

8

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REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	23AUG23	A. PAVLIK

EV-AD74414H-ARDZ

SCHEMATIC

PAGE 2 - DIGITAL INTERFACE

PAGE 3 - AD74414H & DECOUPLING

PAGE 4 - AD74414H FRONT-END

PAGE 5 - POWER SUPPLIES

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

TEMPLATE ENGINEER	DATE	SCHEMATIC		
-				
HARDWARE SERVICES	23AUG23	HW TYPE : Customer Evaluation Z Product(s): AD74414H : AD7441xH PACKAGE : LeadCount-lead BodySize PackageType-family : Pitch-pitch StyleVendor Style <User Define> <User Define> <User Define>		
M. VALE				
HARDWARE SYSTEMS				
-				
TEST ENGINEER		DRAWING NO. 02_074829-02		
-				
COMPONENT ENGINEER	23AUG23			
N. CATALAN				
TEST PROCESS		REV. C		
-				
HARDWARE RELEASE	23AUG23	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
K. JABATAN				
DESIGNER	23AUG23	MASTER PROJECT TEMPLATE		TESTER TEMPLATE
E. DELOS REYES		TBD		064489_c
PTD ENGINEER	23AUG23	TOLERANCES		
A. PAVLIK		DECIMALS FRACTIONS ANGLES		
CHECKER		X.XX +-0.010 X.XXX +-0.005 +-1/32 +-2		
-				

SIZE

SCALE

CODE ID NO.

SHEET 1 OF 5

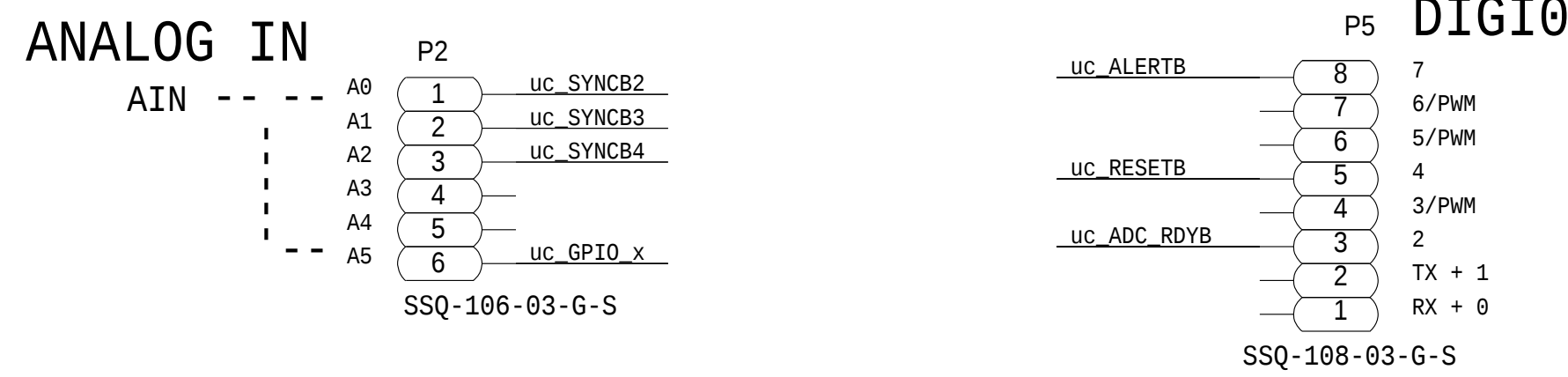
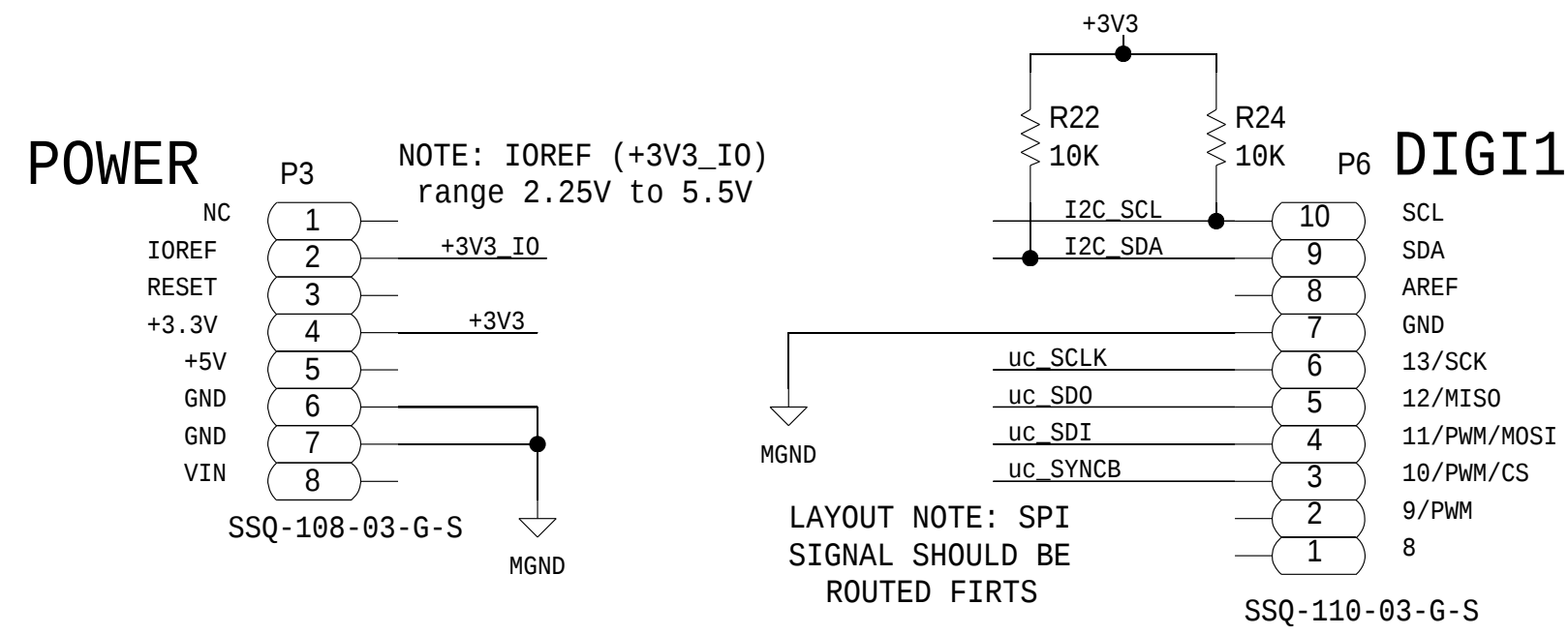
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1:1

