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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

EVAL-AD4170-4WARDZ SCHEMATIC REV (C)

PAGE 2 - TOP VIEW

PAGE 3 - J1 AND J2 CONNECTORS

PAGE 4 - J3 CONNECTOR

PAGE 5 - BOARD POWER

PAGE 6 - REFERENCE AND GPIOS

PAGE 7 - AD4170 DUT

PAGE 8 - DIGITAL

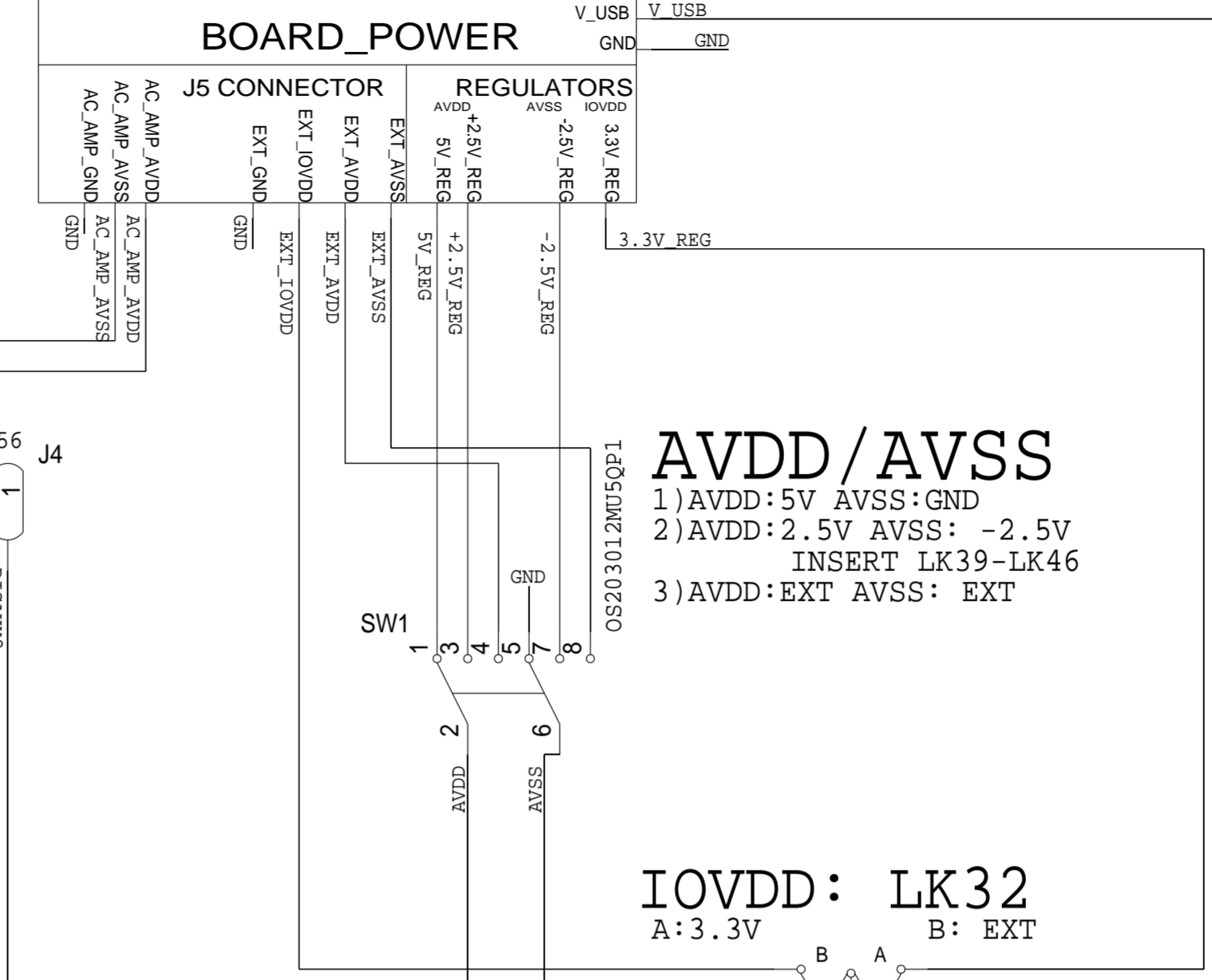
P.O. SPEC.	BK/BD SPEC.	SOCKET OEM	OEM PART#	HANDLER

TEMPLATE ENGINEER -	DATE	SCHEMATIC		
HARDWARE SERVICES PAT SHEAHAN				
HARDWARE SYSTEMS -		HW TYPE: Customer Evaluation EVAL-AD7140-ASDZ		
TEST ENGINEER -		: Currently N/A		
COMPONENT ENGINEER -		PACKAGE : 32-lead 4X6X0.75 LFCSP-family : Pitch-pitch StyleVendor Style		
TEST PROCESS -		<User Define>		
HARDWARE RELEASE -		<User Define>		
DESIGNER -		MASTER PROJECT TEMPLATE TBD	TESTER TEMPLATE N/A	DRAWING NO. 02-067069
PTD ENGINEER SEAN CAHILL		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
CHECKER -		TOLERANCES		
		DECIMALS X.XX +0.010 X.XXX +0.005	FRACTIONS +1/32	ANGLES +2
		SIZE D	SCALE 1:1	CODE ID NO. CodeID
				SHEET 1 OF 8
				REV. E

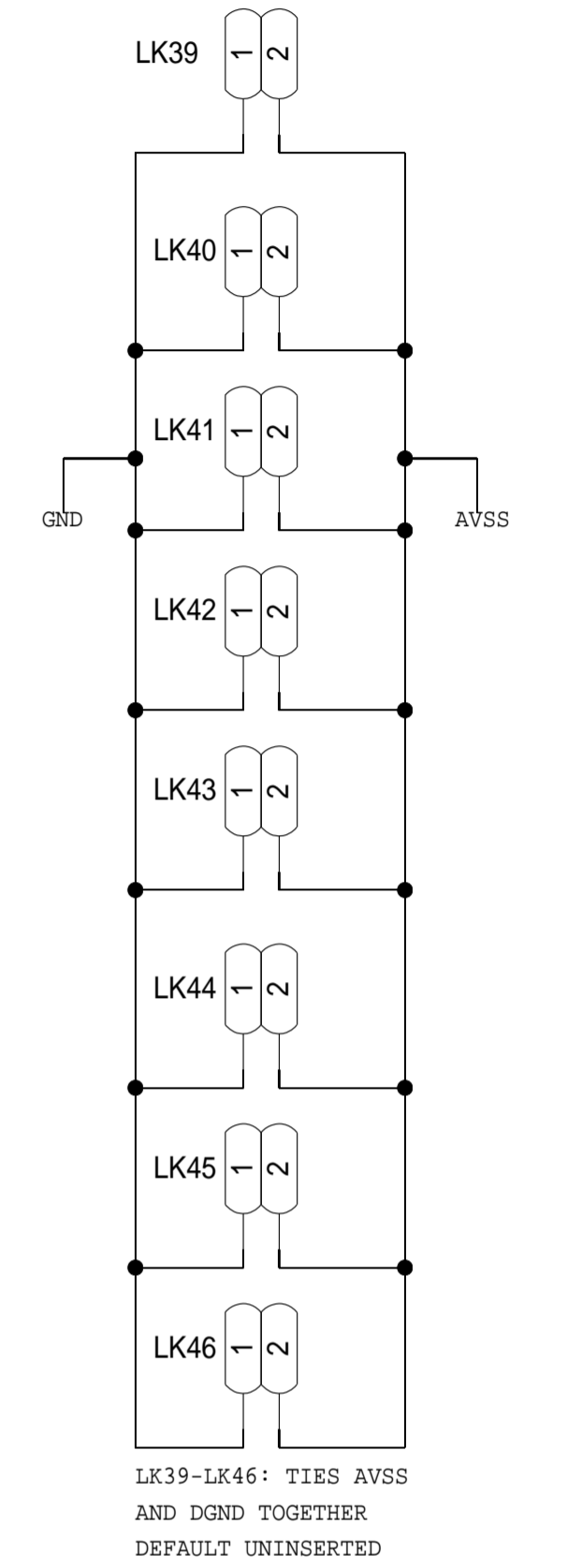
BOARD POWER

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

J3
GPIO
GPIO
AC INPUTS/DACOUT
ADXL1002 CIRCUIT
AIN2 - DC FILTERING
AIN7/AIN8 - AC FILTERING
AIN3/AIN4 - AC FILTERING
INSIDE BLOCK



AVSS/GND LINKS



AVDD/AVSS
 1) AVDD: 5V AVSS: GND
 2) AVDD: 2.5V AVSS: -2.5V
 INSERT LK39-LK46
 3) AVDD: EXT AVSS: EXT

IOVDD: LK32
 A: 3.3V B: EXT

AIN7/AIN8
INPUT OPTIONS:
 2) DC - CONNECTOR J1
 3) AC - CONNECTOR J3

AIN3/AIN4
INPUT OPTIONS:
 2) DC - CONNECTOR J1
 3) AC - CONNECTOR J3

AIN2
INPUT OPTIONS:
 1) ADXL1002 VOUT
 2) DC - CONNECTOR J3

GPIO
FUNCTIONALITY
 GPIO0/GPIO1 REFIN/PSW/IOUT J3
 GPIO2/GPIO3 IOUT/PSW
 GPIO1 PSW FOR WIRE BRIDGE

REFERENCE SELECT
INPUT OPTIONS:
 1) REFIN+ - CONNECTOR J1/PRECISION R
 2) REFIN1 - CONNECTOR J2
 3) REFIN1 - CONNECTOR J2

