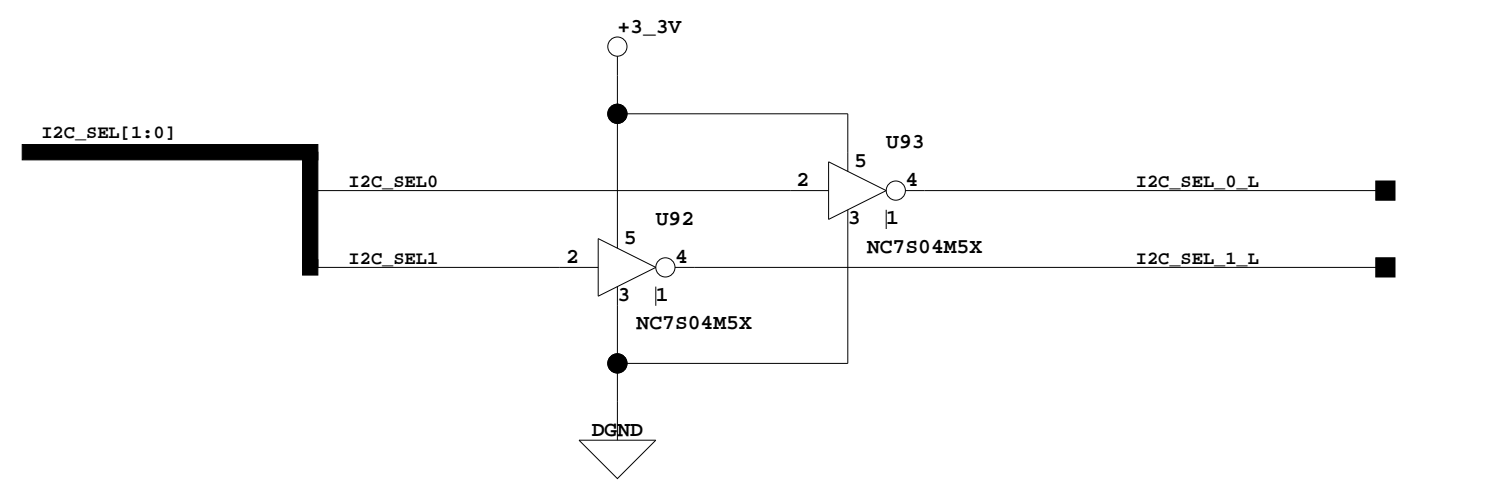
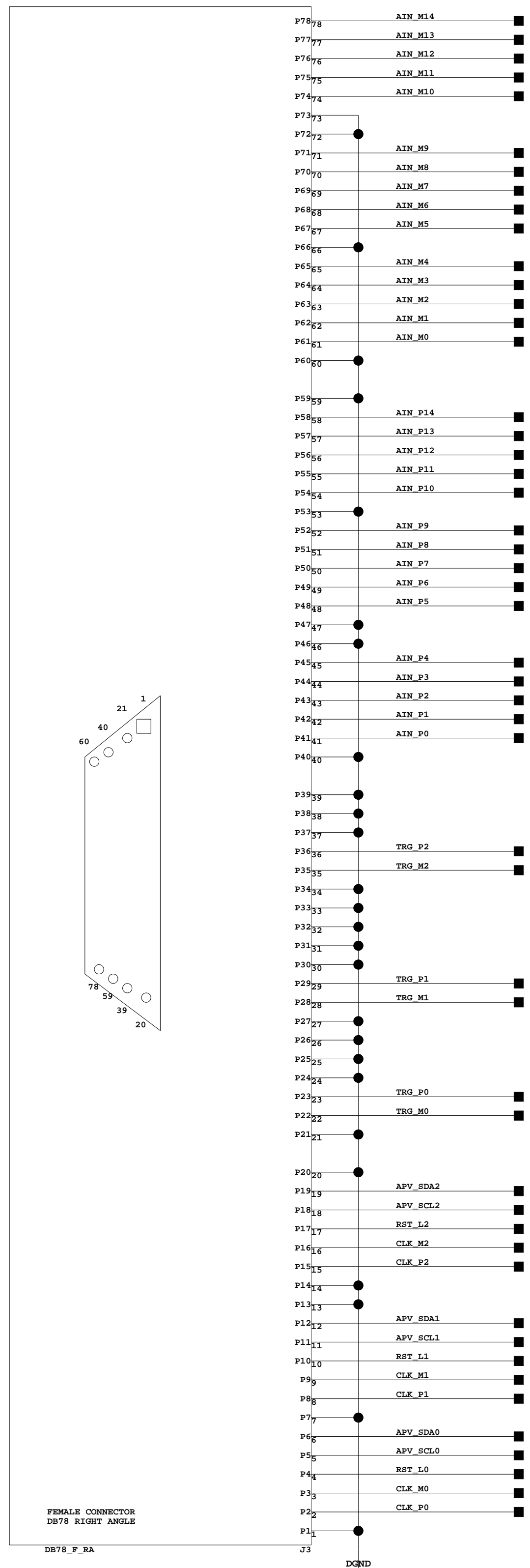
SHEET 2 OF 23

HEAVY P TRACKER READOUT RTM
POWER REGULATORS

LOCATED AT SHEET 1

SD-249-901-02-C01

4-11-2011_15:42



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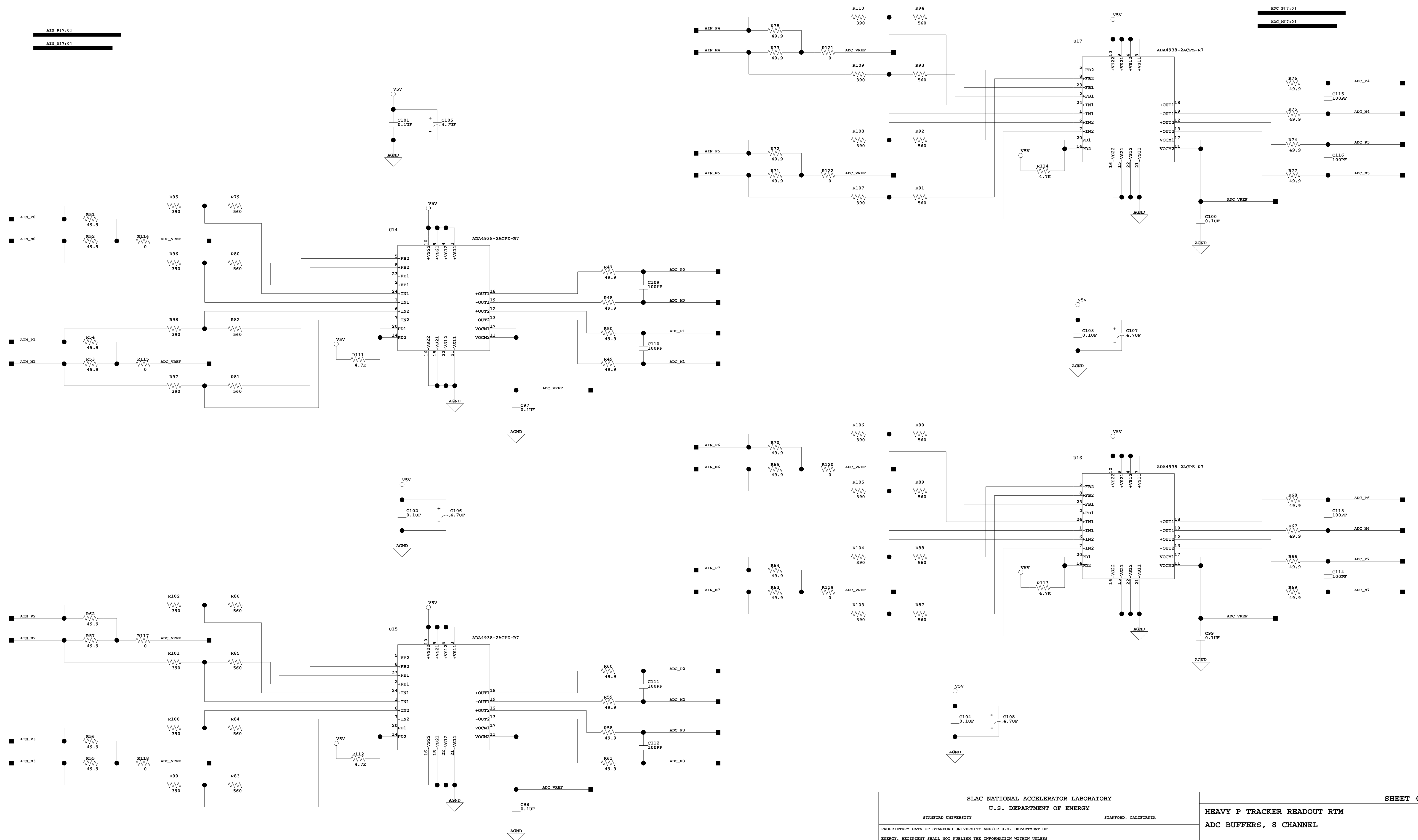
DATE	APPROVALS
2010	Ryan Herbst

SHEET 3 OF 23

HEAVY P TRACKER READOUT RTM
APV25 CONNECTOR

LOCATED AT SHEET 1
SD-249-901-02-C01

4-11-2011_15:42



AIN_P[7:0]
AIN_M[7:0]

ADC_P[7:0]
ADC_M[7:0]

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SHEET 4 OF 23

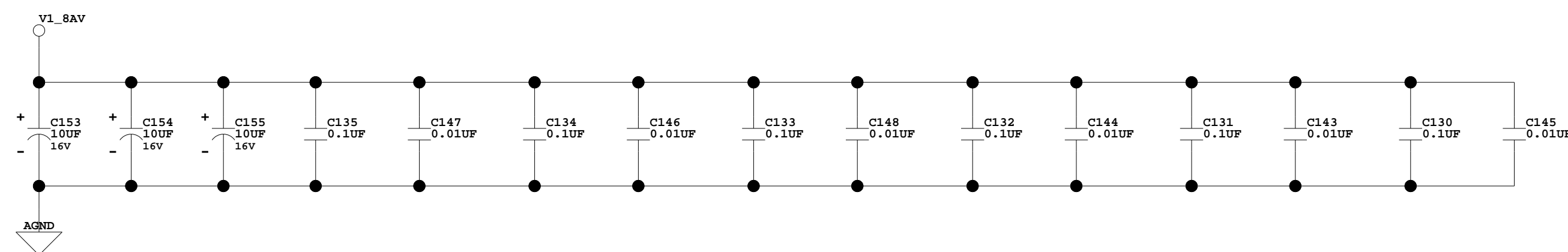
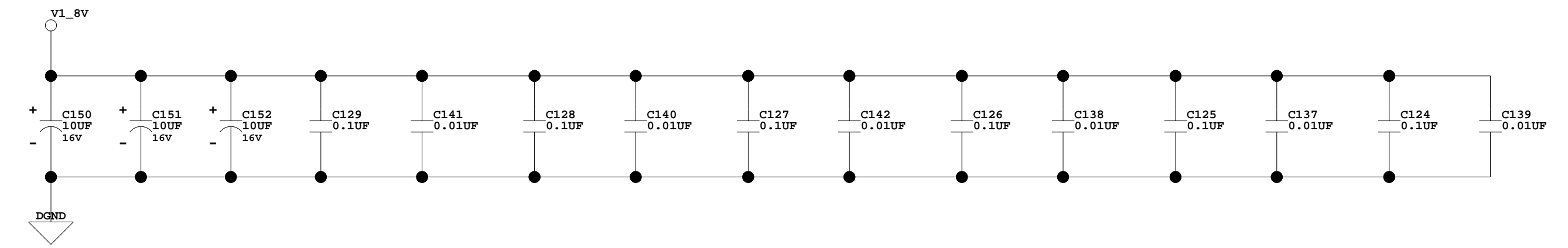
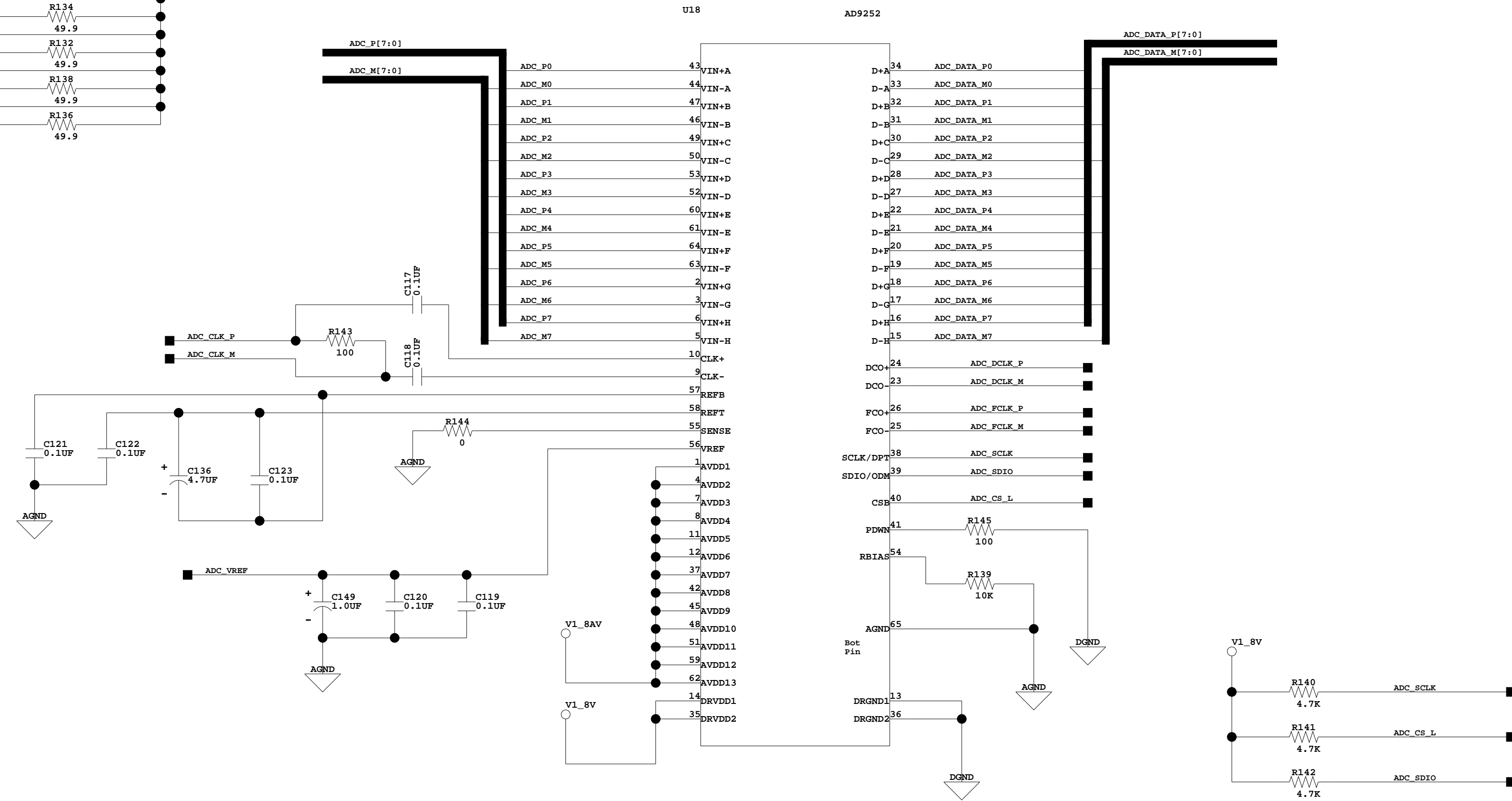
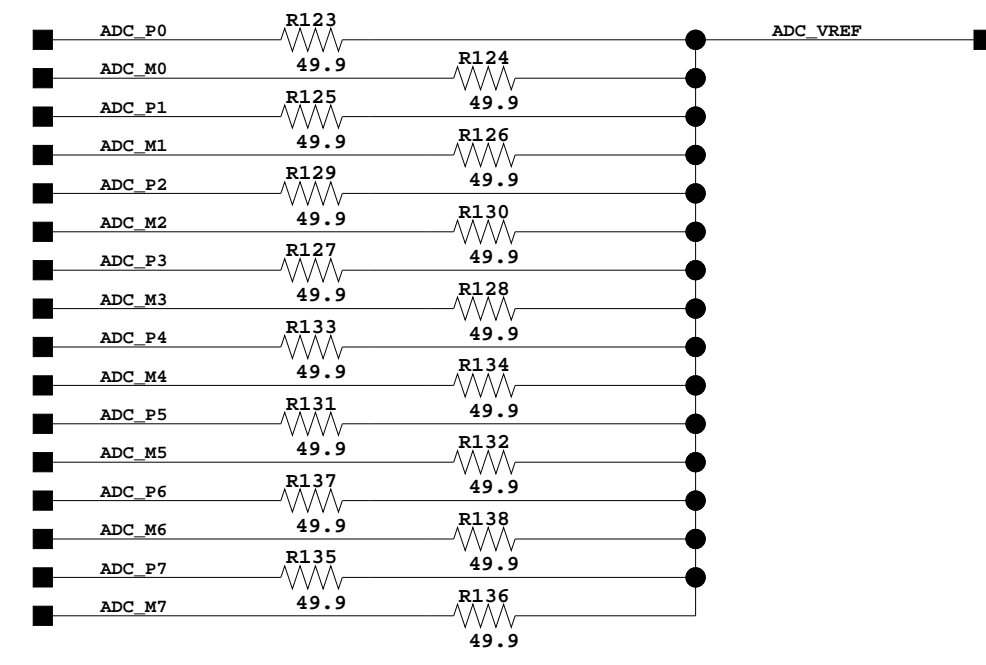
**HEAVY P TRACKER READOUT RTM
ADC BUFFERS, 8 CHANNEL**

LOCATED AT SHEET 3

SD-249-901-02-C01

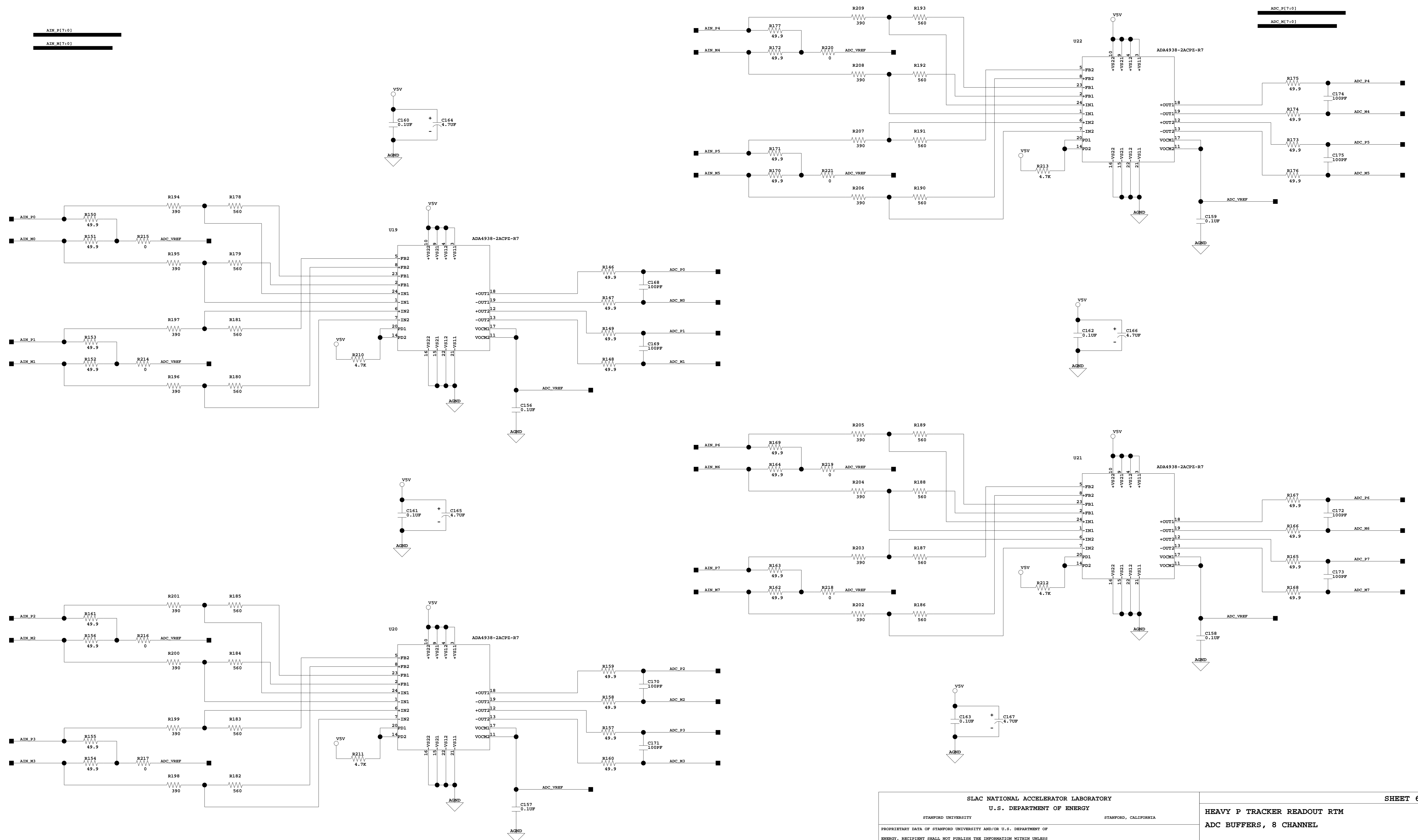
1-24-2011_15:38

**ADC INPUT TERMINATION
PLACE NEAR ADC**



1-24-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 5 OF 23
STANFORD UNIVERSITY STANFORD, CALIFORNIA		HEAVY P TRACKER READOUT RTM 8 CHANNEL ADC
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INGR Ryan Herbst	DATE 2010	APPROVALS
LOCATED AT SHEET 3		
SD-249-901-02-C01		



1-24-2011_15:38

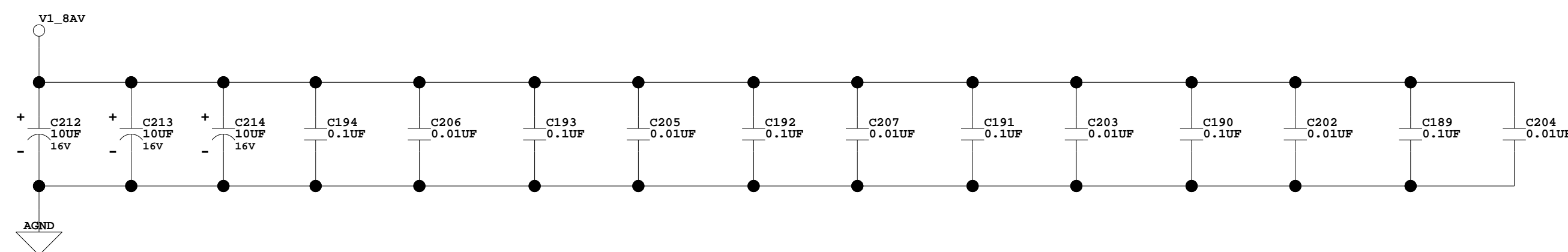
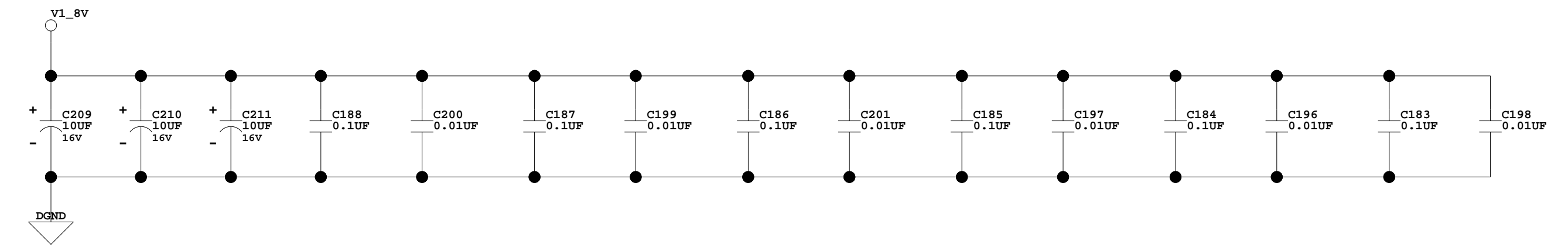
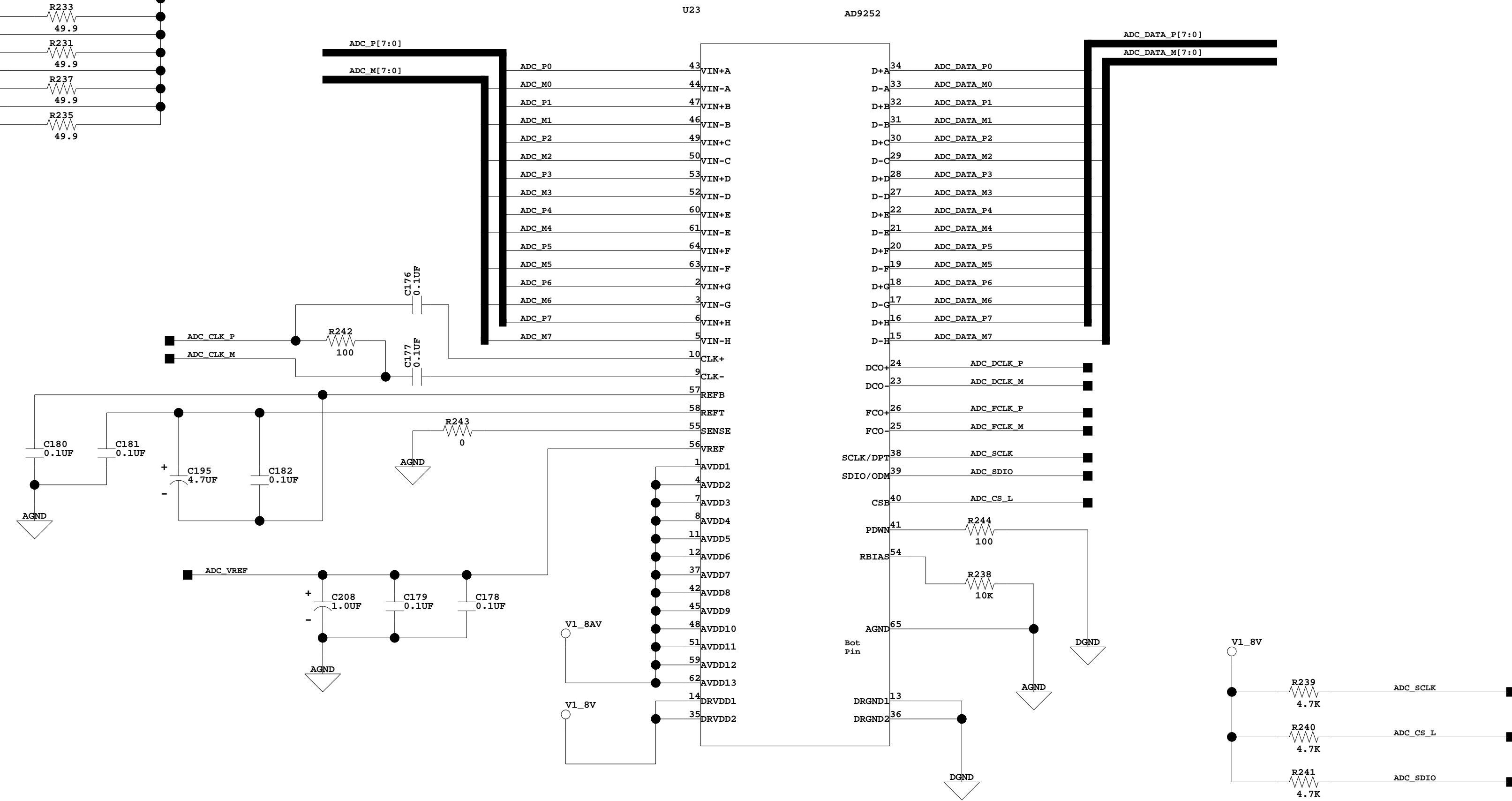
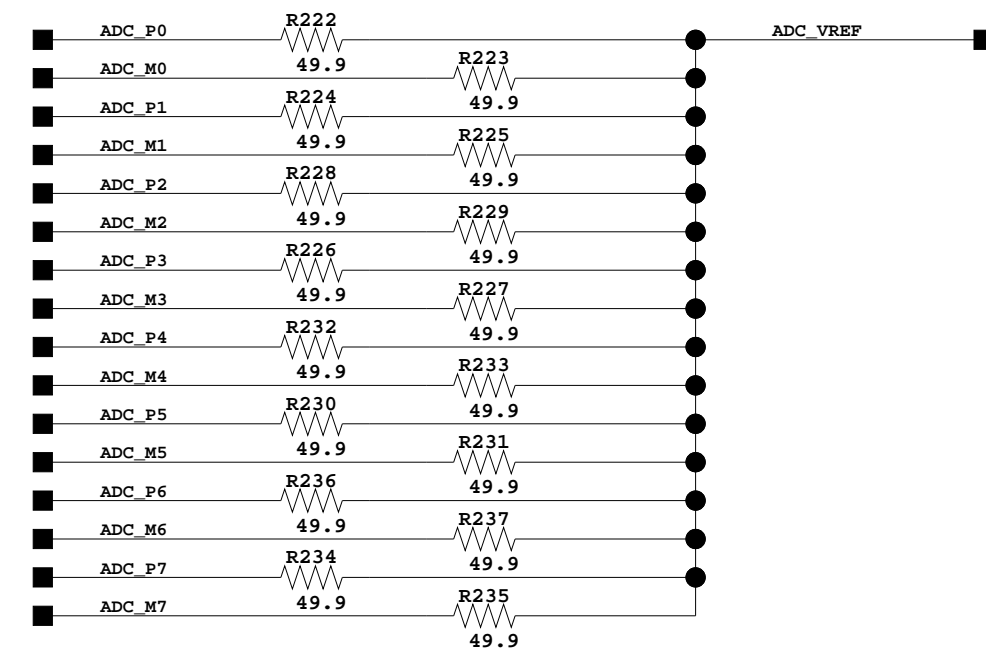
SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY	
STANFORD UNIVERSITY	STANFORD, CALIFORNIA
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DRGR	DATE
OTFR	APPROVALS
CDR	