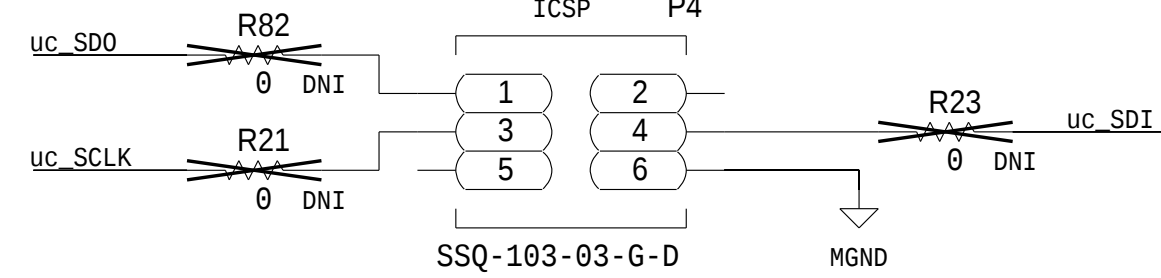
CodeID

DIGITAL INTERFACE

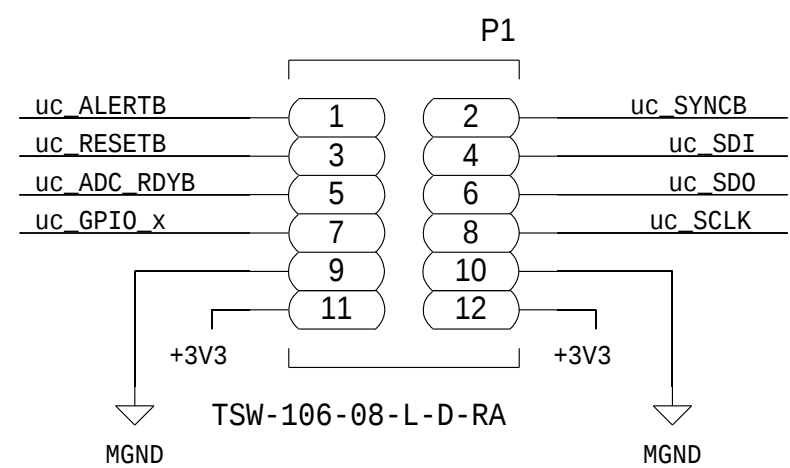
ARDUINO CONNECTORS



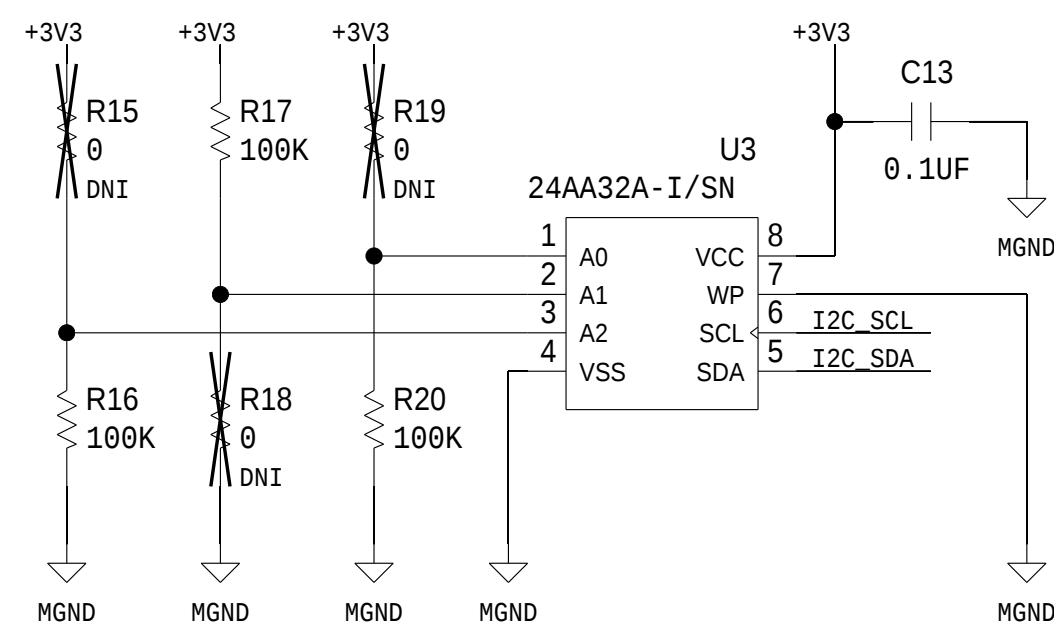
NOTE: AD7441X RESET CAN BE PERFORMED ALSO VIA SPI (SEE CMD_KEY REGISTER)