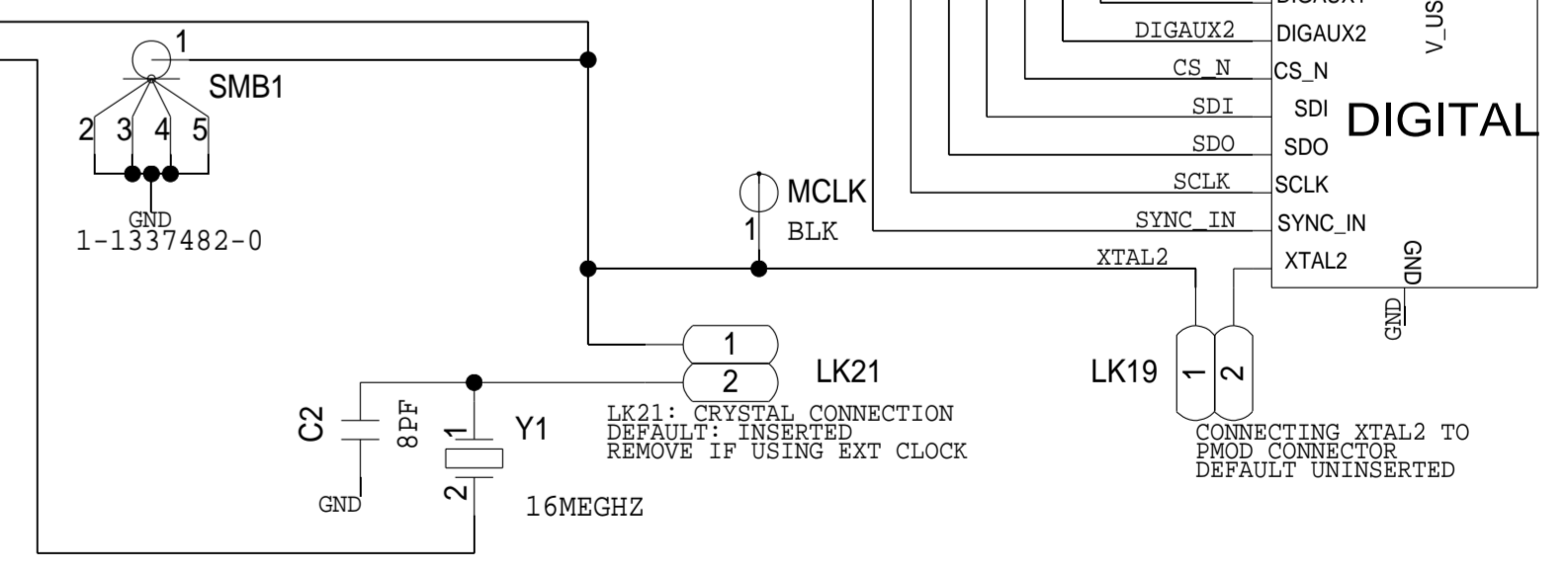
REFERENCE
REFERENCE OPTIONS
 1) LK3
 2) LK3
 3) LK3
 4) CONNECTOR 2

REFERENCE
 LTC6655/ADR4525 OUT
 LTC6655_OUT
 LTC6655_OUT

DIGITAL

CONTROLLER BOARD OPTIONS
 1) 120 PIN SMD
 2) ARDINO HEADER
 3) PMOD CONNECTION

DIGITAL



SCHEMATIC			
HW TYPE: Customer Evaluation EVAL-AD7140-ASDZ : Currently N/A			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02-067069	REV E	
PTD ENGINEER SEAN CAHILL	SIZE D	SCALE 1:1	SHEET 2 OF 8

D
C
B
A

D
C
B
A

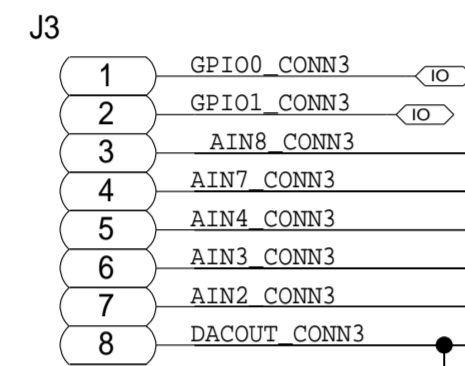
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

J3 CONNECTOR

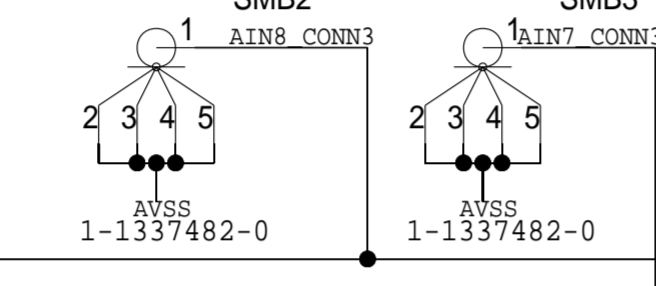
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

