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REVISIONS

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

EV-AD74416H-ARDZ SCHEMATIC

PAGE 2 - DIGITAL INTERFACE

PAGE 3 - AD74416H & DECOUPLING

PAGE 4 - AD74416H FRONT-END

PAGE 5 - POWER SUPPLIES

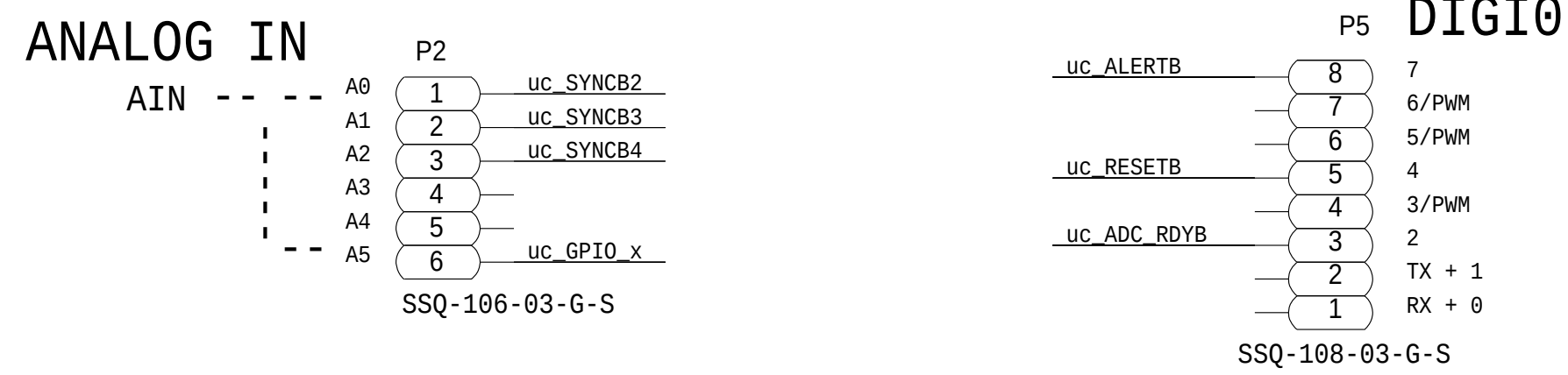
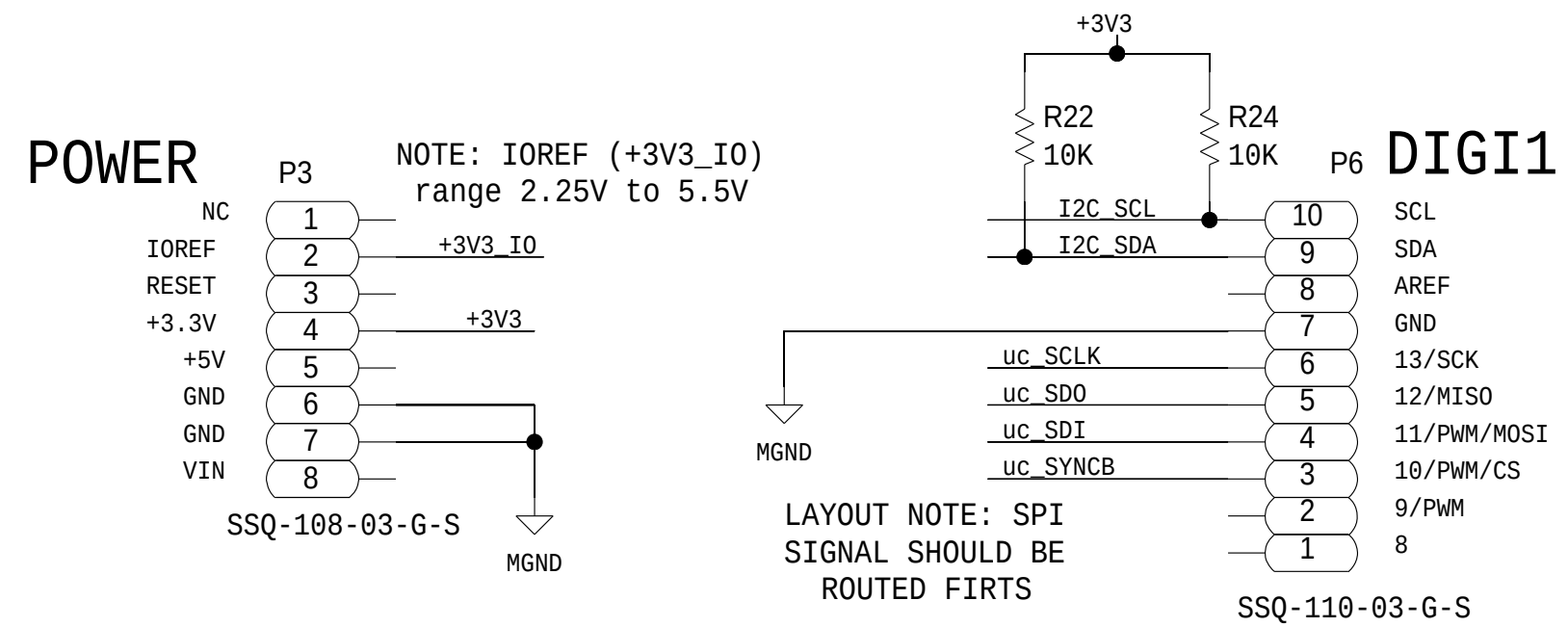
P.O SPEC.	BK/BD SPEC.	SOCKET OEM	OEM PART#	HANDLER