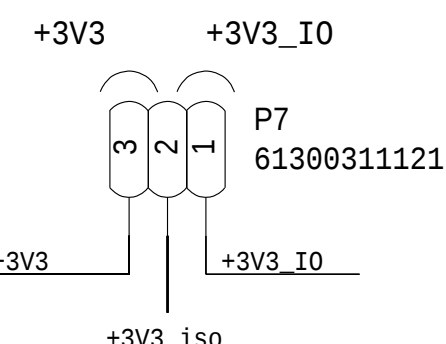
PMOD



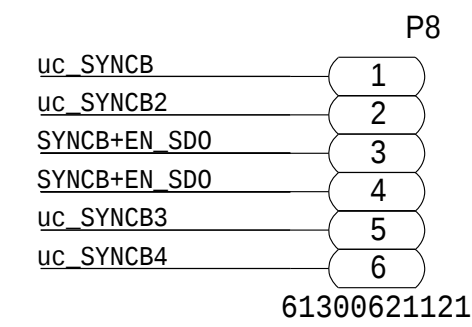
EEPROM



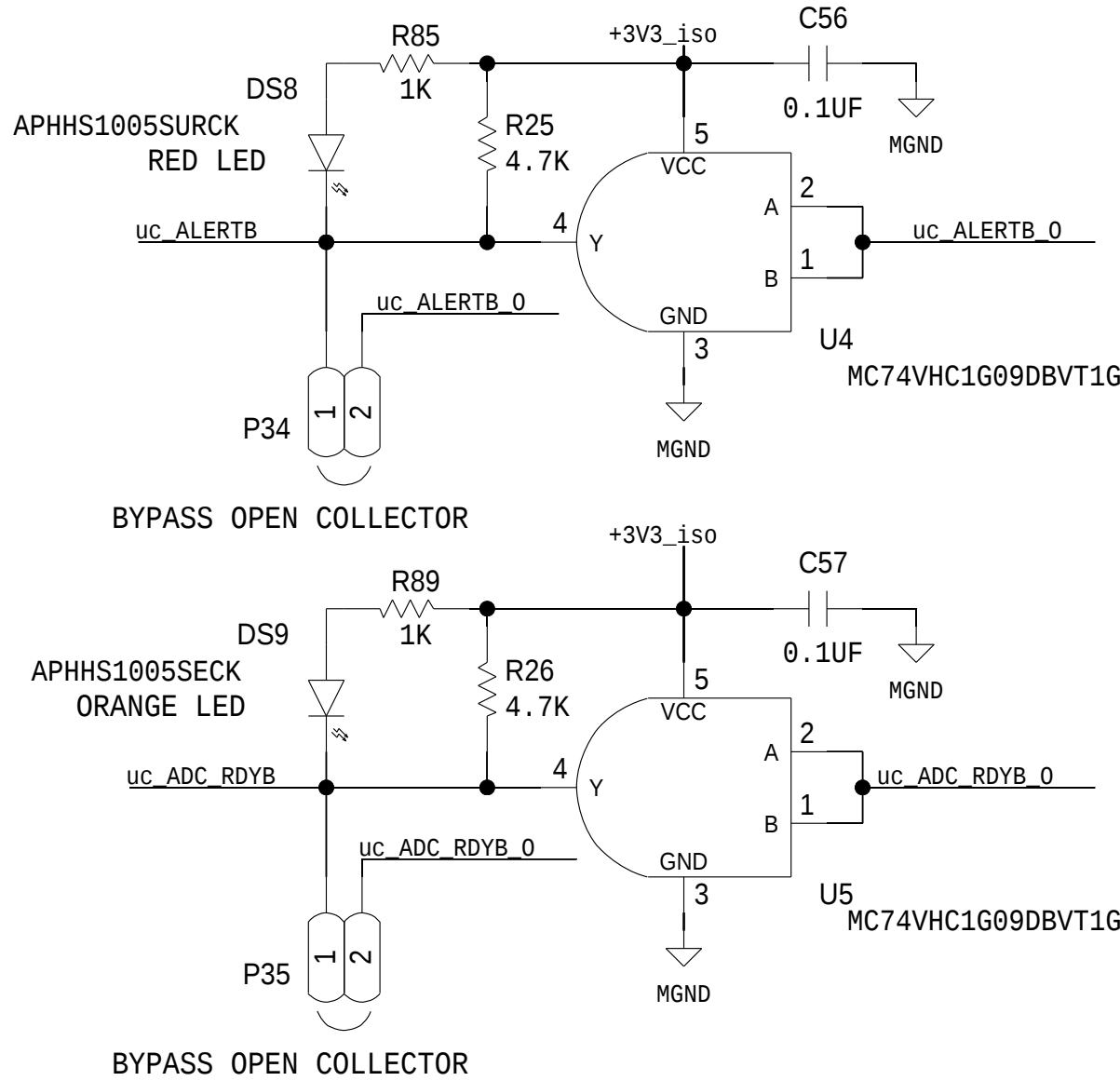
ISOLATORS POWER



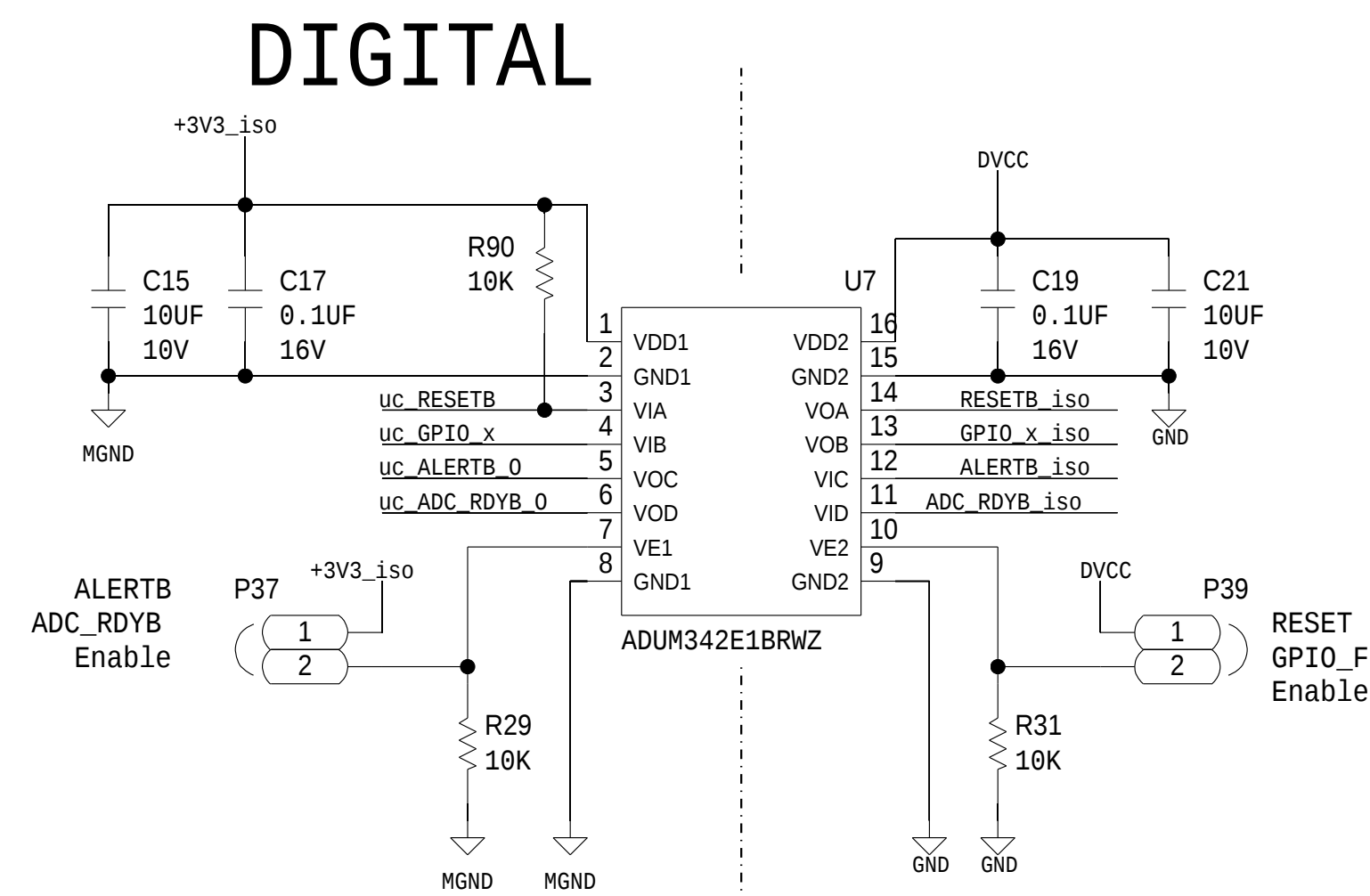
SYNC CONFIG



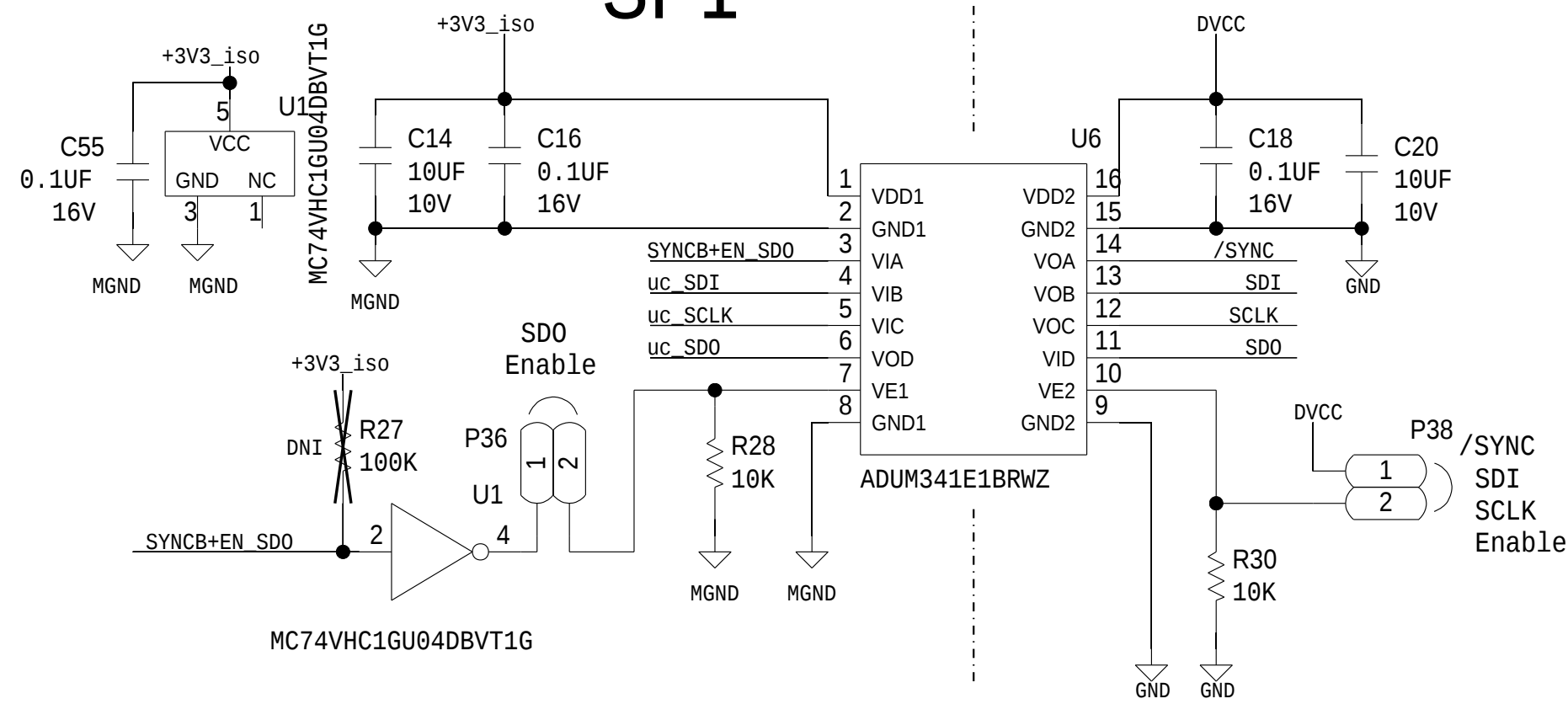
ALERT + ADC_RDY



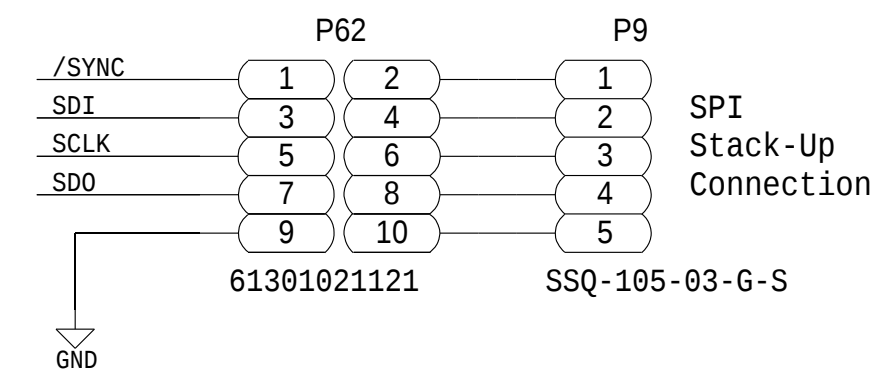
ISOLATORS DIGITAL



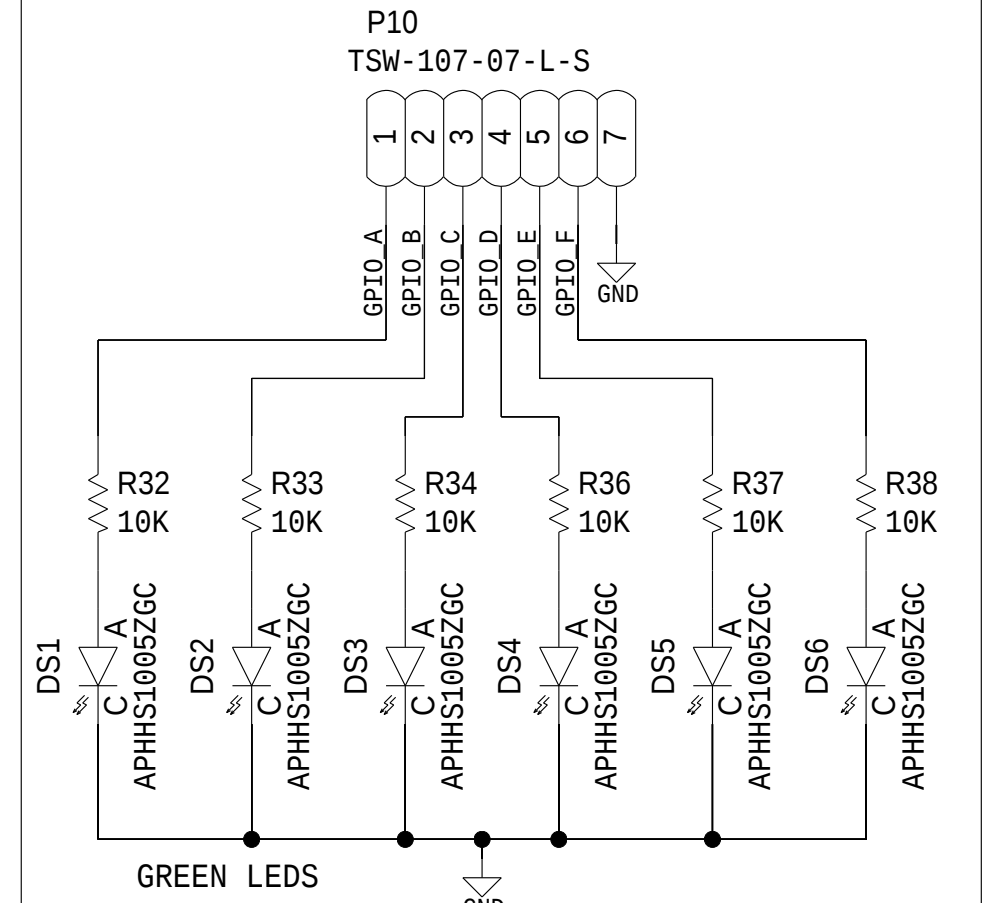
SPI



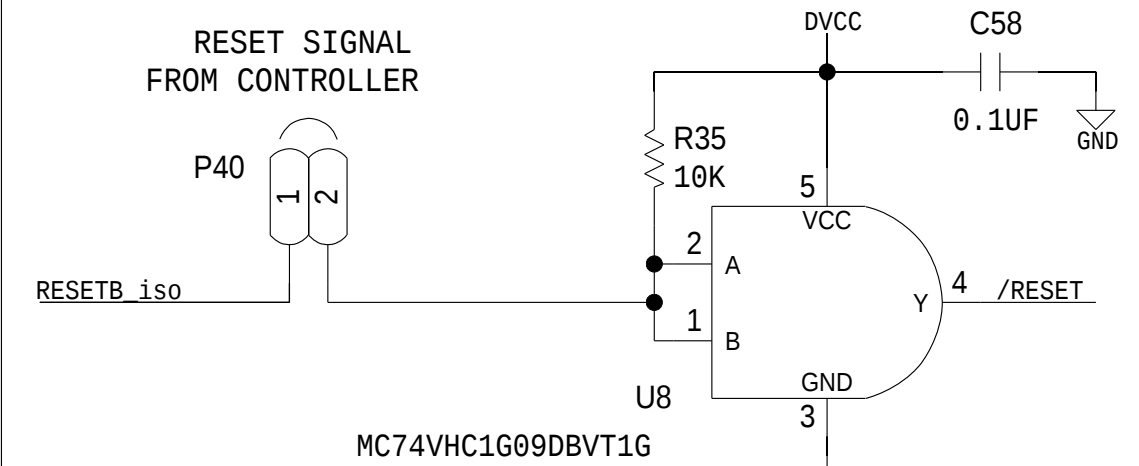