J3 CONNECTOR



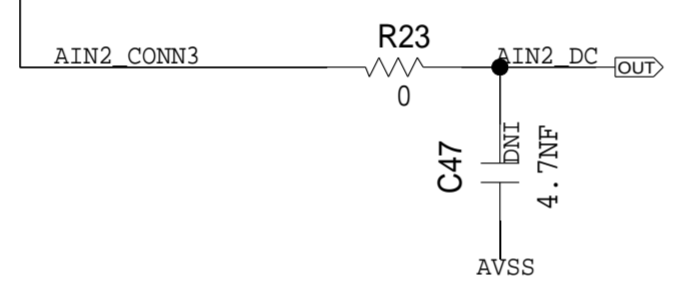
SMB CONNECTION

AIN3, AIN4, AIN7, AIN8



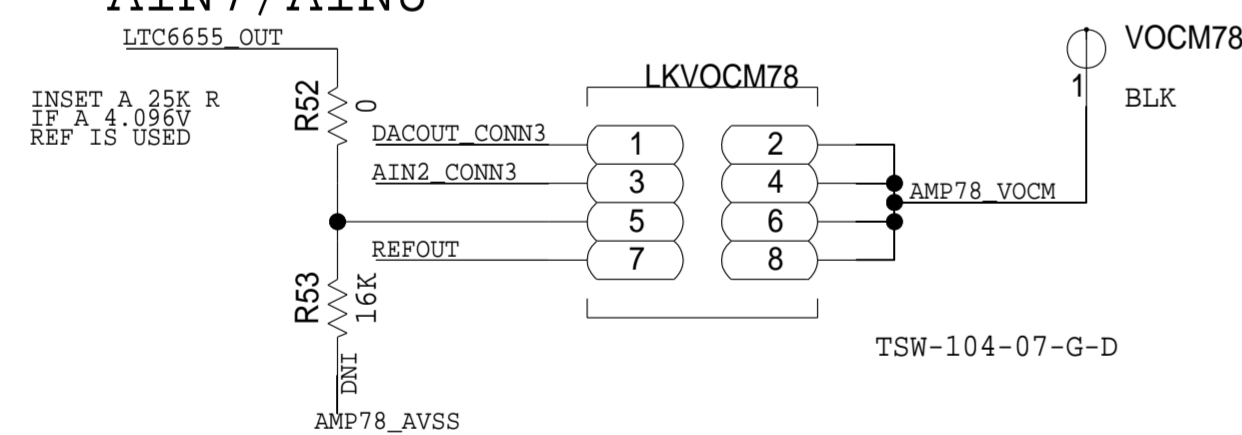
AIN2 DC FILTERING

NOTE: FILTERS DESIGNED FOR ANTI-ALIASING OVER/UNDER VOLTAGE PROTECTION IS NOT INCLUDED

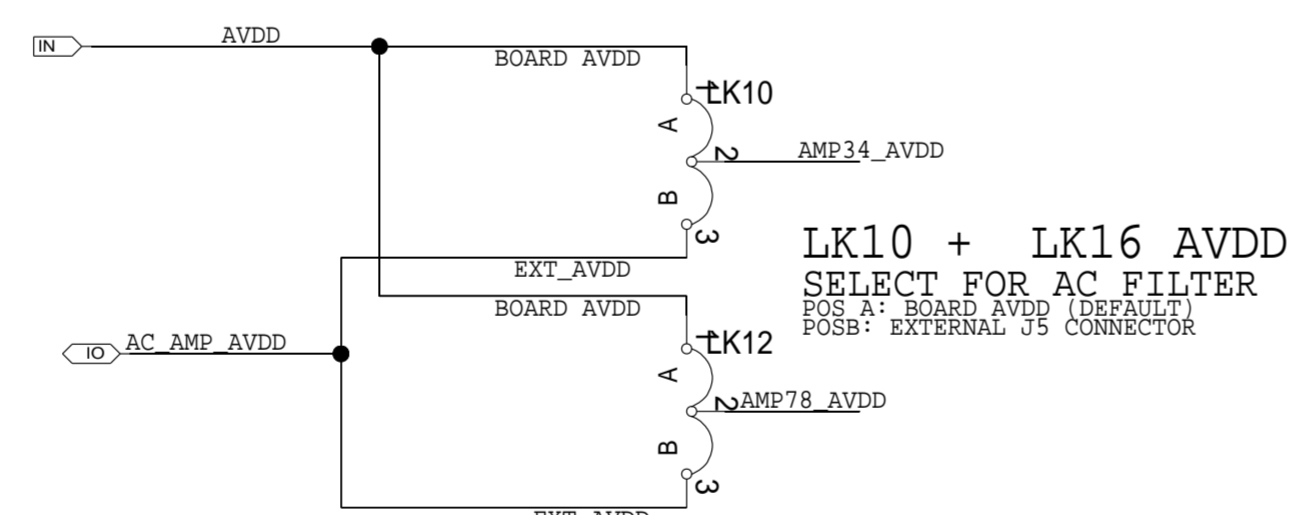


VOCM SELECT

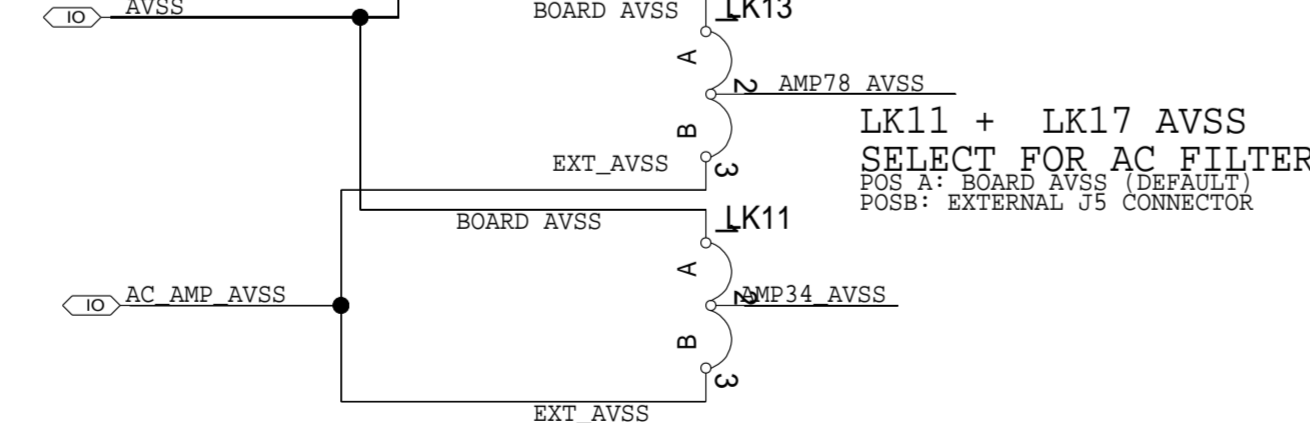
AIN7/AIN8



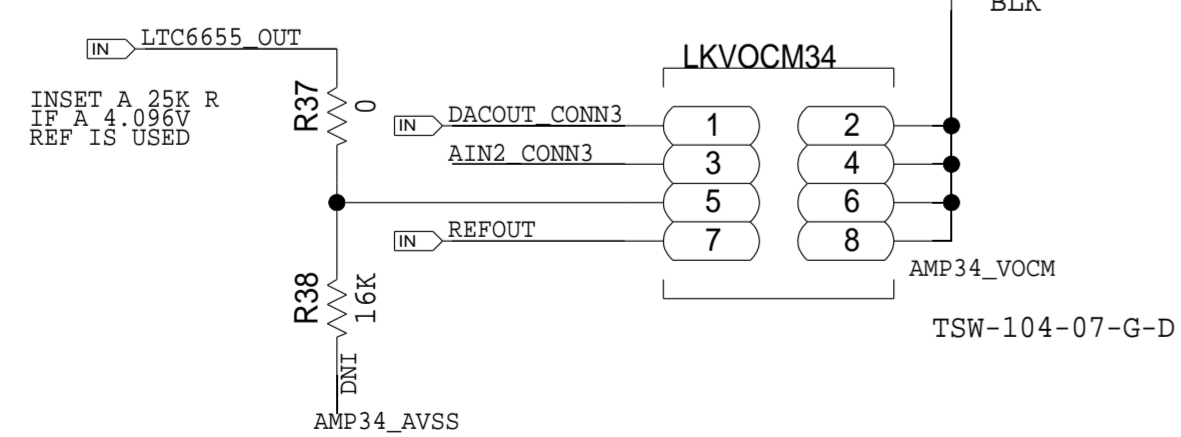
AVDD SELECT



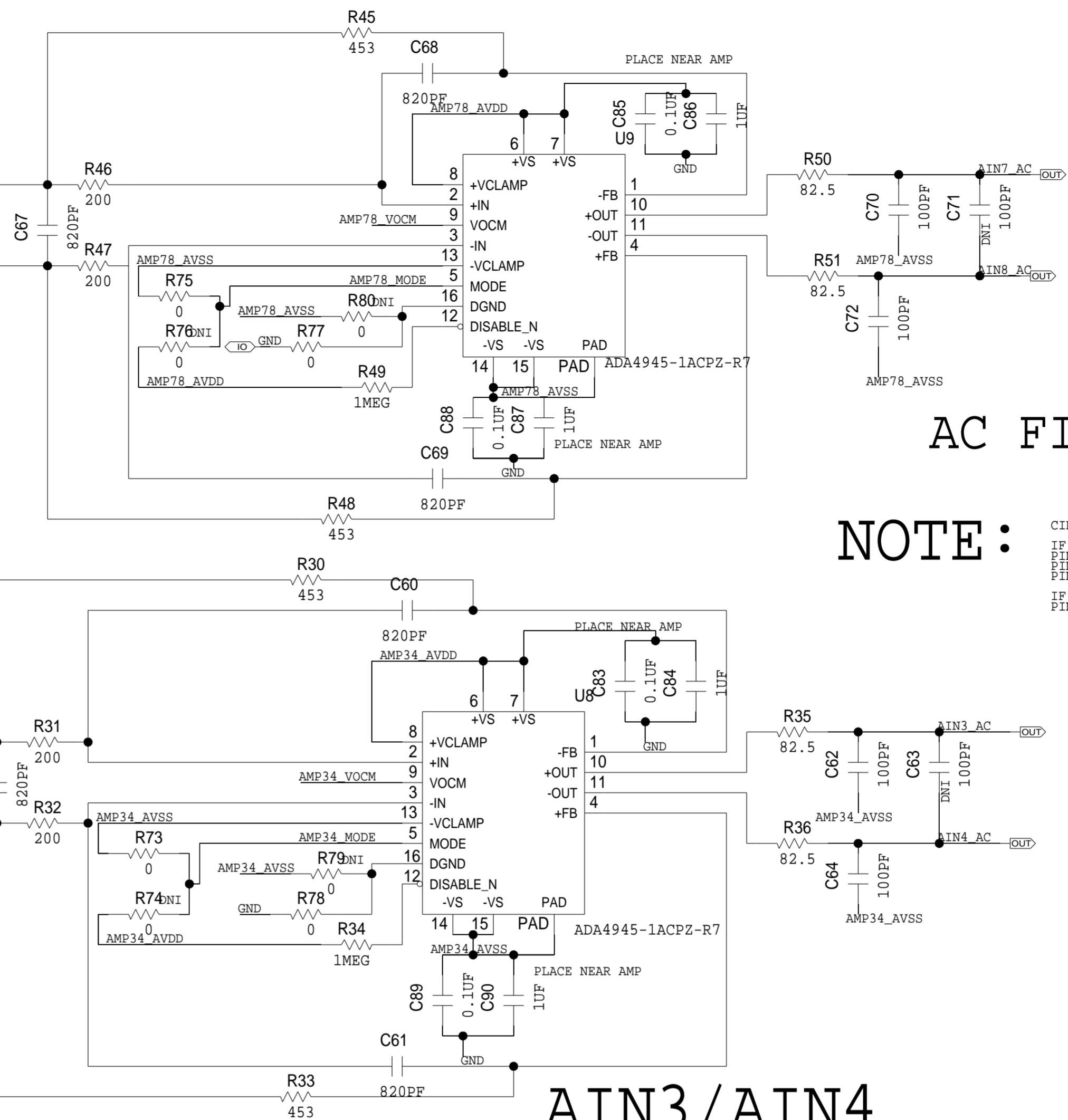
AVSS SELECT



AIN3/AIN4



22US SETTLING

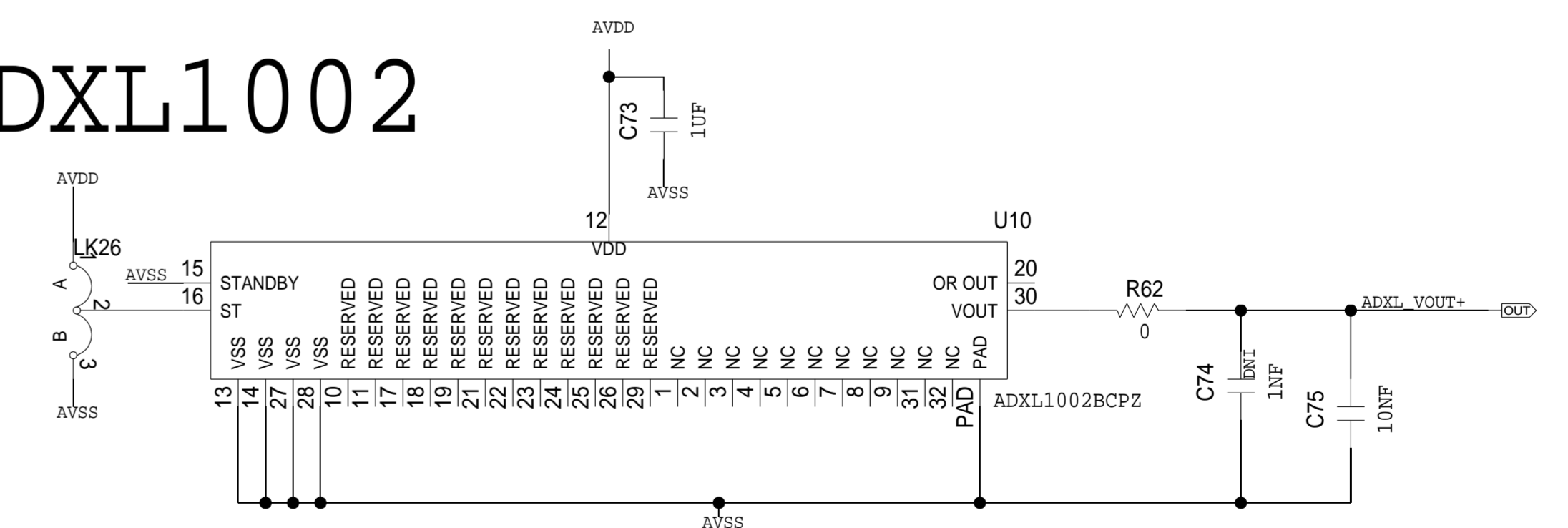


AIN7/AIN8 AC FILTERING

AIN3/AIN4 AC FILTERING

NOTE: CIRCUITS TO THE LEFT ARE FOR USE WITH THE ADA4945-1
 IF USING THE ADA4940 OR THE LTC6363:
 PIN 5: CONNECT TO AMP_AVDD
 PIN 12: CONNECT TO AMP_AVSS
 PIN 14: CONNECT TO AVSS
 IF USING THE ADA4945 IN HIGH POWER MODE:
 PIN 5: CONNECT TO AMP_AVDD