SHEET 6 OF 23

HEAVY P TRACKER READOUT RTM
ADC BUFFERS, 8 CHANNEL

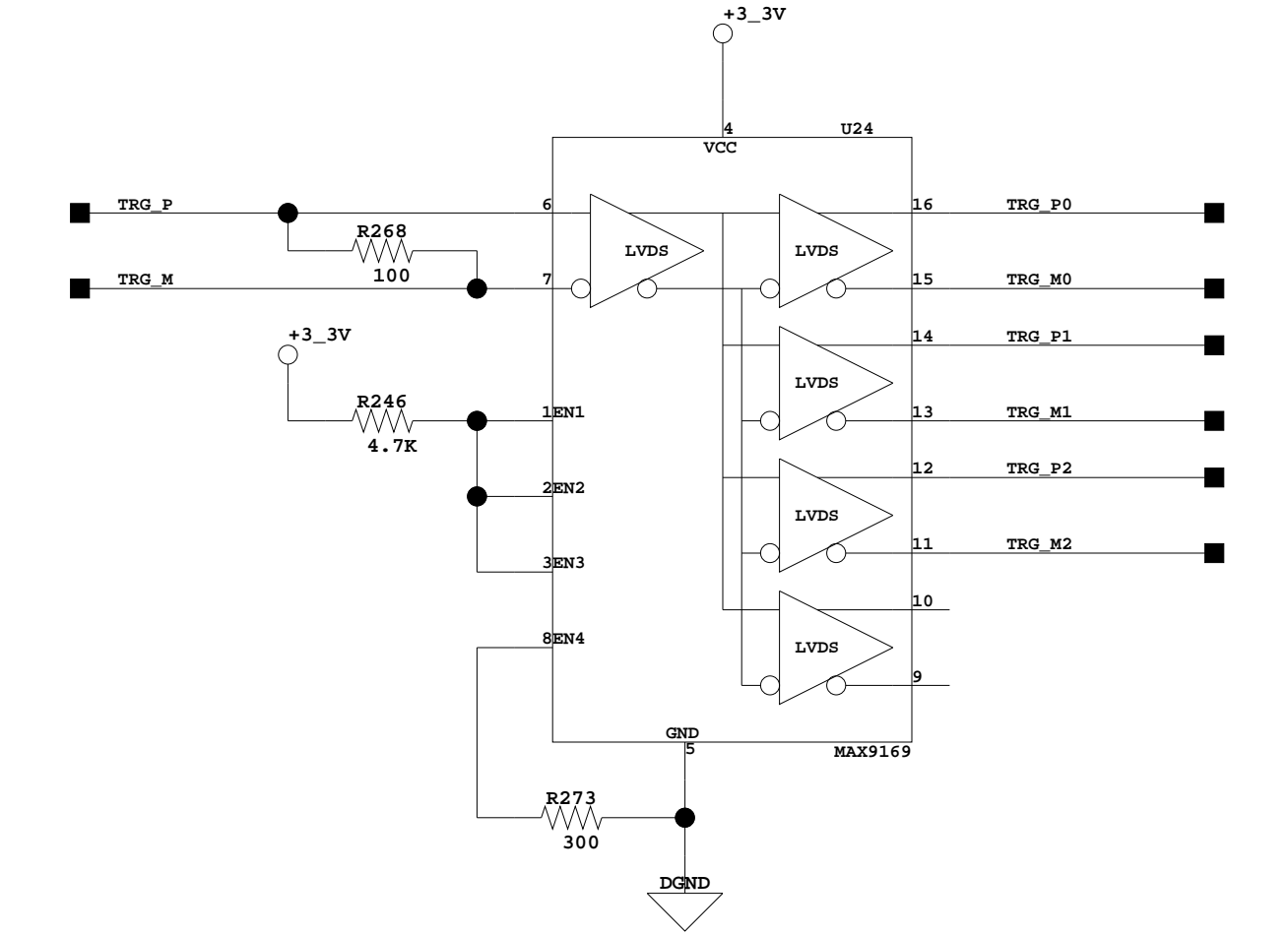
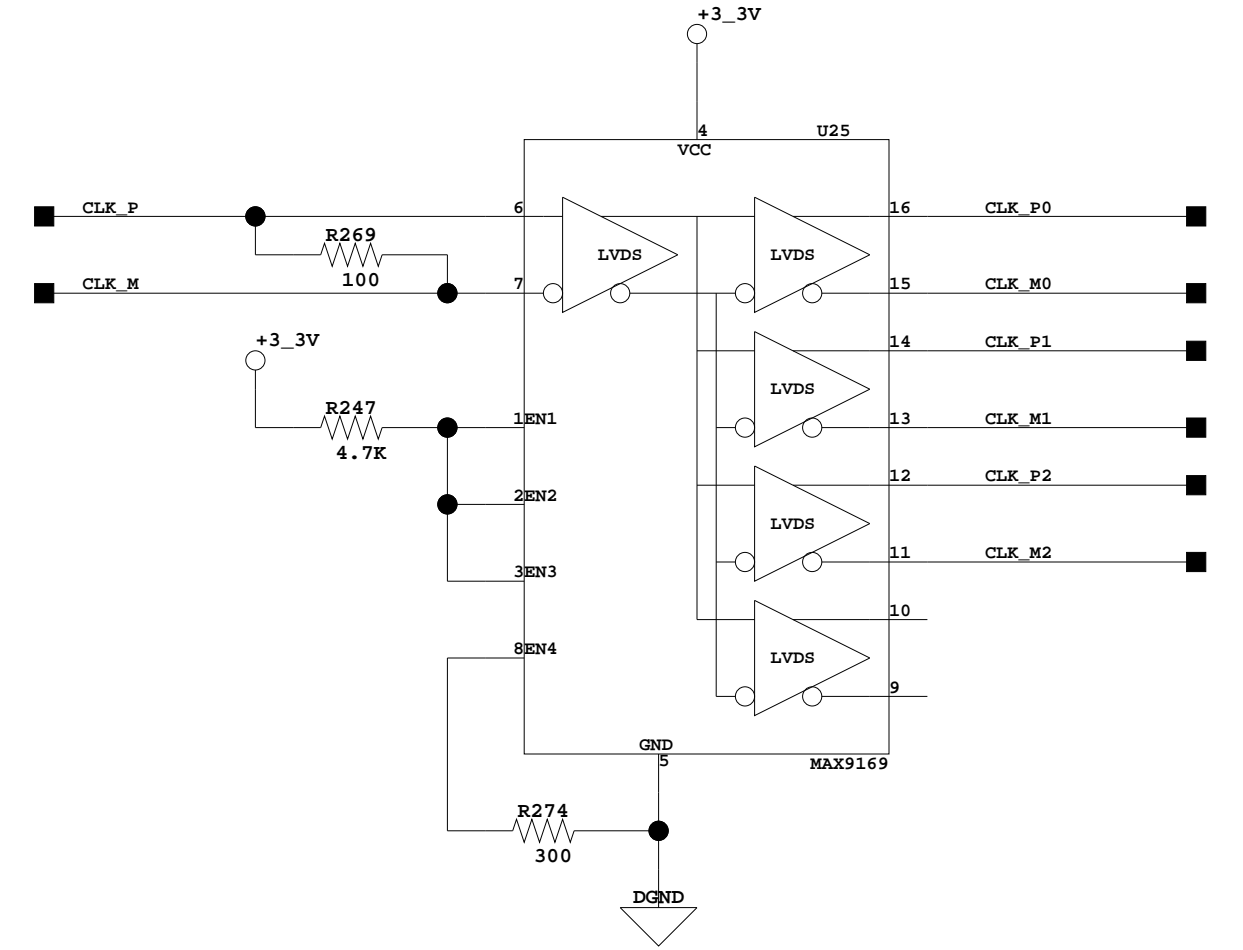
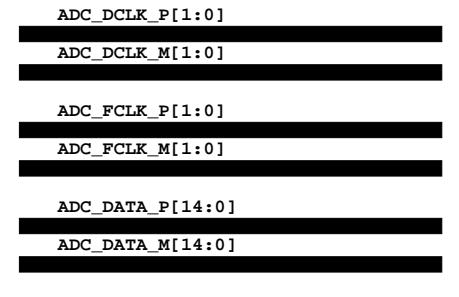
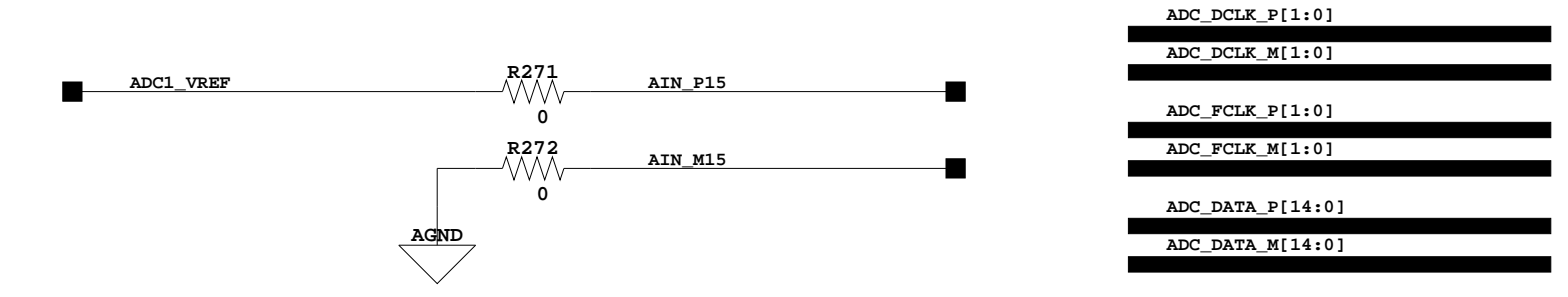
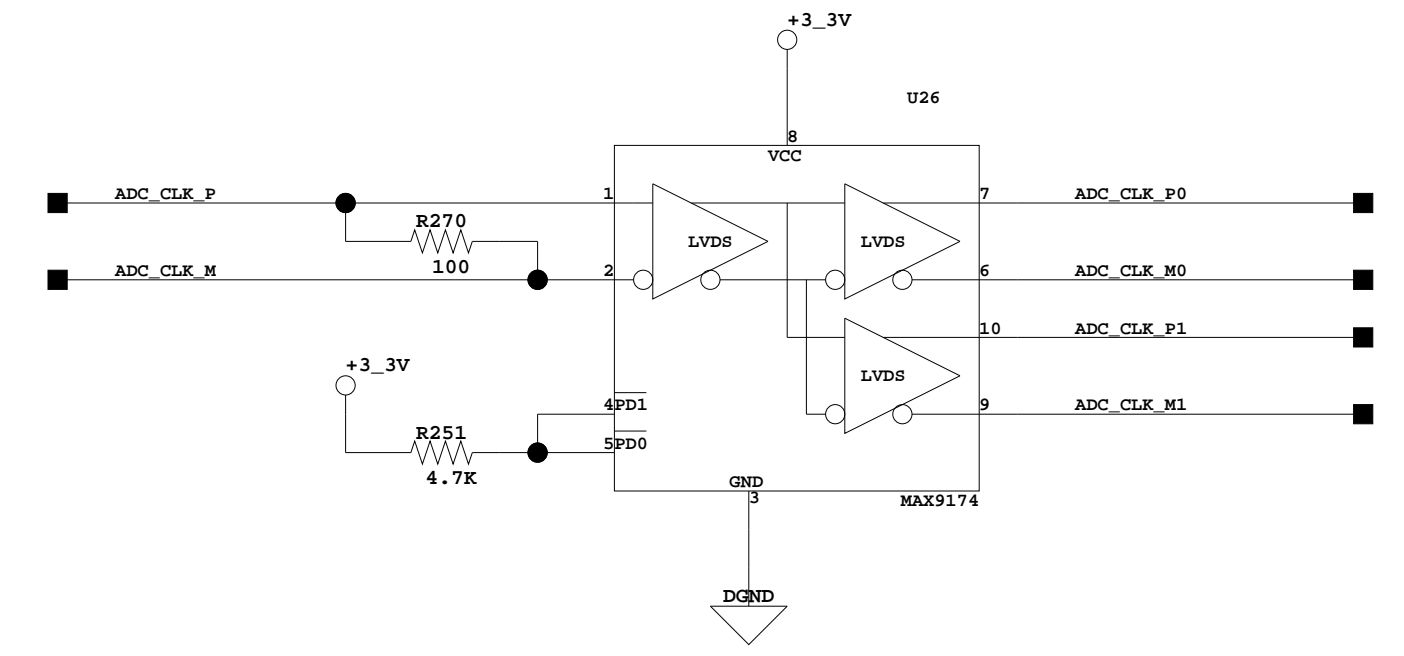
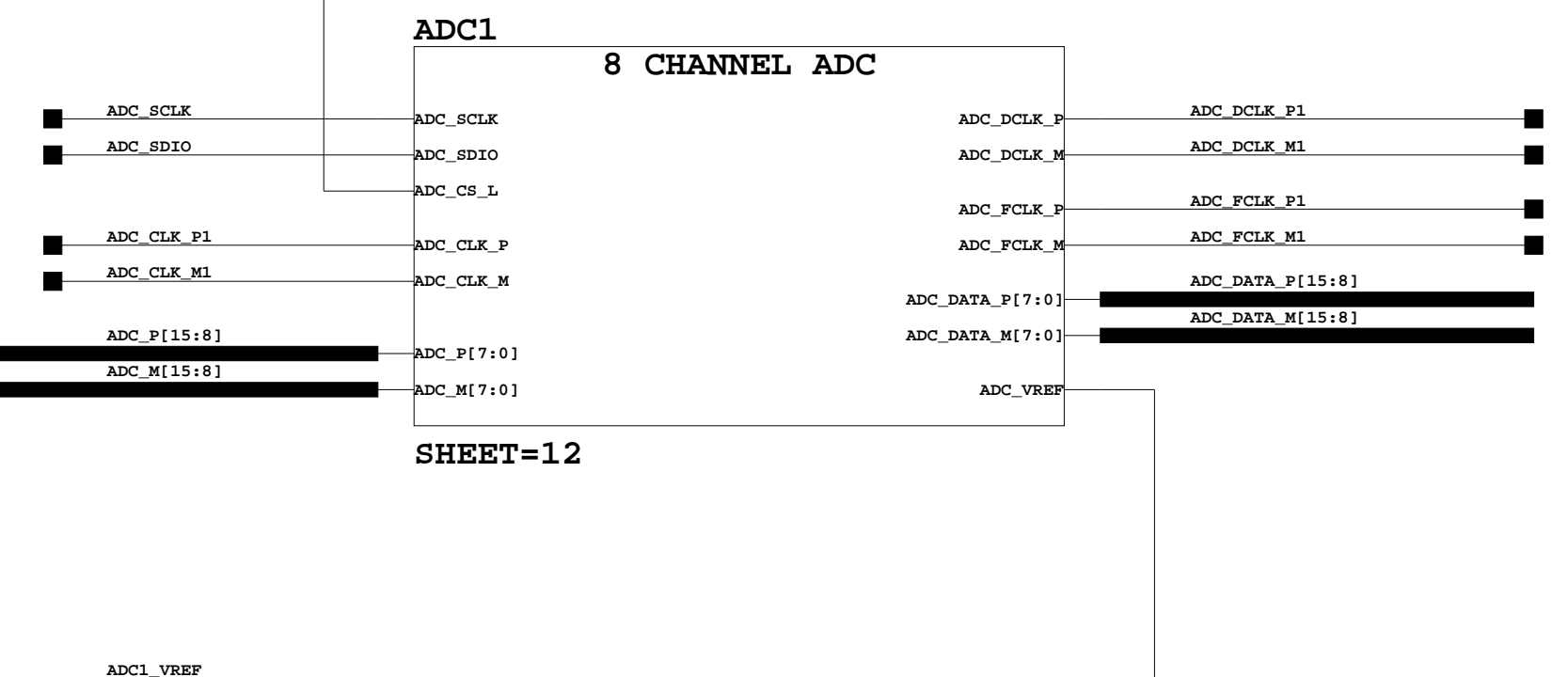
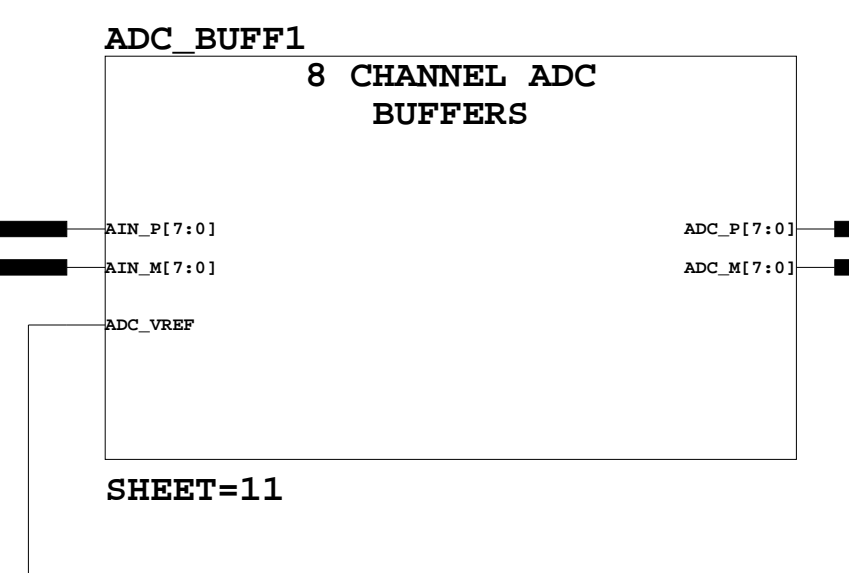
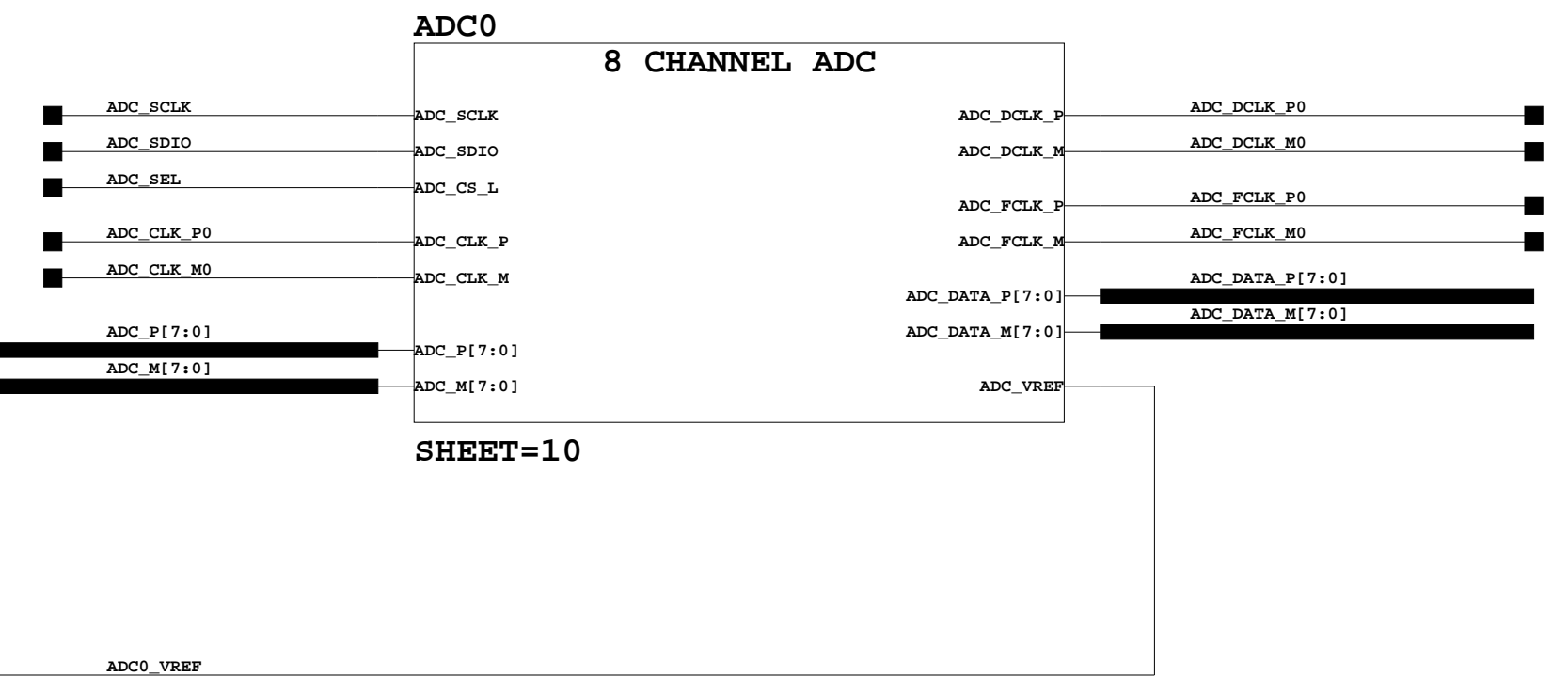
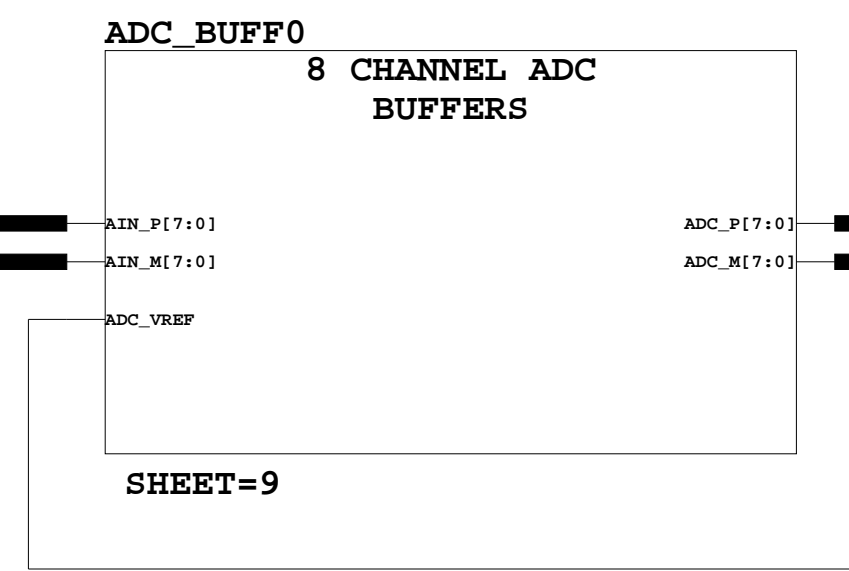
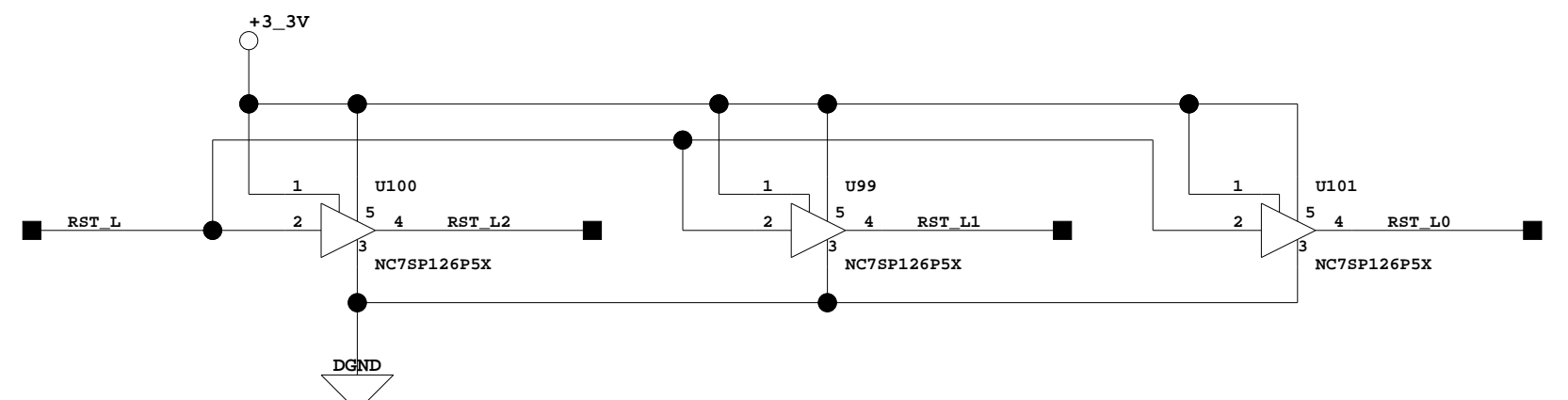
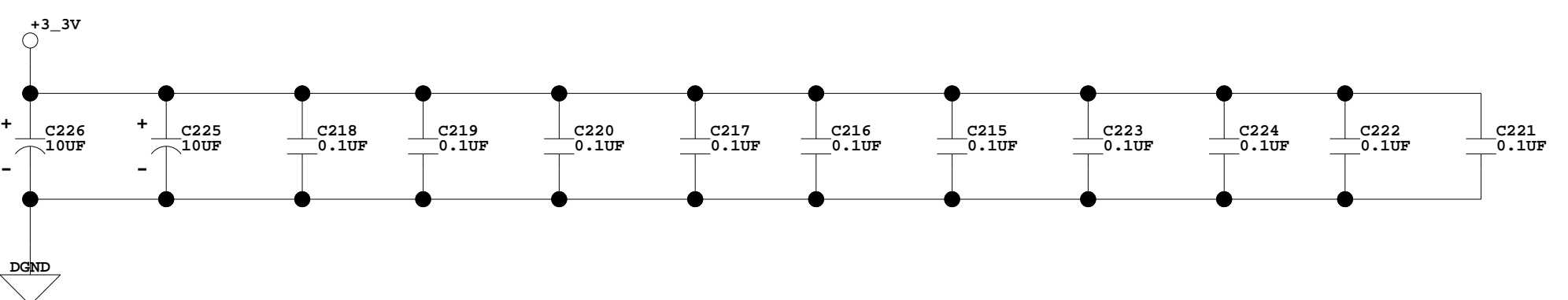
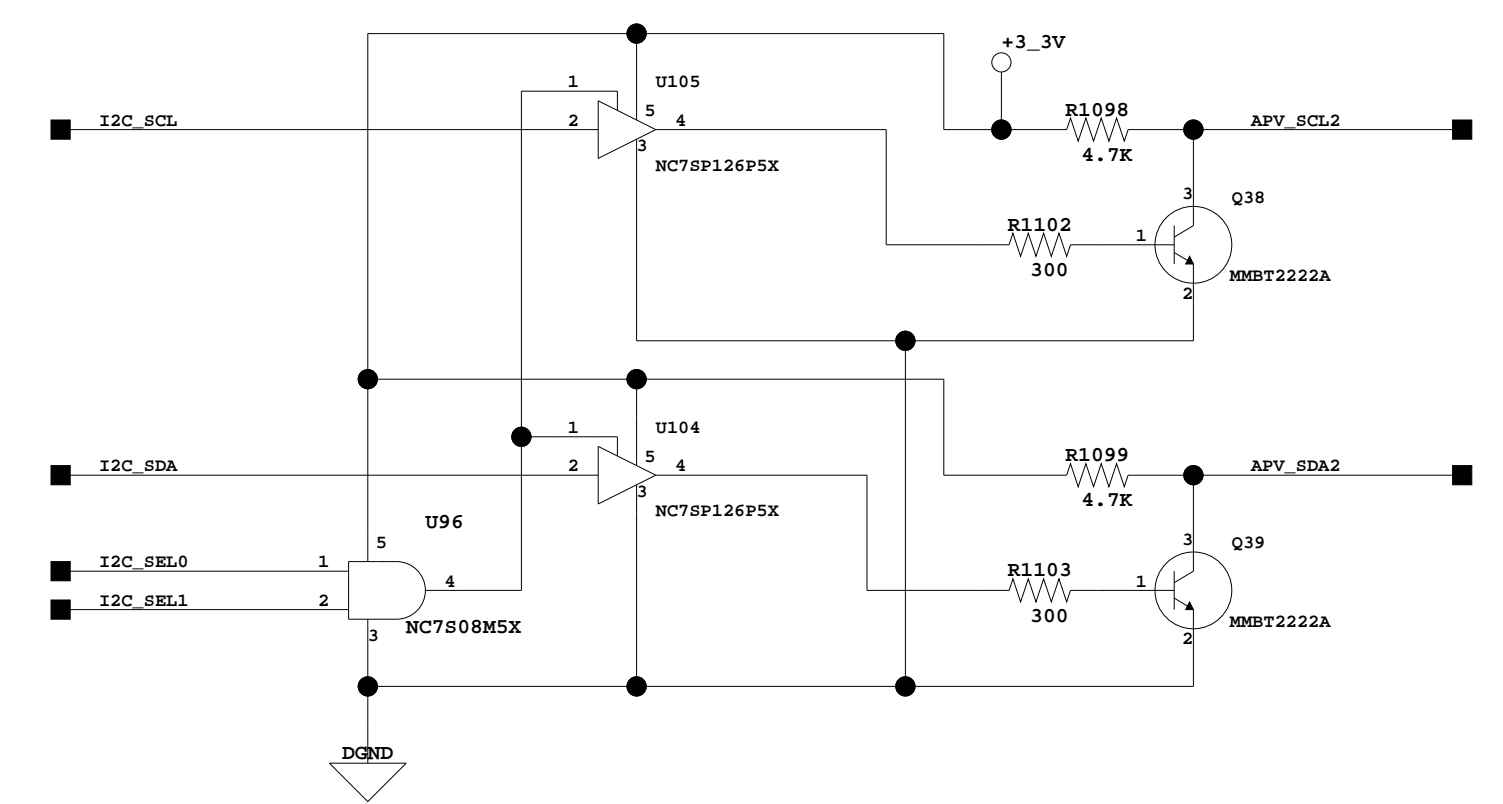
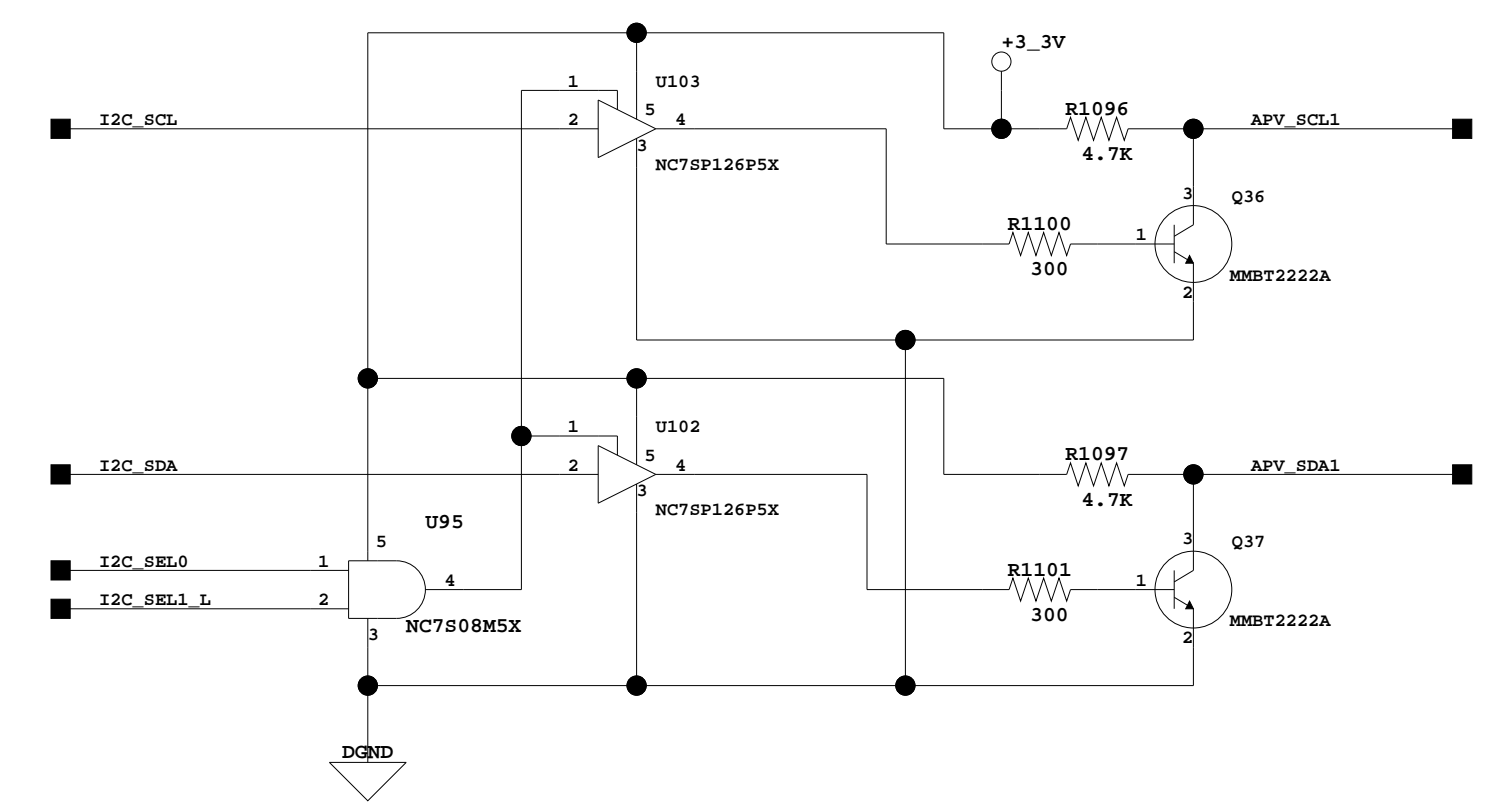
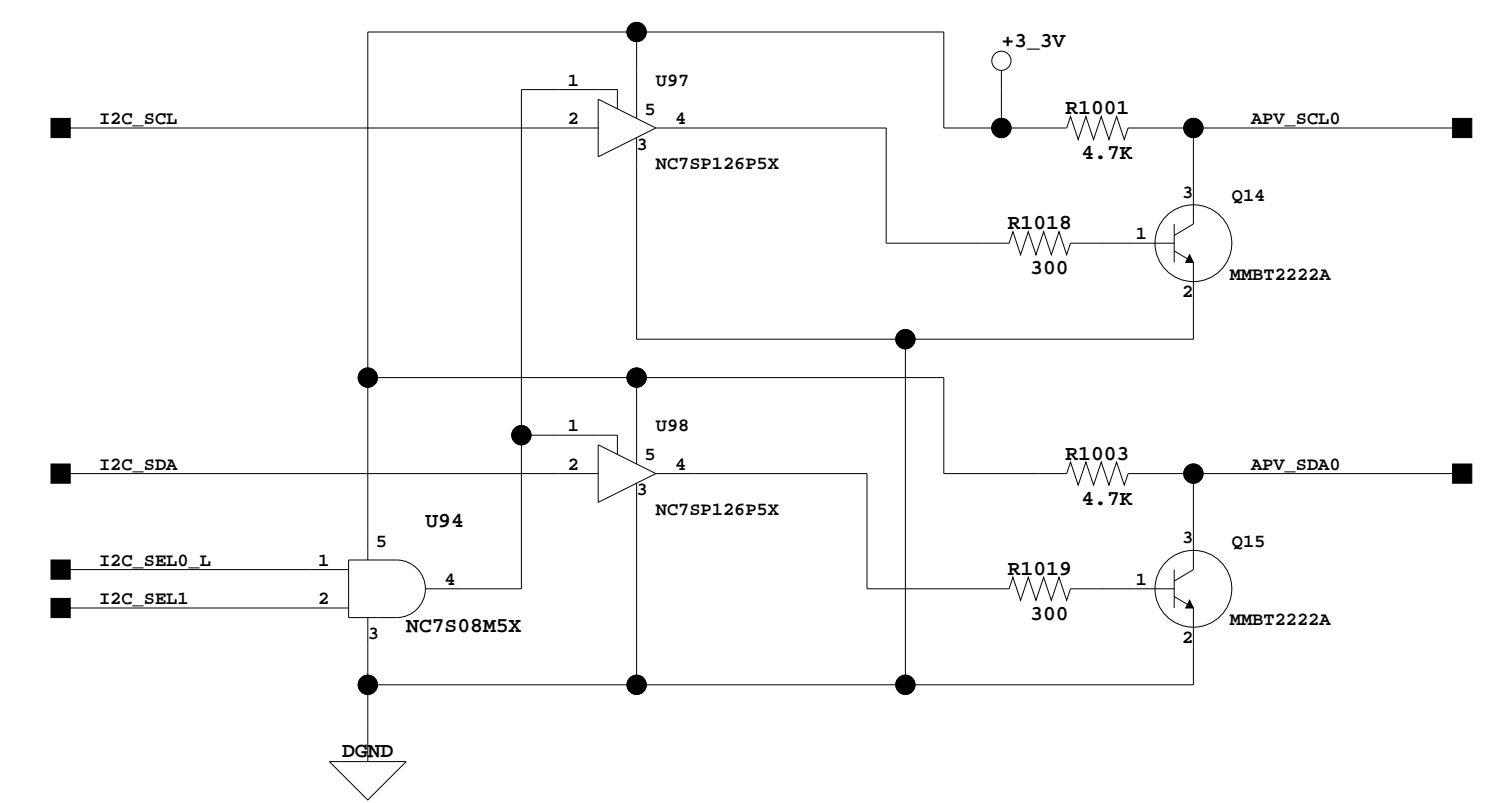
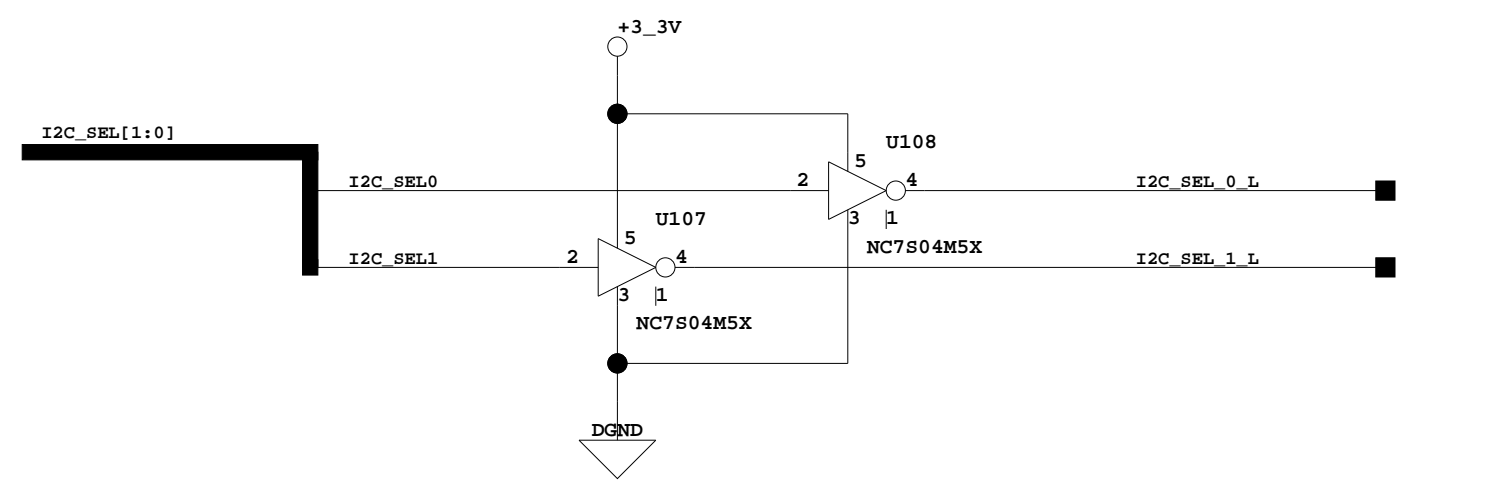
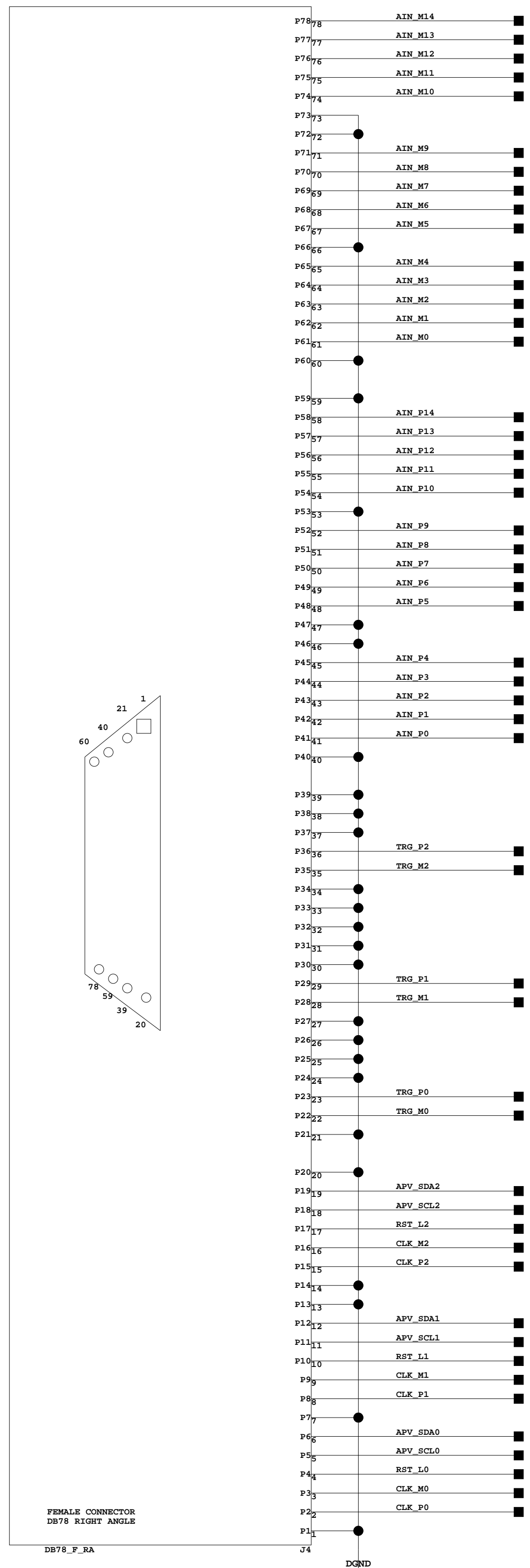
LOCATED AT SHEET 3
SD-249-901-02-C01