SPI CONNECTION



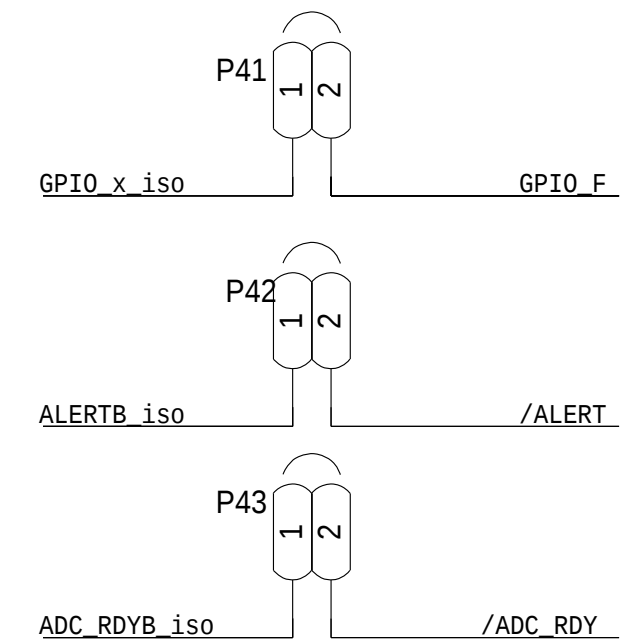
GPIO LEDS



RESET SIGNAL



DIGITAL SIGNALS

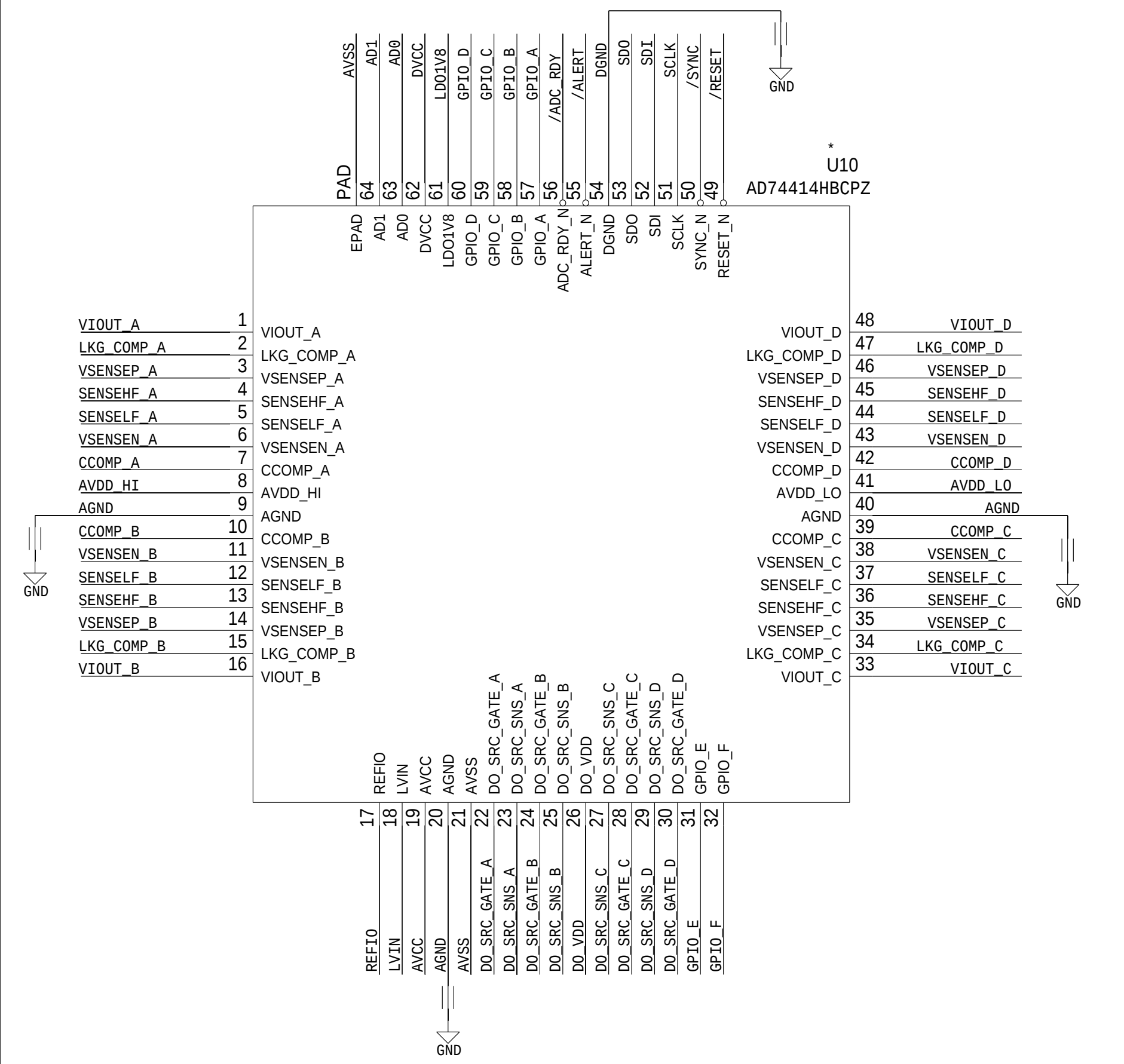


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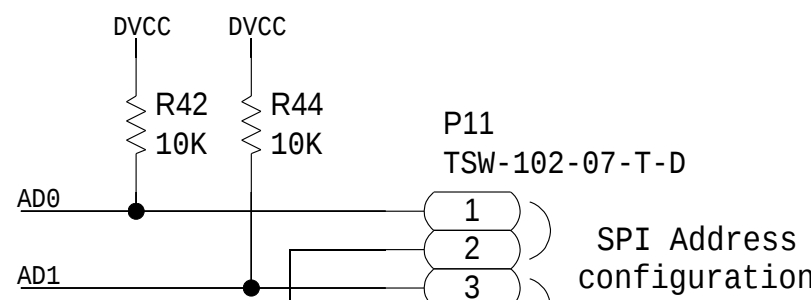
SCHEMATIC			
HW TYPE : Customer Evaluation Z			
Product(s) : AD74414H			
: AD7441XH			
DESIGN VIEW	DRAWING NO.		REV
<DESIGN_VIEW>	02_074829-02		C
PTD ENGINEER	SIZE	SCALE	SHEET
A. PAVLIK	D	1:1	2 OF 5