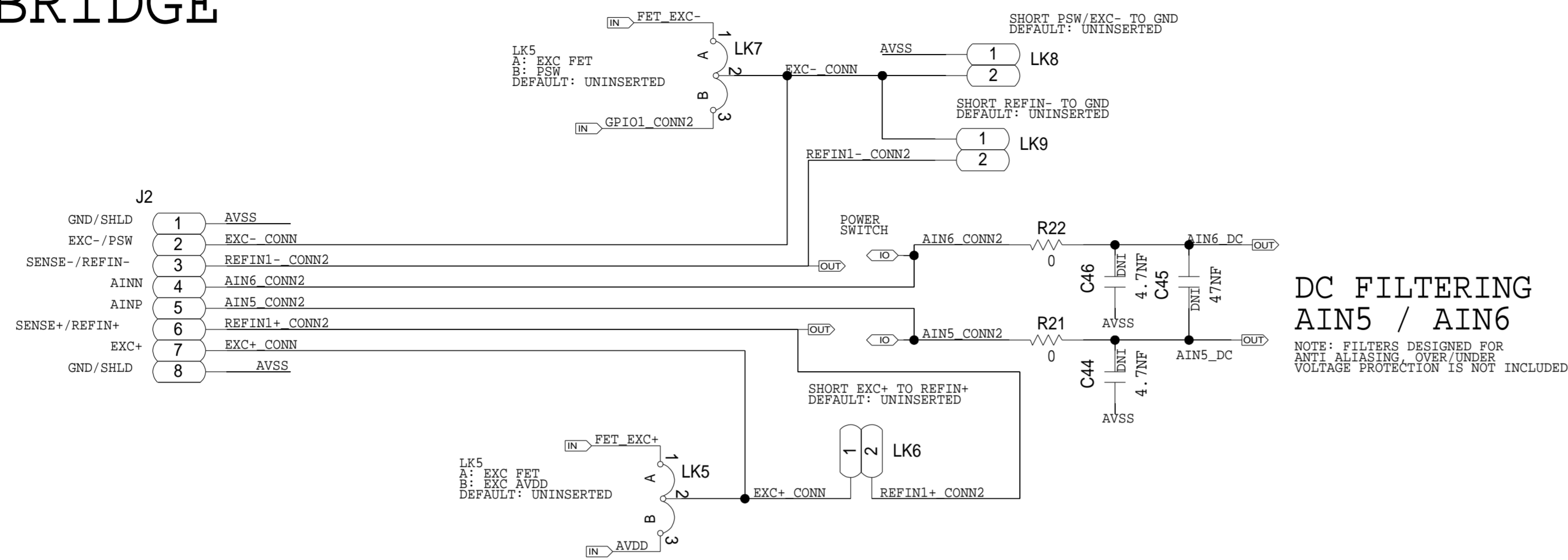
ADXL1002



ANALOG DEVICES		SCHEMATIC	
HW TYPE: Customer Evaluation		EVAL-AD7140-ASDZ	
DESIGN VIEW		DRAWING NO. 02-067069	
<DESIGN VIEW>		REV E	
PTD ENGINEER SEAN CAHILL		SIZE D	SCALE 1:1
		SHEET 3	OF 8

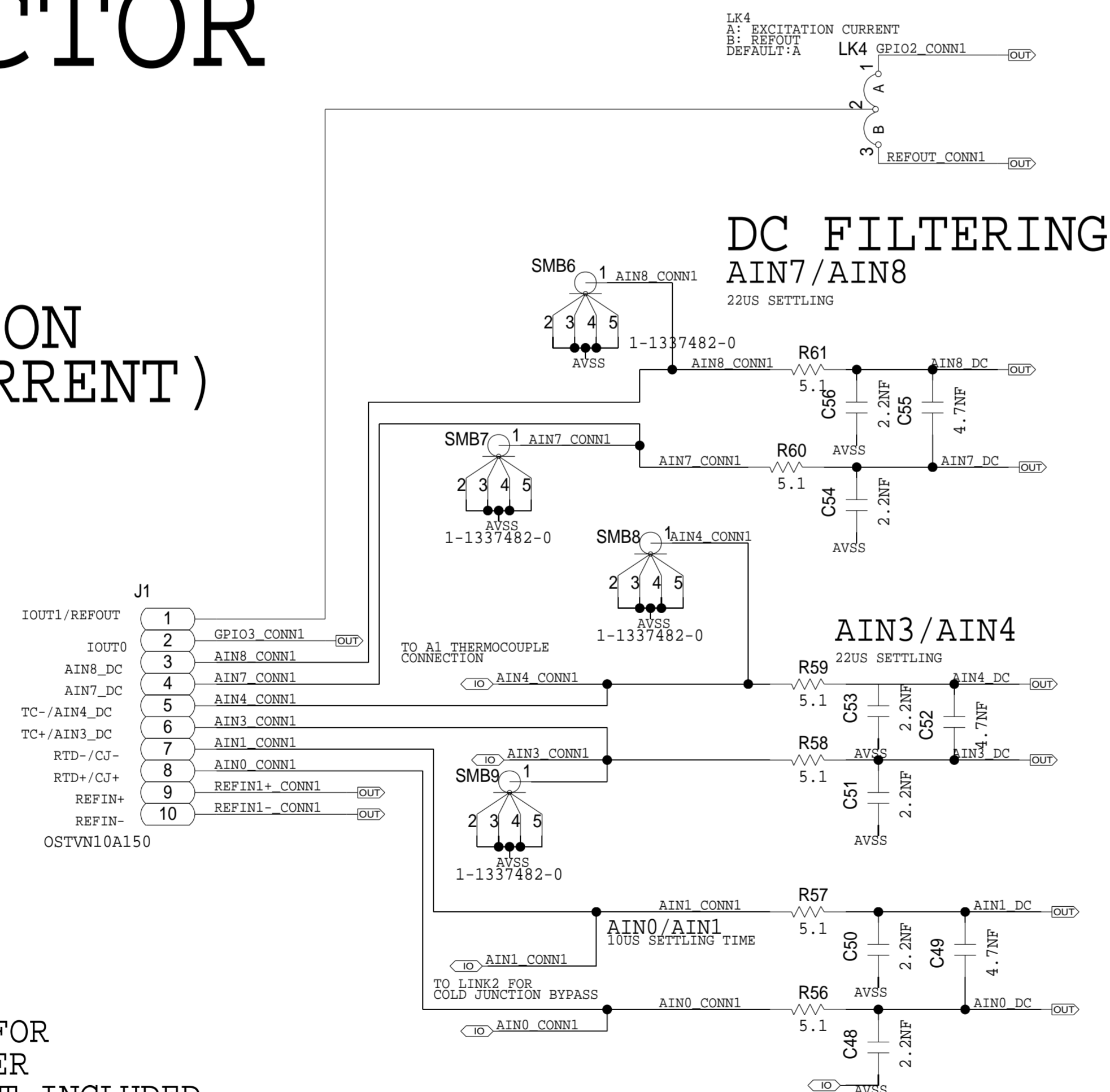
J2 CONNECTOR

4/6 WIIRE BRIDGE



J1 CONNECTOR

RTD
THERMOCOUPLE
REFOUT
GPIO2/3 (EXCITATION CURRENT)



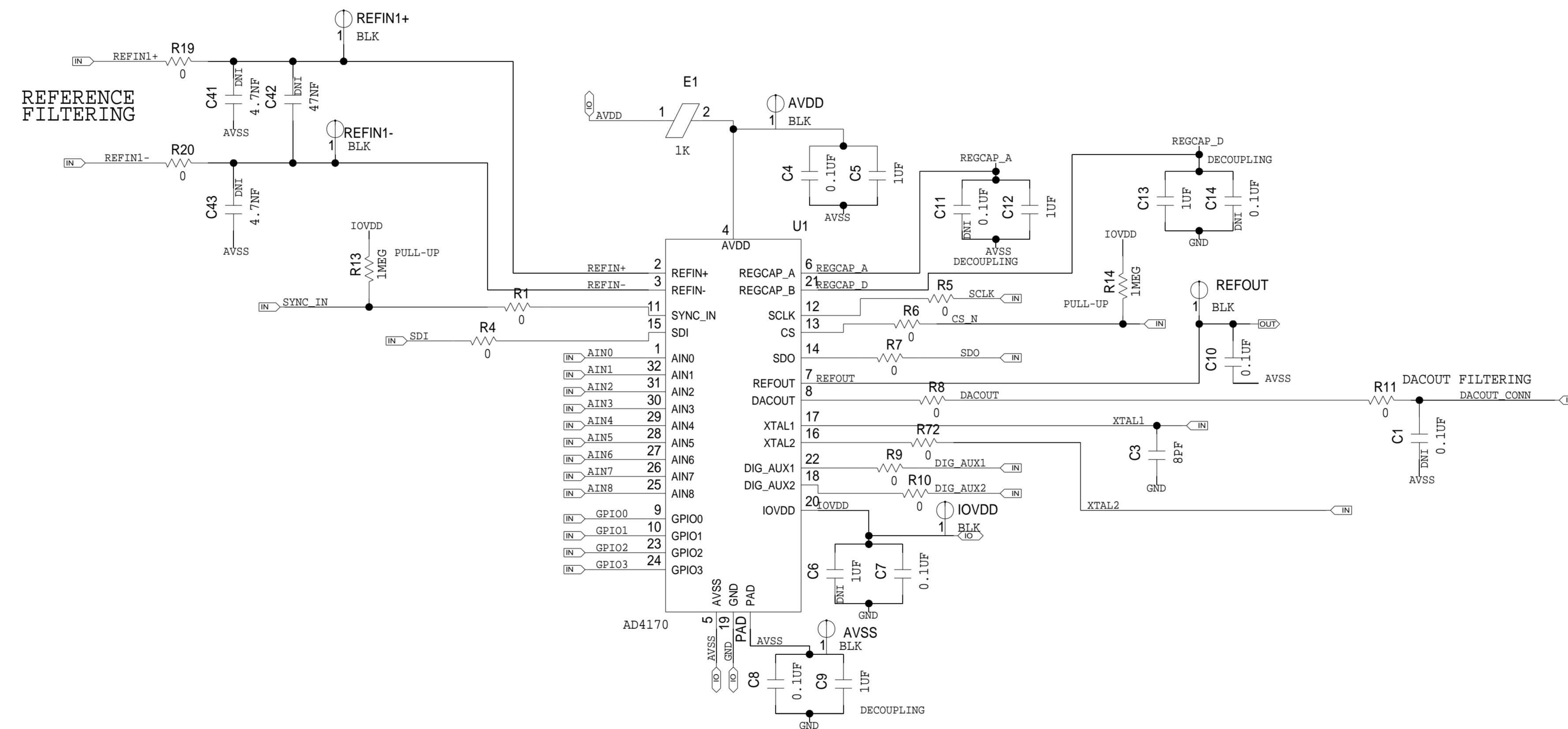
NOTE: FILTERS DESIGNED FOR ANTI ALIASING, OVER/UNDER VOLTAGE PROTECTION IS NOT INCLUDED