ADC INPUT TERMINATION
PLACE NEAR ADC



1-24-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 7 OF 23
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DPTH		APPROVALS
CMR		LOCATED AT SHEET 3
		SD-249-901-02-C01



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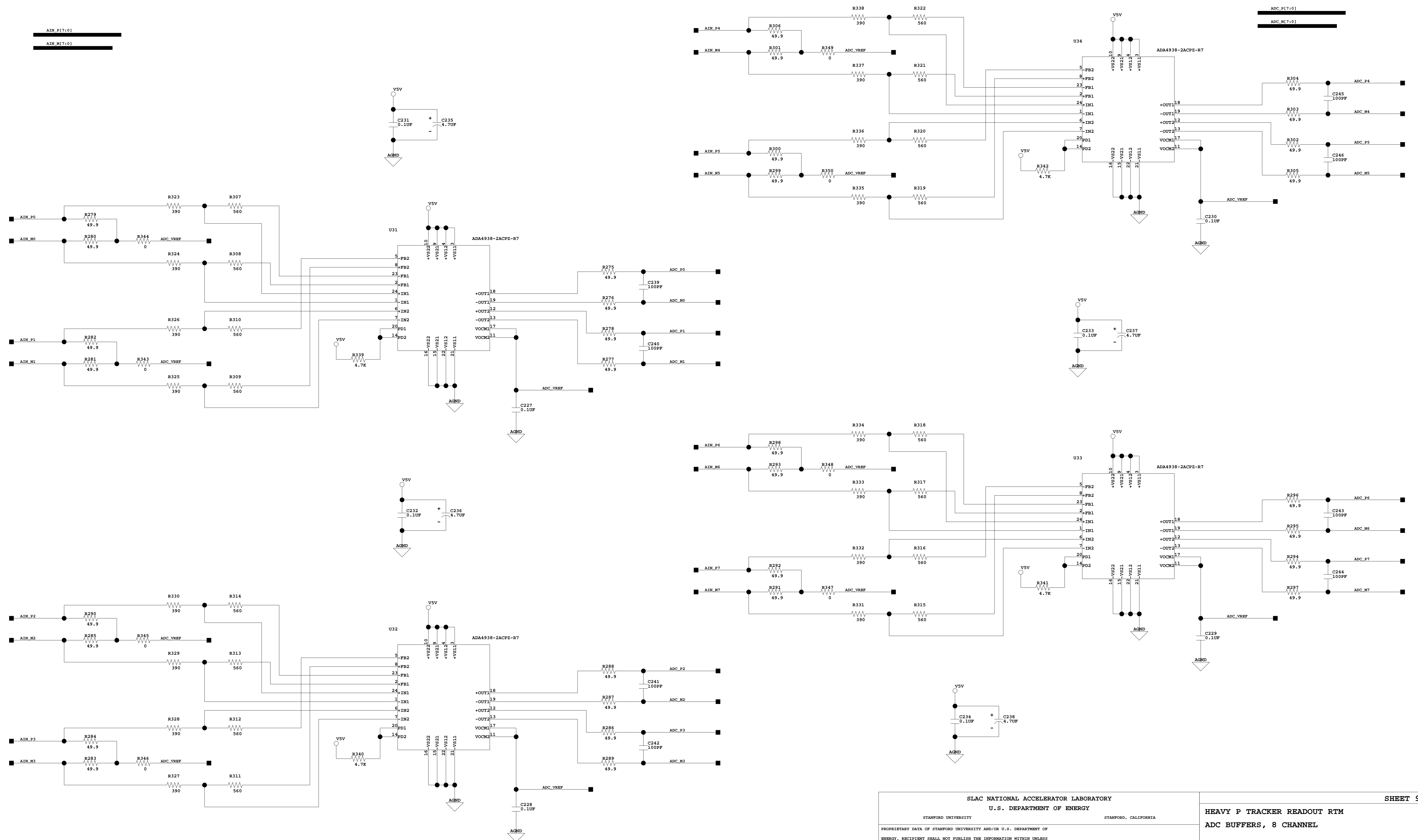
DATE	APPROVALS
2010	Ryan Herbst

SHEET 8 OF 23

HEAVY P TRACKER READOUT RTM
APV25 CONNECTOR

LOCATED AT SHEET 1
SD-249-901-02-C01

4-11-2011_15:42



1-24-2011_15:38

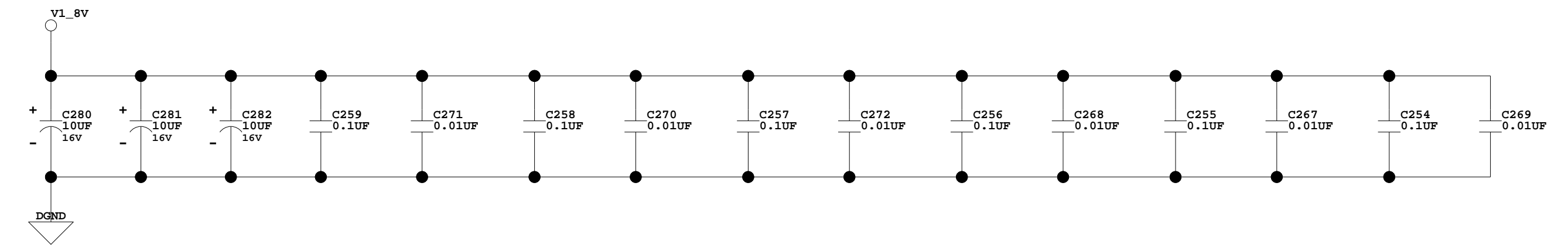
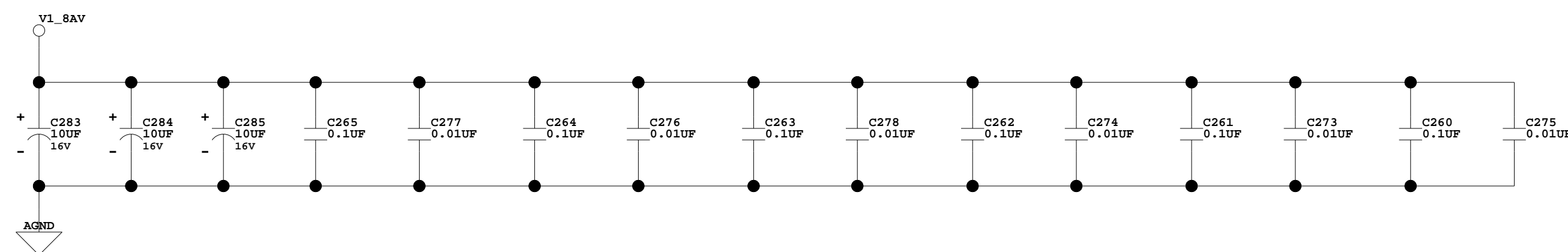
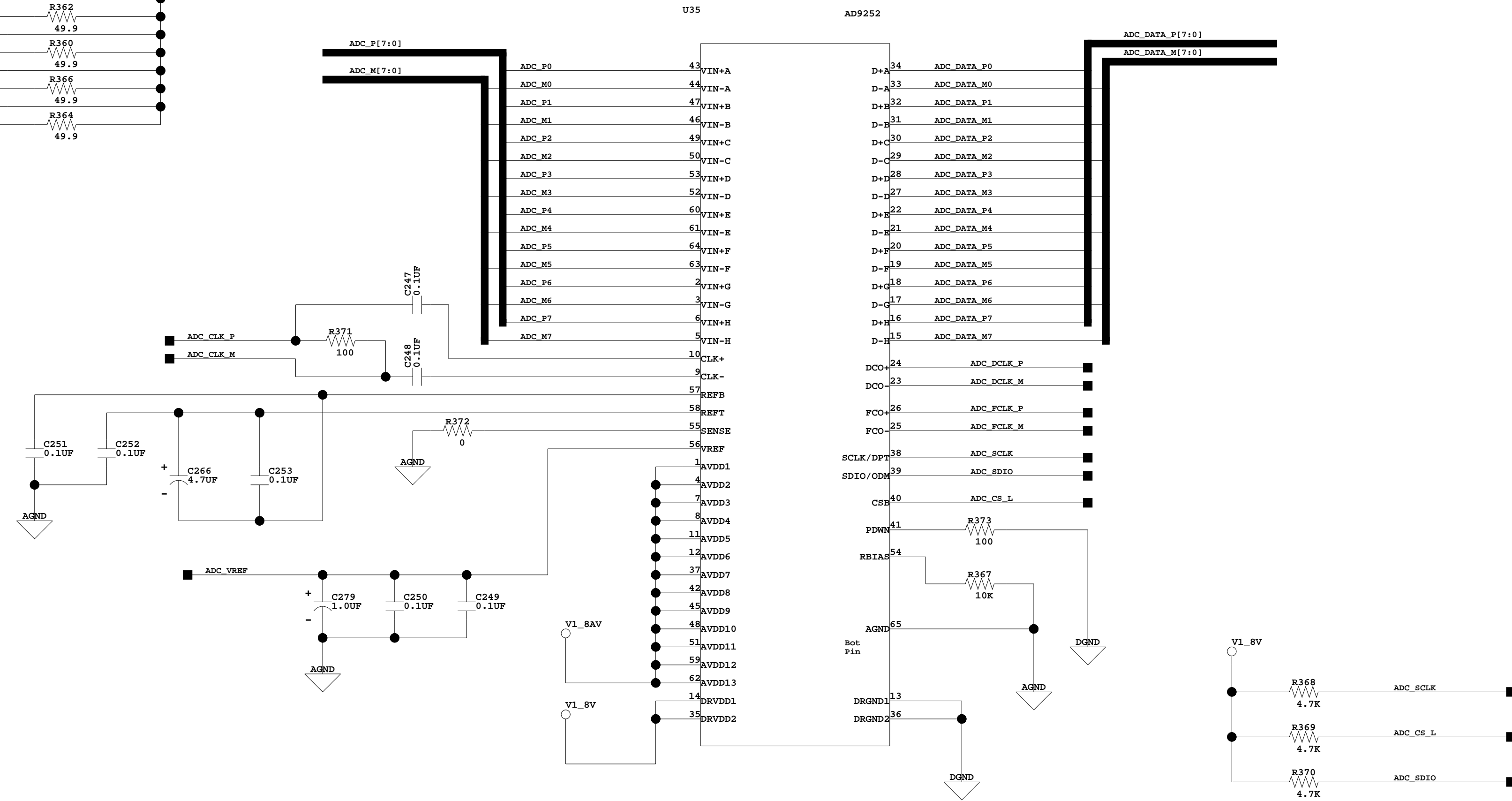
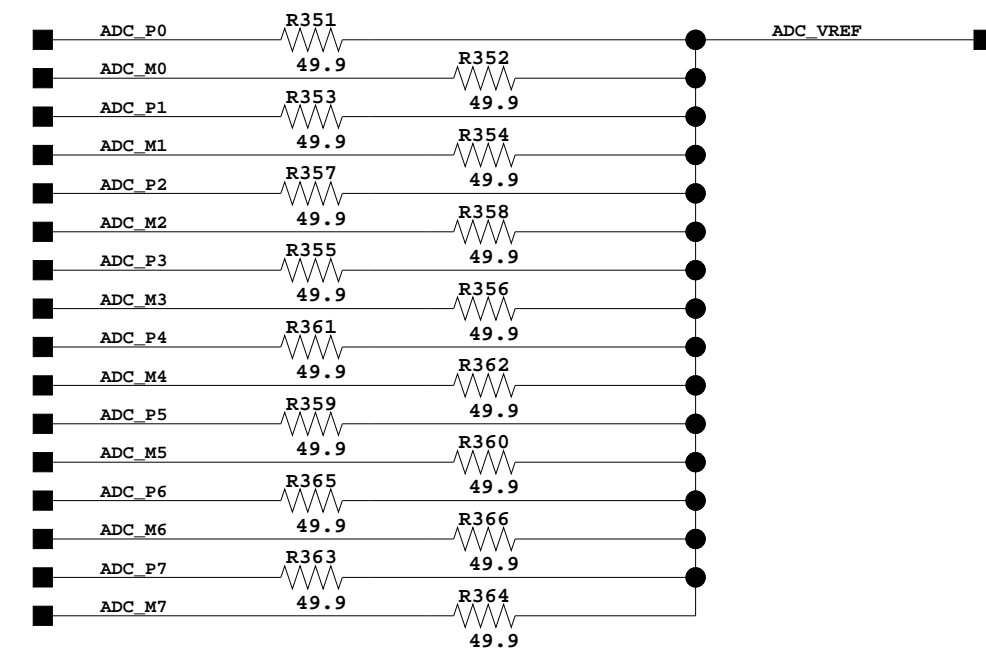
SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY	
STANFORD UNIVERSITY	STANFORD, CALIFORNIA
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SHEET 9 OF 23

HEAVY P TRACKER READOUT RTM
ADC BUFFERS, 8 CHANNEL

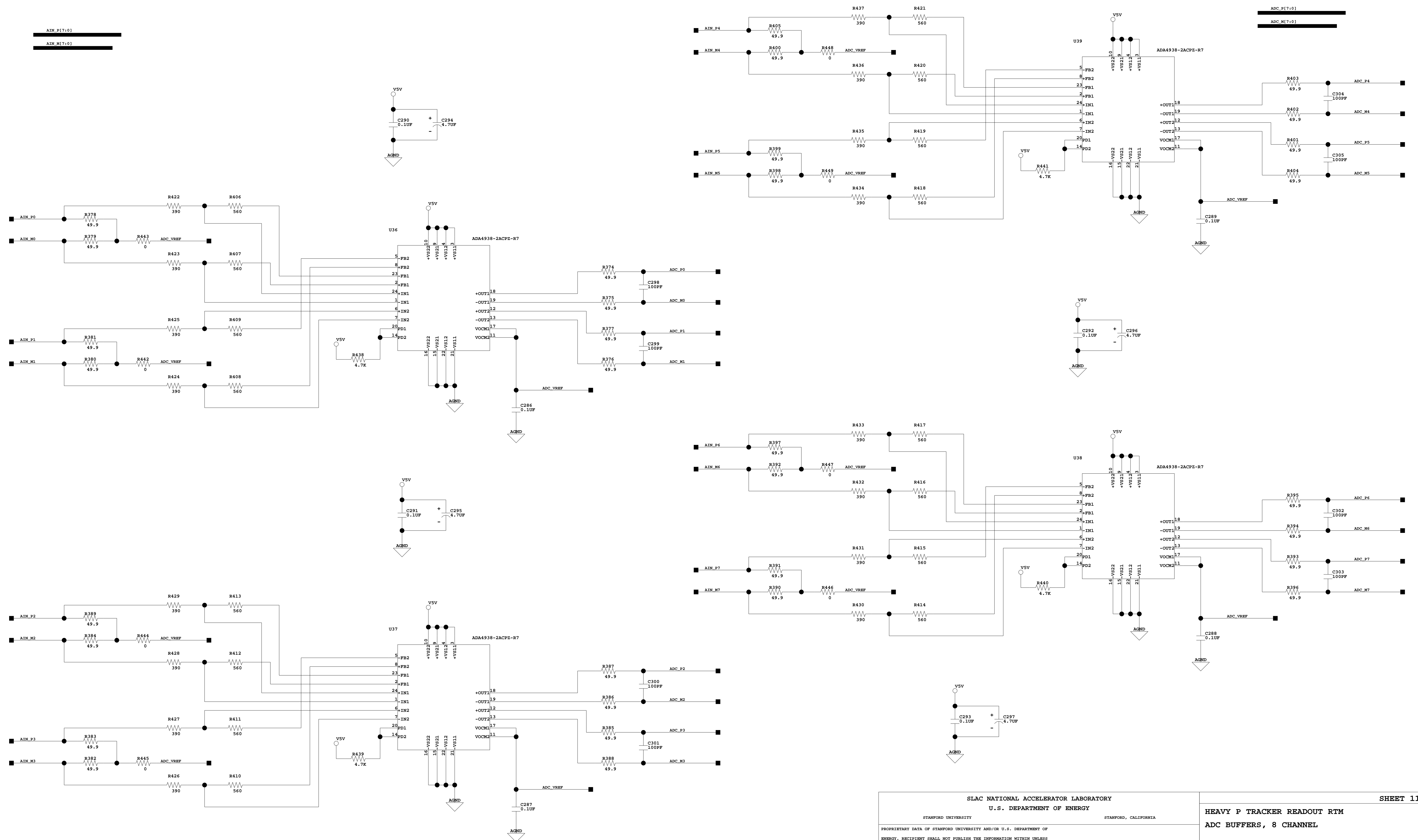
LOCATED AT SHEET 8
 SD-249-901-02-C01

**ADC INPUT TERMINATION
PLACE NEAR ADC**



1-24-2011_15:38

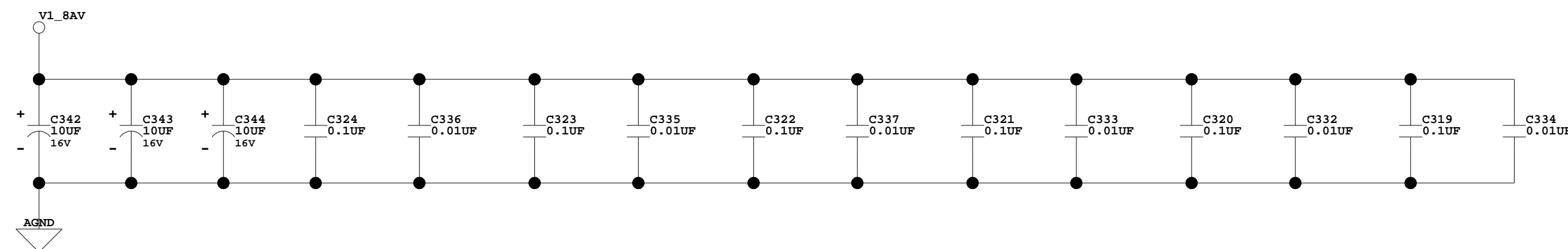
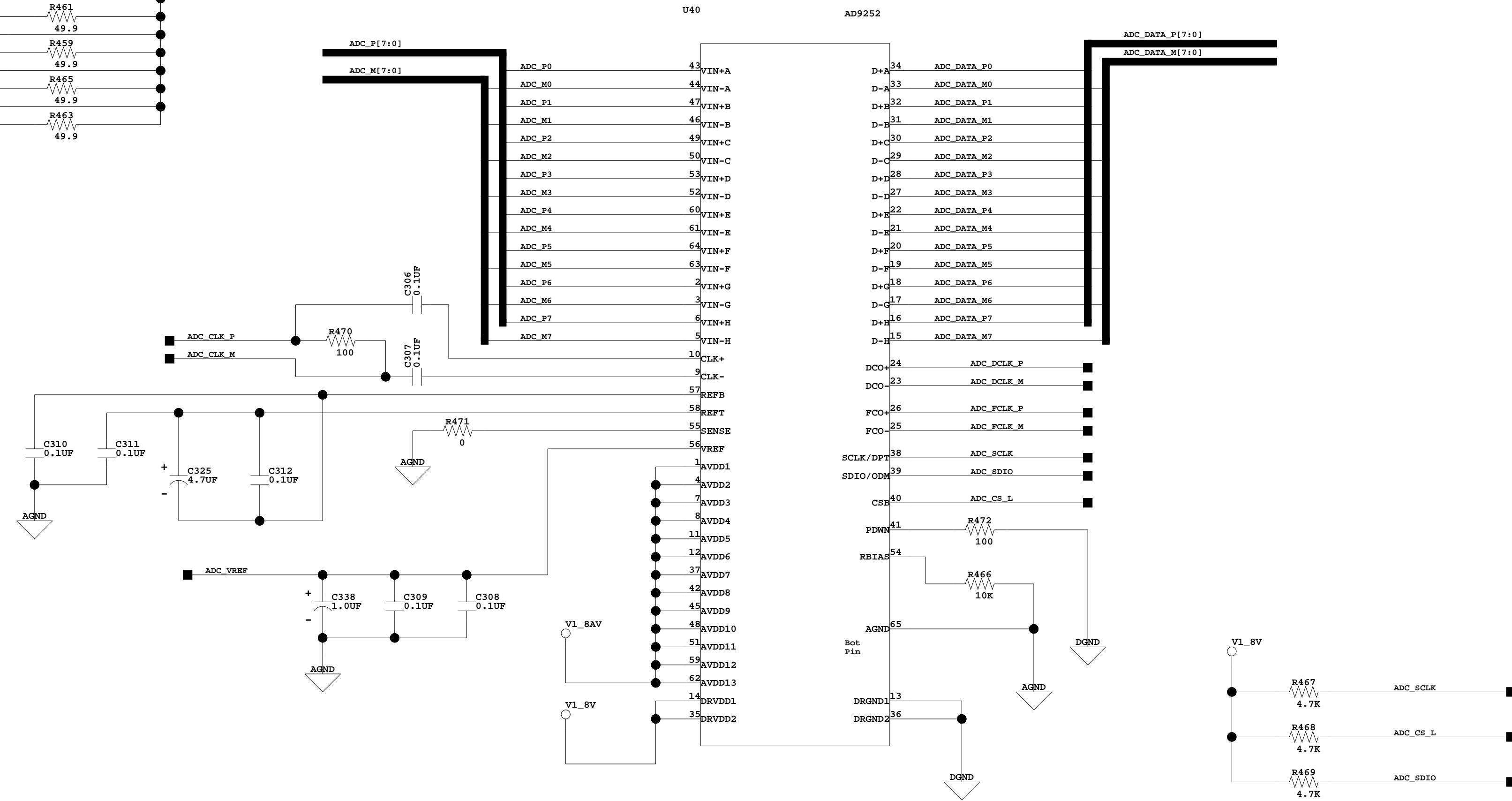
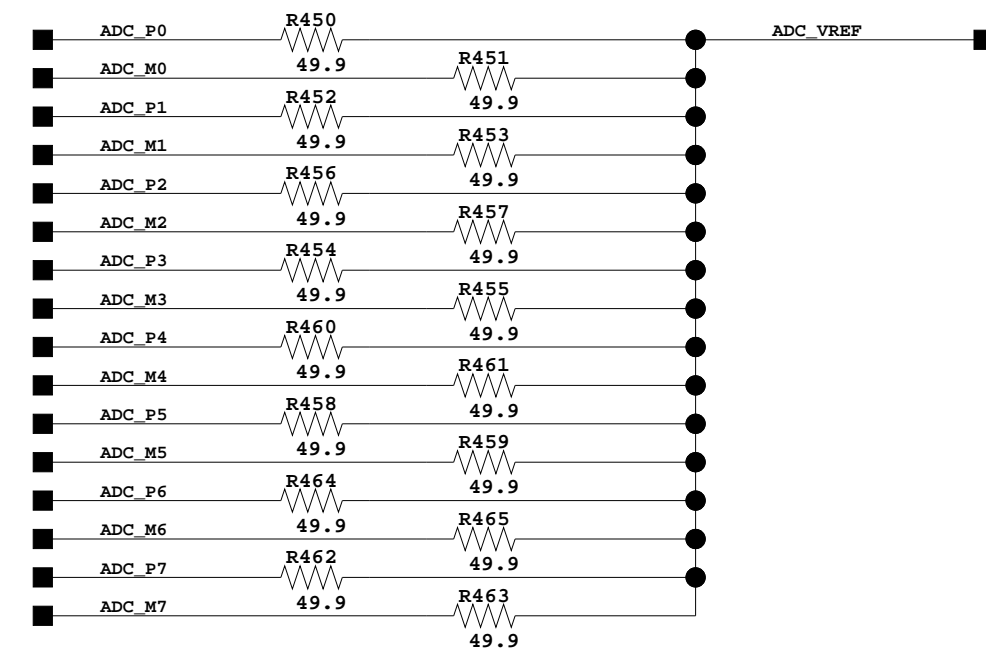
SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 10 OF 23
STANFORD UNIVERSITY STANFORD, CALIFORNIA		HEAVY P TRACKER READOUT RTM 8 CHANNEL ADC
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DPTH		2010
CDRS		APPROVALS
		LOCATED AT SHEET 8
		SD-249-901-02-C01