AD74414H & DECOUPLING

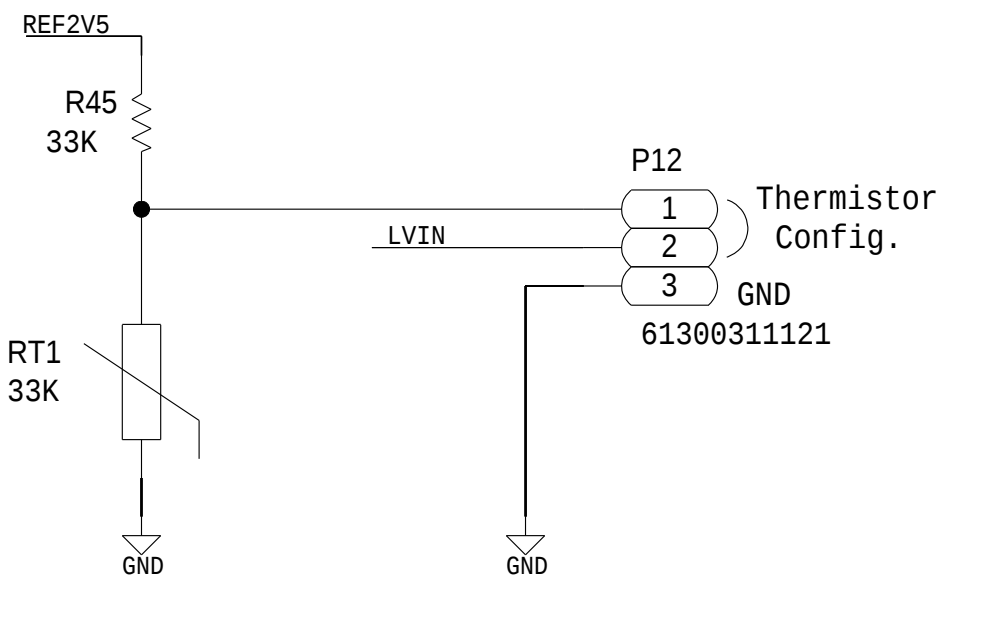
AD74414H



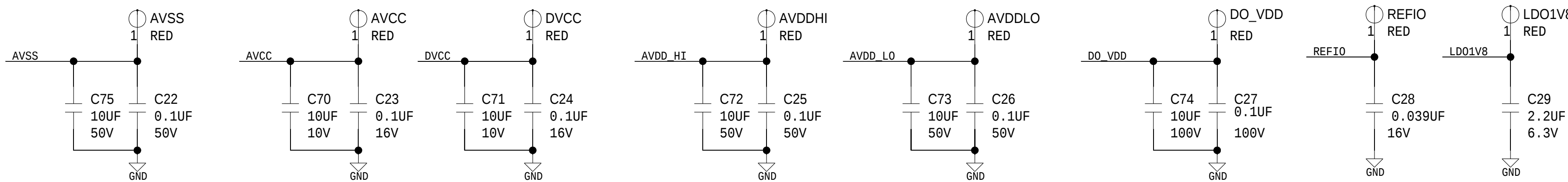
ADDRESS PINS



LVIN PIN

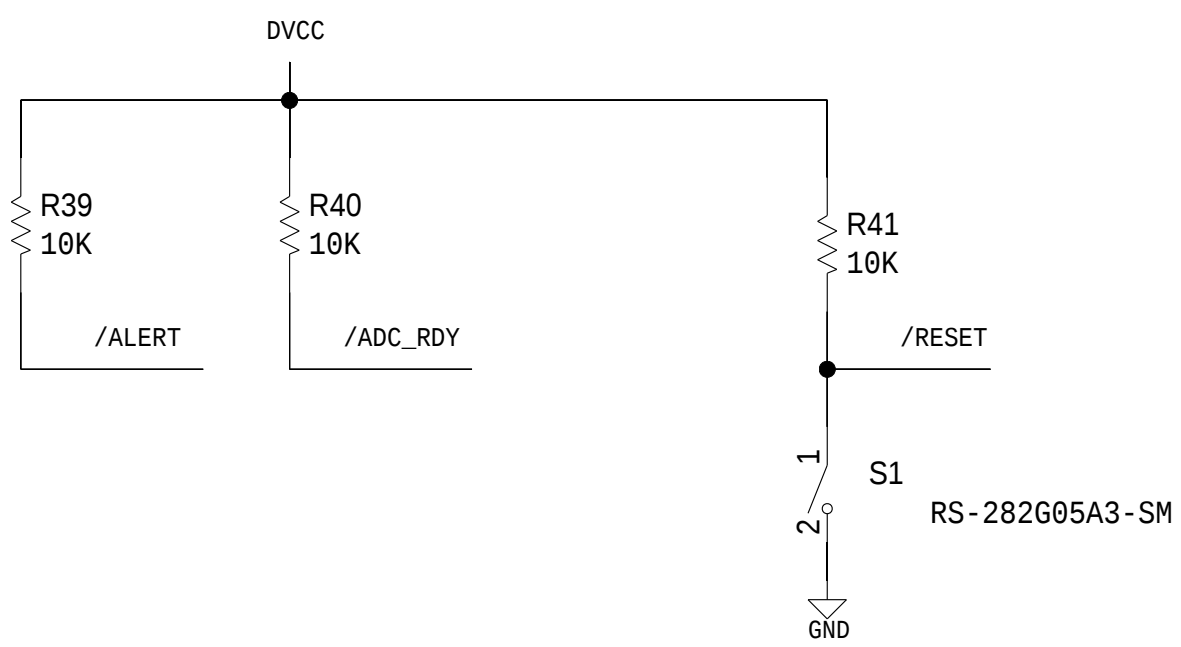


DECOUPLING CAPACITORS

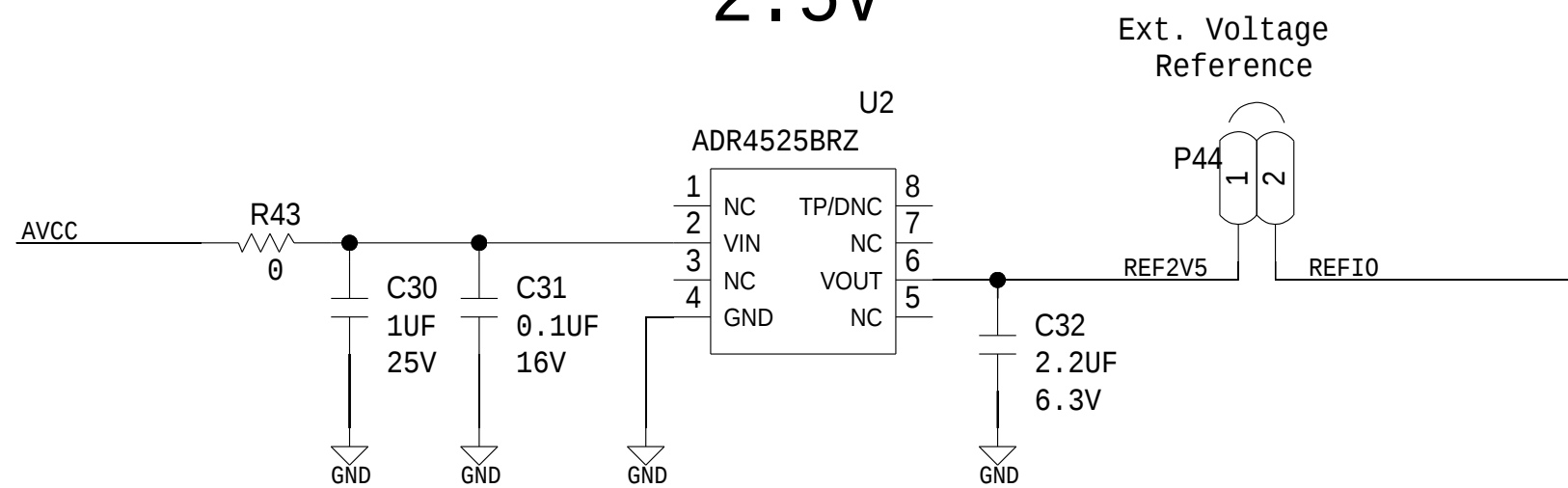


Place as close as possible to the AD7441xH pins

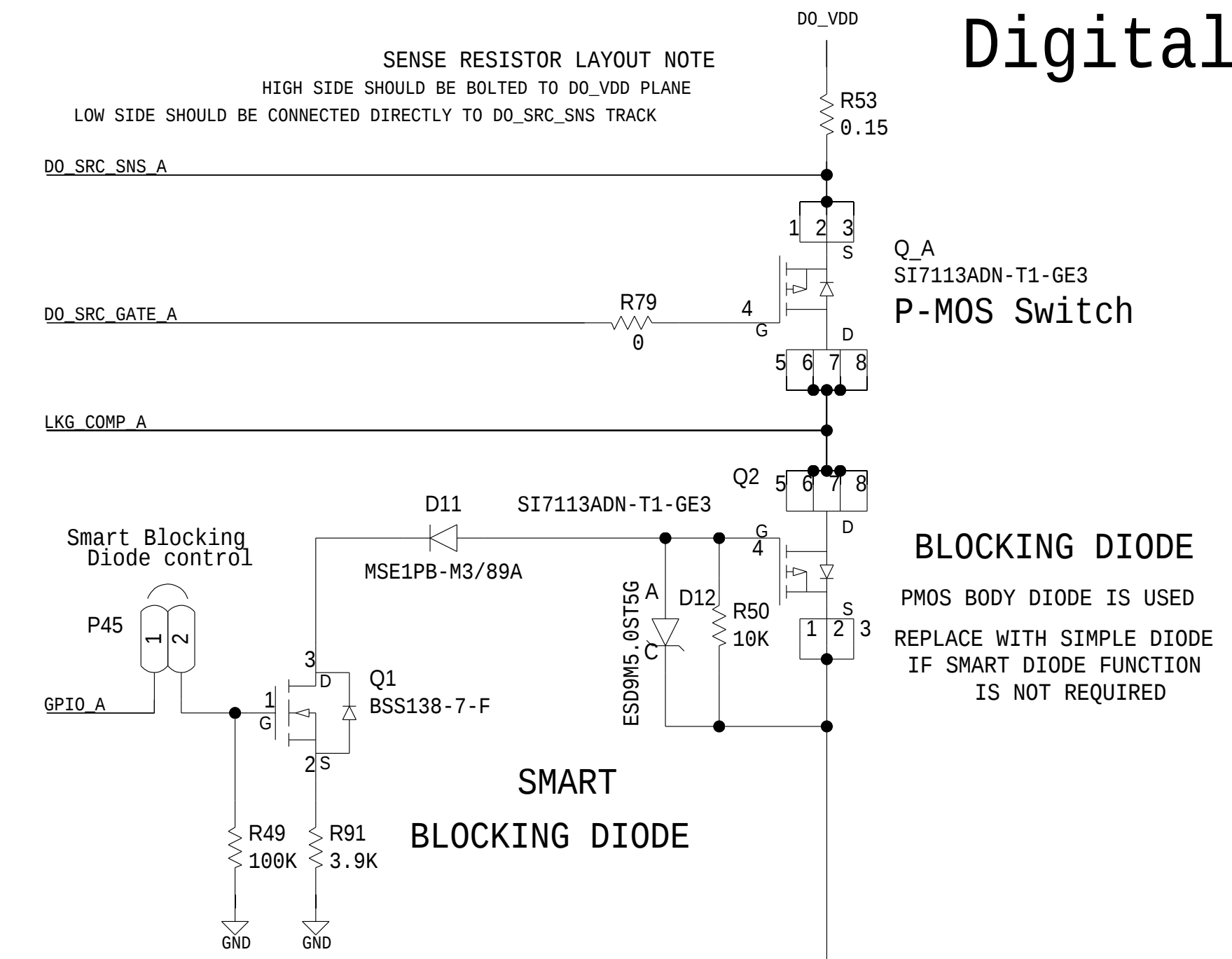
PULLUPS & RESET



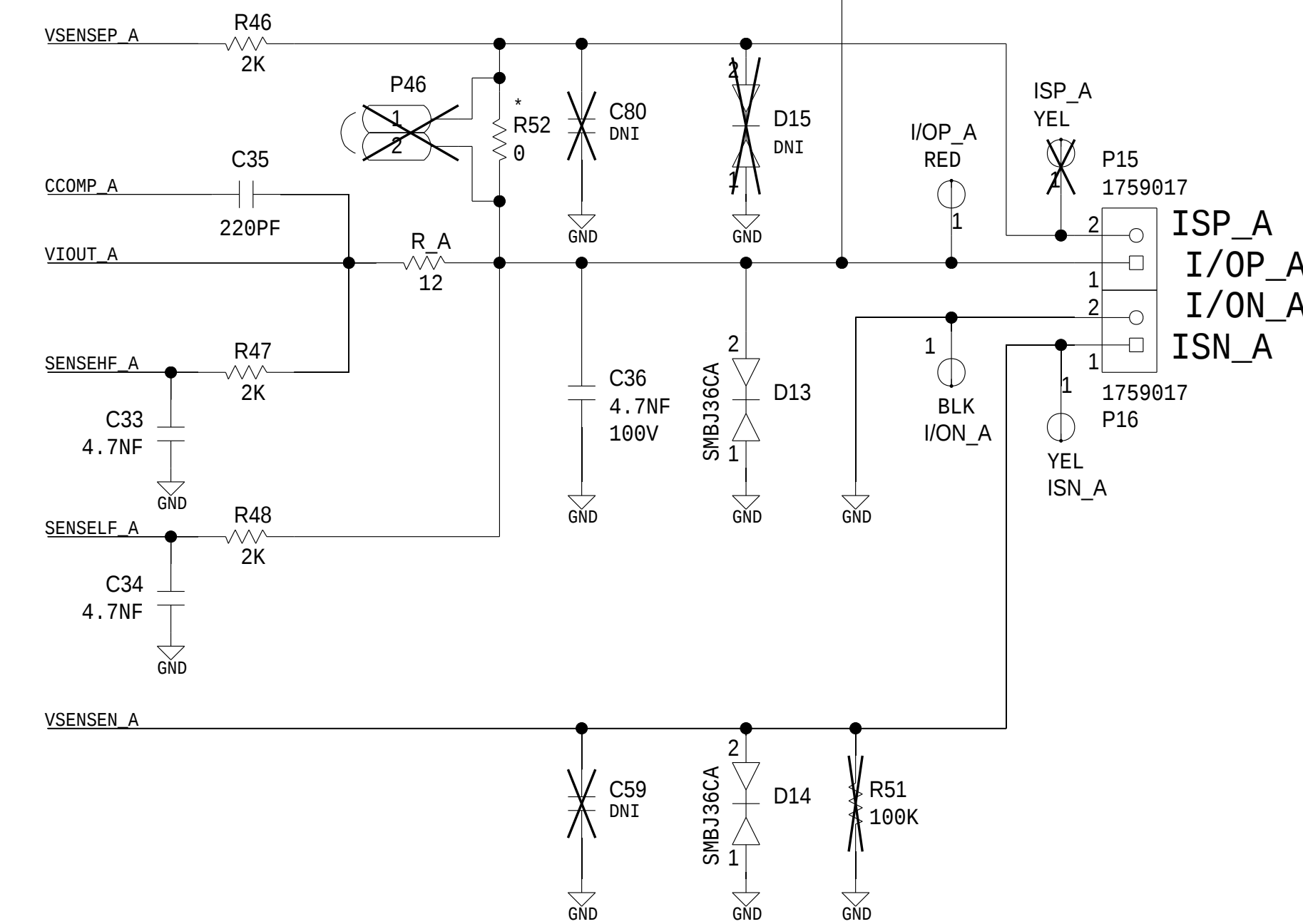
EXTERNAL REFERENCE 2.5V



CHANNEL A



ANALOG

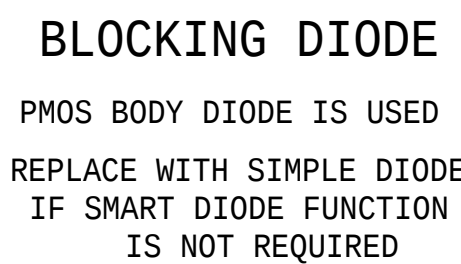


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