REVISIONS			
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ANALOG DEVICES				SCHEMATIC			
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				DESIGN VIEW <DESIGN_VIEW>		DRAWING NO. 02-067069	
PTD ENGINEER SEAN CAHILL		SIZE D	SCALE 1:1	SHEET 4 OF 8			

AD4170 DUT

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

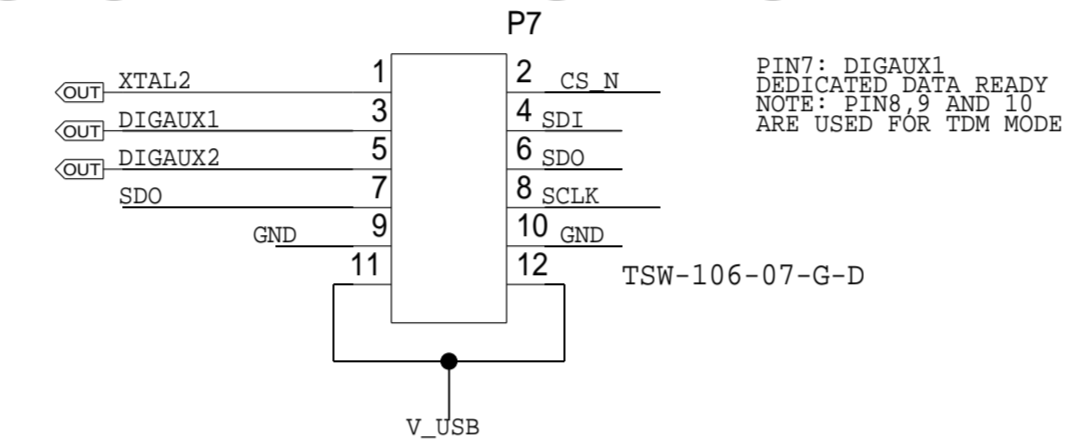


ANALOG DEVICES				SCHEMATIC			
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				DESIGN VIEW <DESIGN_VIEW>		DRAWING NO. 02-067069	
PTD ENGINEER SEAN CAHILL		SIZE D	SCALE 1:1	SHEET 5 OF 8			

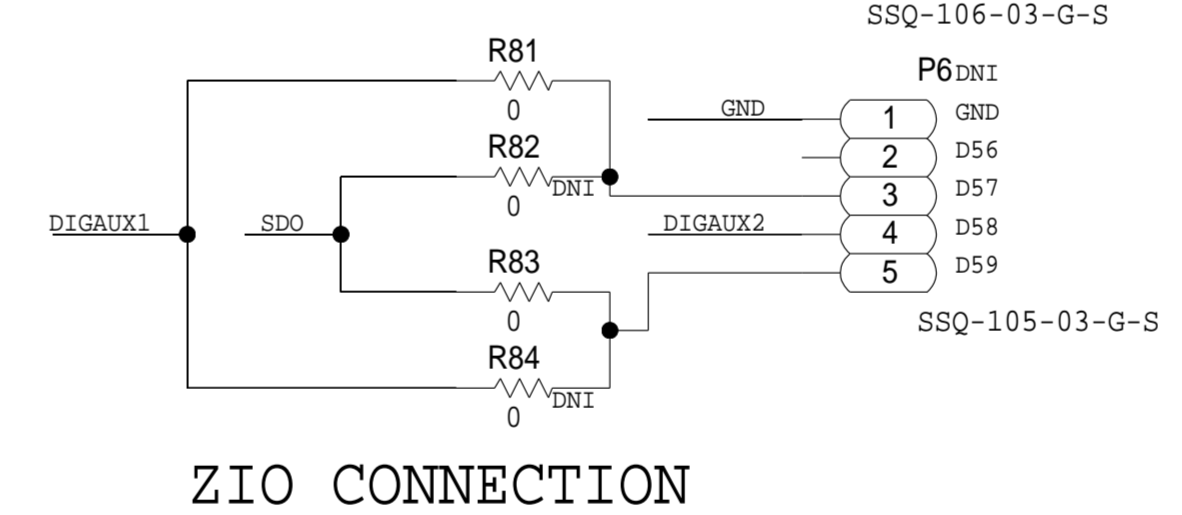
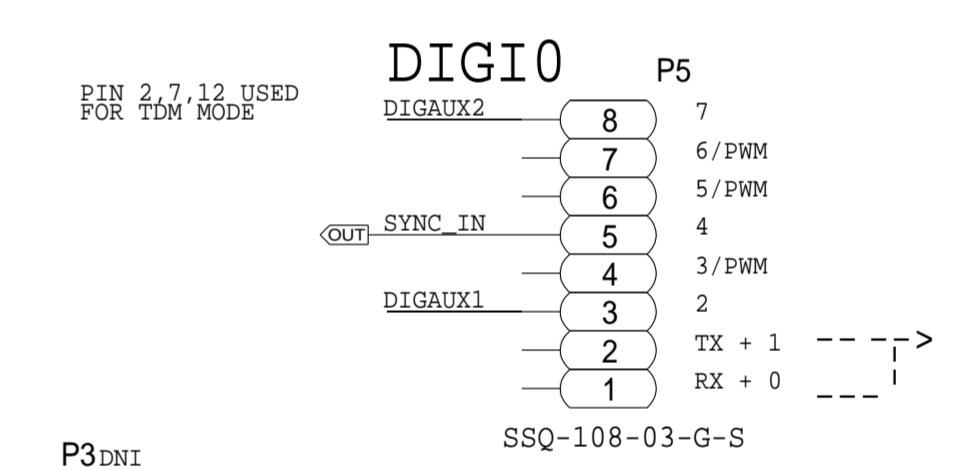
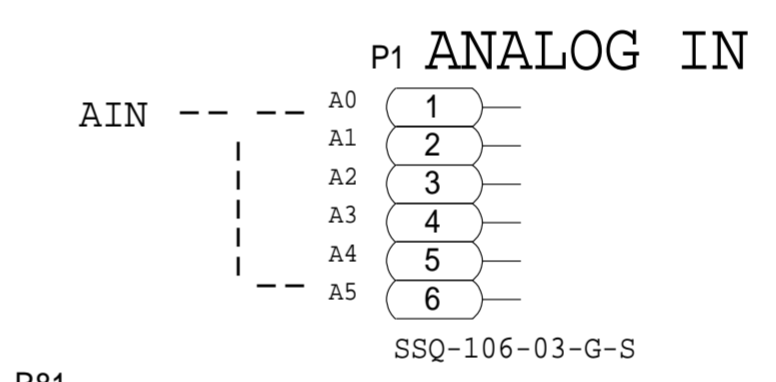
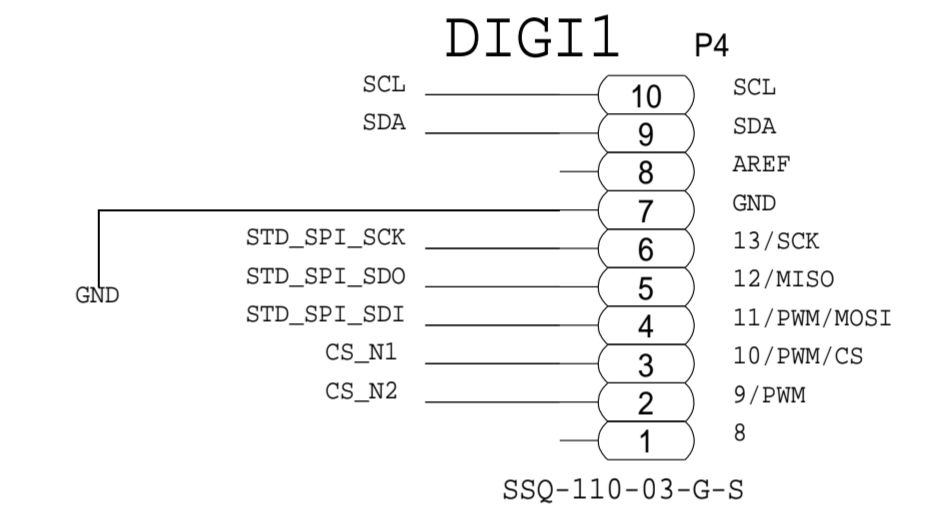
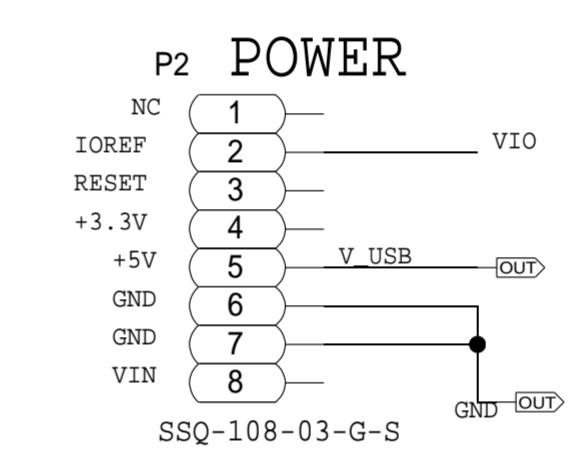
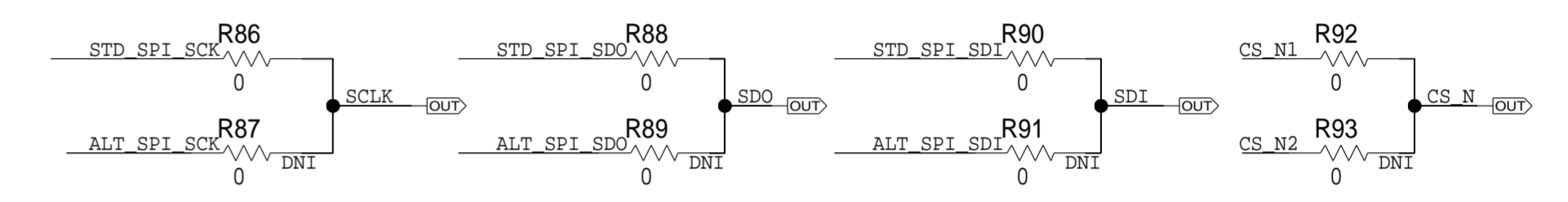
DIGITAL