1-24-2011_15:38

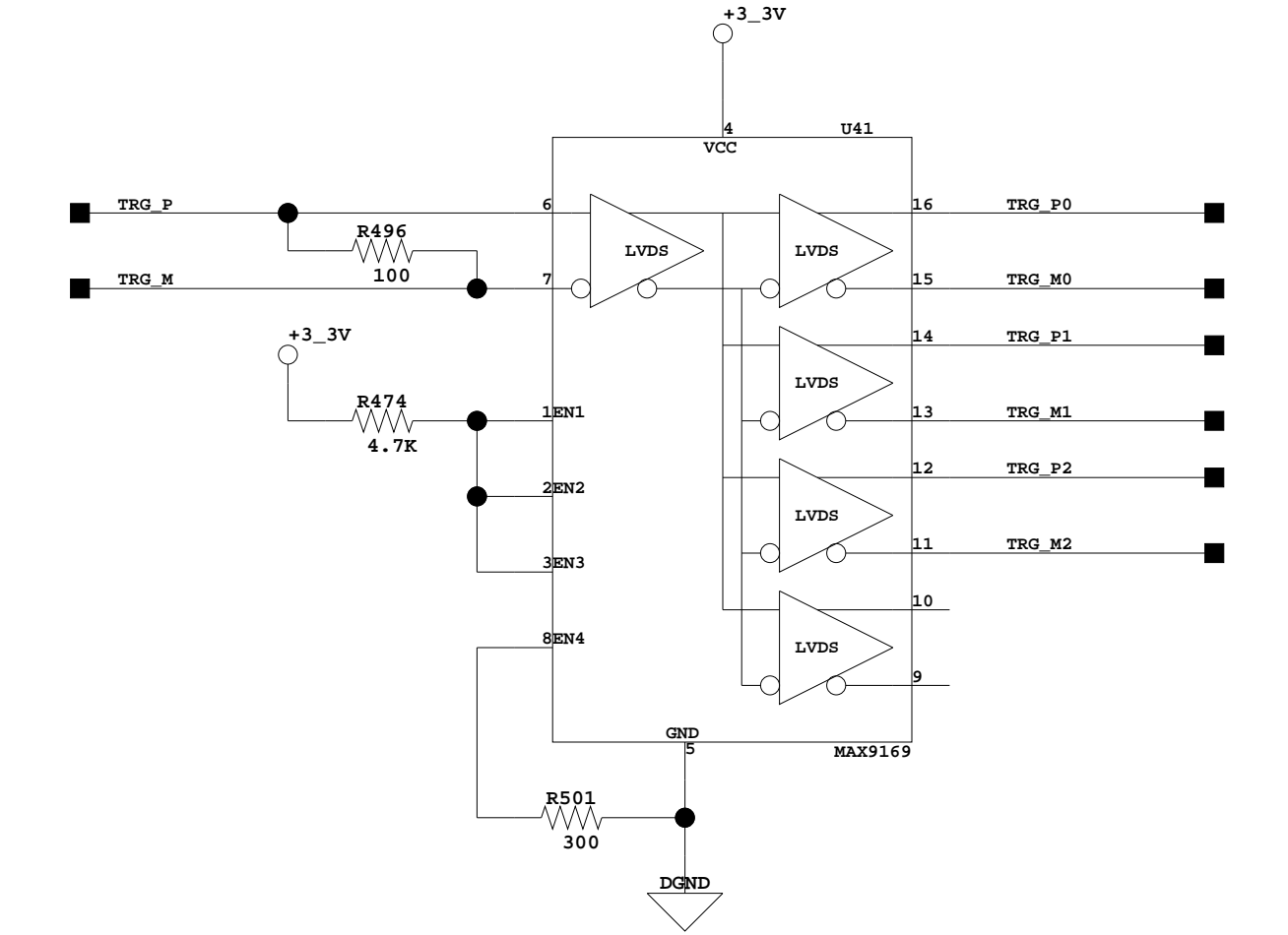
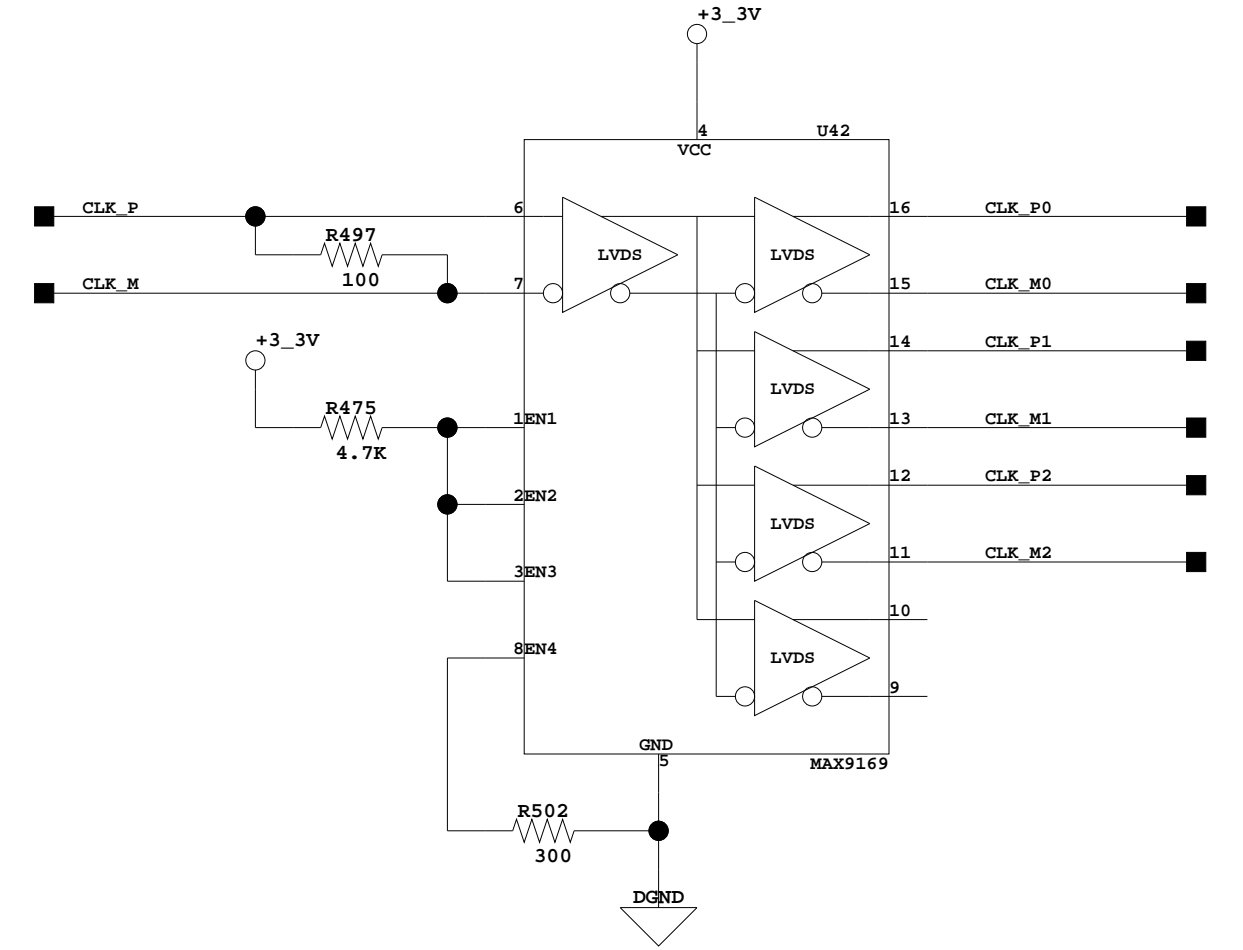
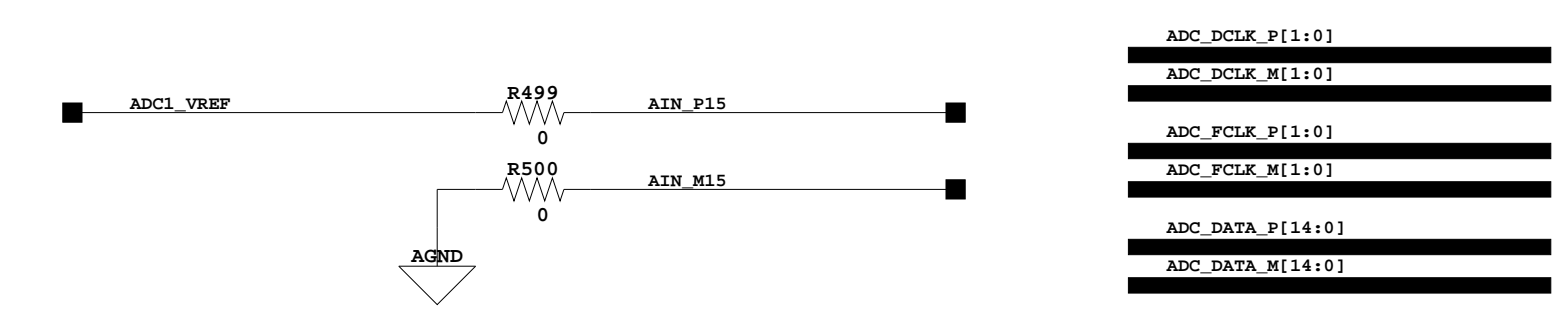
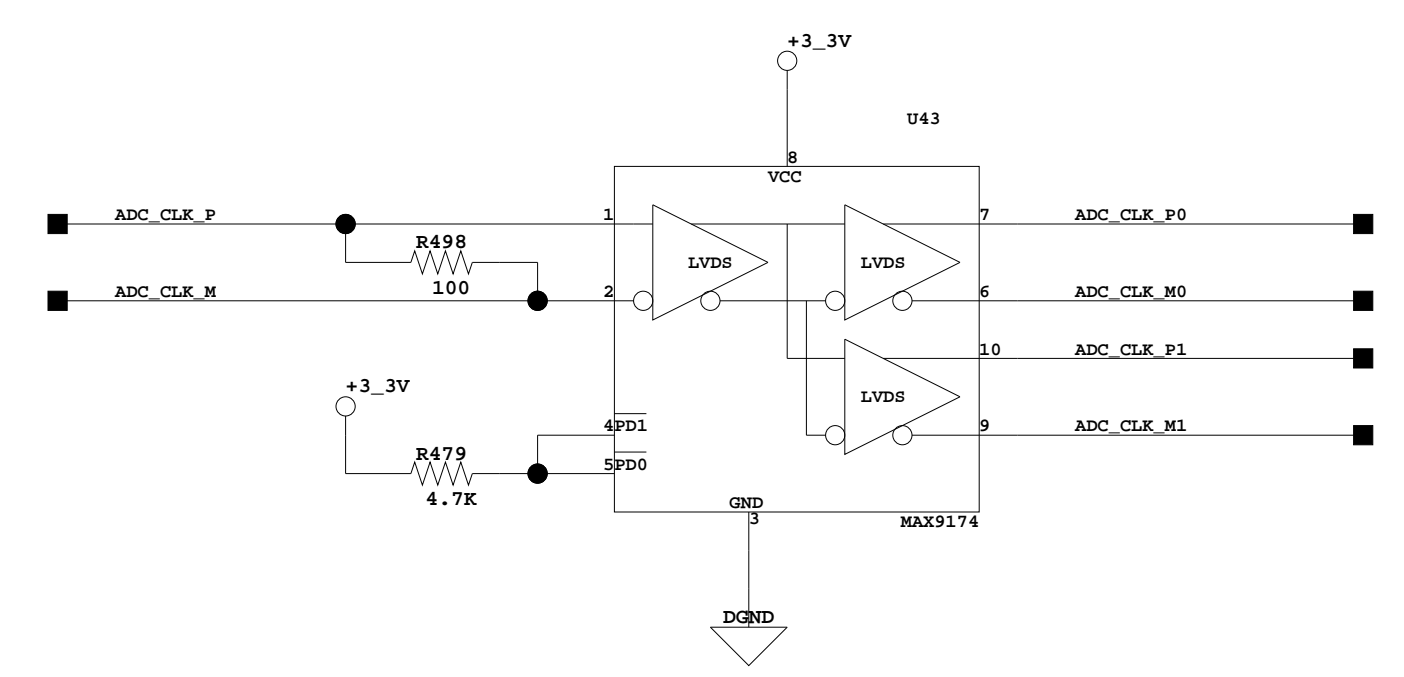
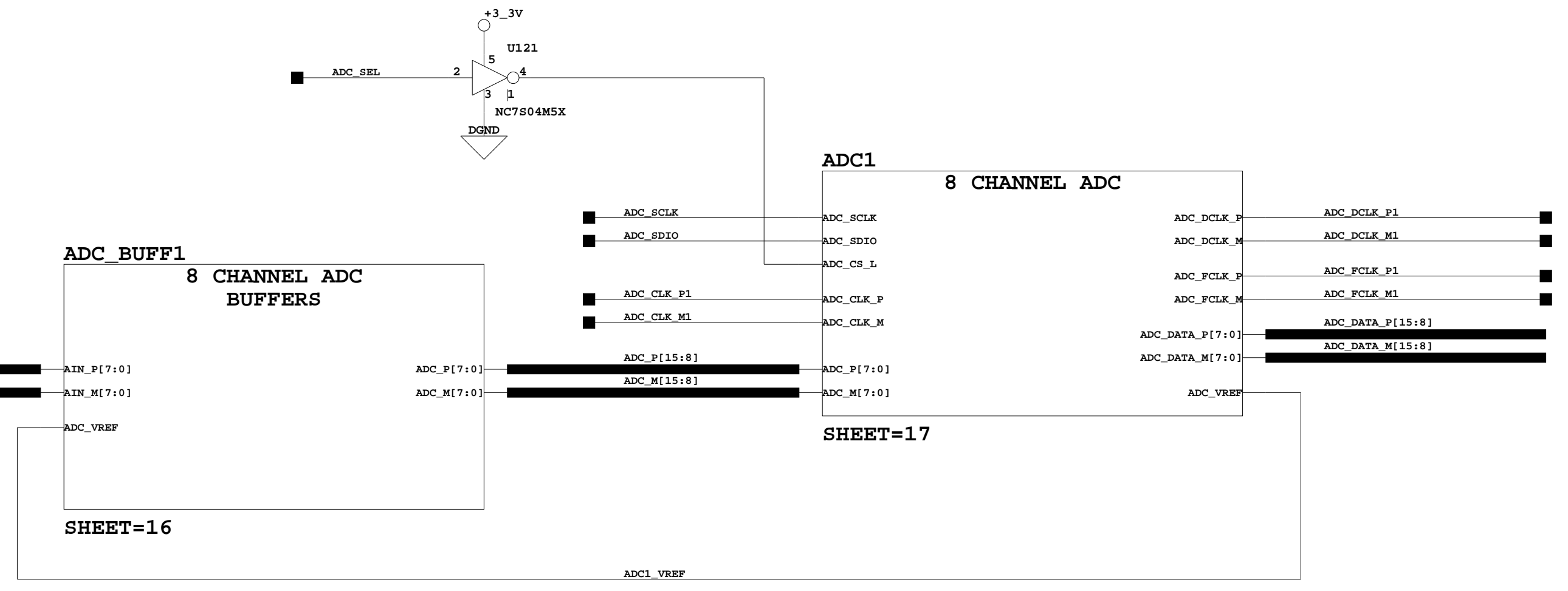
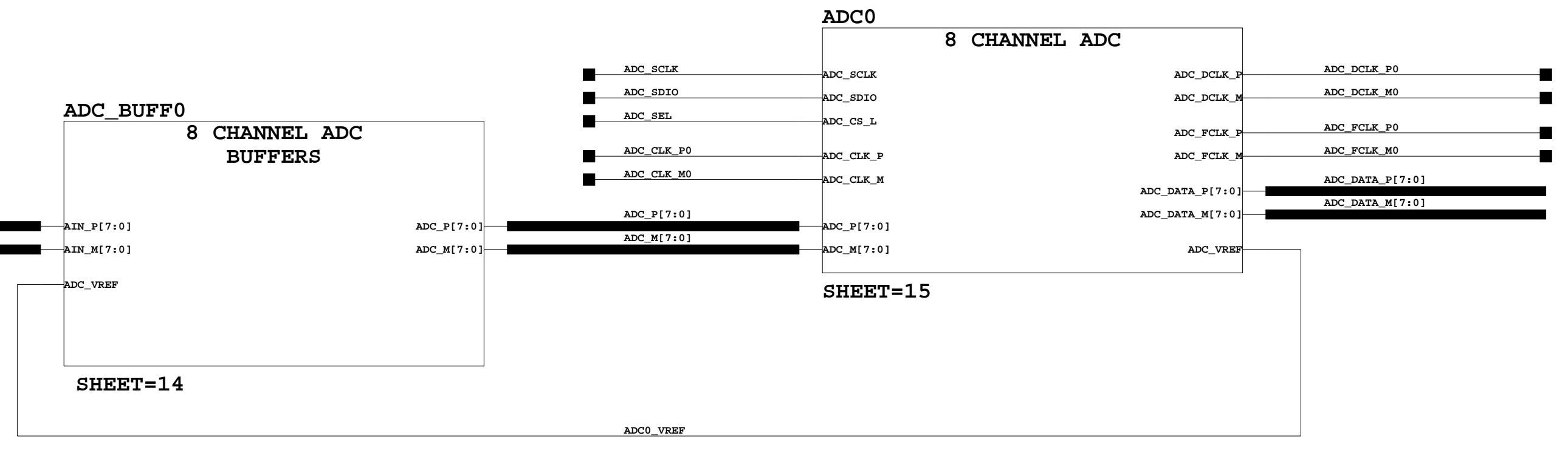
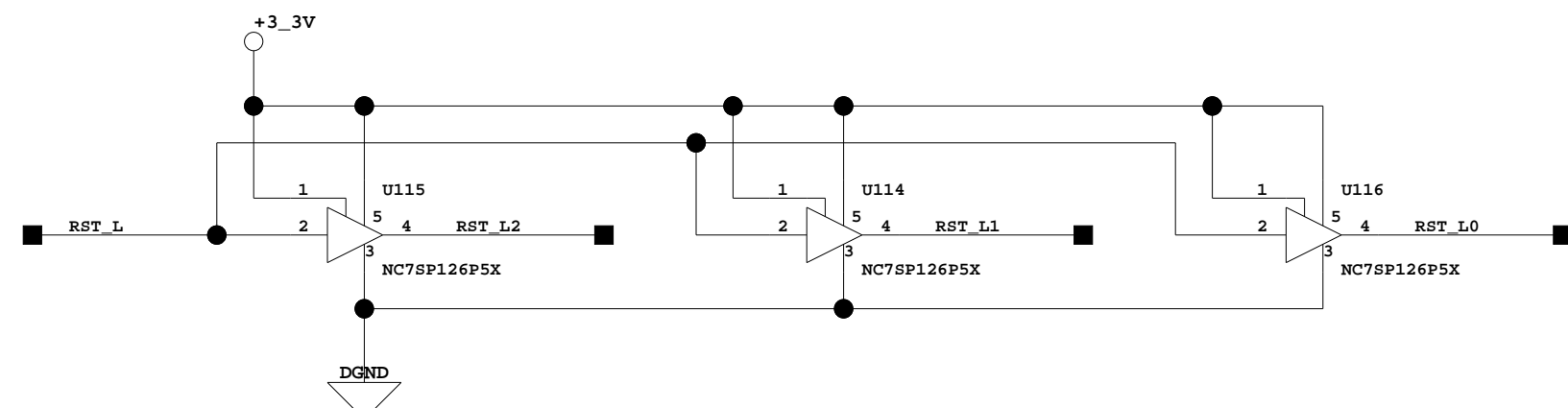
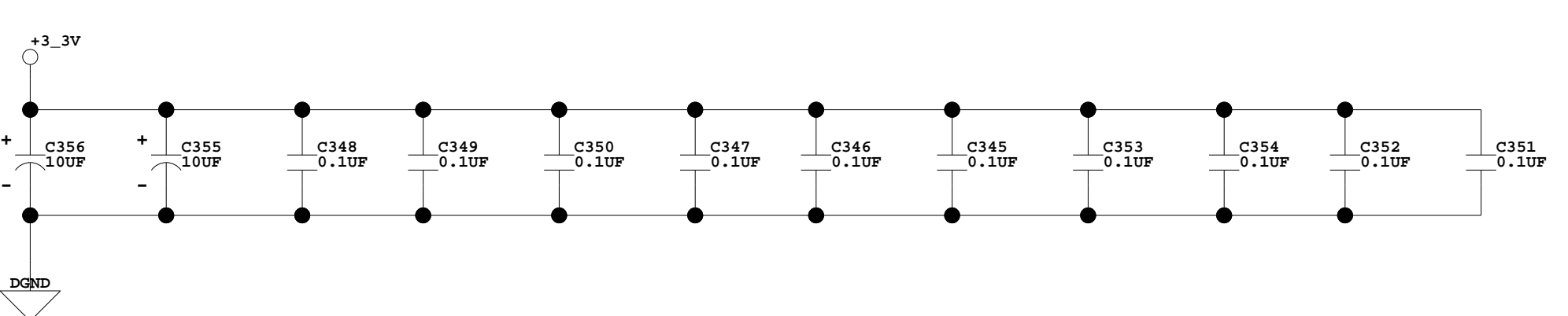
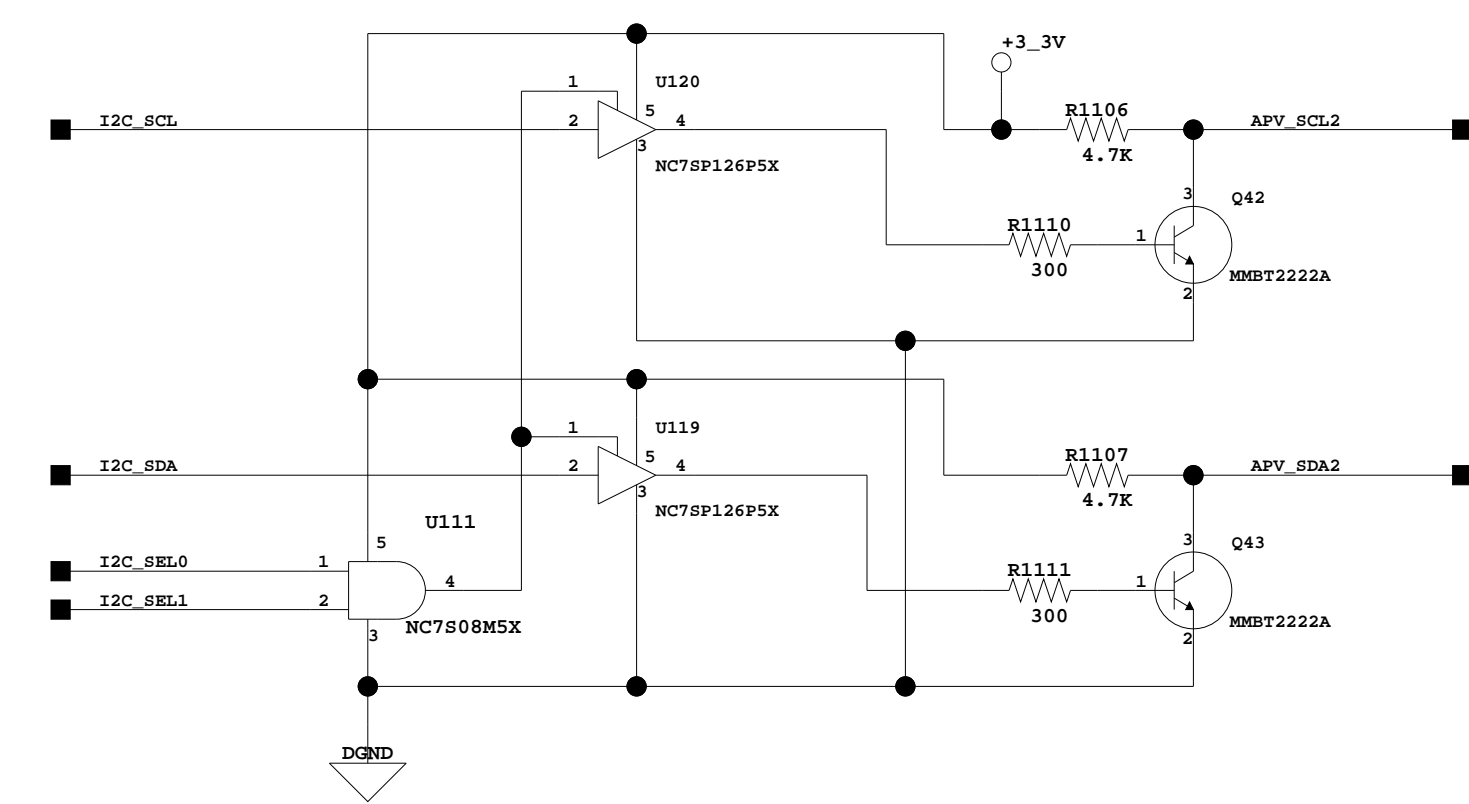
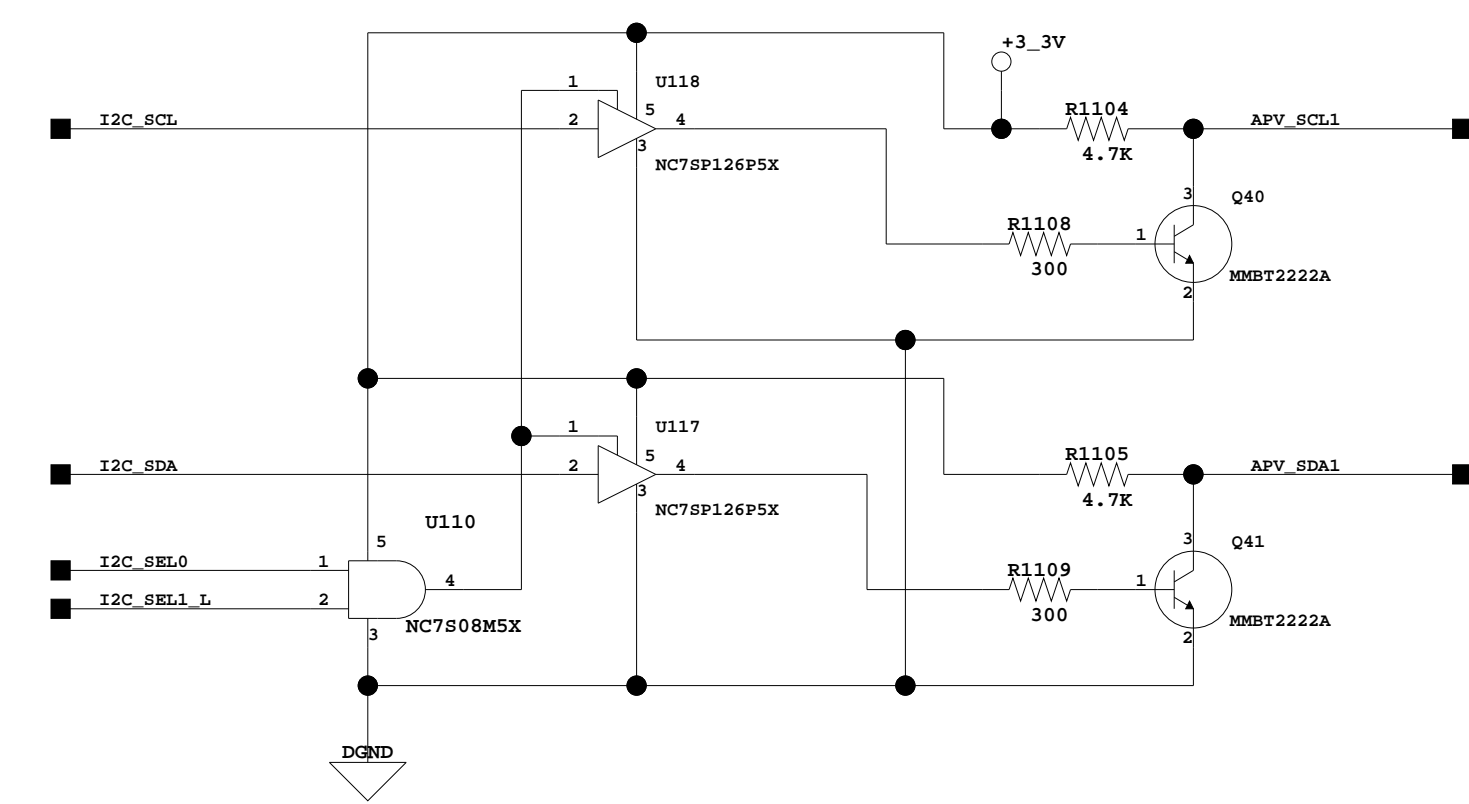
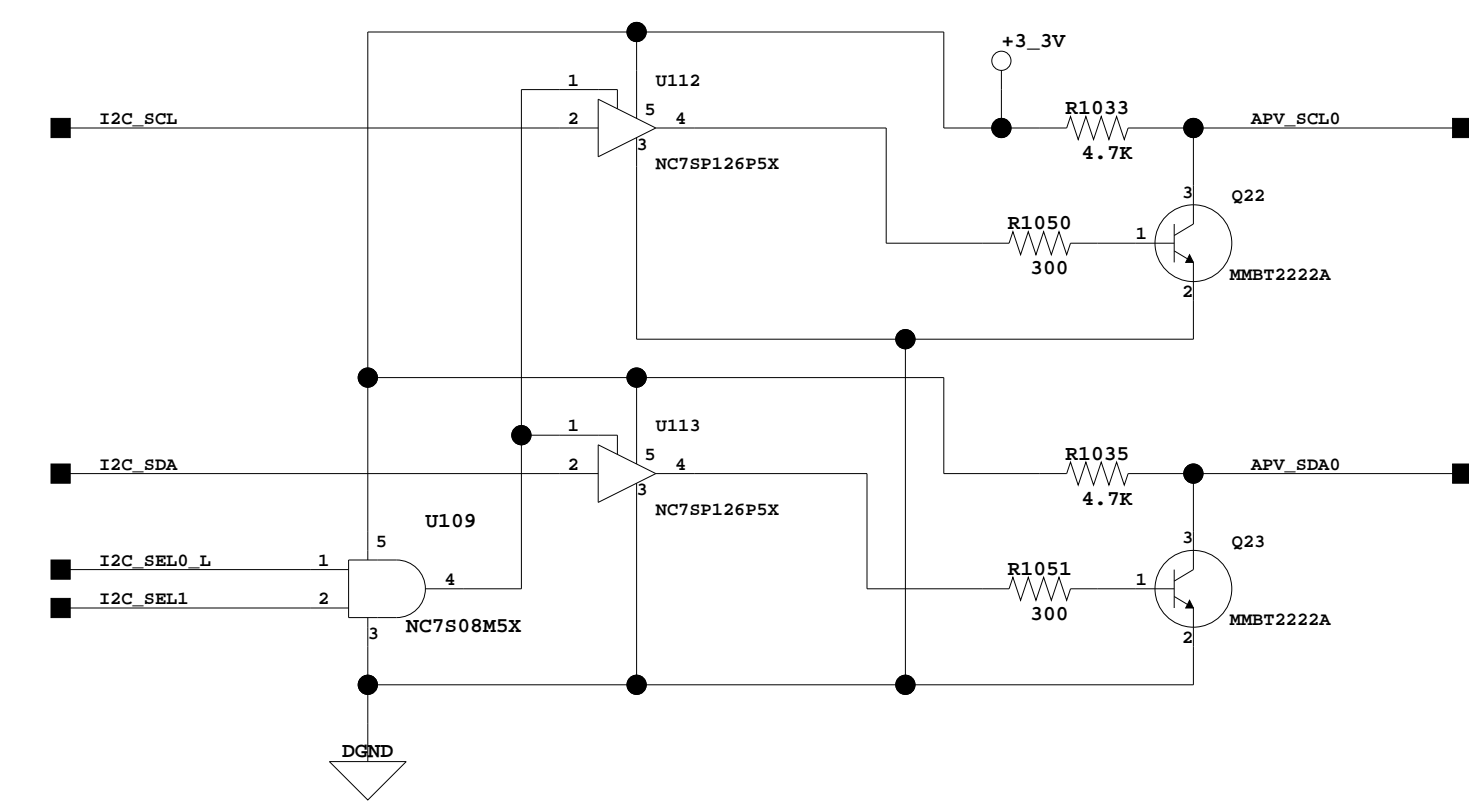
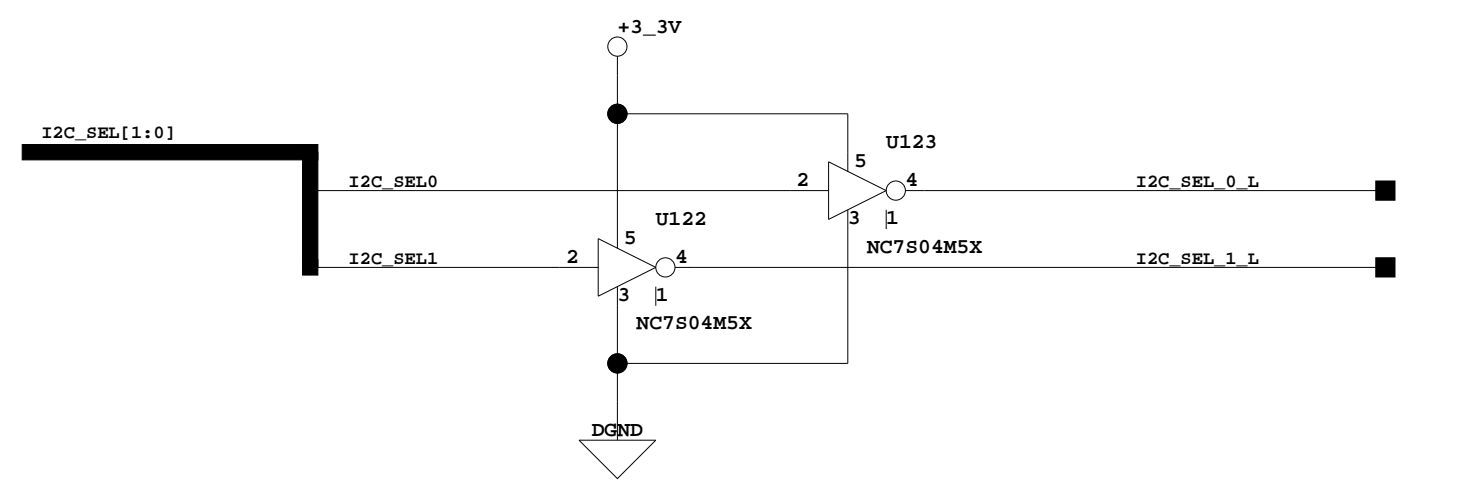
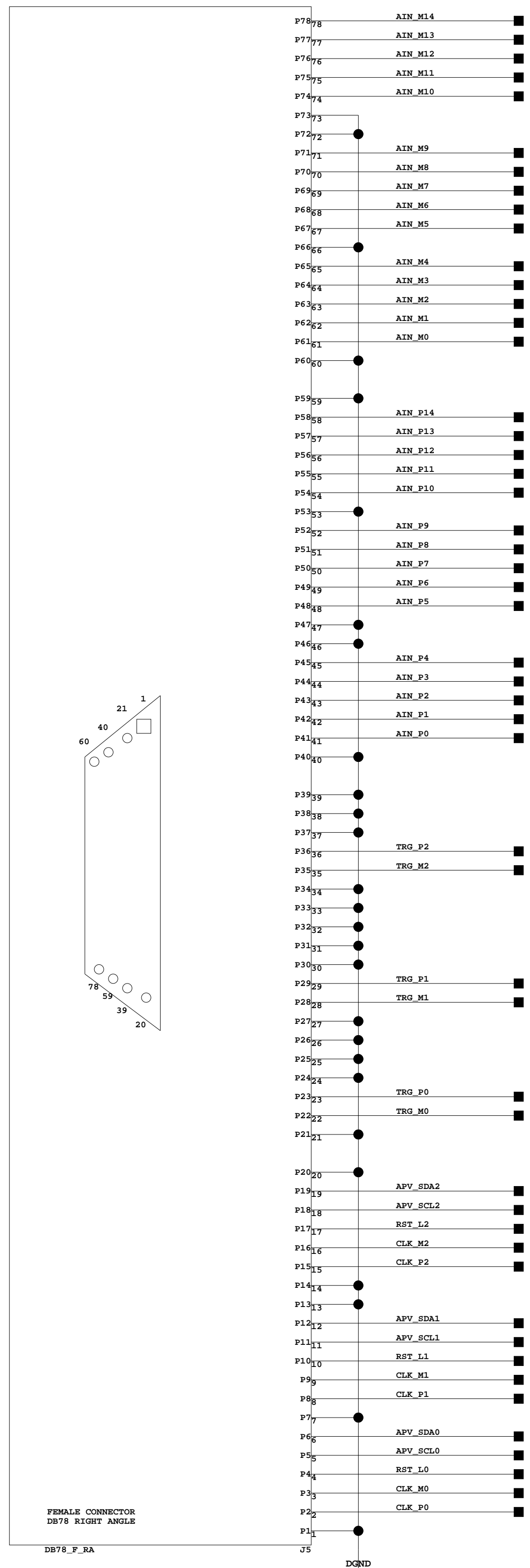
SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 11 OF 23
<small>STANFORD UNIVERSITY</small> <small>STANFORD, CALIFORNIA</small>		HEAVY P TRACKER READOUT RTM ADC BUFFERS, 8 CHANNEL
<small>PROPRIETARY DATA OF STANFORD UNIVERSITY AND/OR U.S. DEPARTMENT OF ENERGY. RECIPIENT SHALL NOT PUBLISH THE INFORMATION WITHIN UNLESS GRANTED SPECIFIC PERMISSION OF STANFORD UNIVERSITY.</small>		
<small>INCR</small>	<small>DATE</small>	<small>APPROVALS</small>
<small>DRFR</small> Ryan Herbst	2010	
<small>CDR</small>		
LOCATED AT SHEET 8		
SD-249-901-02-C01		