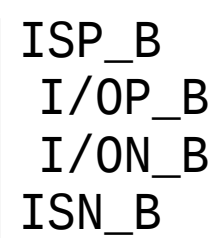
ANALOG DEVICES		SCHEMATIC	
HW TYPE : Customer Evaluation Z Product(s): AD74414H : AD7441xH		DESIGN VIEW <DESIGN_VIEW>	
PTD ENGINEER A. PAVLIK		DRAWING NO. 02_074829-02	REV C
SIZE D	SCALE 1:1	SHEET 3	OF 5

CHANNEL B

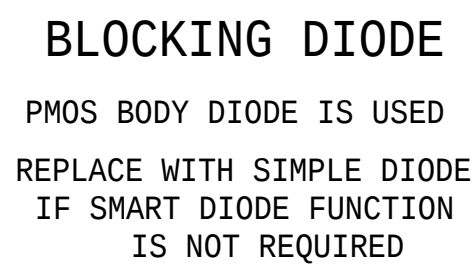
Q_B
SI7113ADN-T1-GE3
P-MOS Switch



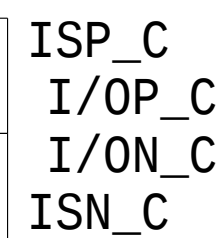
Analog



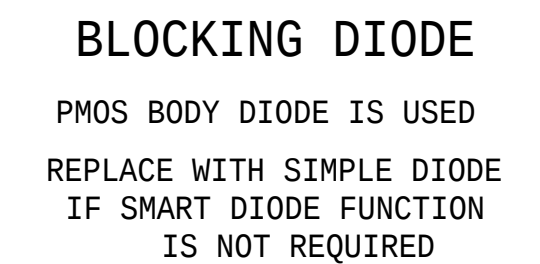
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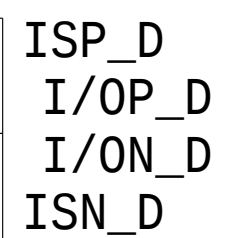
Analog