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

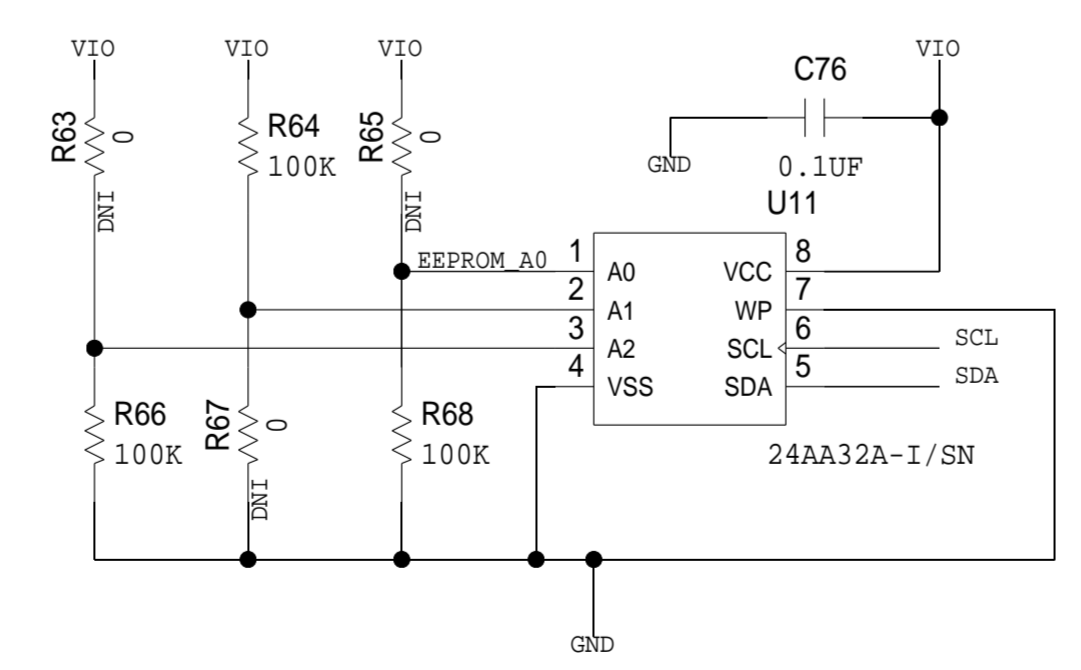
PMOD CONNECTOR



ARDUINO CONNECTOR



EEPROM CONNECTOR

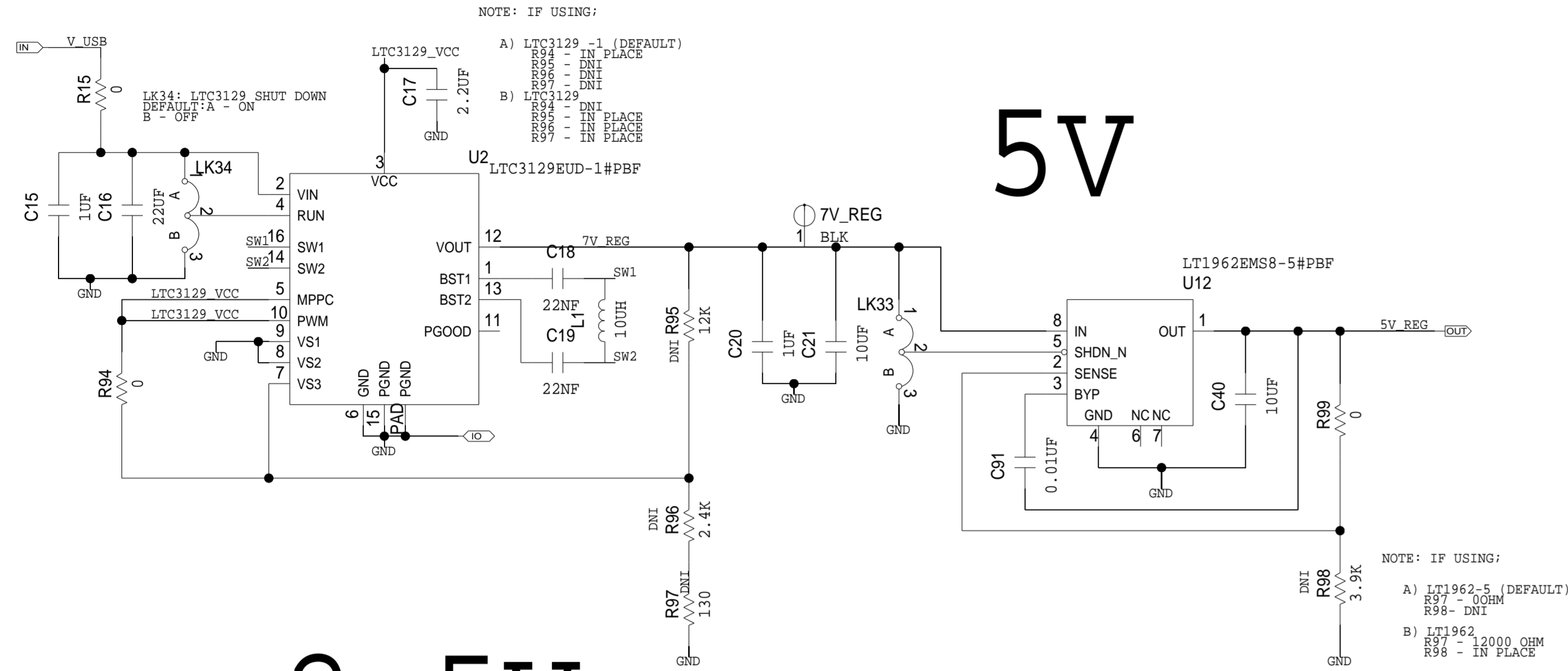


	SCHEMATIC		
	HW TYPE: Customer Evaluation EVAL-AD7140-ASDZ : Currently N/A		
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	PTD ENGINEER SEAN CAHILL	SIZE D	SCALE 1:1