**ADC INPUT TERMINATION
PLACE NEAR ADC**



1-24-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 12 OF 23
STANFORD UNIVERSITY STANFORD, CALIFORNIA		HEAVY P TRACKER READOUT RTM 8 CHANNEL ADC
PROPRIETARY DATA OF STANFORD UNIVERSITY AND/OR U.S. DEPARTMENT OF ENERGY. RECIPIENT SHALL NOT PUBLISH THE INFORMATION WITHIN UNLESS GRANTED SPECIFIC PERMISSION OF STANFORD UNIVERSITY.		
INGR Ryan Herbst	DATE 2010	APPROVALS
LOCATED AT SHEET 8 SD-249-901-02-C01		



SLAC NATIONAL ACCELERATOR LABORATORY
U.S. DEPARTMENT OF ENERGY

STANFORD UNIVERSITY STANFORD, CALIFORNIA

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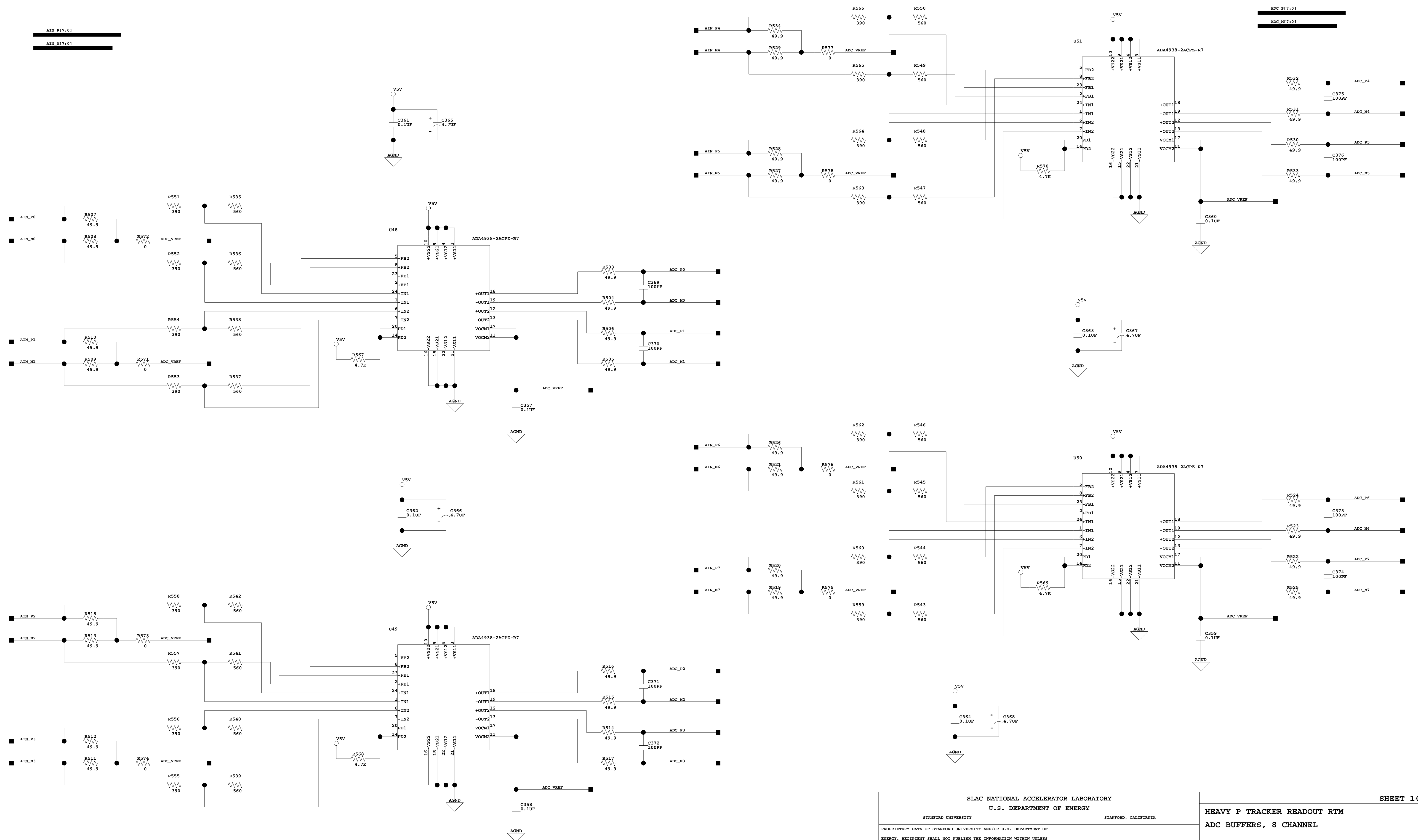
DATE	APPROVALS
2010	Ryan Herbst

SHEET 13 OF 23

HEAVY P TRACKER READOUT RTM
APV25 CONNECTOR

LOCATED AT SHEET 1
SD-249-901-02-C01

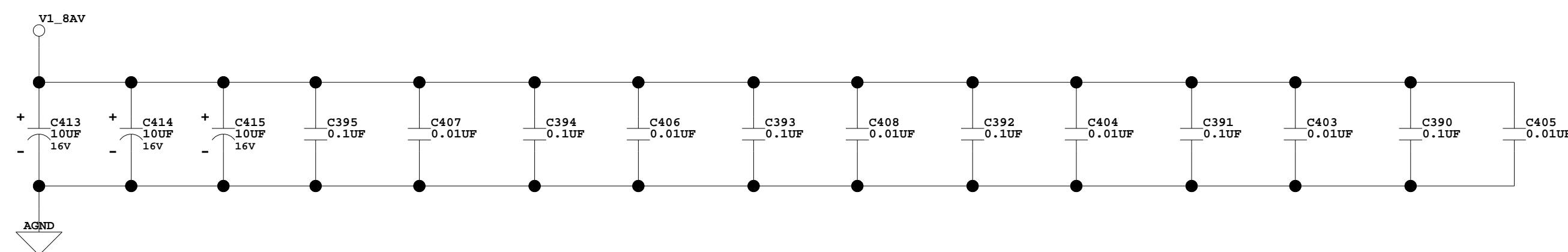
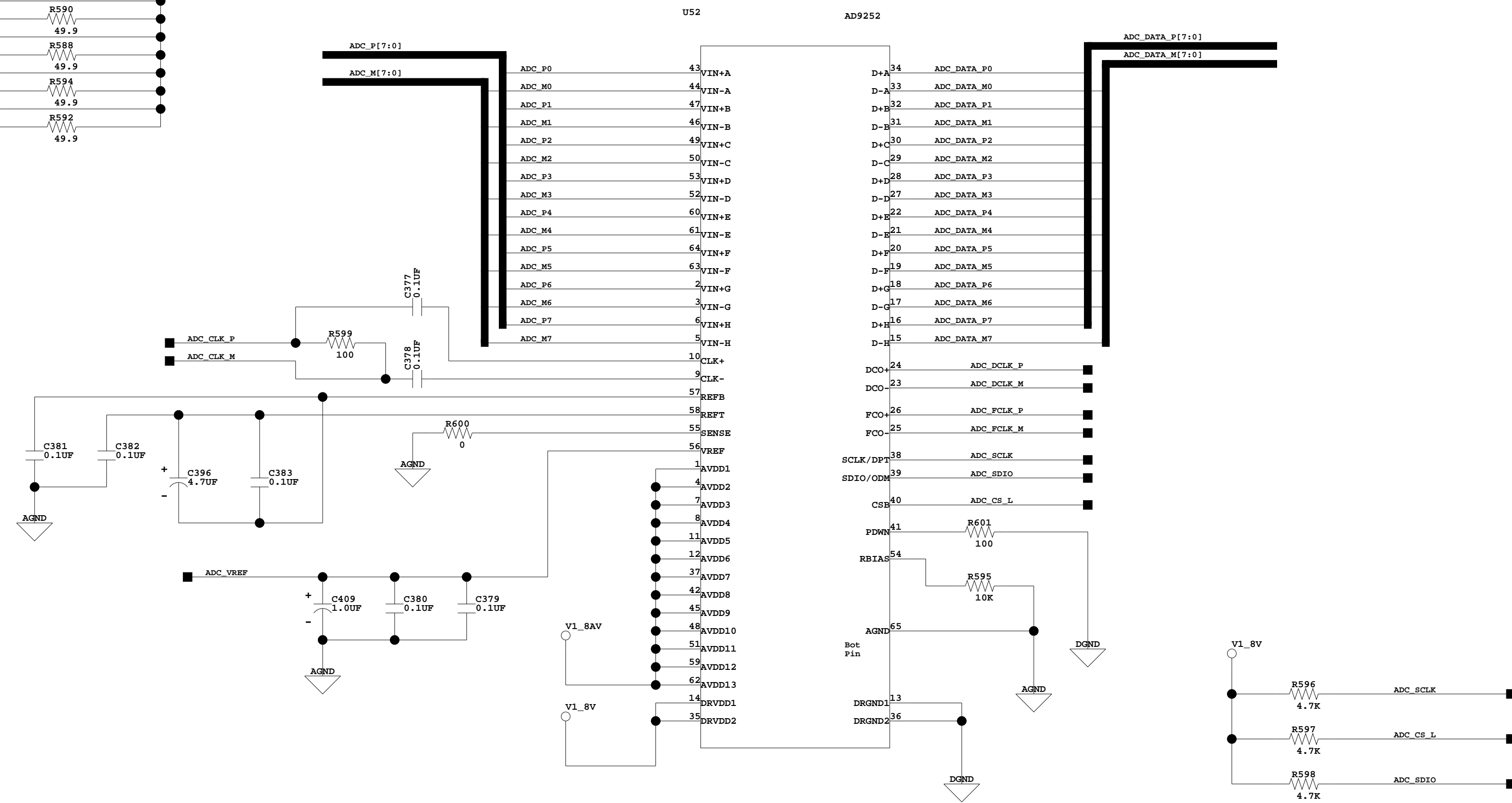
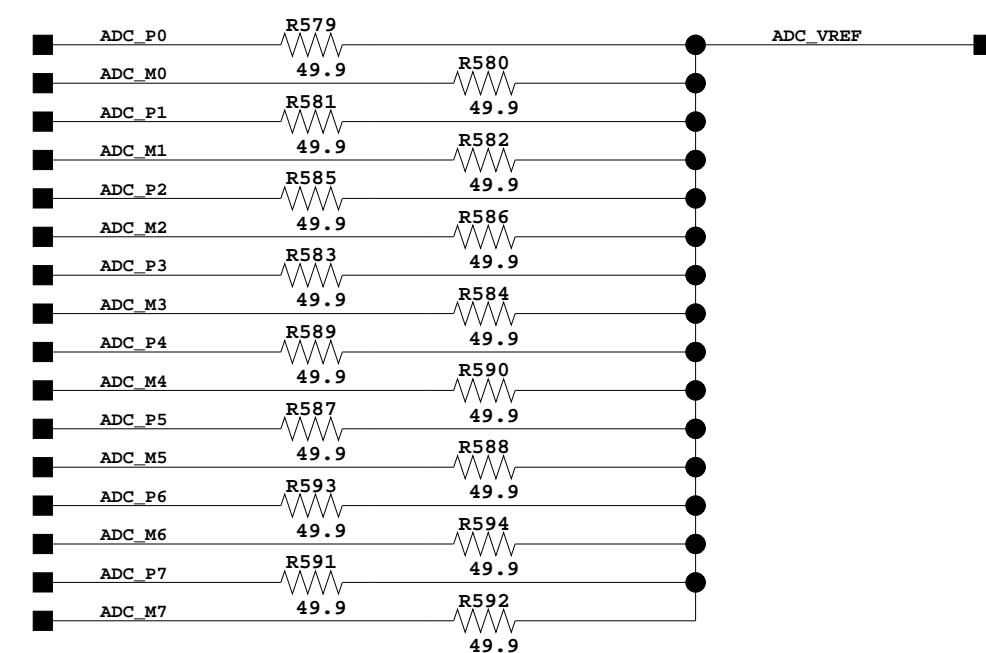
4-11-2011_15:42



1-24-2011_15:38

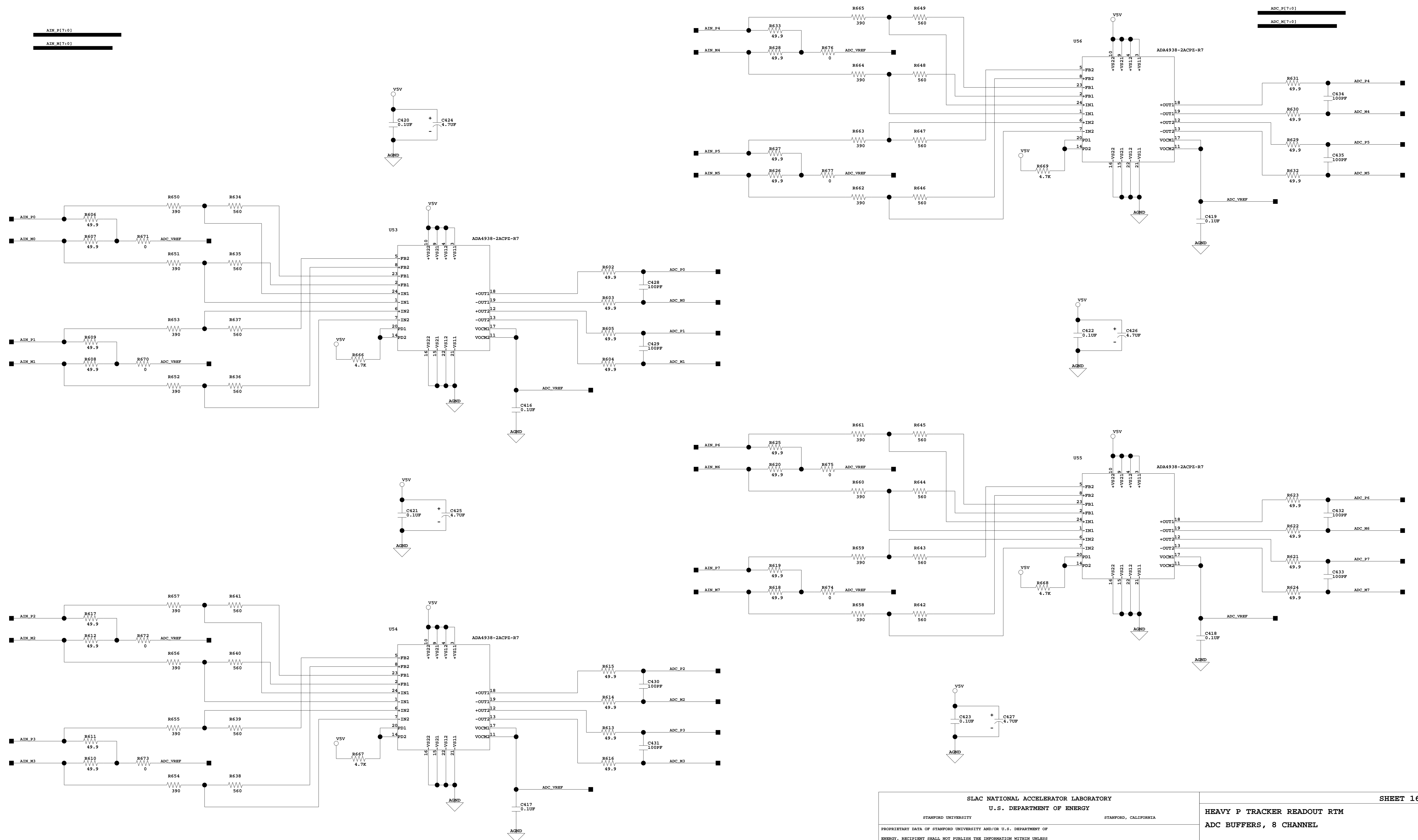
SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 14 OF 23
STANFORD UNIVERSITY STANFORD, CALIFORNIA		HEAVY P TRACKER READOUT RTM ADC BUFFERS, 8 CHANNEL
PROPRIETARY DATA OF STANFORD UNIVERSITY AND/OR U.S. DEPARTMENT OF ENERGY. RECIPIENT SHALL NOT PUBLISH THE INFORMATION WITHIN UNLESS GRANTED SPECIFIC PERMISSION OF STANFORD UNIVERSITY.		
INDR Ryan Herbst DFR CDR	DATE 2010 APPROVALS	
LOCATED AT SHEET 13 SD-249-901-02-C01		

ADC INPUT TERMINATION
PLACE NEAR ADC



1-24-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 15 OF 23
STANFORD UNIVERSITY STANFORD, CALIFORNIA		HEAVY P TRACKER READOUT RTM 8 CHANNEL ADC
PROPRIETARY DATA OF STANFORD UNIVERSITY AND/OR U.S. DEPARTMENT OF ENERGY. RECIPIENT SHALL NOT PUBLISH THE INFORMATION WITHIN UNLESS GRANTED SPECIFIC PERMISSION OF STANFORD UNIVERSITY.		
INGR	Ryan Herbst	DATE
DPTH		2010
CMR		APPROVALS
		LOCATED AT SHEET 13
		SD-249-901-02-C01



1-24-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		STANFORD, CALIFORNIA	
PROPRIETARY DATA OF STANFORD UNIVERSITY AND/OR U.S. DEPARTMENT OF ENERGY. RECIPIENT SHALL NOT PUBLISH THE INFORMATION WITHIN UNLESS GRANTED SPECIFIC PERMISSION OF STANFORD UNIVERSITY.		DATE	APPROVALS
DRWR	Ryan Herbst	2010	
DFTR			
CDR			

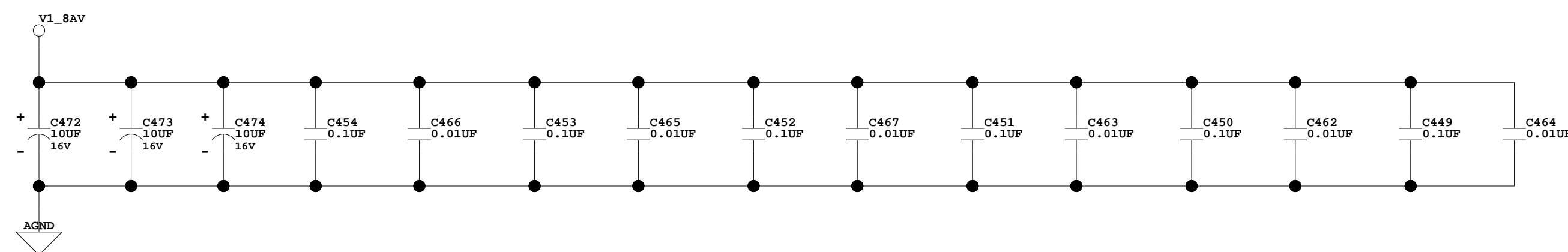
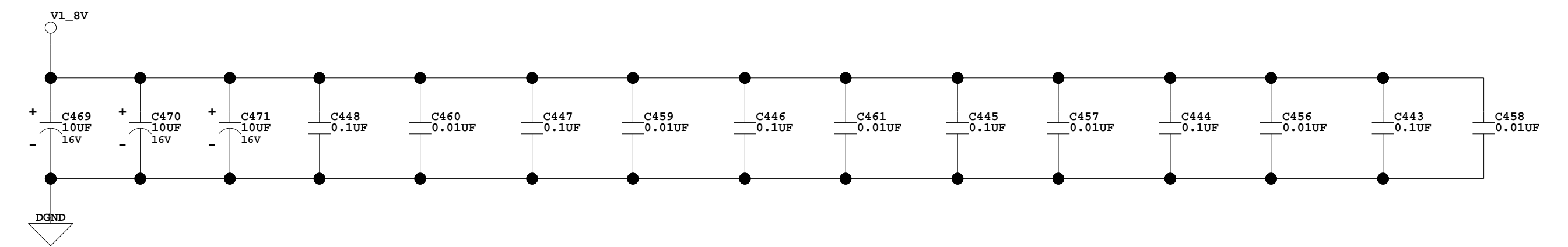
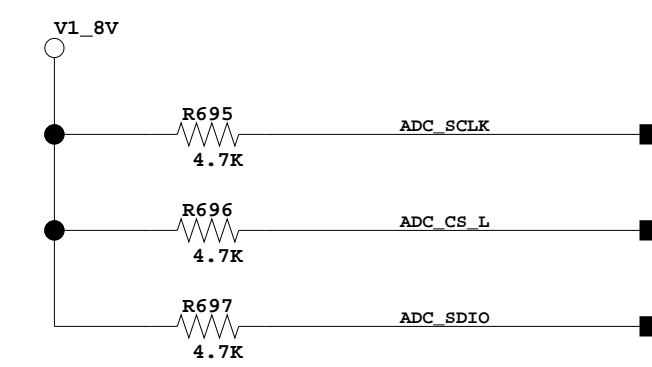
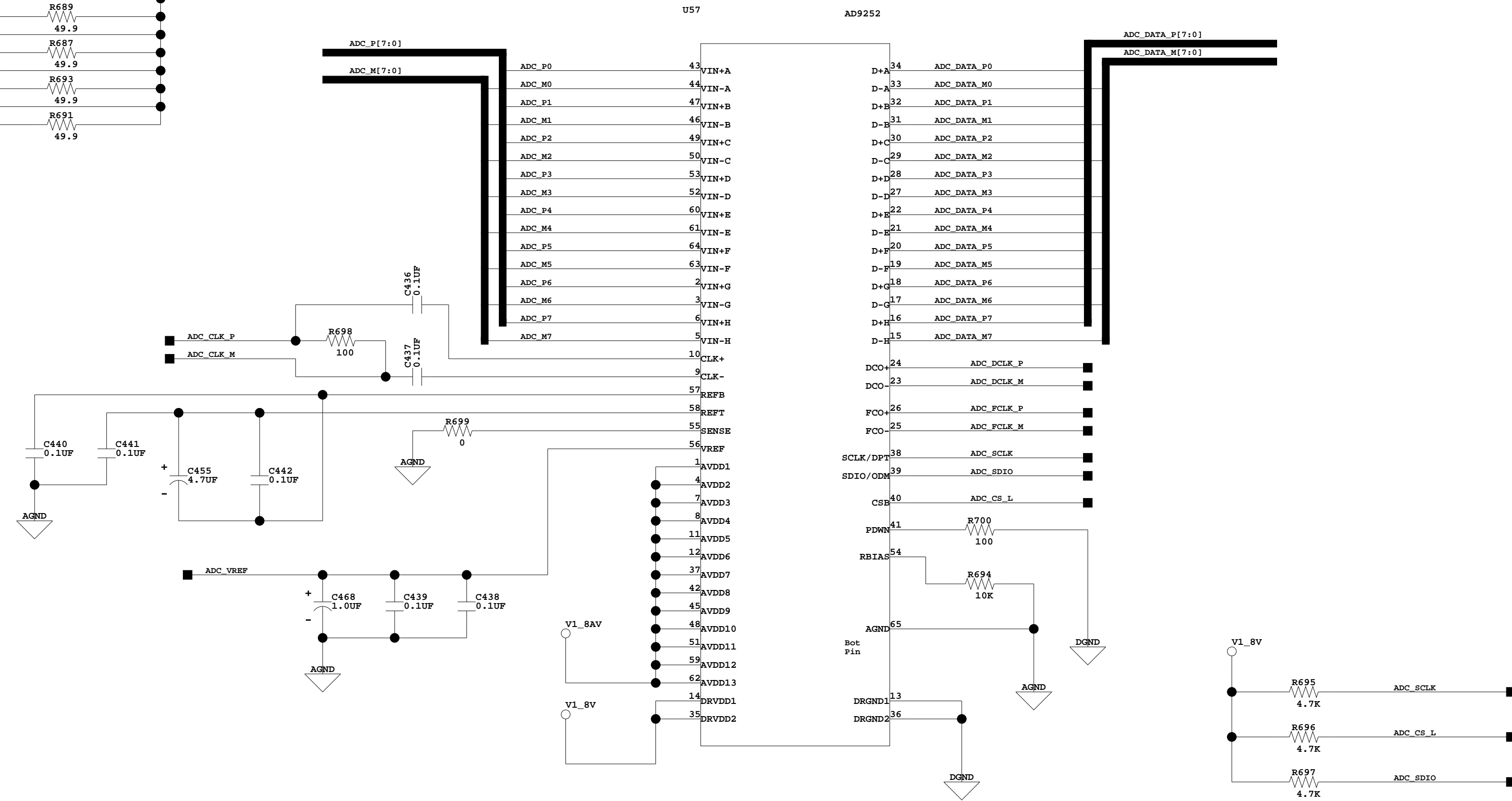
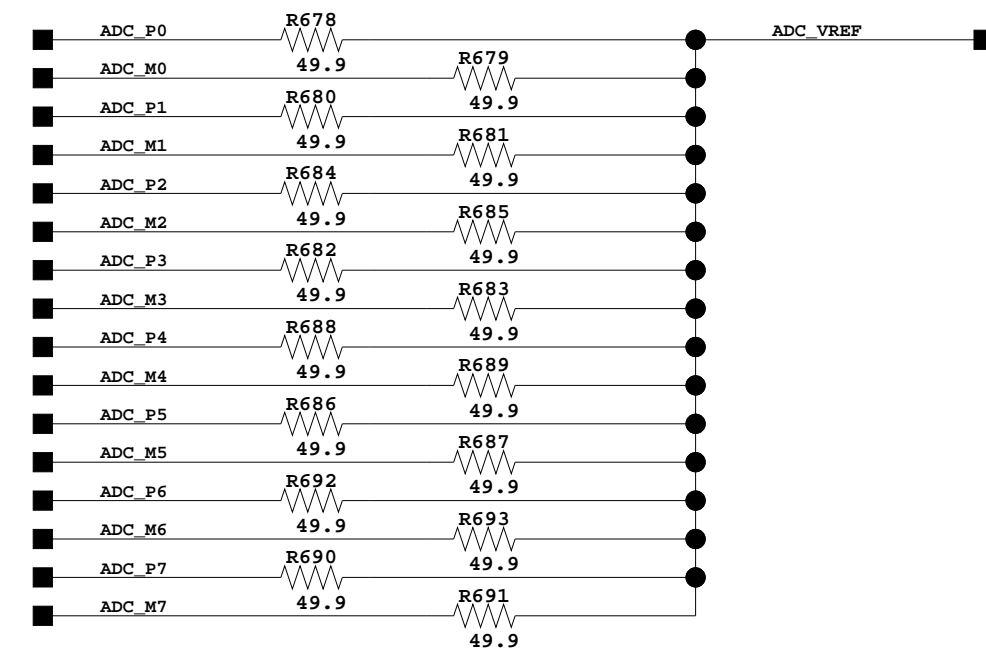
SHEET 16 OF 23