Digital



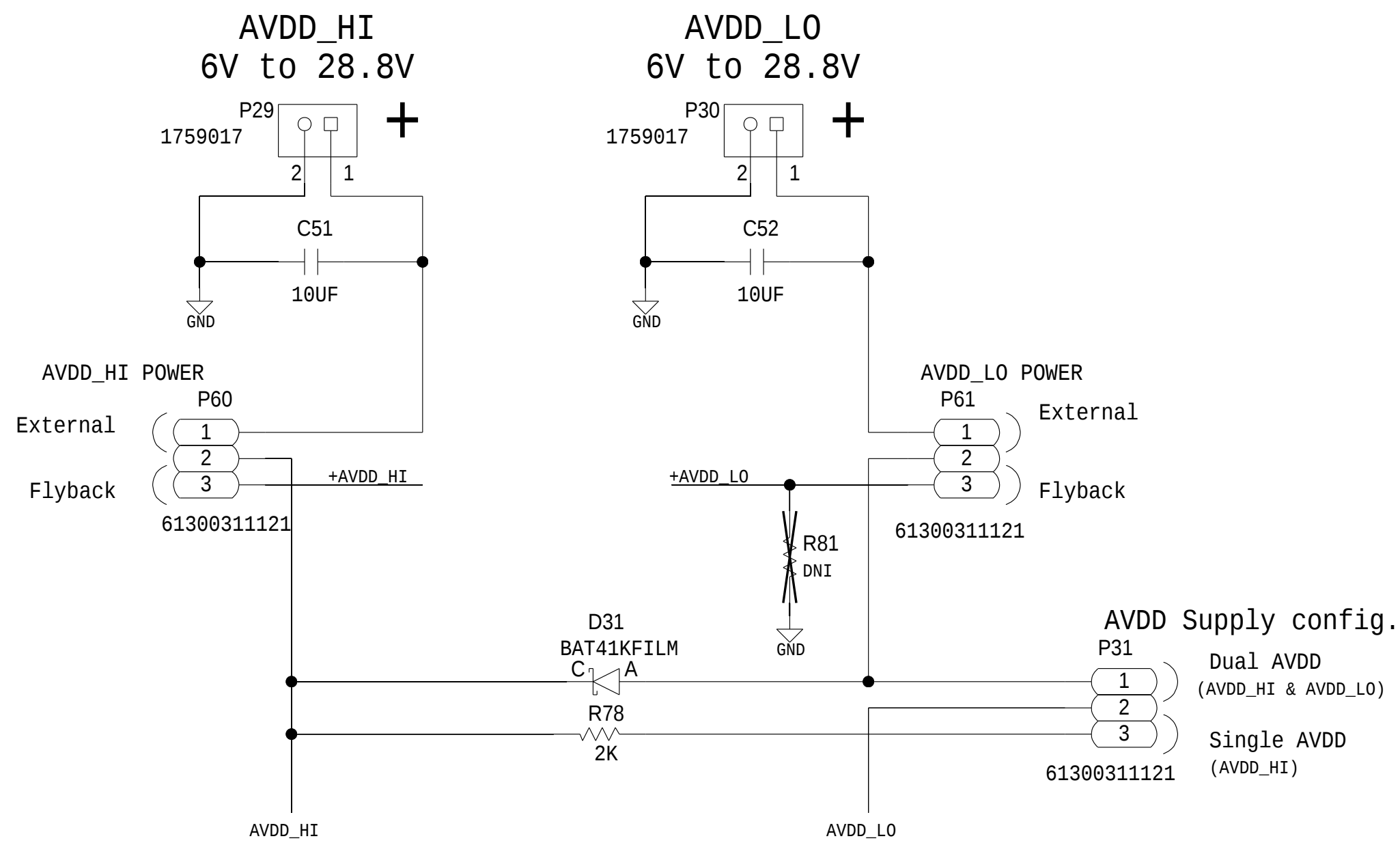
Analog



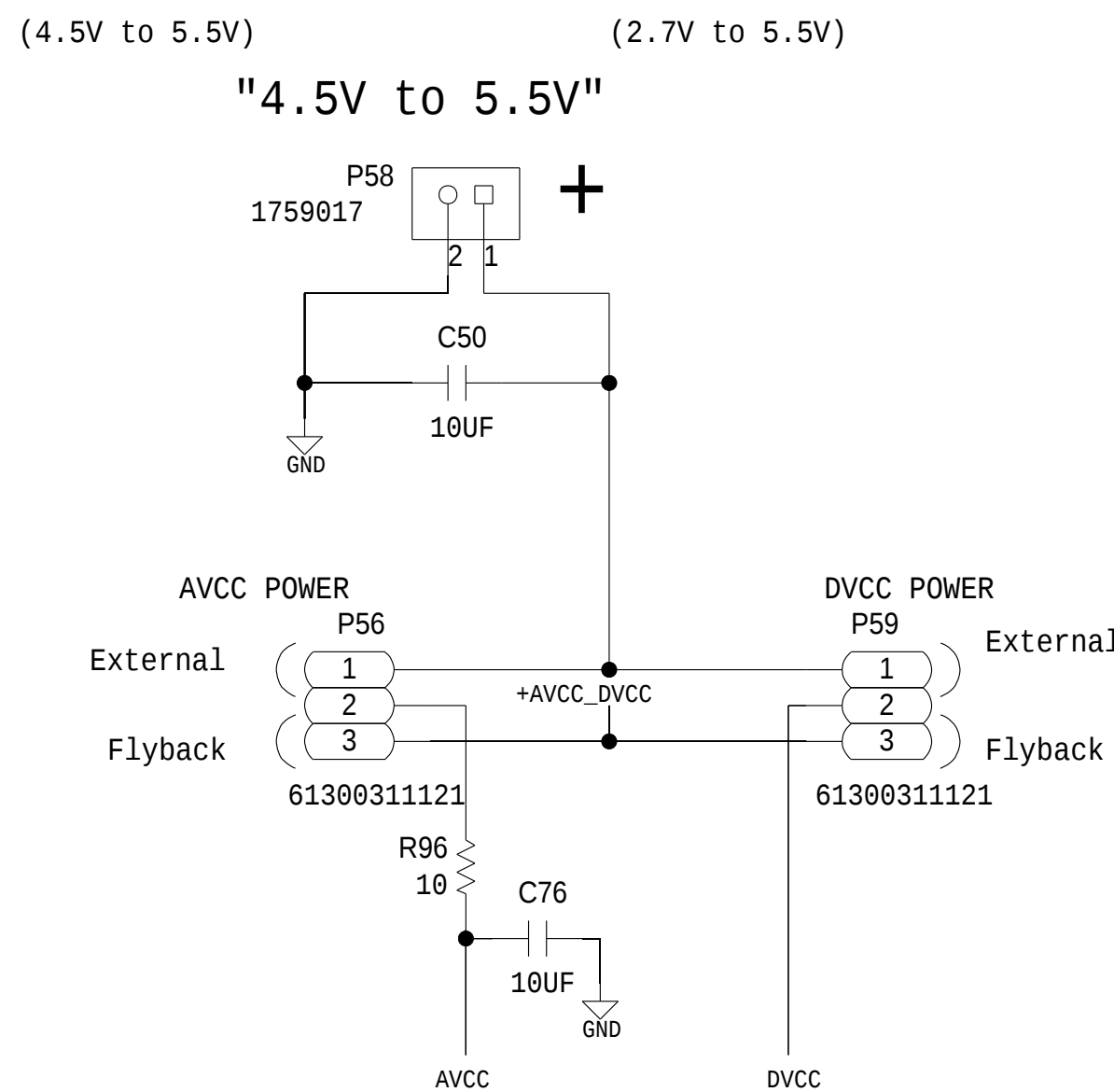
 ANALOG DEVICES	SCHEMATIC		
	HW TYPE : Customer Evaluation Z Product(s) : AD74414H : AD7441XH		
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	SIZE D	SCALE 1:1	SHEET 4 OF 5