TEMPLATE ENGINEER	DATE	SCHEMATIC		
-				
HARDWARE SERVICES	23AUG23	HW TYPE : Customer Evaluation Z Product(s): AD74416H : AD74414H 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 REV. C		
-				
COMPONENT ENGINEER	23AUG23			
N. CATALAN				
TEST PROCESS		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS X.XX +-0.010 FRACTIONS +-1/32 ANGLES +-2		
-				
HARDWARE RELEASE	23AUG23	MASTER PROJECT TEMPLATE		TESTER TEMPLATE
K. JABATAN		TBD		064489_c
DESIGNER	23AUG23	DRAWING NO.		REV.
E. DELOS REYES		02_074829		C
PTD ENGINEER	23AUG23	SHEET 1		OF 5
A. PAVLIK				
CHECKER				
-				

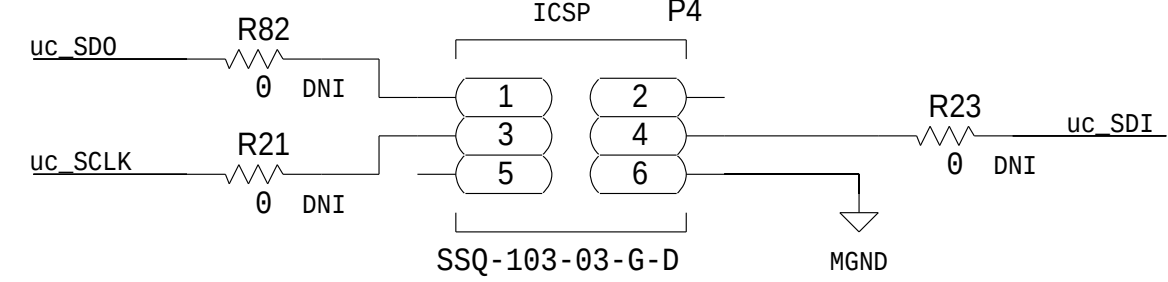
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DIGITAL INTERFACE