HEAVY P TRACKER READOUT RTM
ADC BUFFERS, 8 CHANNEL

LOCATED AT SHEET 13

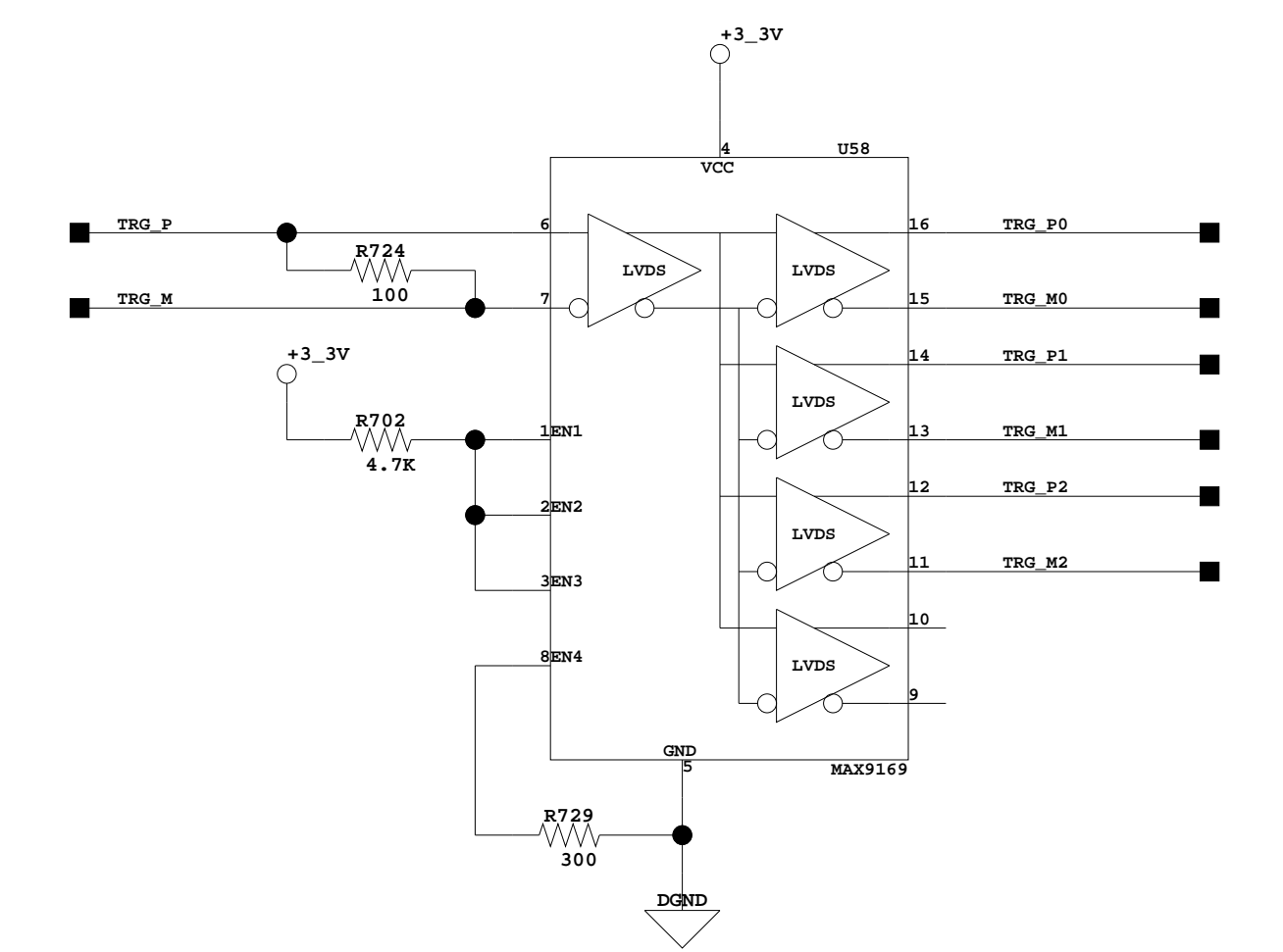
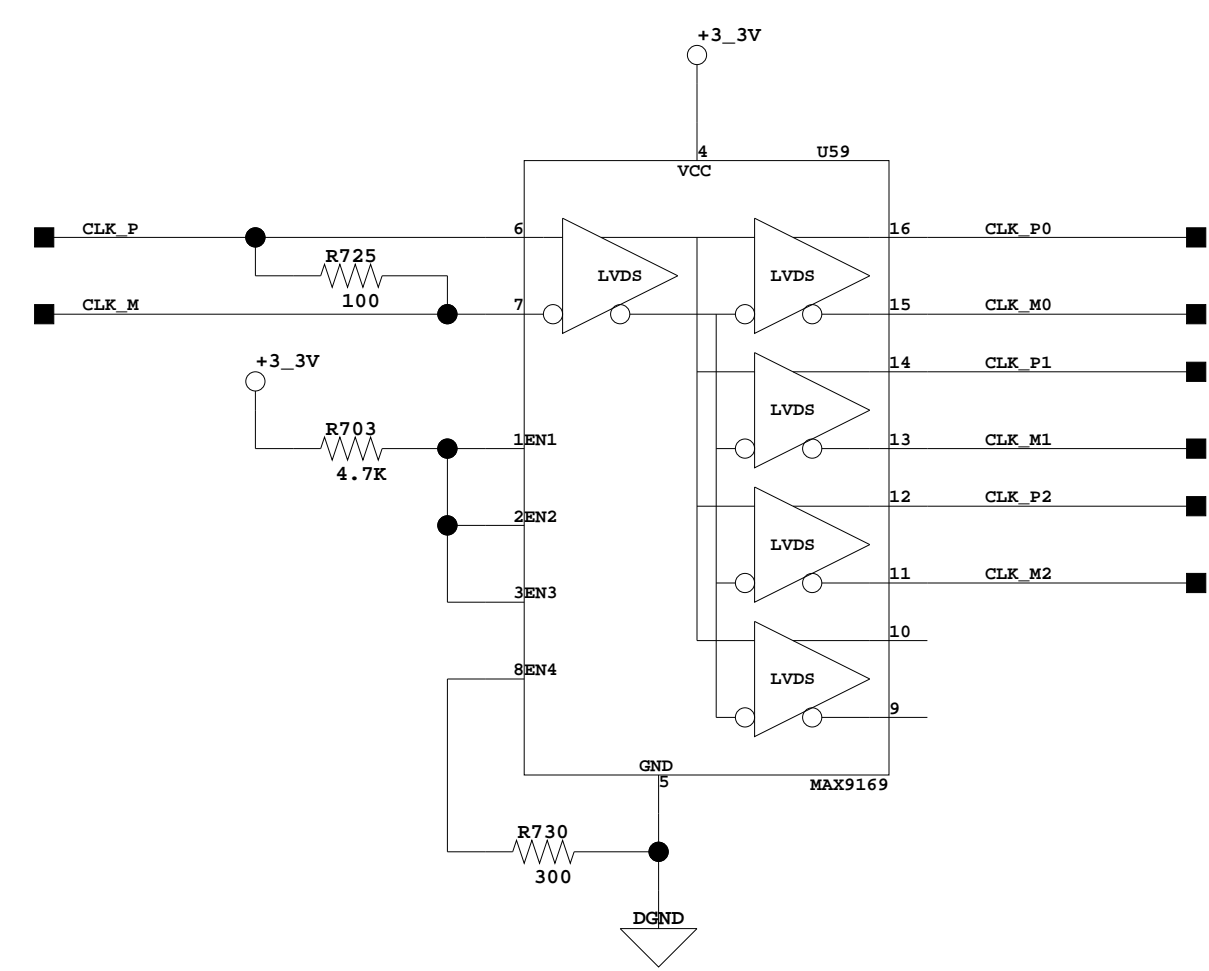
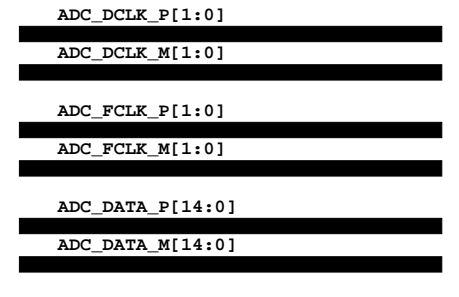
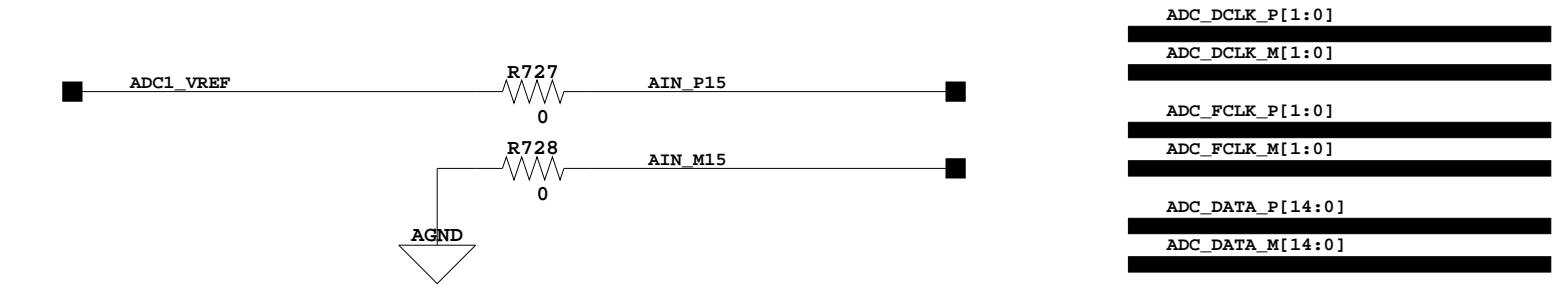
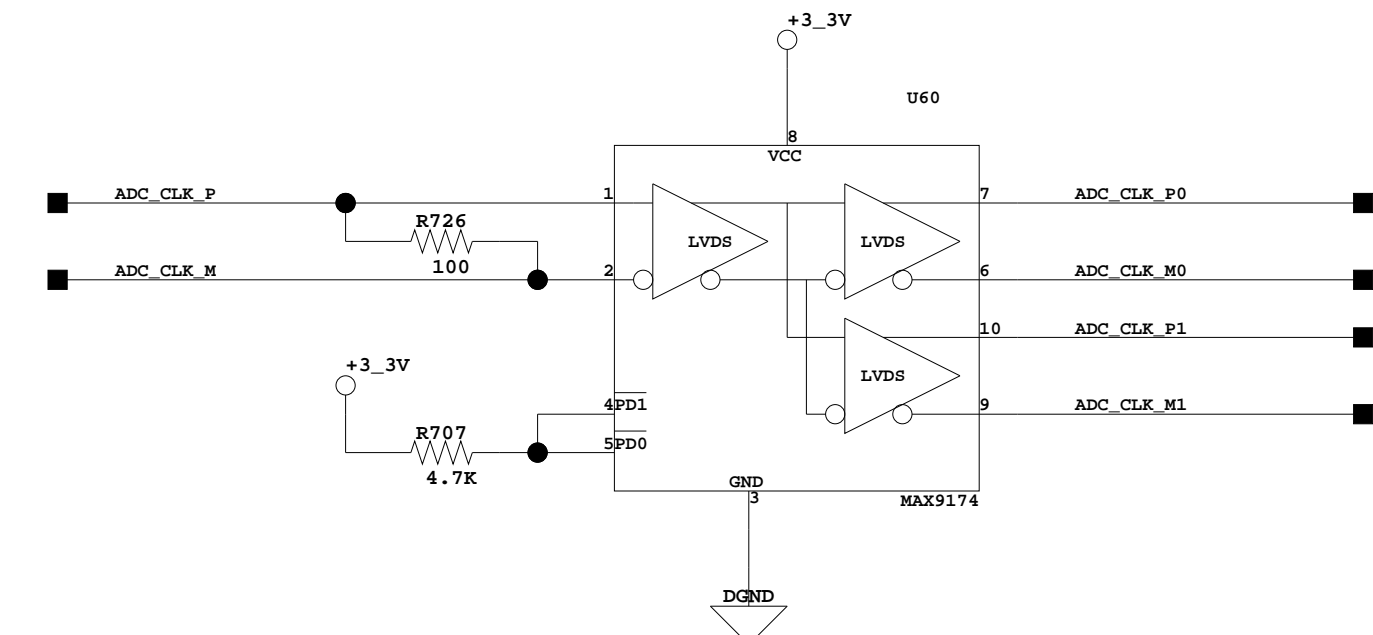
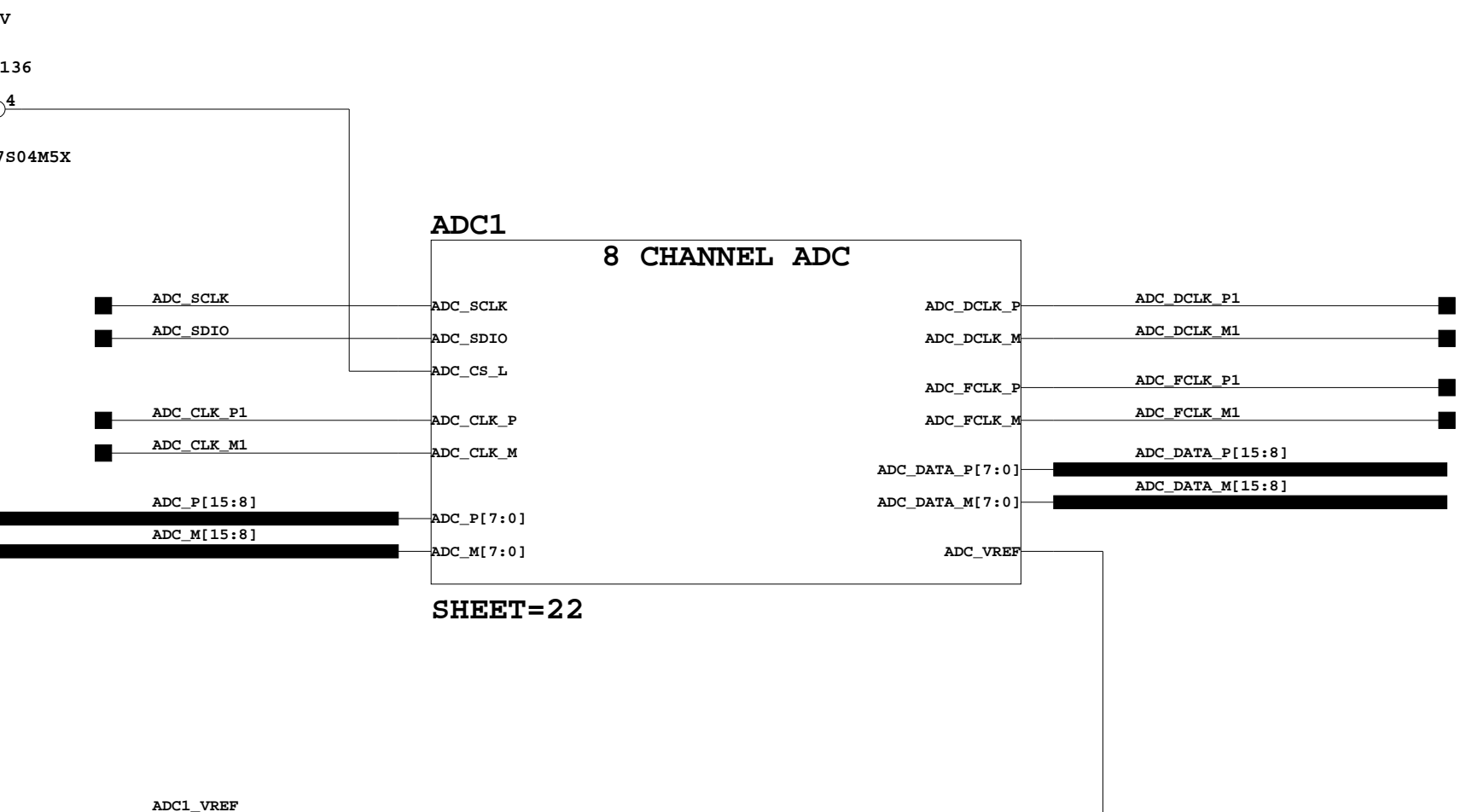
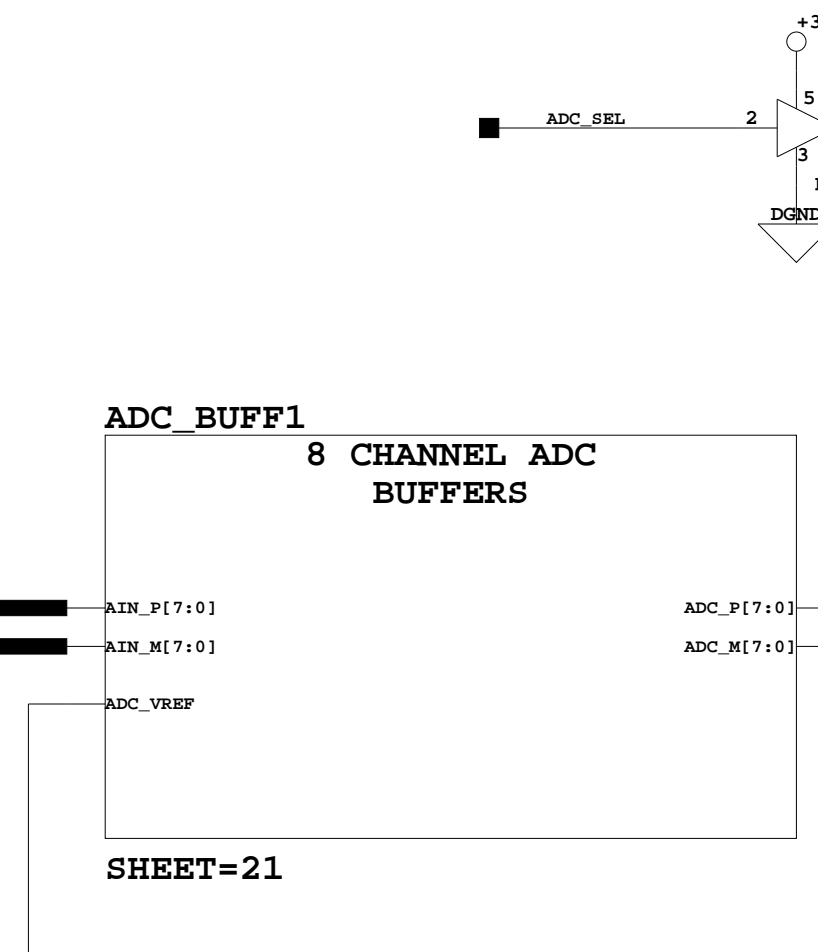
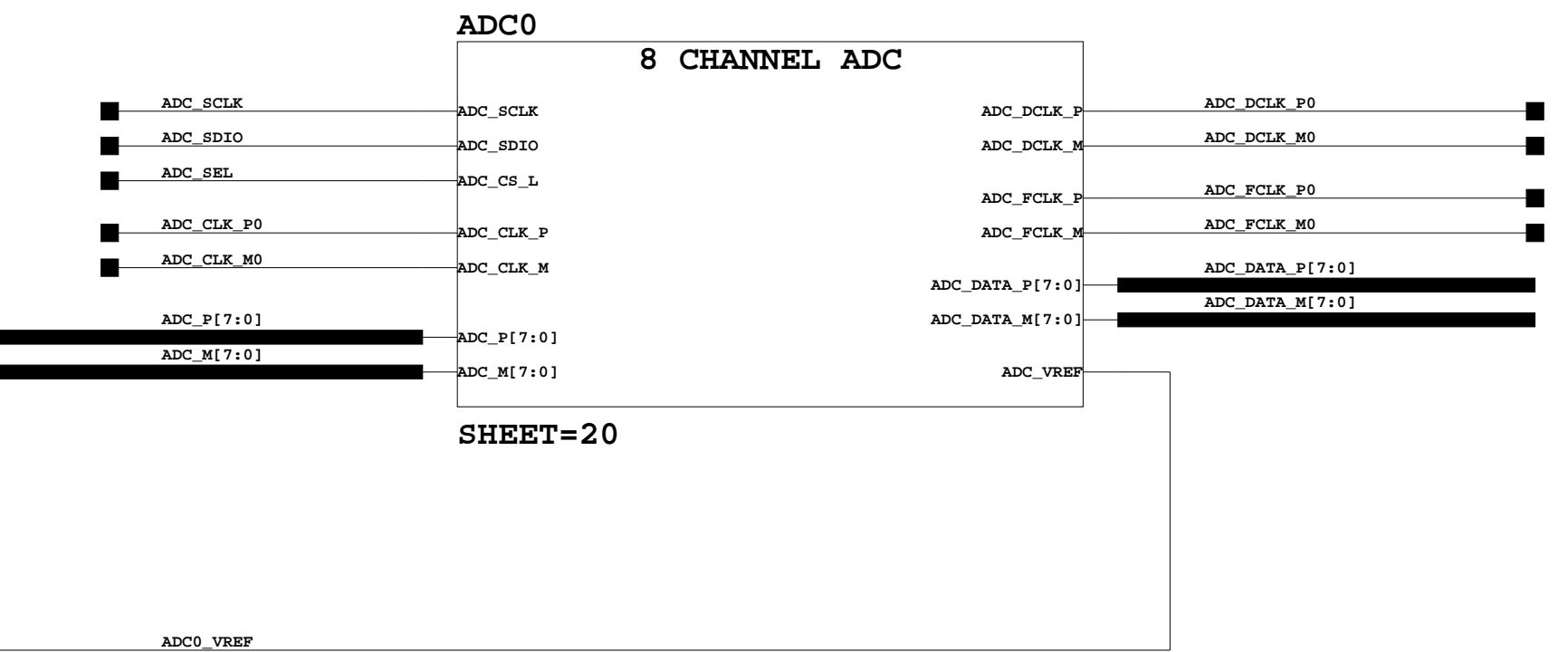
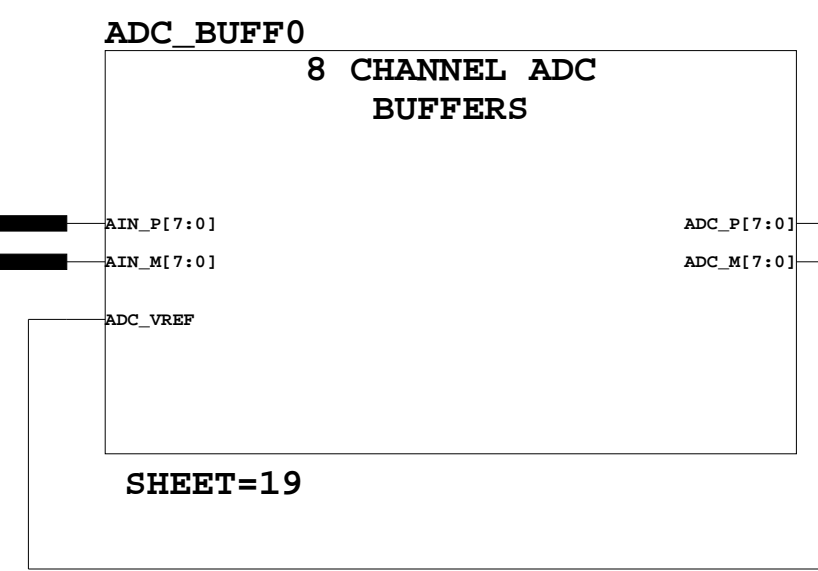
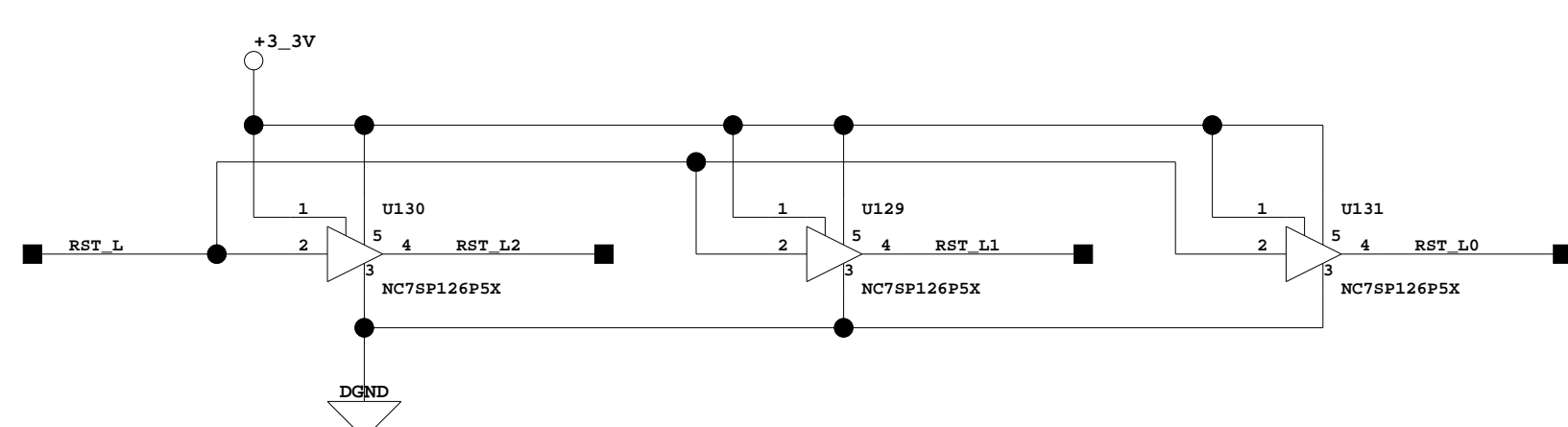
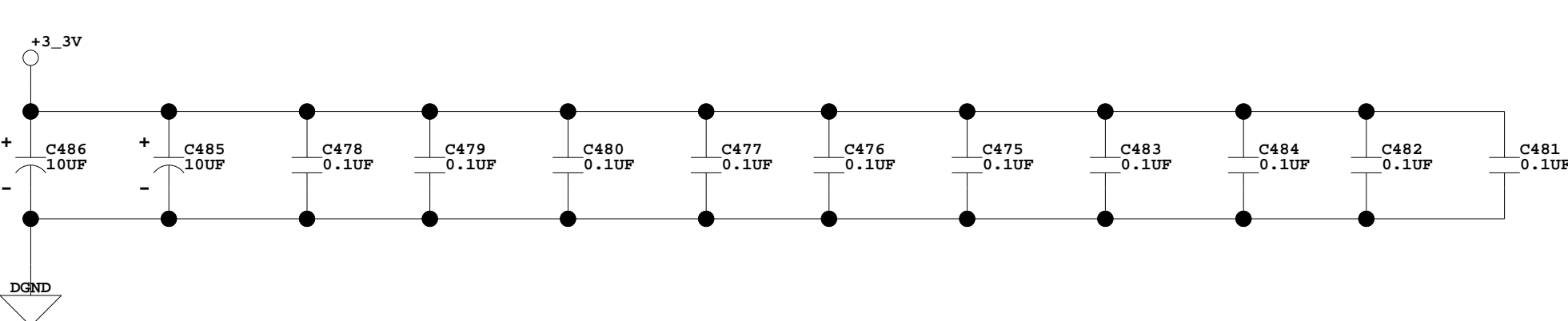
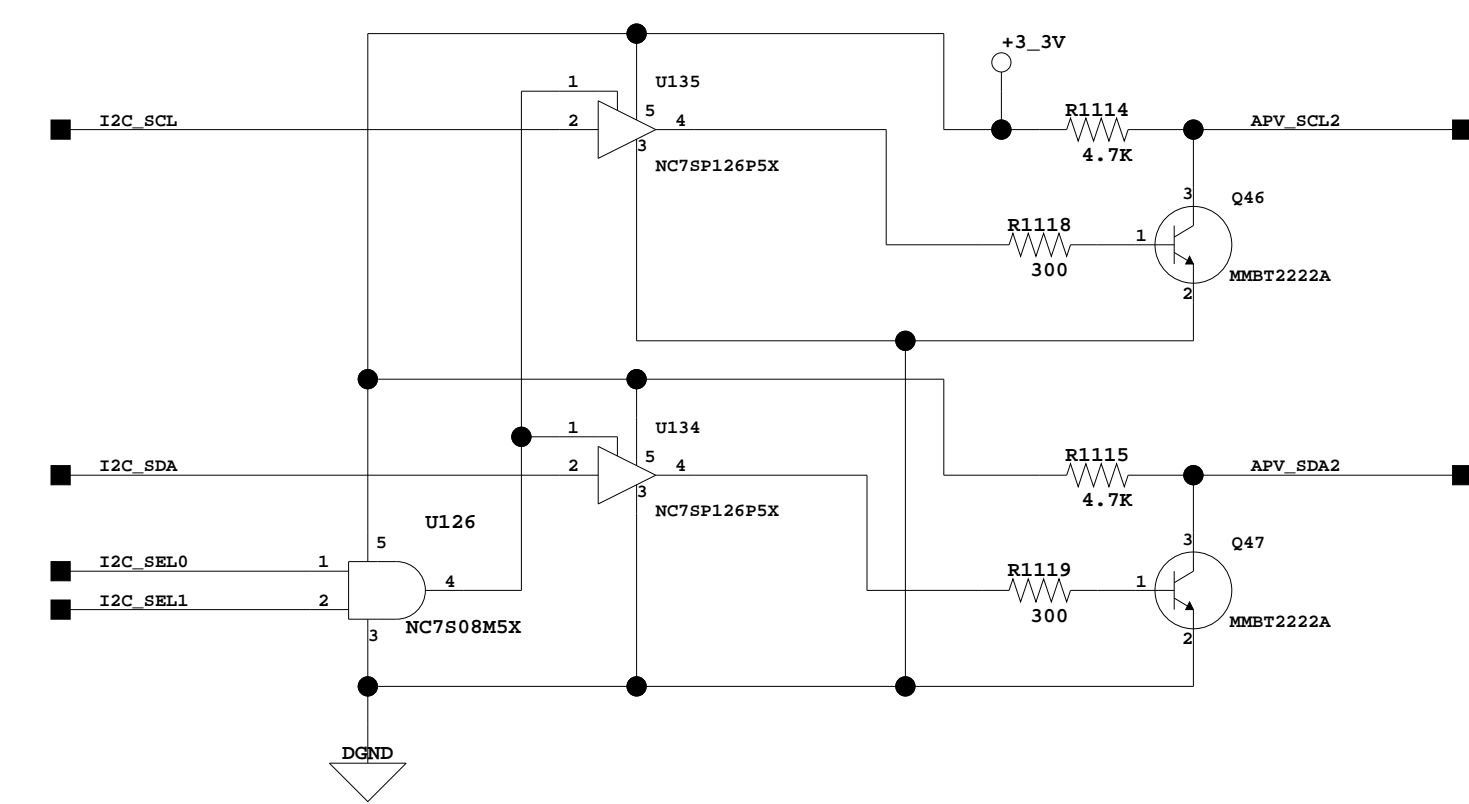
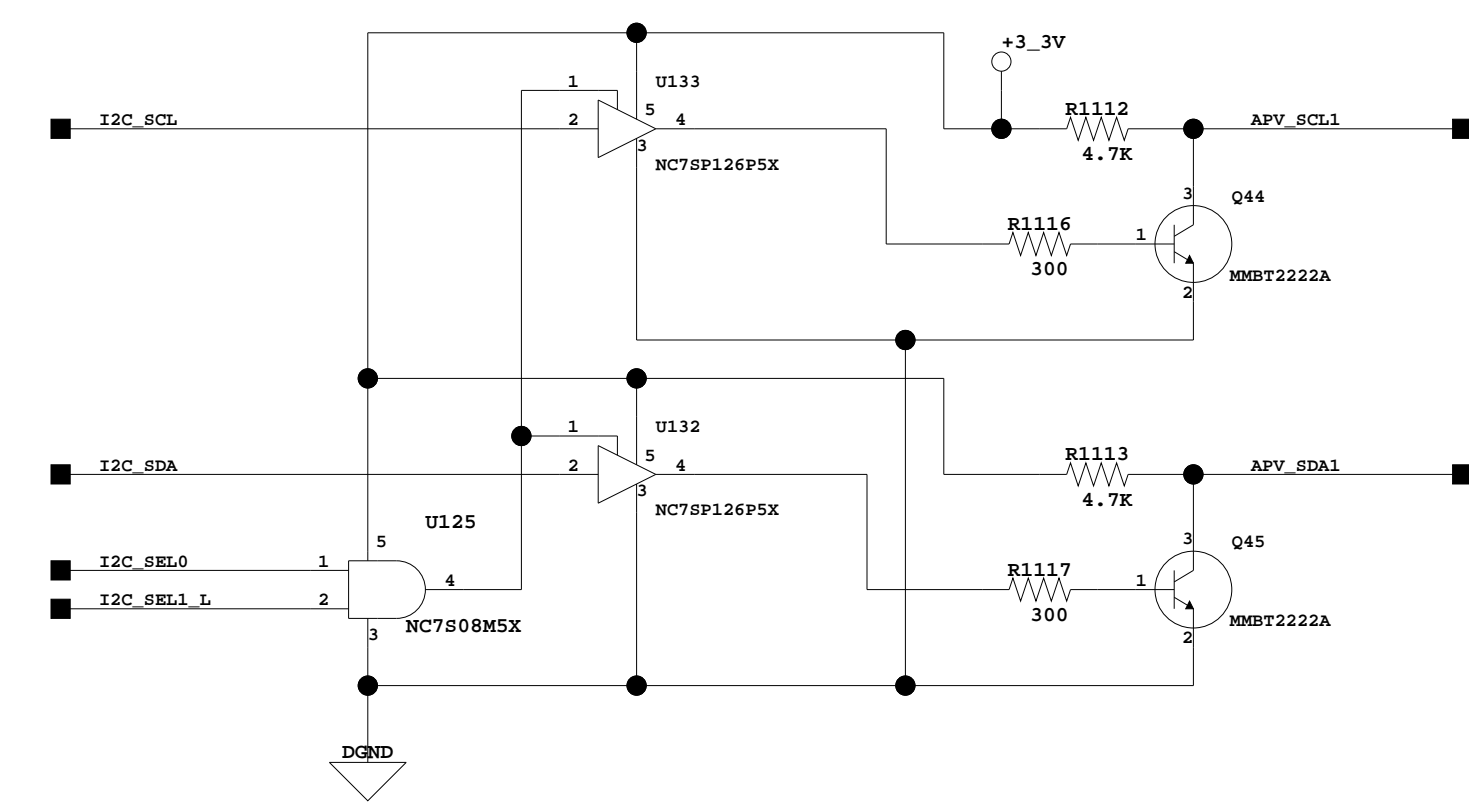
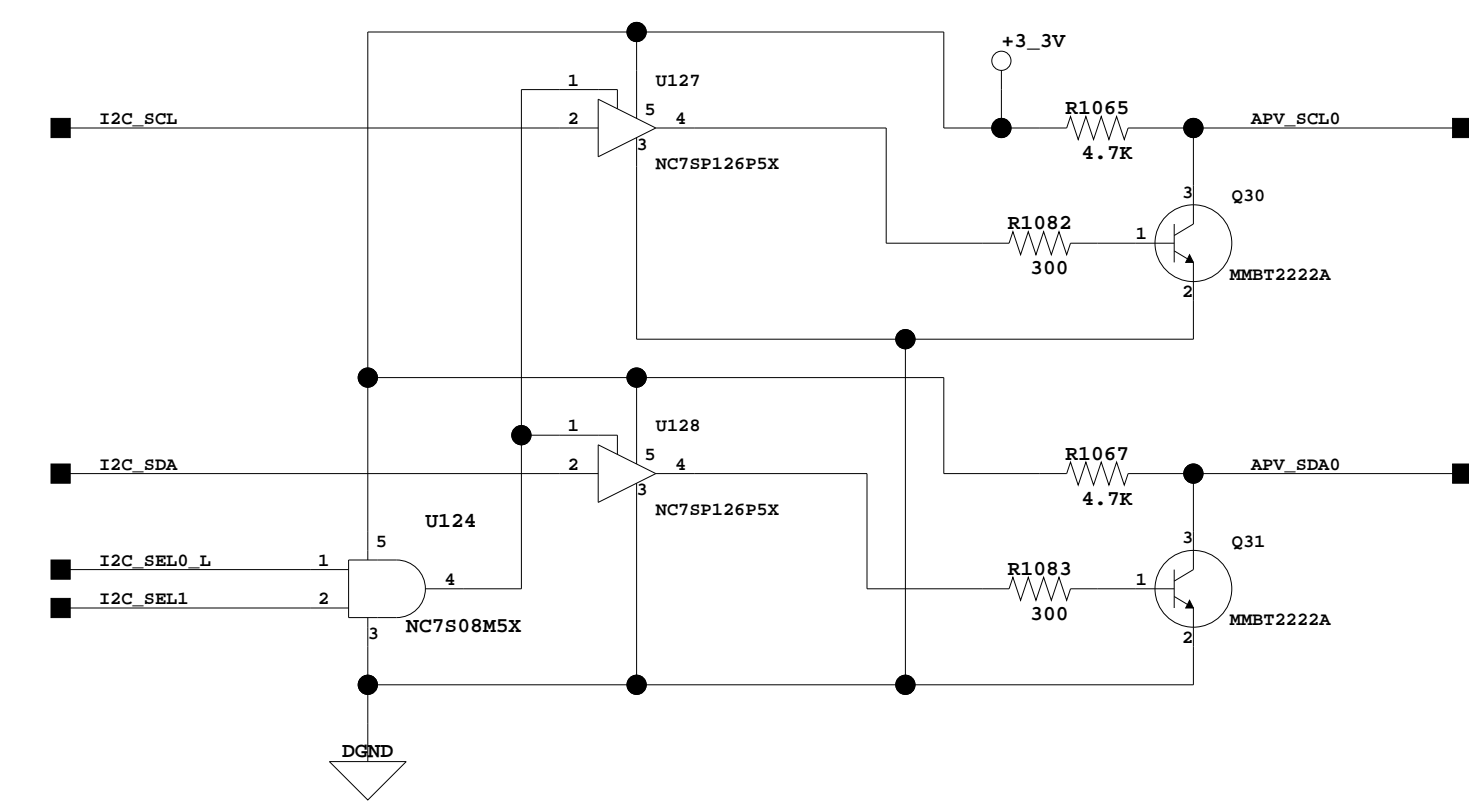
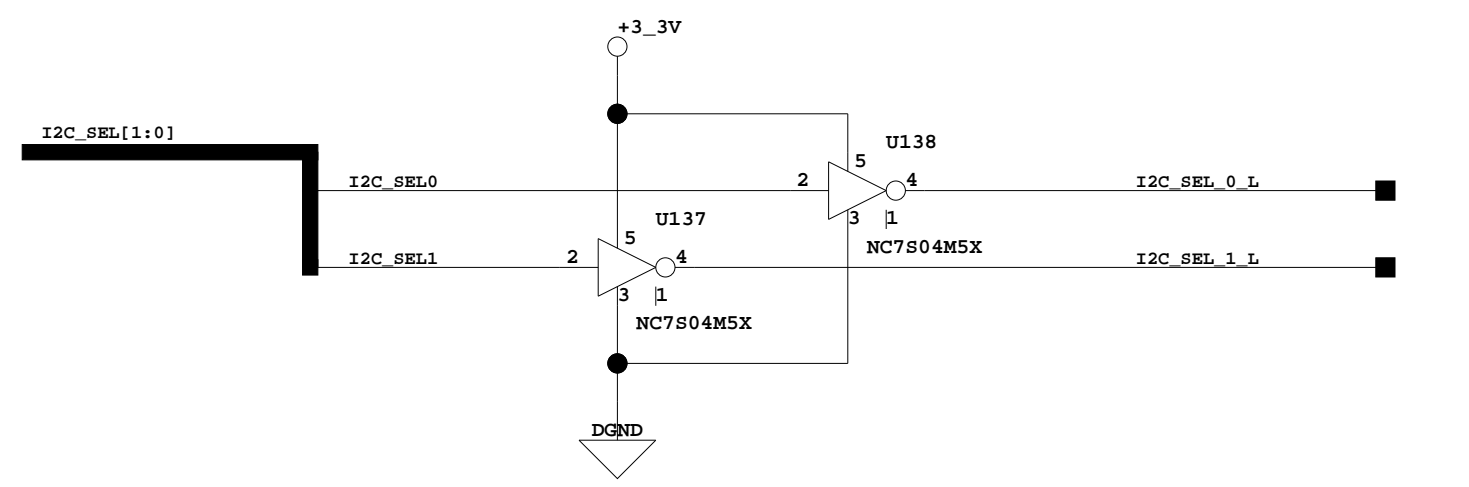
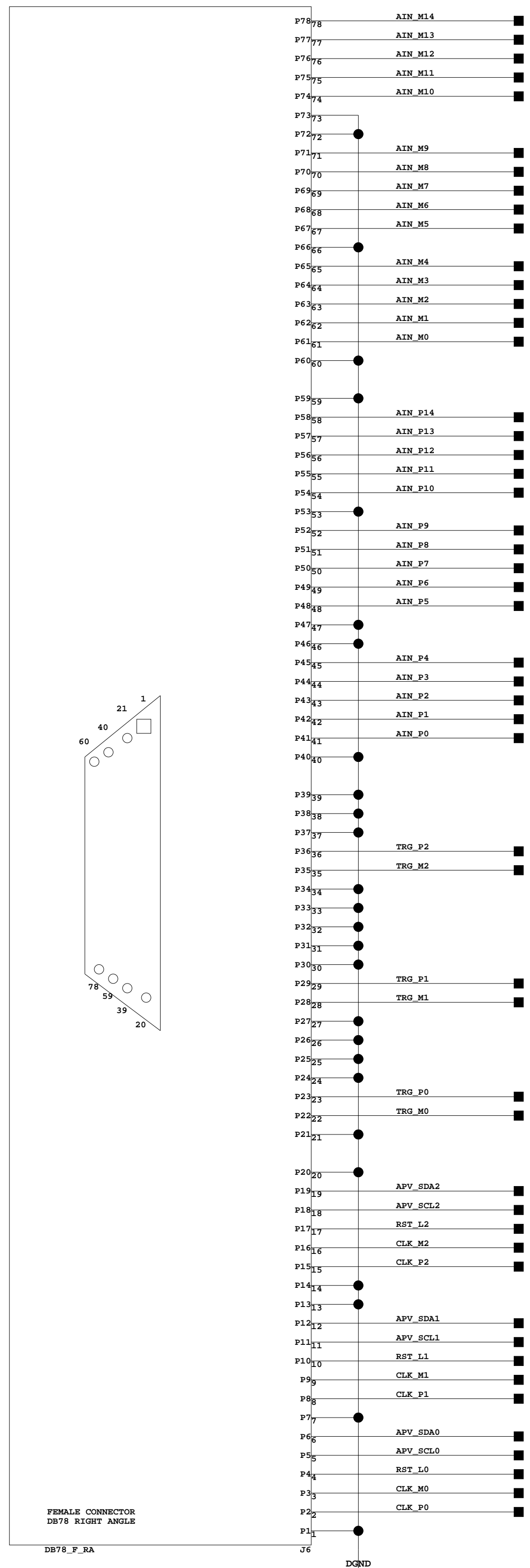
SD-249-901-02-C01