POWER SUPPLIES

AVDD_HI & AVDD_LO

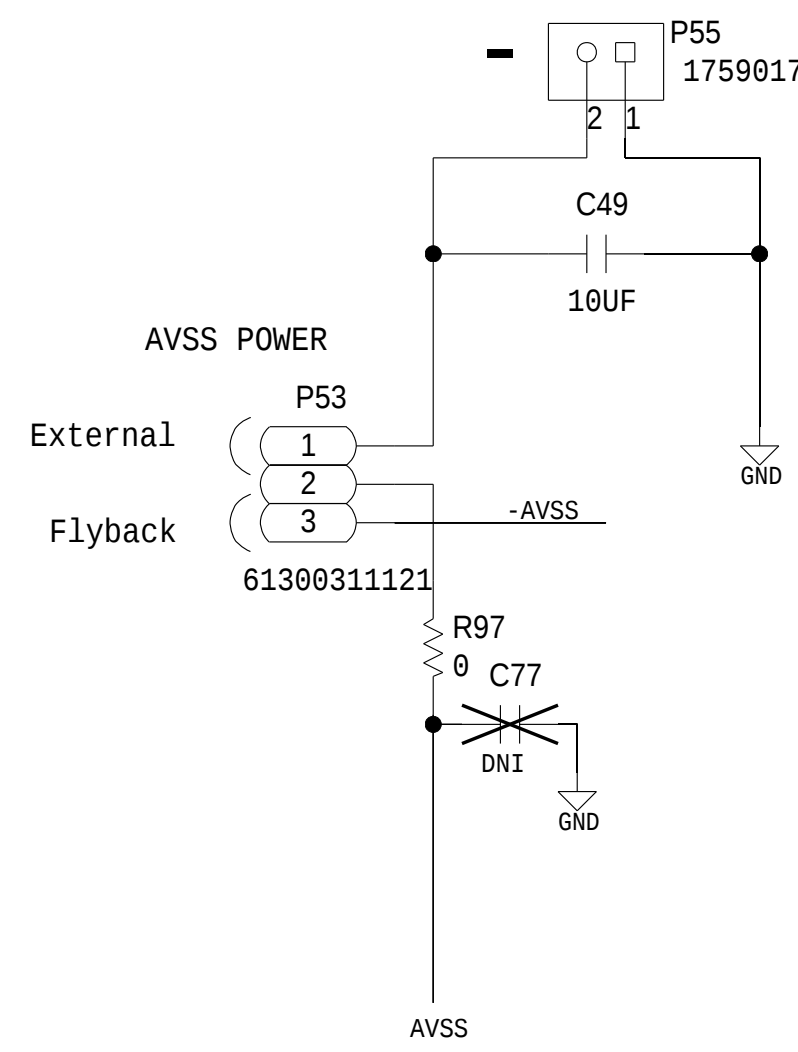


AVCC & DVCC



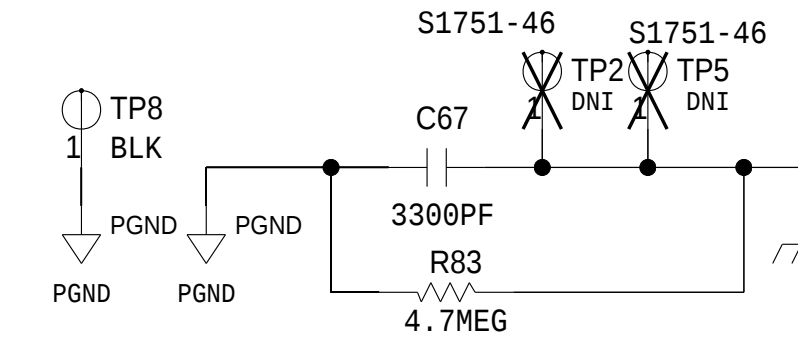
AVSS

-2.5V to -18V

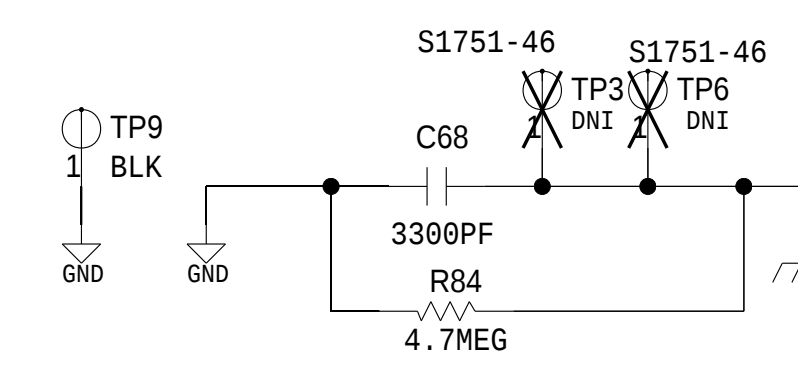


GROUNDING

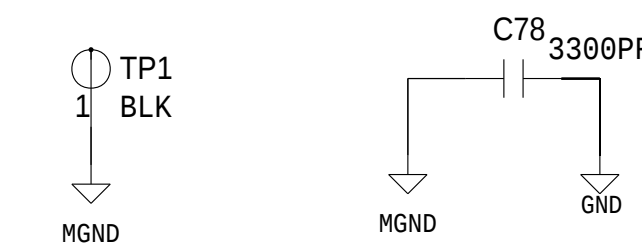
PGND - Primary Flyback Ground



GND - AD7441X Front-end Ground



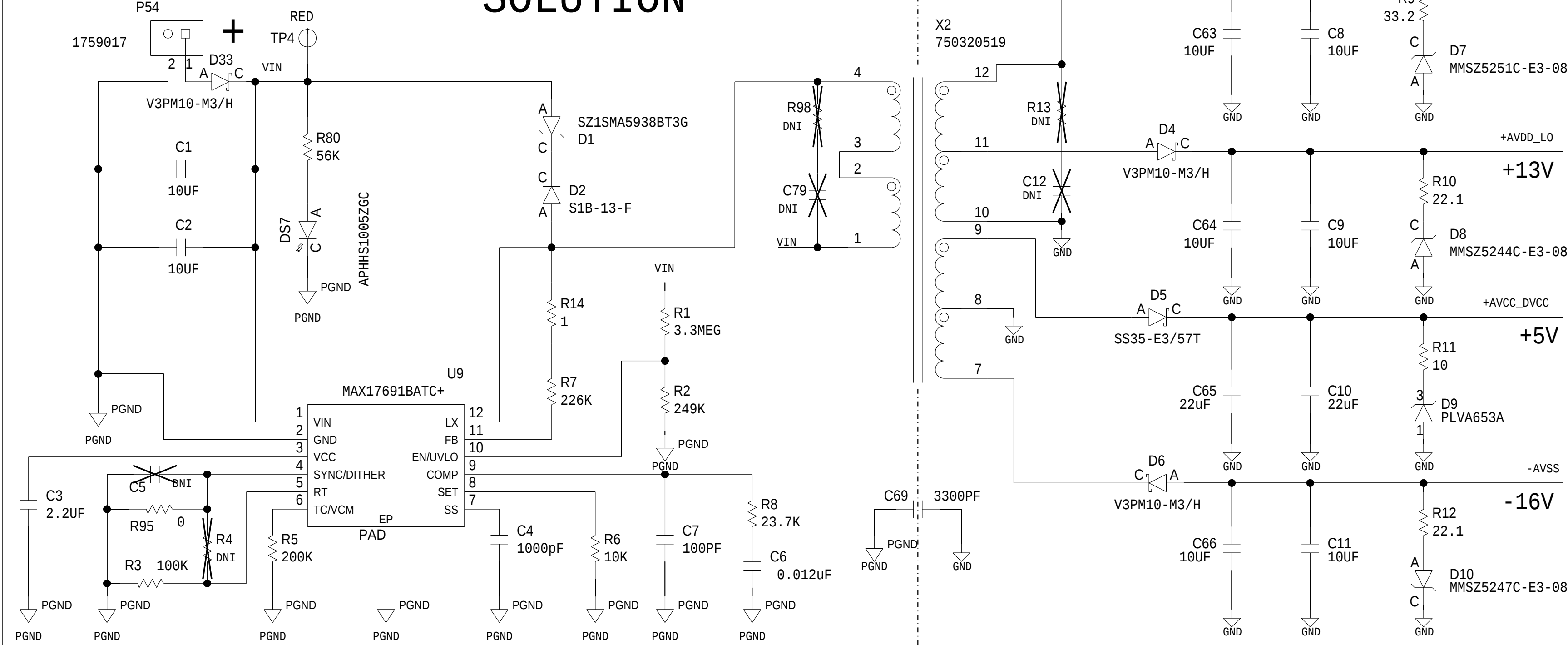
MGND - ARDUINO/PMOD Digital interface ground, see page 2



VIN

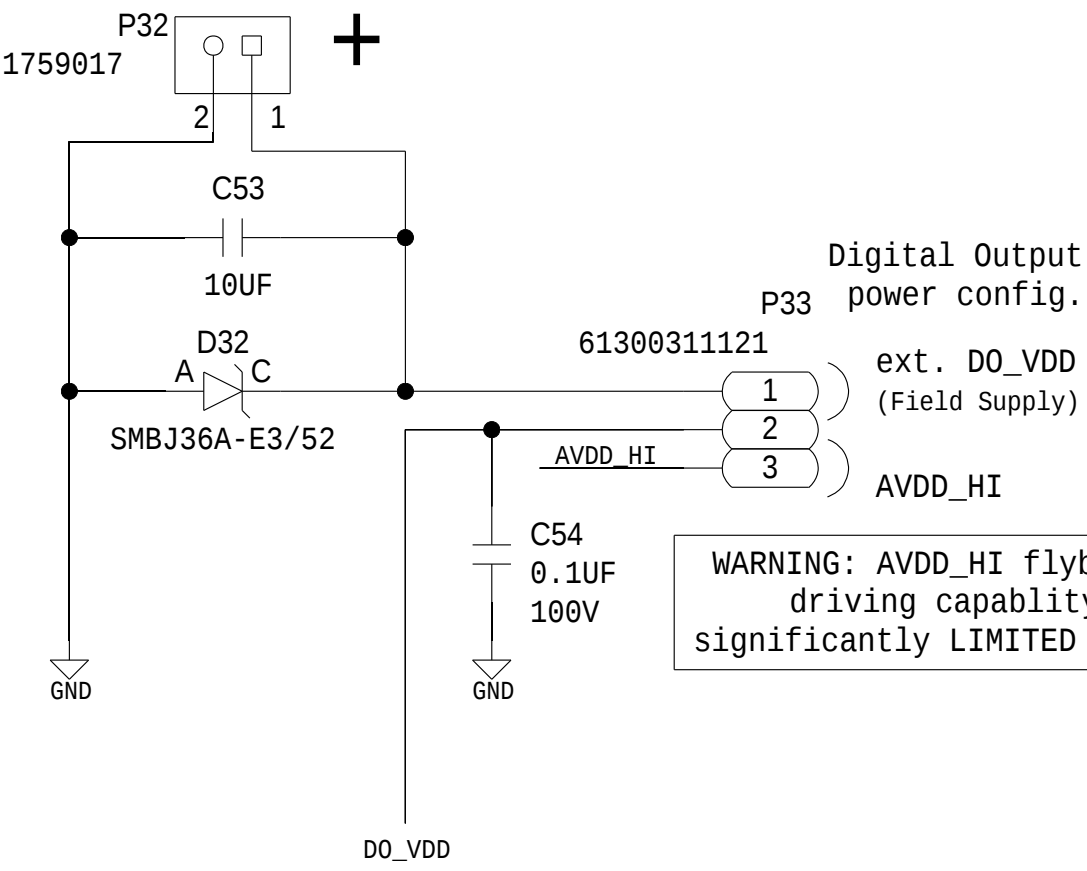
24V (19.8V TO 28.8V)

FLYBACK POWER SOLUTION



DO_VDD

10V to 35V



SCHEMATIC

HW TYPE : Customer Evaluation Z
Product(s): AD74414H
: AD7441XH

DESIGN VIEW
<DESIGN_VIEW>

PTD ENGINEER
A. PAVLIK

DRAWING NO.
02_074829-02

REV
C

SIZE
D

SCALE
1:1

SHEET 5 OF 5