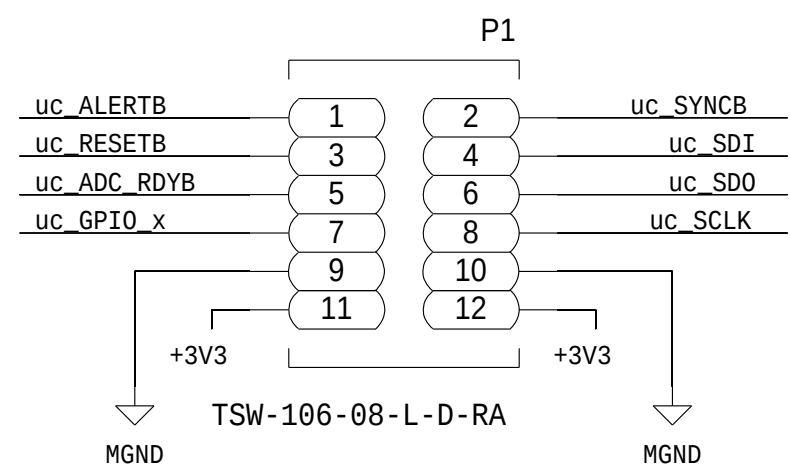
ARDUINO CONNECTORS



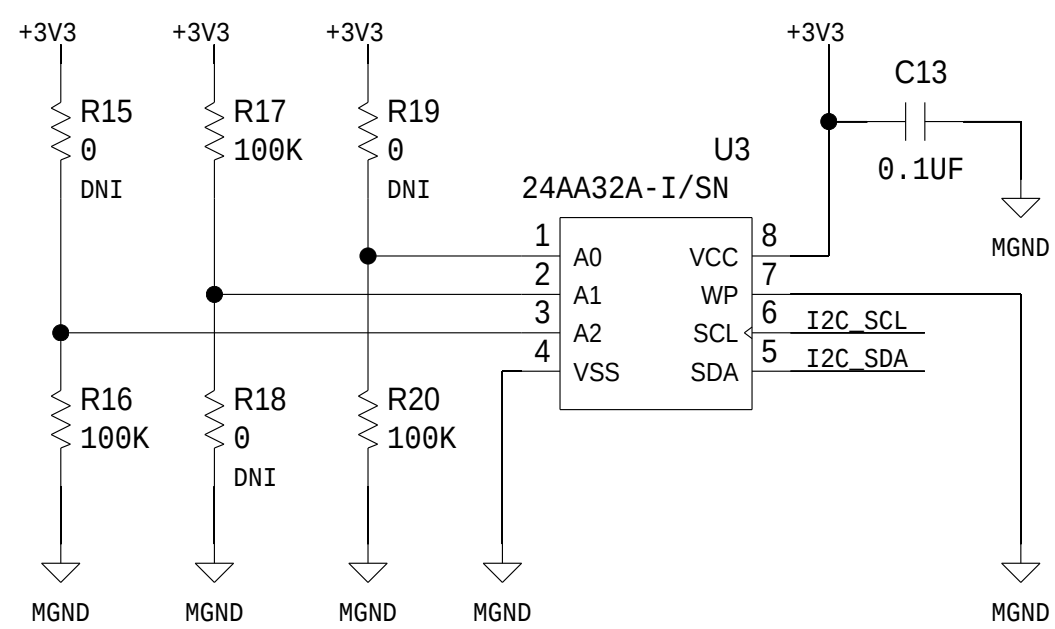
Note: AD74416H Reset can be performed also via SPI (see CMD_KEY register)