ADC INPUT TERMINATION
PLACE NEAR ADC



1-24-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 17 OF 23
STANFORD UNIVERSITY STANFORD, CALIFORNIA		HEAVY P TRACKER READOUT RTM 8 CHANNEL ADC
PROPRIETARY DATA OF STANFORD UNIVERSITY AND/OR U.S. DEPARTMENT OF ENERGY. RECIPIENT SHALL NOT PUBLISH THE INFORMATION WITHIN UNLESS GRANTED SPECIFIC PERMISSION OF STANFORD UNIVERSITY.		
INGR Ryan Herbst	DATE 2010	APPROVALS
LOCATED AT SHEET 13 SD-249-901-02-C01		



SLAC NATIONAL ACCELERATOR LABORATORY
U.S. DEPARTMENT OF ENERGY

STANFORD UNIVERSITY STANFORD, CALIFORNIA

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DATE	APPROVALS
2010	Ryan Herbst

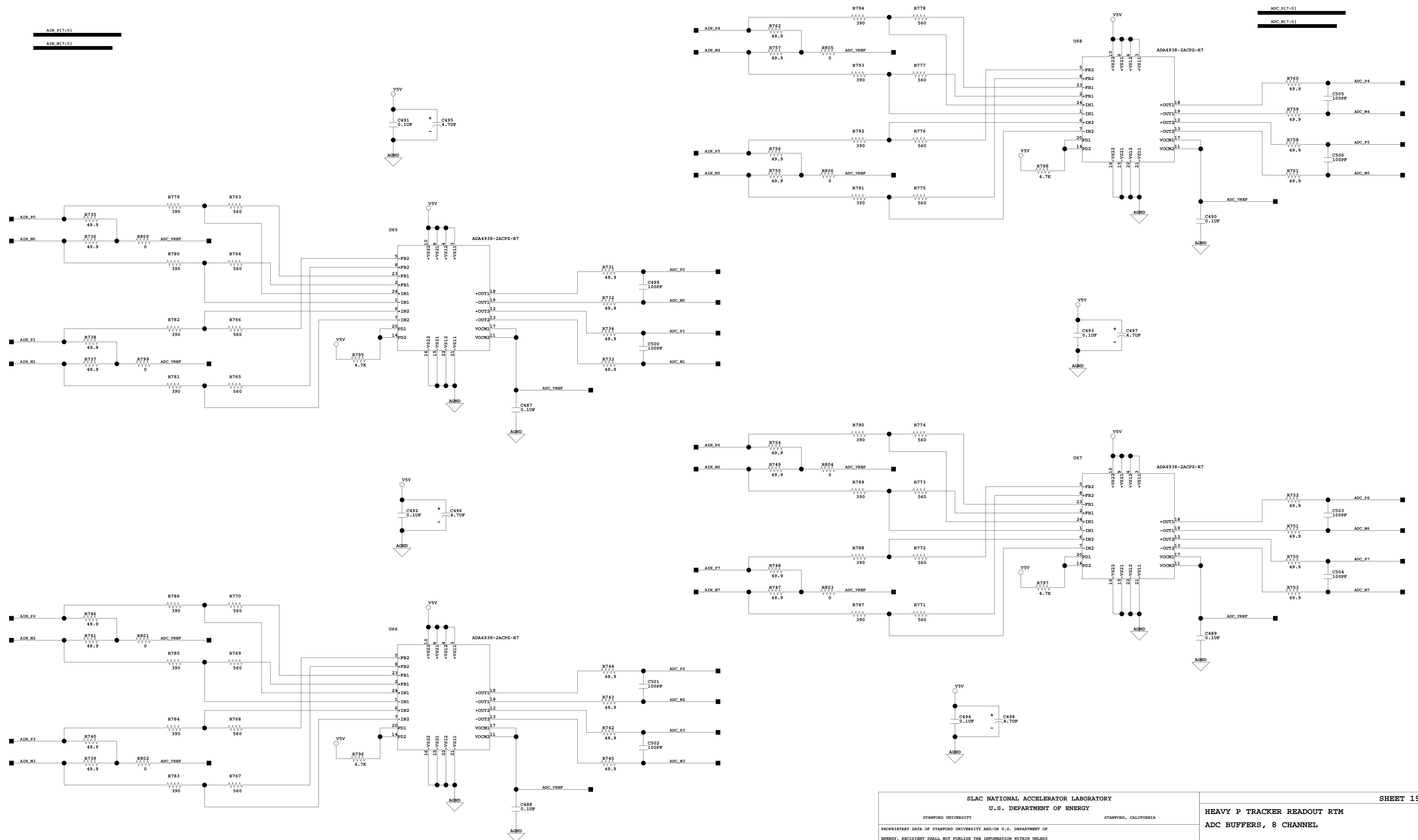
SHEET 18 OF 23

HEAVY P TRACKER READOUT RTM
APV25 CONNECTOR

LOCATED AT SHEET 1

SD-249-901-02-C01

4-11-2011_15:42



1-24-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY
U.S. DEPARTMENT OF ENERGY

STANFORD UNIVERSITY STANFORD, CALIFORNIA

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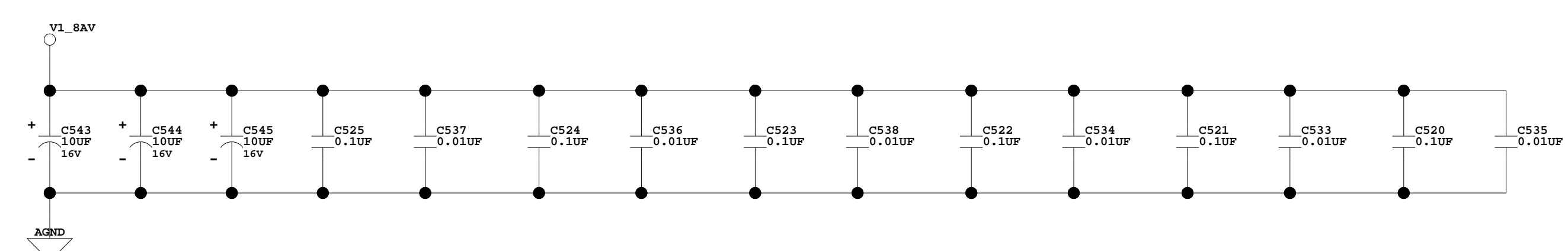
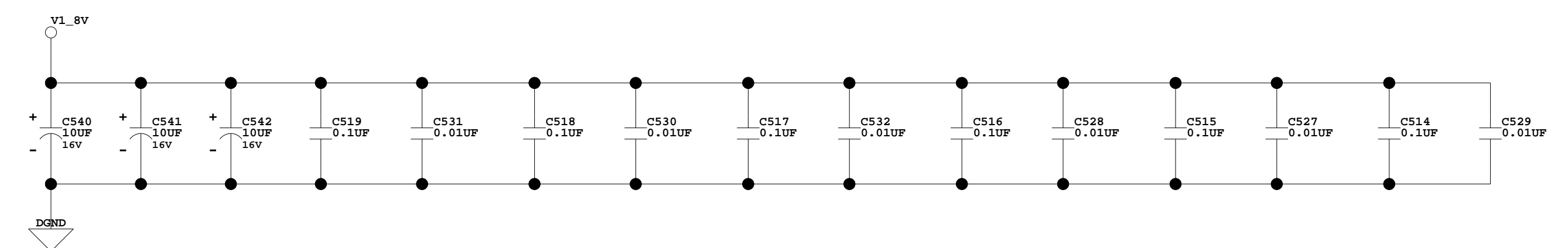
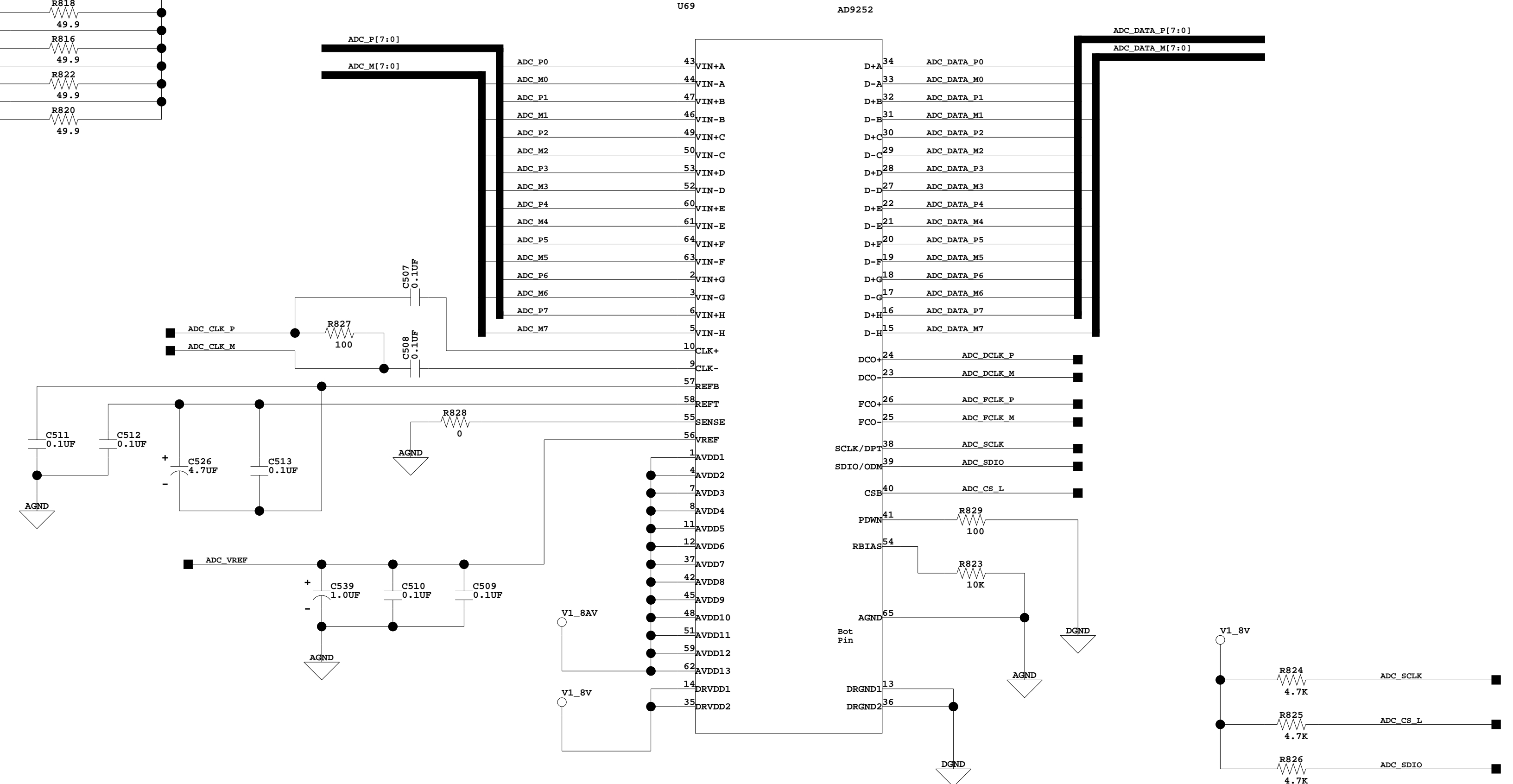
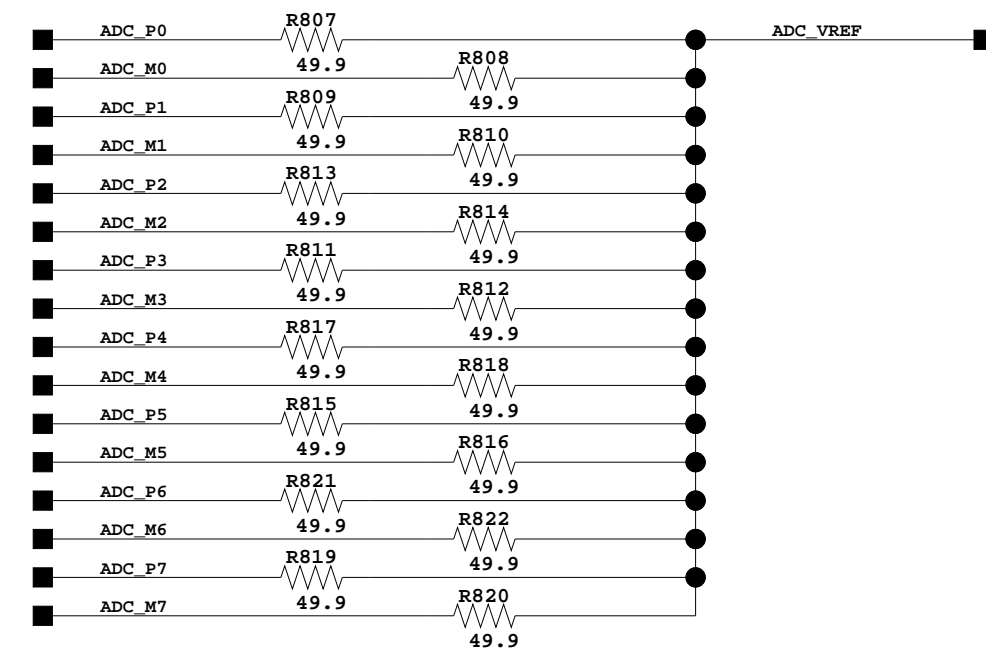
INCR	DATE	APPROVALS
DRFR	Ryan Herbst	2010
CDR		
INCR		

SHEET 19 OF 23

HEAVY P TRACKER READOUT RTM
ADC BUFFERS, 8 CHANNEL

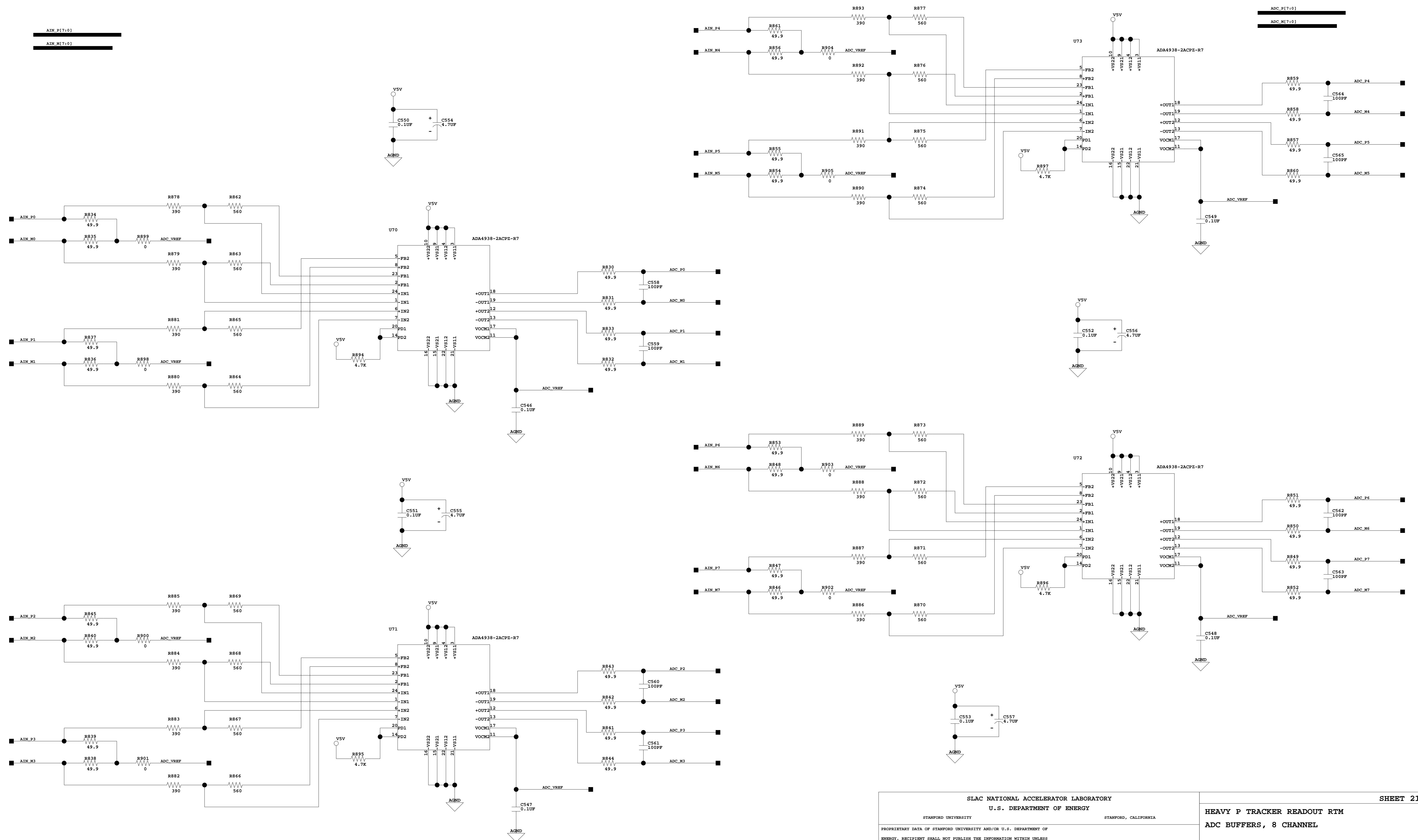
LOCATED AT SHEET 18
 SD-249-901-02-C01

ADC INPUT TERMINATION
PLACE NEAR ADC



1-24-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 20 OF 23
STANFORD UNIVERSITY STANFORD, CALIFORNIA		HEAVY P TRACKER READOUT RTM 8 CHANNEL ADC
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INGR Ryan Herbst	DATE 2010	APPROVALS
LOCATED AT SHEET 18		
SD-249-901-02-C01		



1-24-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY
U.S. DEPARTMENT OF ENERGY

STANFORD UNIVERSITY STANFORD, CALIFORNIA

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INCR	DATE	APPROVALS
0001	2010	
0002		
0003		