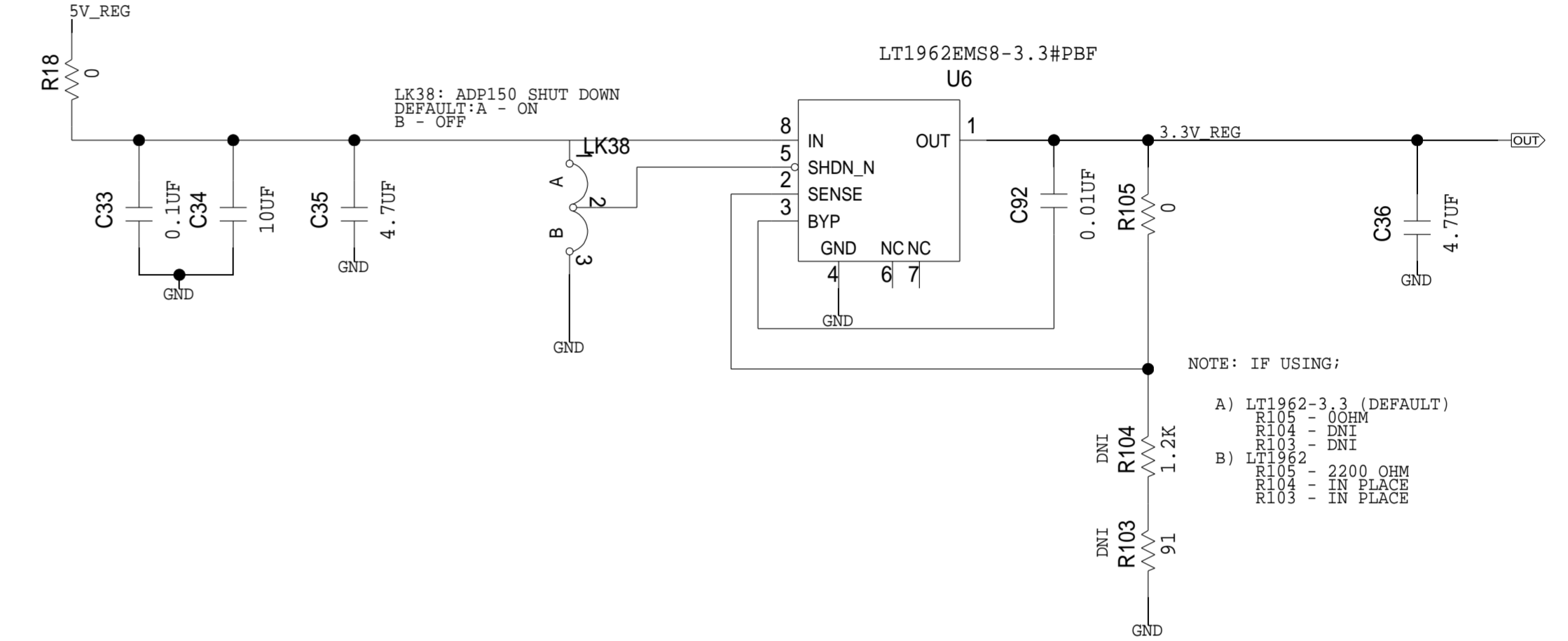
BOARD POWER

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

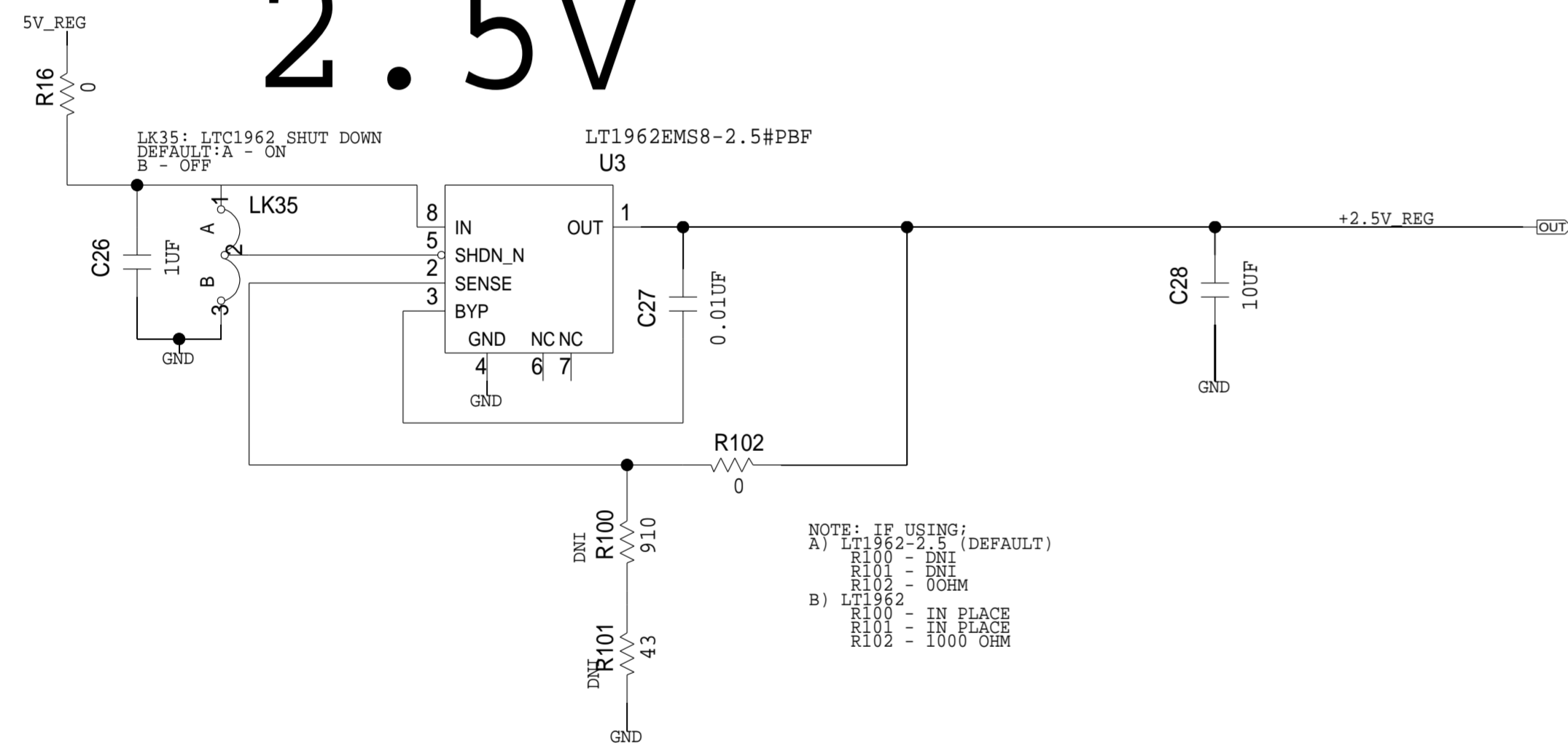
AVDD



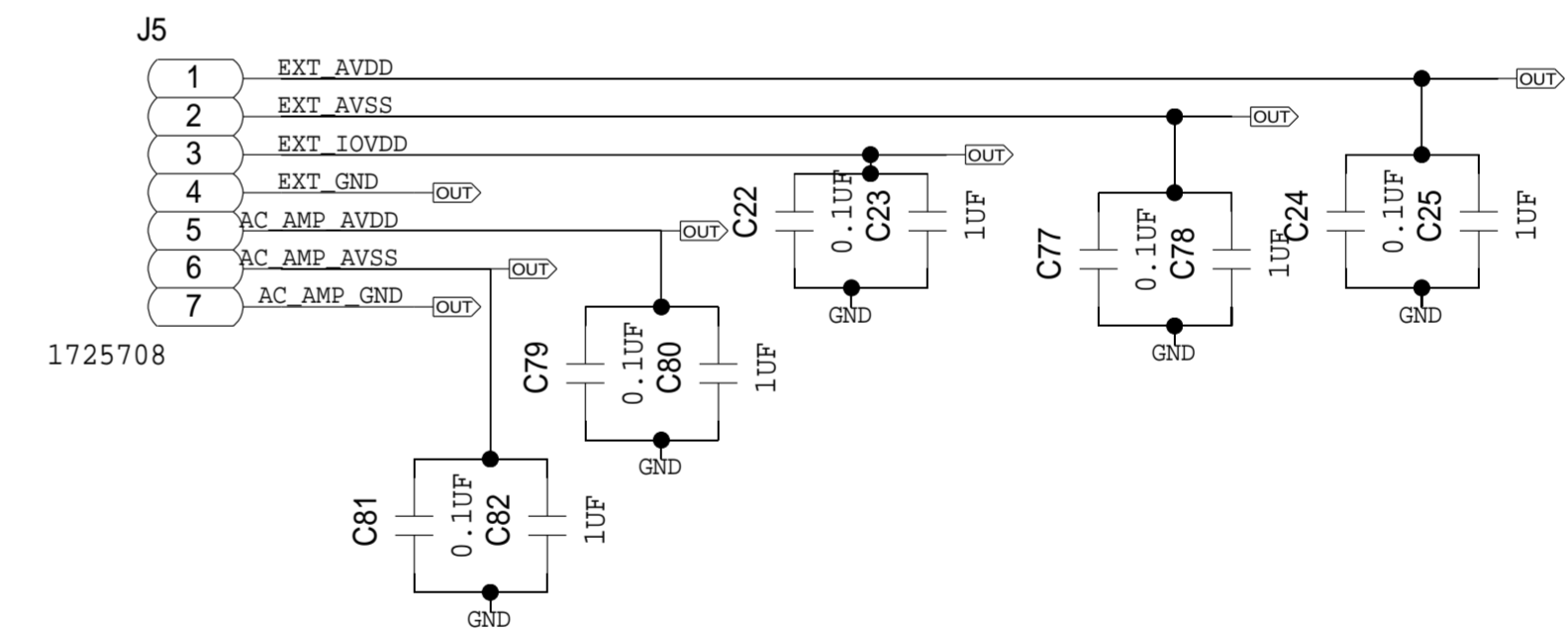
IOVDD 3.3V



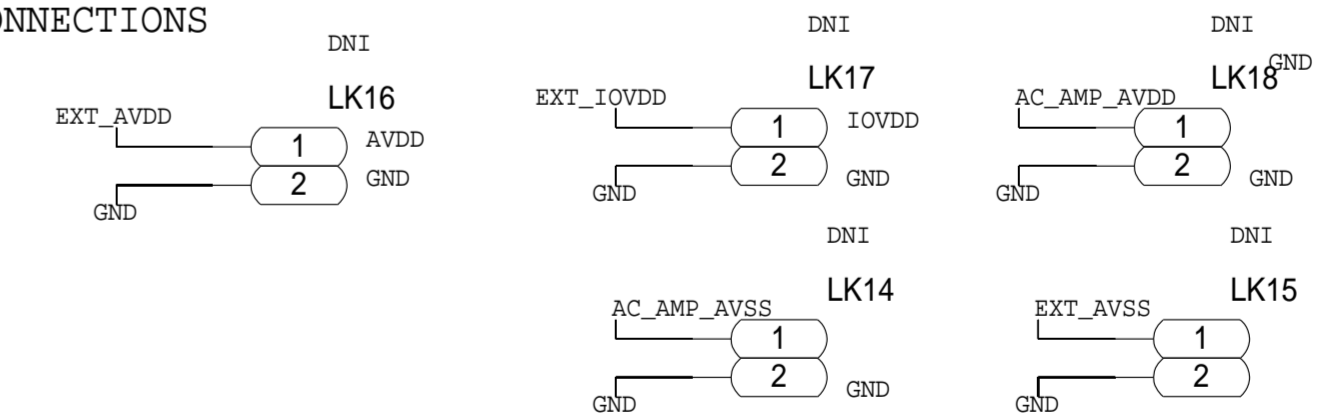
2.5V



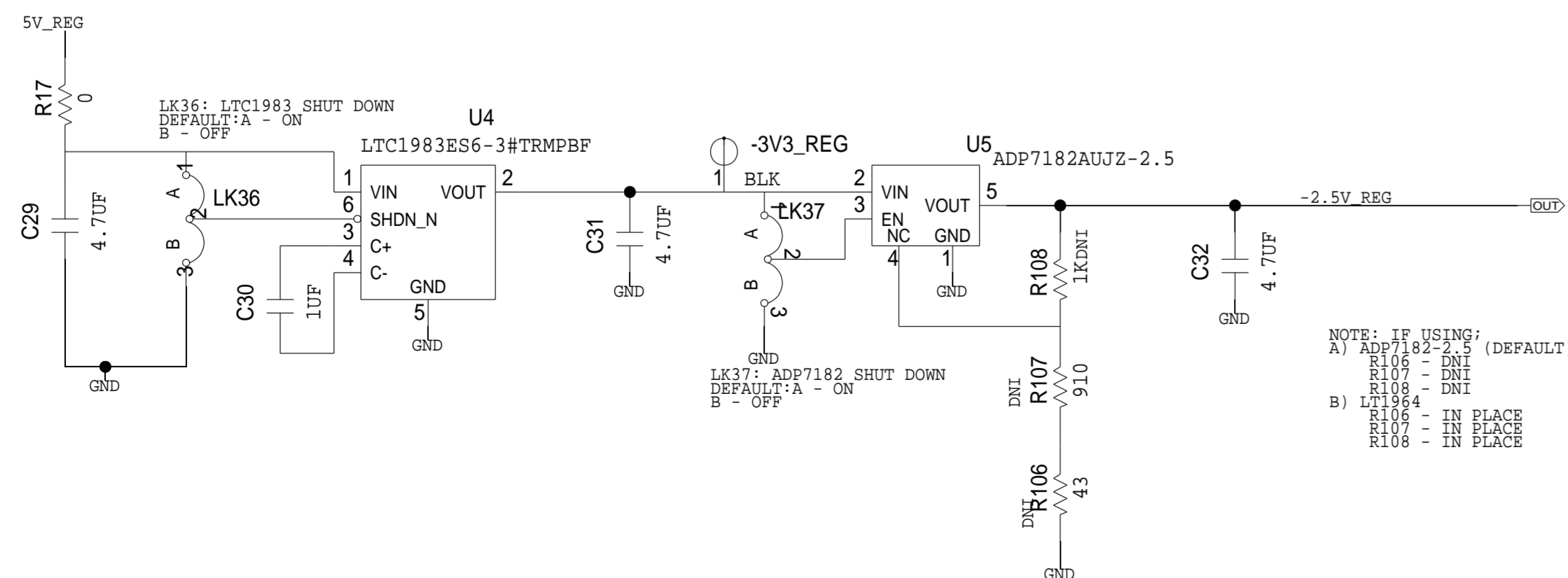
EXT POWER



SCP CONNECTIONS



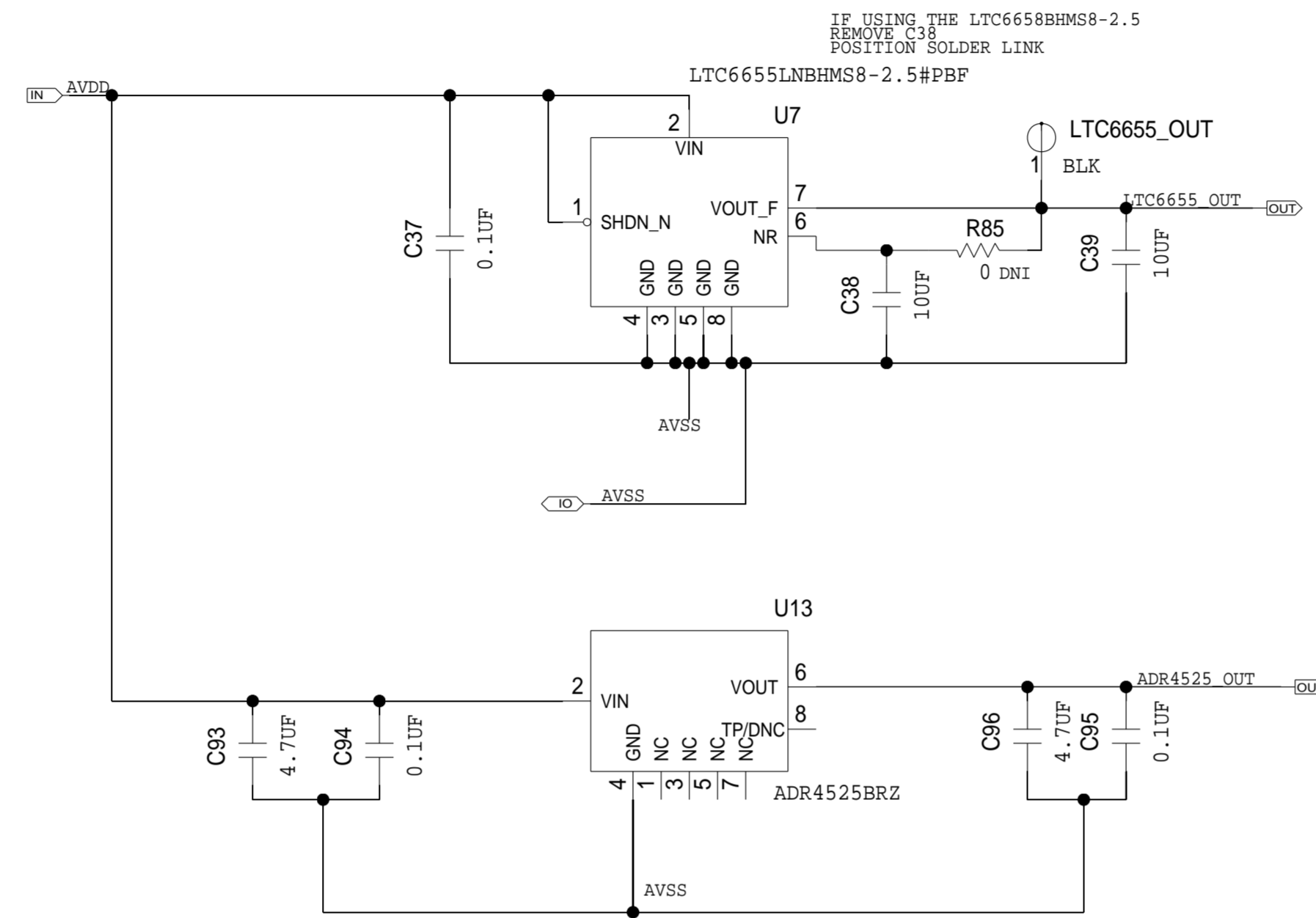
AVSS -2.5V



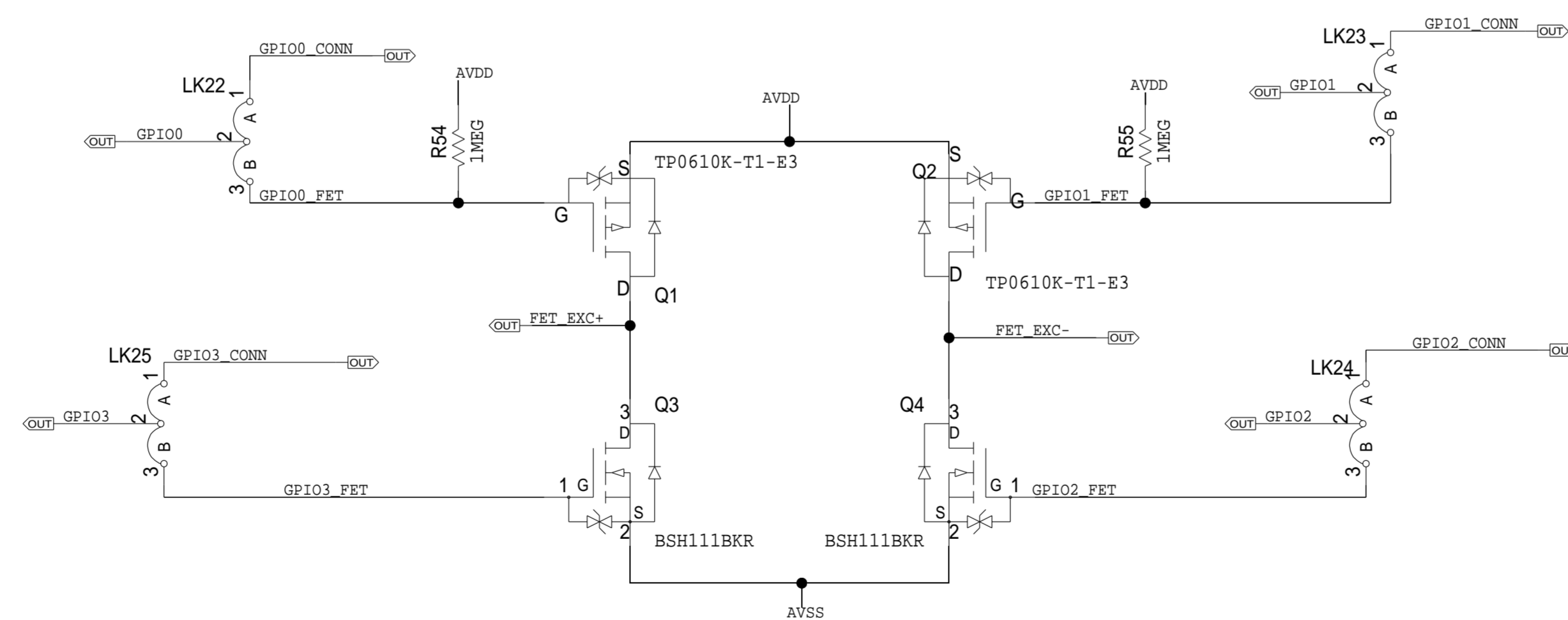
ANALOG DEVICES		SCHEMATIC			
HW TYPE: Customer Evaluation EVAL-AD7140-ASDZ : Currently N/A		DESIGN VIEW <DESIGN_VIEW>		DRAWING NO. 02-067069	
PTD ENGINEER SEAN CAHILL		SIZE D		SCALE 1:1	
		SHEET 7		OF 8	

REFERENCE AND GPIO

REFERENCE STRUCTURE



MOSFET STRUCTURE



LK22/LK23/LK24/LK25
 POS A: TO CONNECTOR
 FOR USE AS GPIO/EXC CURR/PSM
 POS B: TO MOSFET STRUCTURE
 FOR USE AS AC EXCITATION TO J2 CONNECTOR, WIRE BRIDGE CIRCUIT

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

ANALOG DEVICES		SCHEMATIC	
HW TYPE: Customer Evaluation EVAL-AD7140-ASDZ : Currently N/A		DRAWING NO. 02-067069	REV E
DESIGN VIEW <DESIGN_VIEW>		SIZE D	SCALE 1:1
PTD ENGINEER SEAN CAHILL		SHEET 8	OF 8