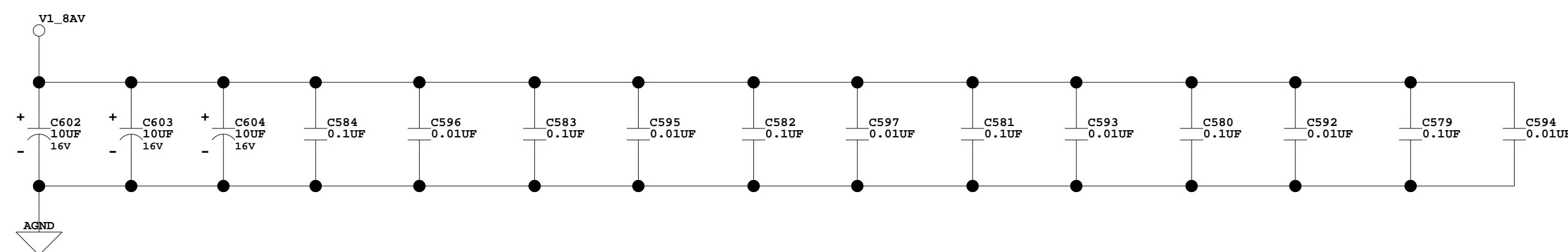
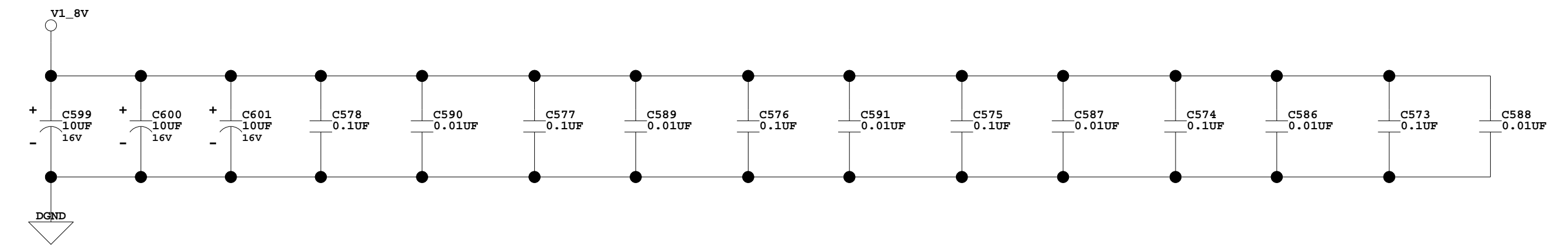
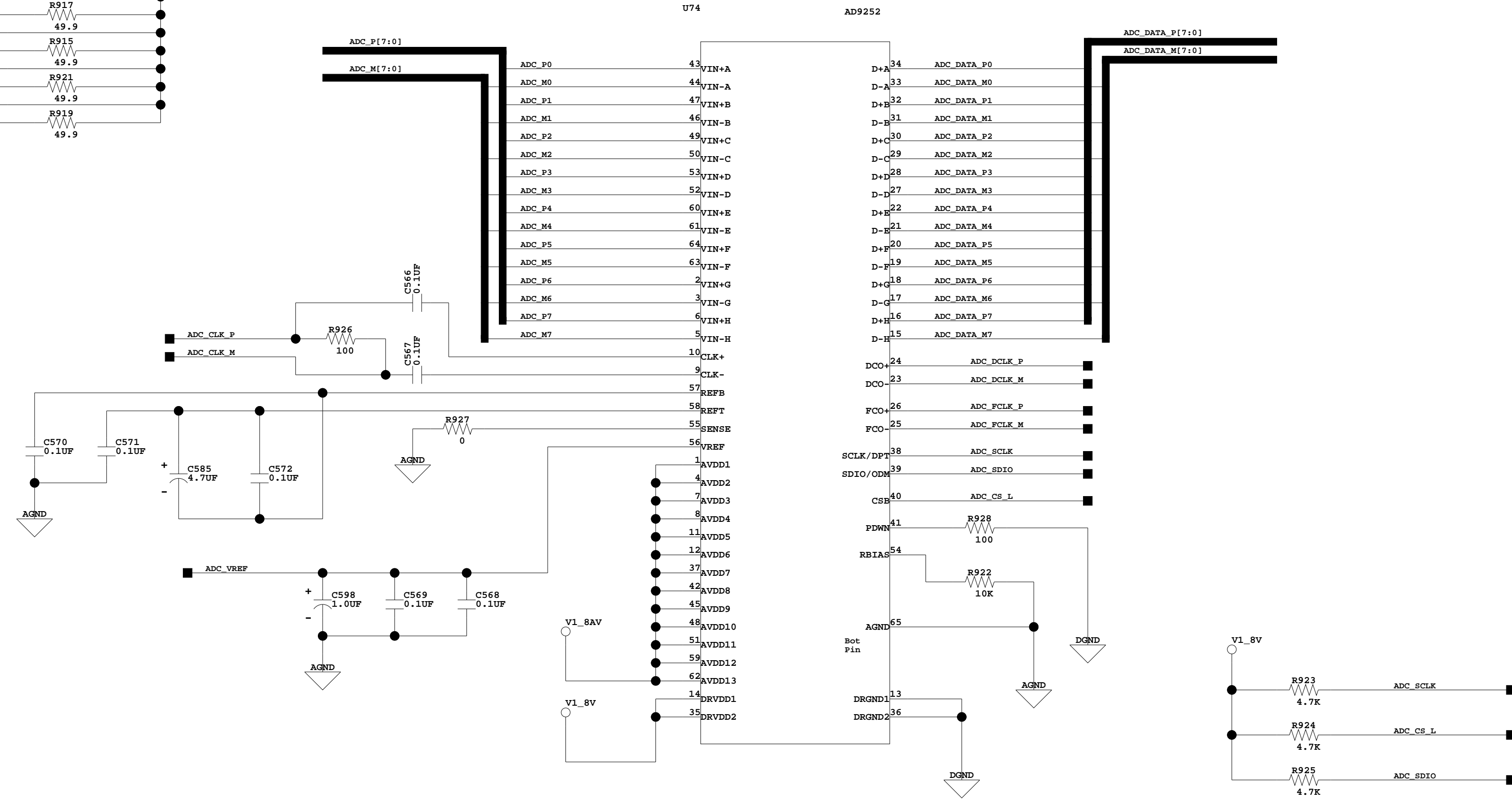
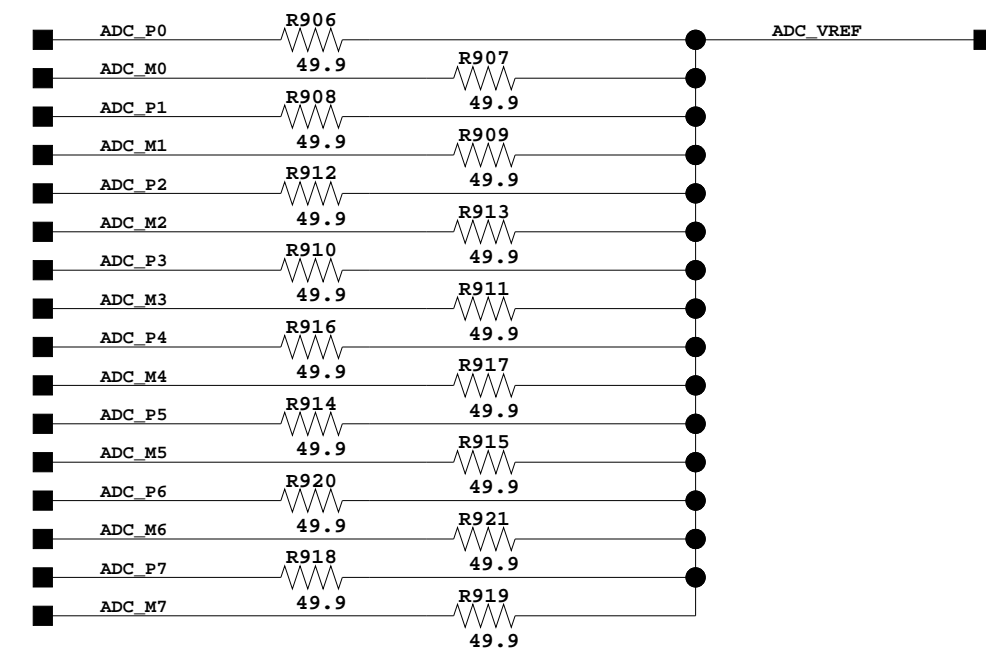
SHEET 21 OF 23

HEAVY P TRACKER READOUT RTM
ADC BUFFERS, 8 CHANNEL

LOCATED AT SHEET 18

SD-249-901-02-C01

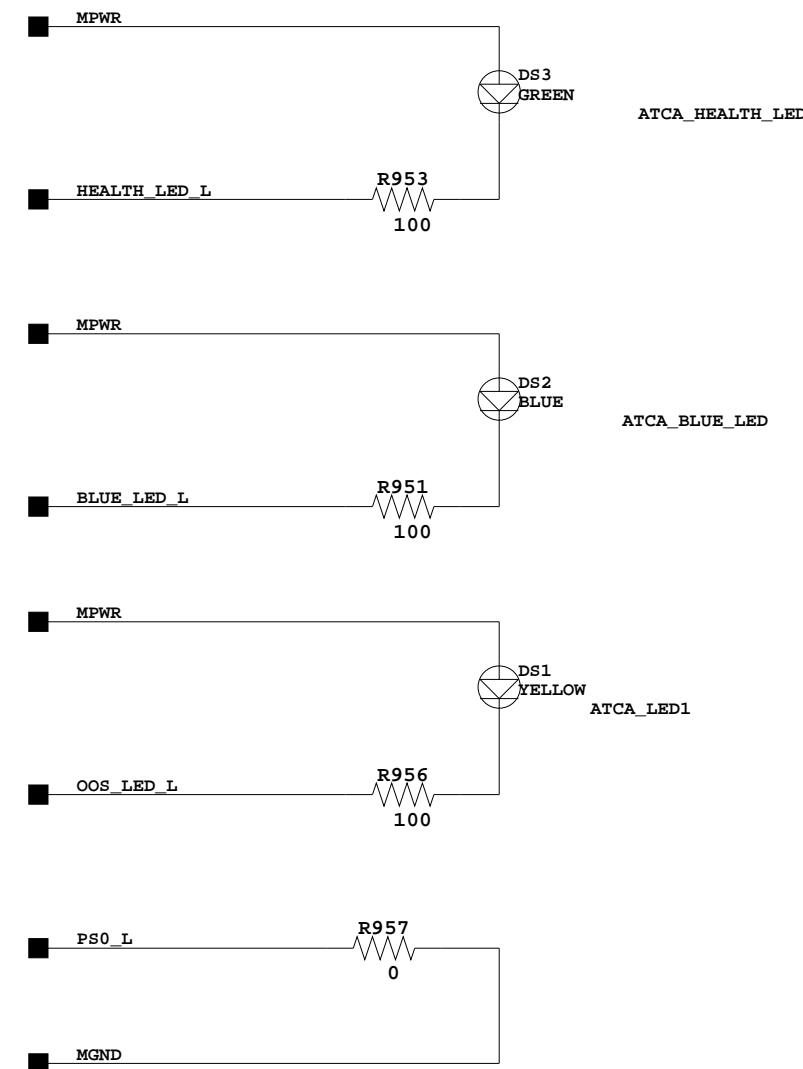
**ADC INPUT TERMINATION
PLACE NEAR ADC**



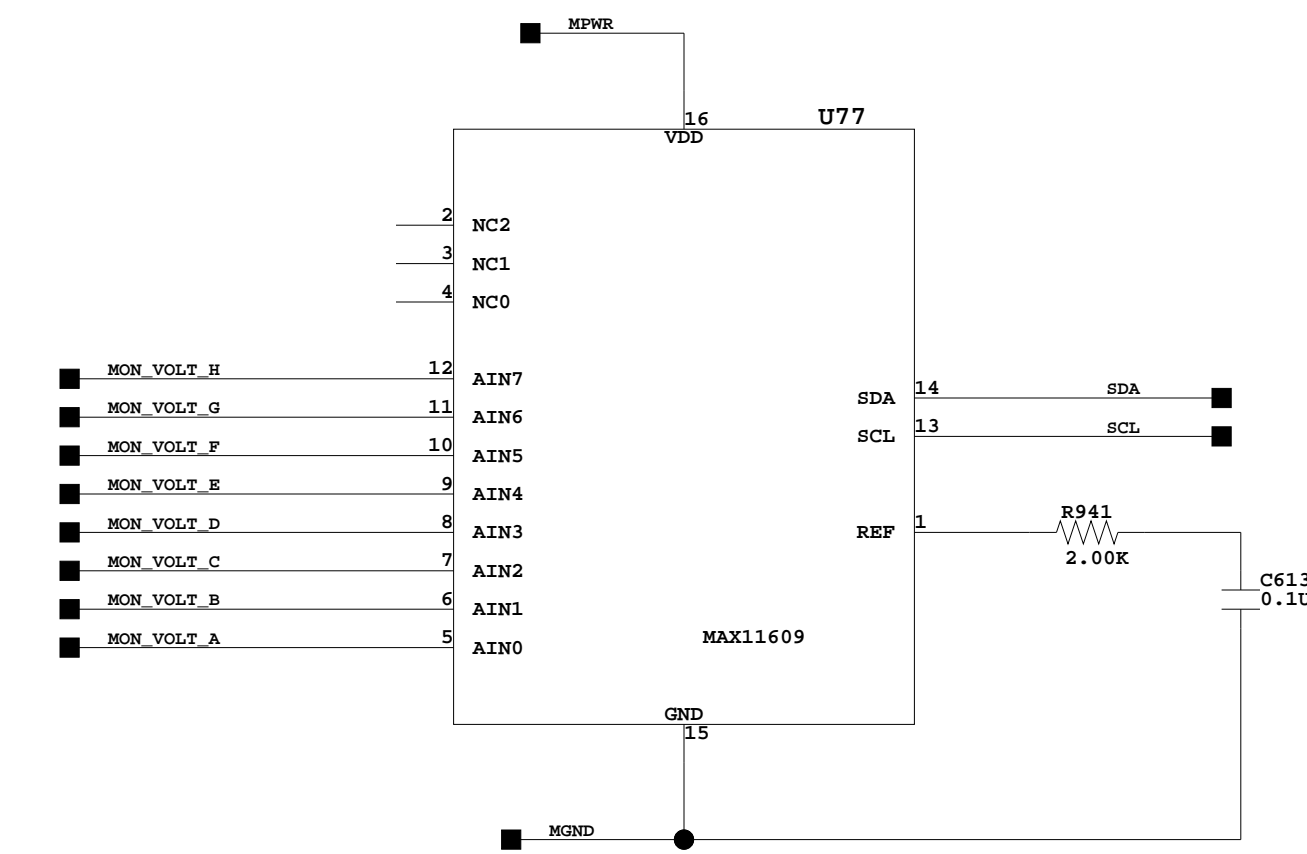
1-24-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 22 OF 23
STANFORD UNIVERSITY STANFORD, CALIFORNIA		HEAVY P TRACKER READOUT RTM 8 CHANNEL ADC
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INGR DPTH CMR	Ryan Herbat 2010	APPROVALS
LOCATED AT SHEET 18		SD-249-901-02-C01

LEDS

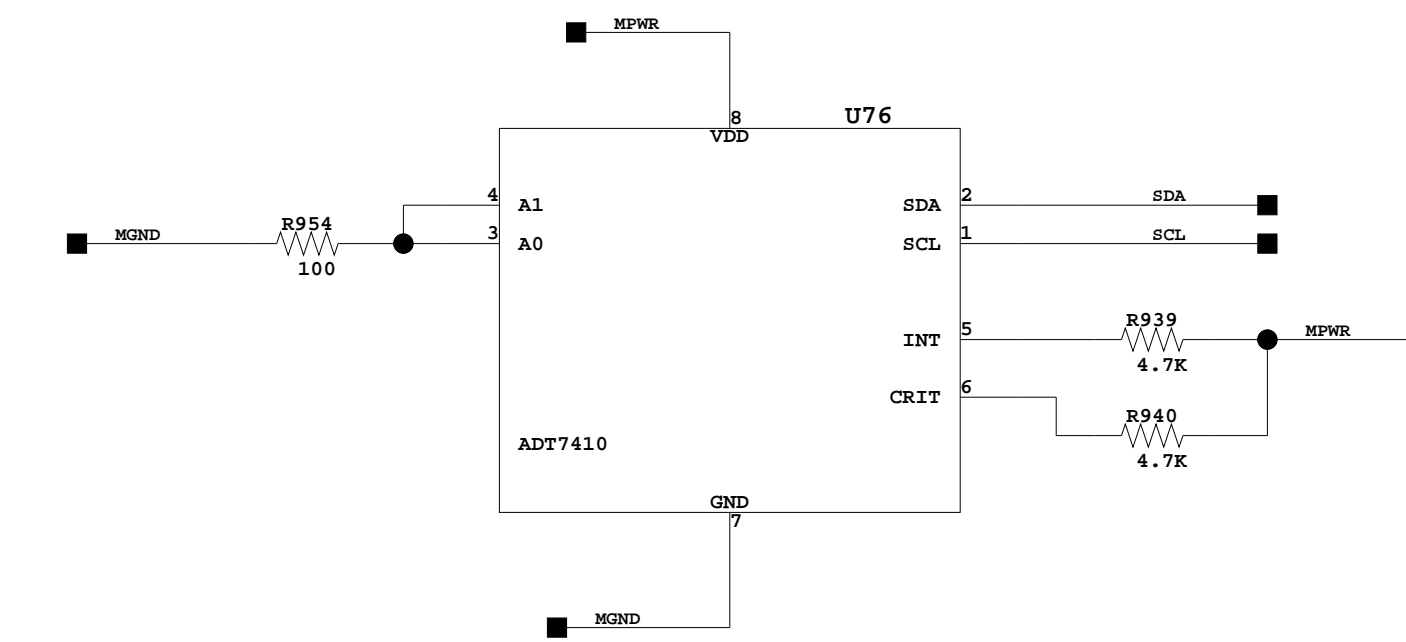


VOLTAGE MONITOR



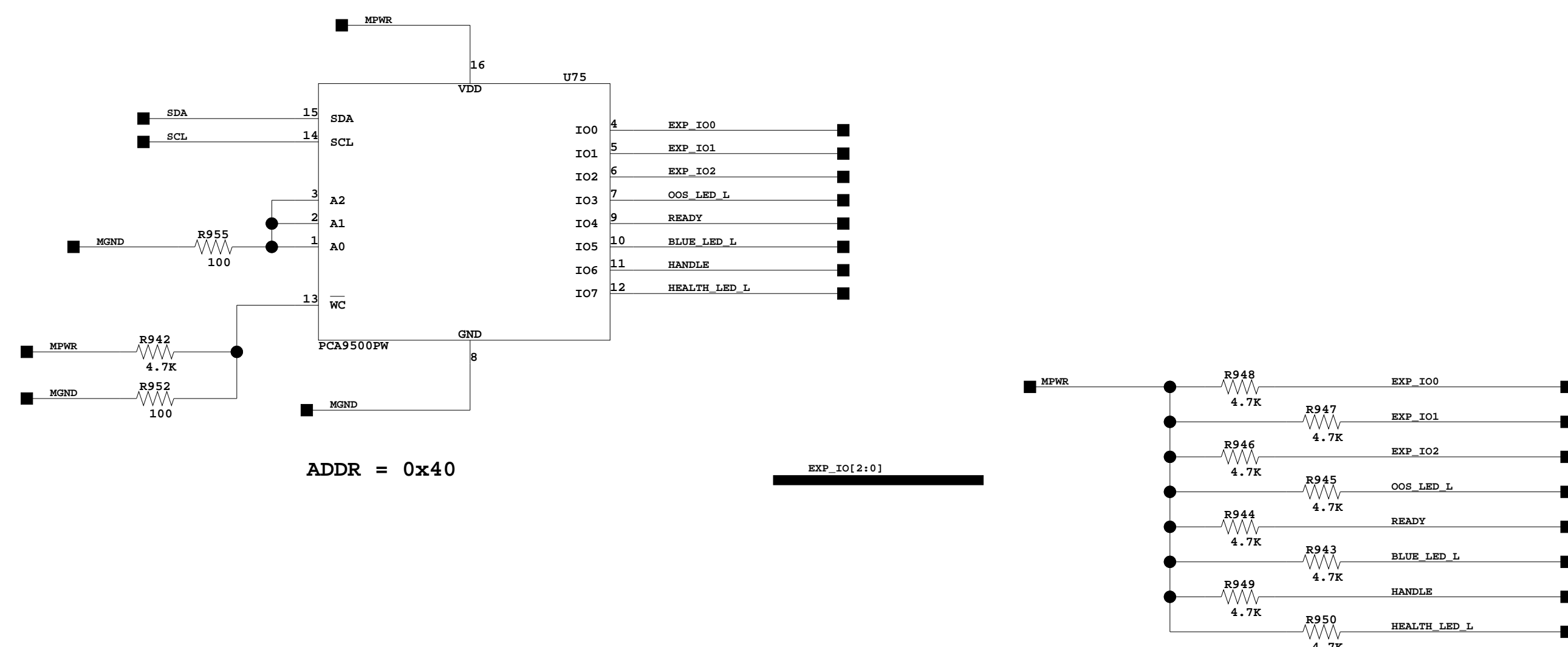
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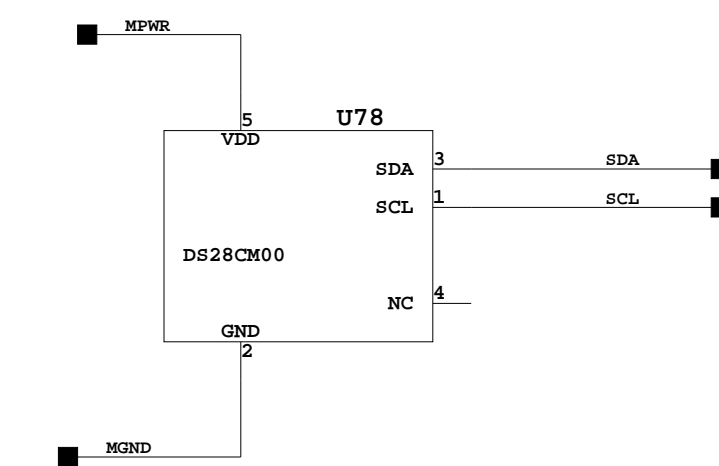
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IO & EEPROM

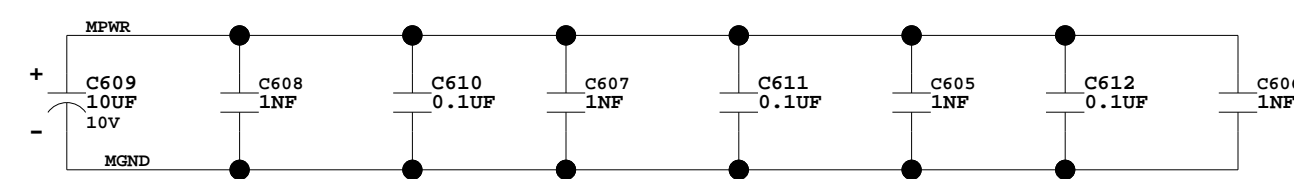


ADDR = 0x40

SERIAL ID



ADDR = 0x50

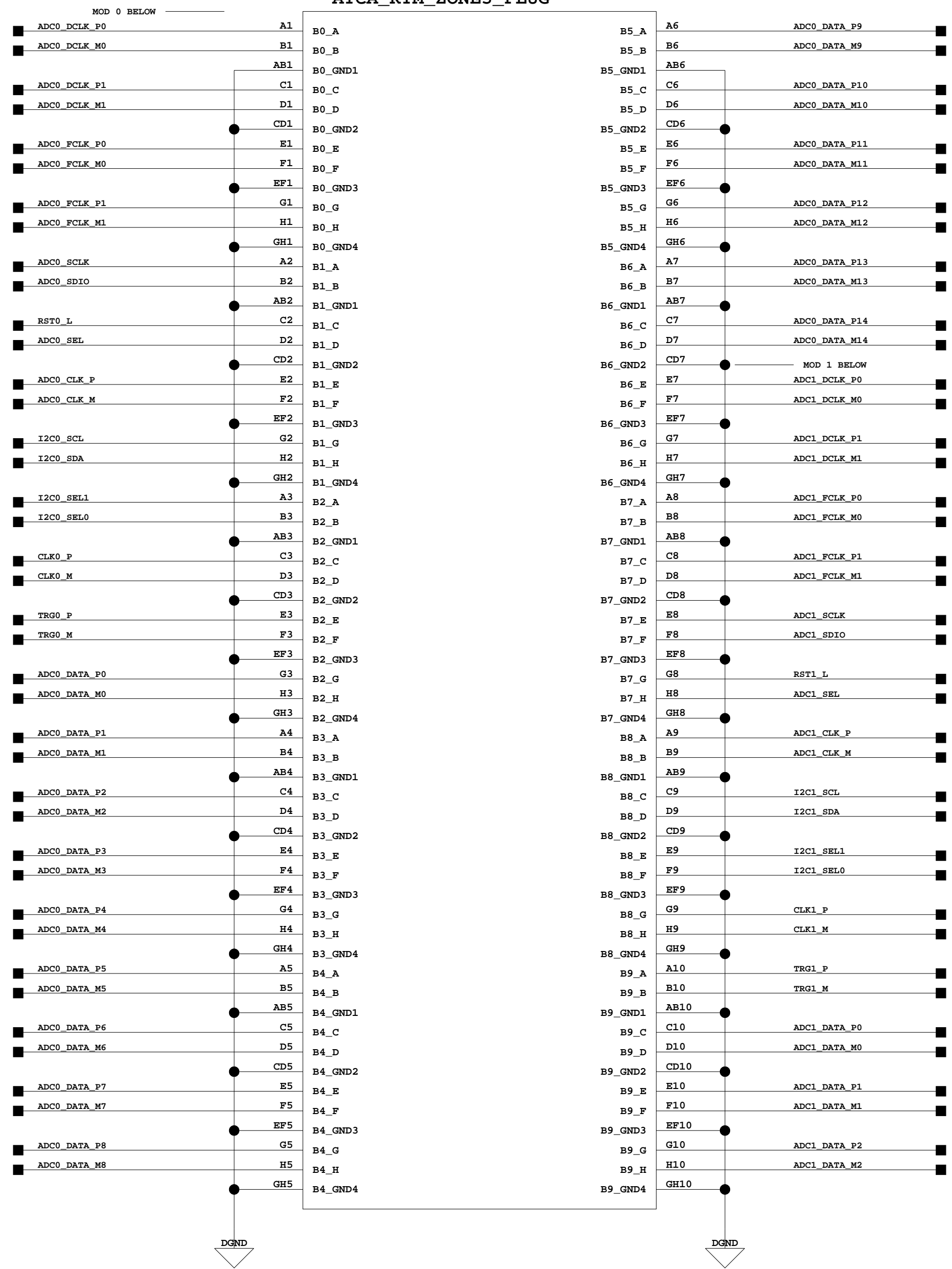


4-8-2011_14:54

SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		IPMB CLIENT
STANFORD UNIVERSITY	STANFORD, CALIFORNIA	
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ENGR	Ryan Herbst	DATE
DFTG		2010
CDRR		APPROVALS

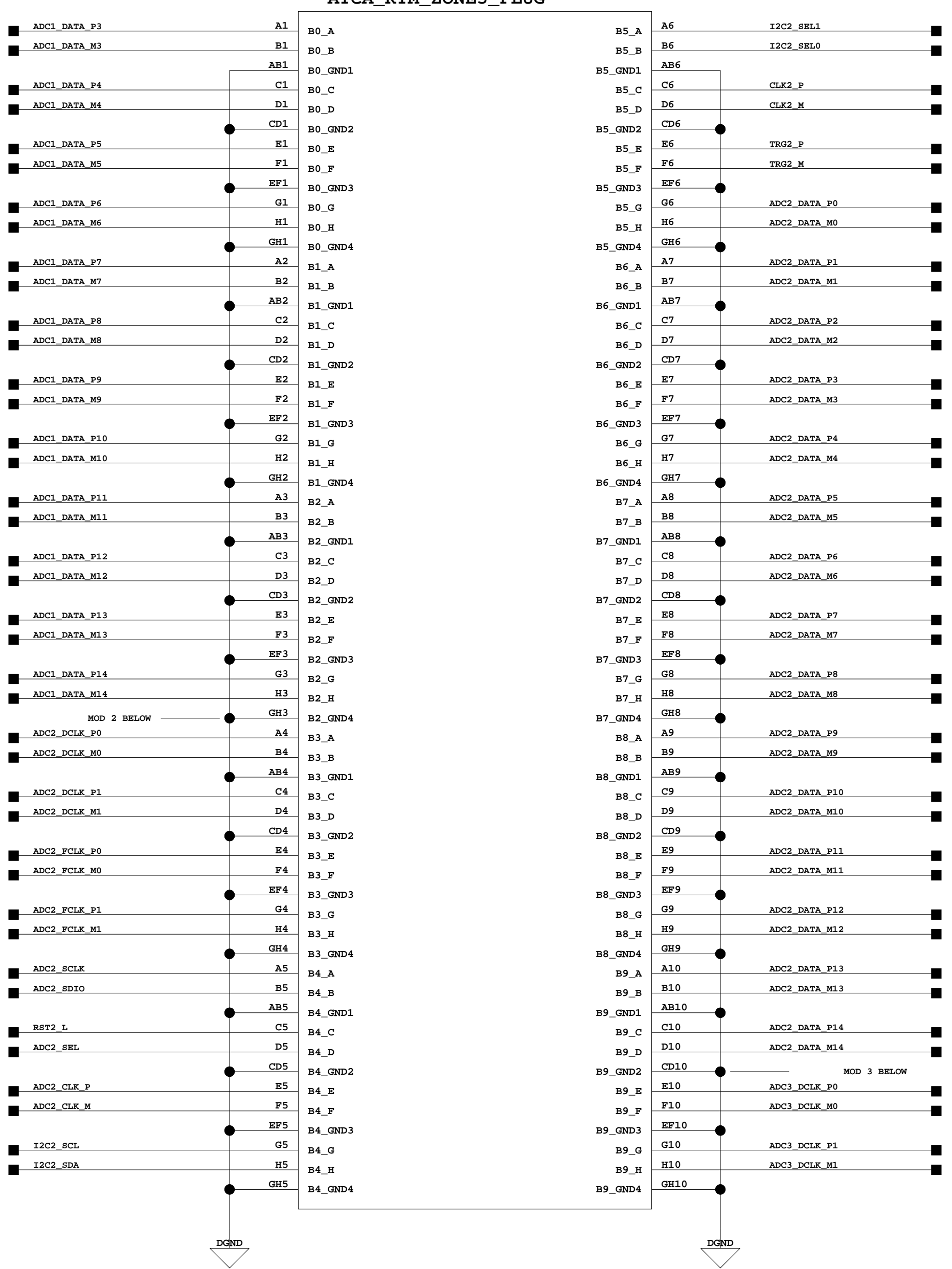
P31

ATCA_RTM_ZONE3_PLUG



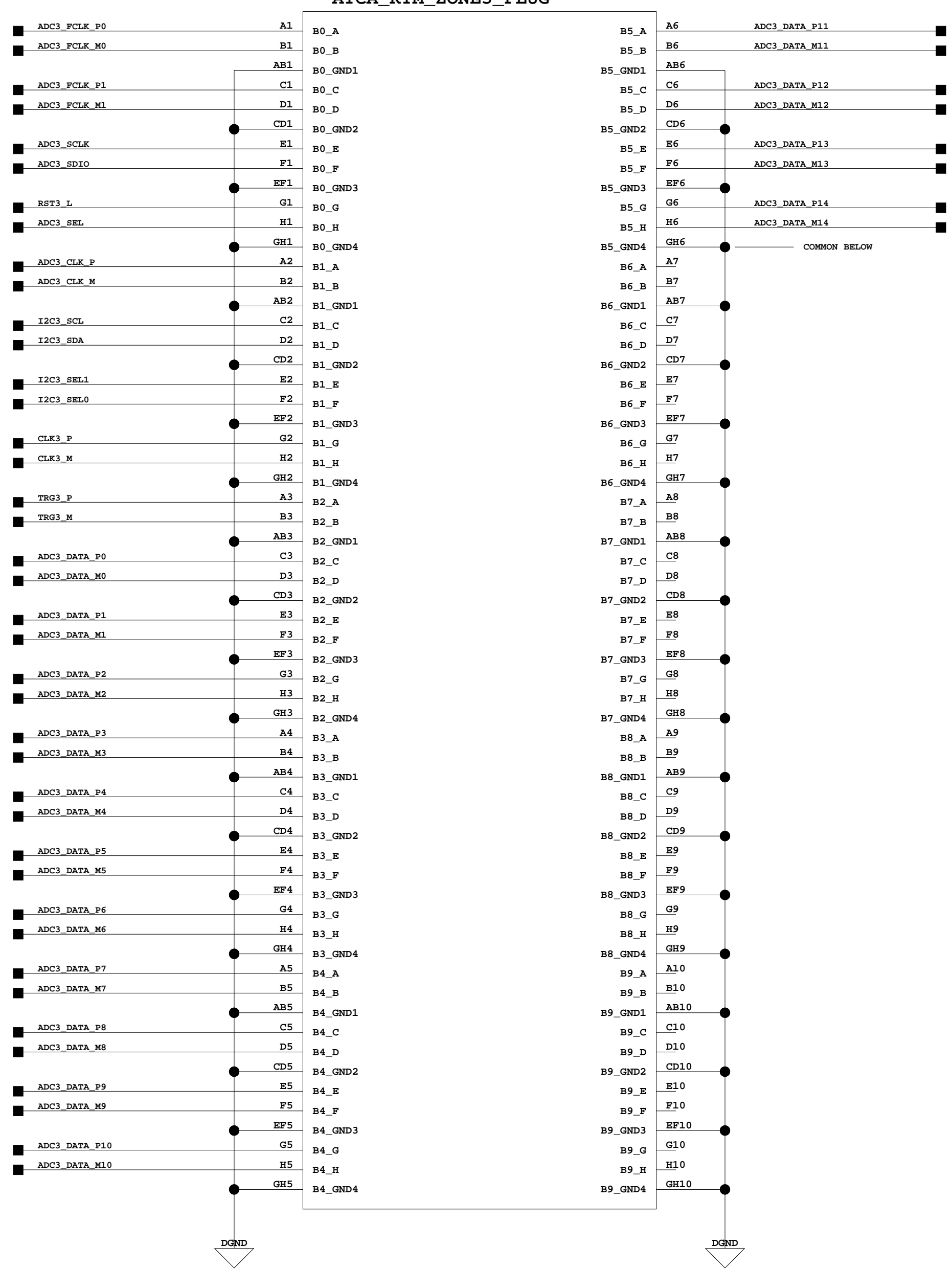
P32

ATCA_RTM_ZONE3_PLUG



P33

ATCA_RTM_ZONE3_PLUG



I2C[3:0] SCL	
I2C[3:0] SDA	
I2C[3:0] SEL[1:0]	
RST[3:0] L	
CLK[3:0] P	
CLK[3:0] M	
TRG[3:0] P	
TRG[3:0] M	
ADC[3:0] DCLK_P[1:0]	ADC[3:0] SCLK
ADC[3:0] DCLK_M[1:0]	ADC[3:0] SDIO
ADC[3:0] FCLK_P[1:0]	ADC[3:0] SEL
ADC[3:0] FCLK_M[1:0]	ADC[3:0] CLK_P
ADC[3:0] DATA_P[14:0]	ADC[3:0] CLK_M
ADC[3:0] DATA_M[14:0]	

4-11-2011_15:38

SLAC NATIONAL ACCELERATOR LABORATORY U.S. DEPARTMENT OF ENERGY		SHEET 23 OF 23
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DATE 2010	APPROVALS Ryan Herbst	LOCATED AT SHEET 1 SD-249-901-02-C01