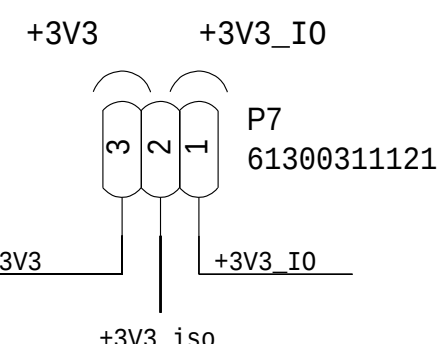
PMOD



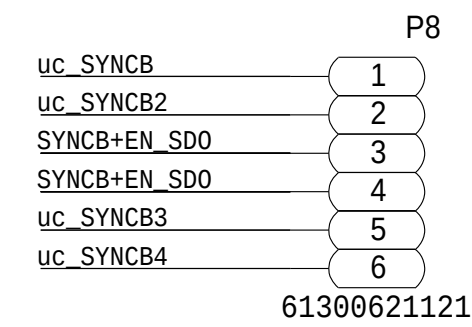
EEPROM



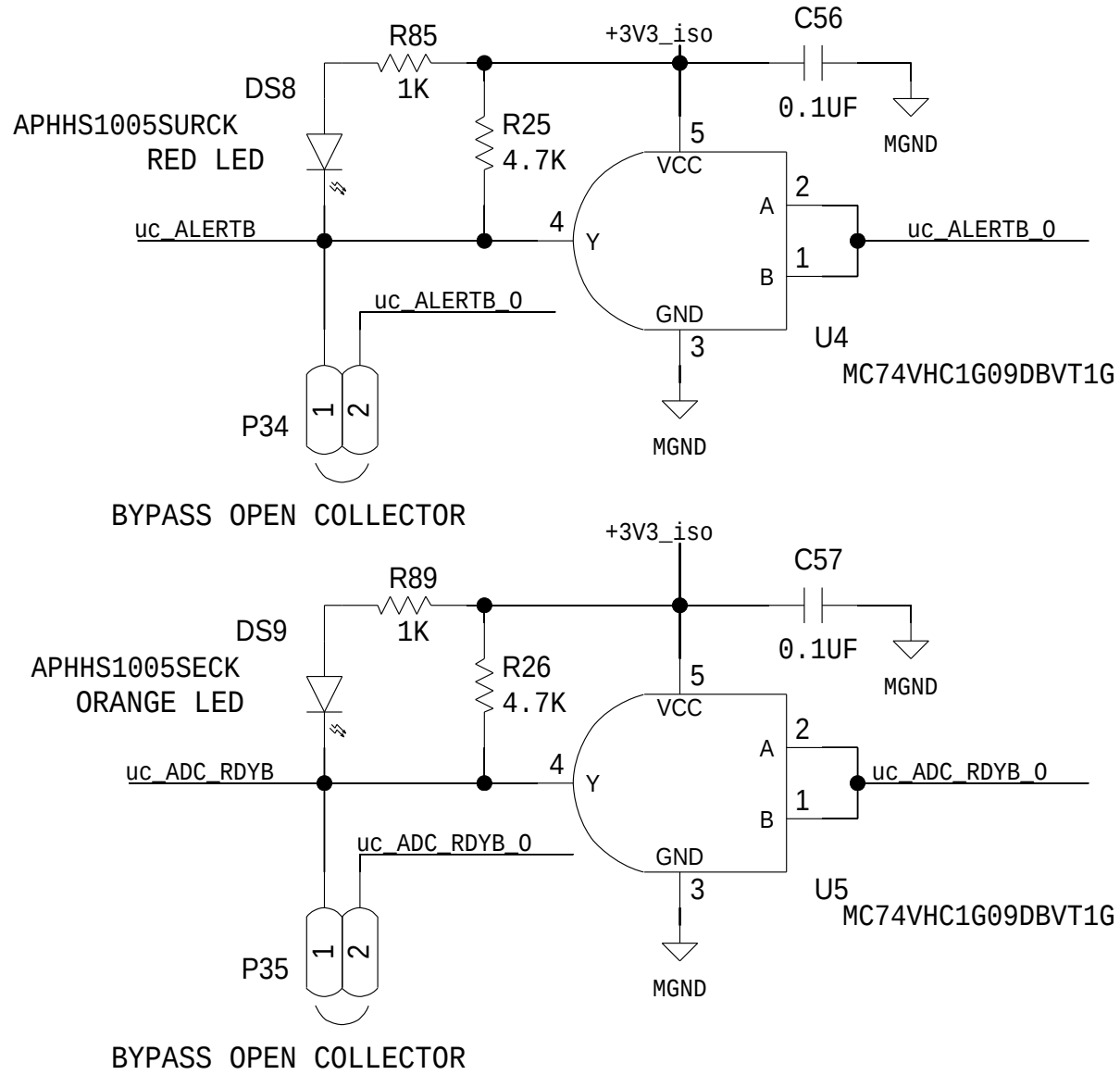
ISOLATORS POWER



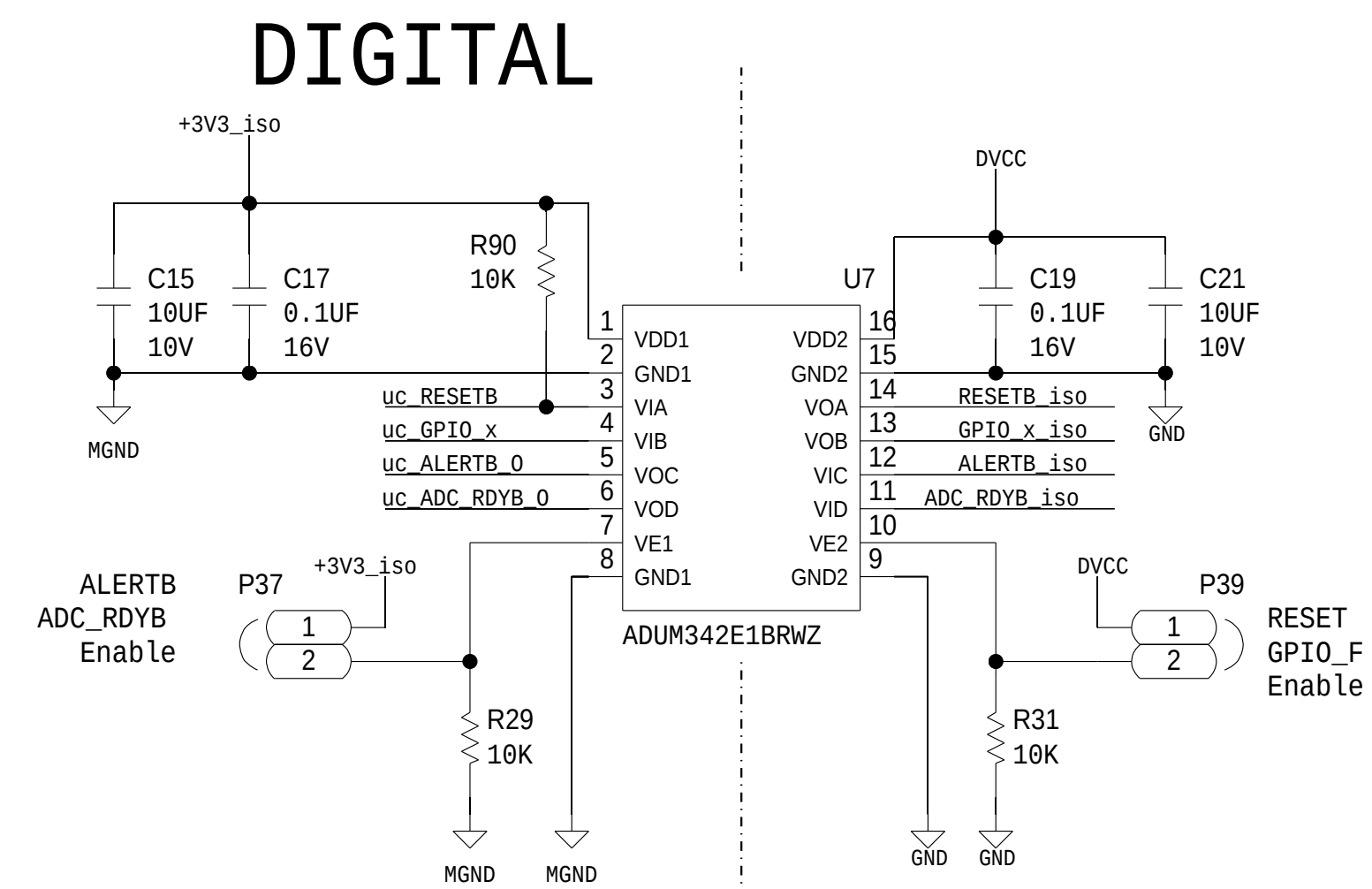
SYNC CONFIG



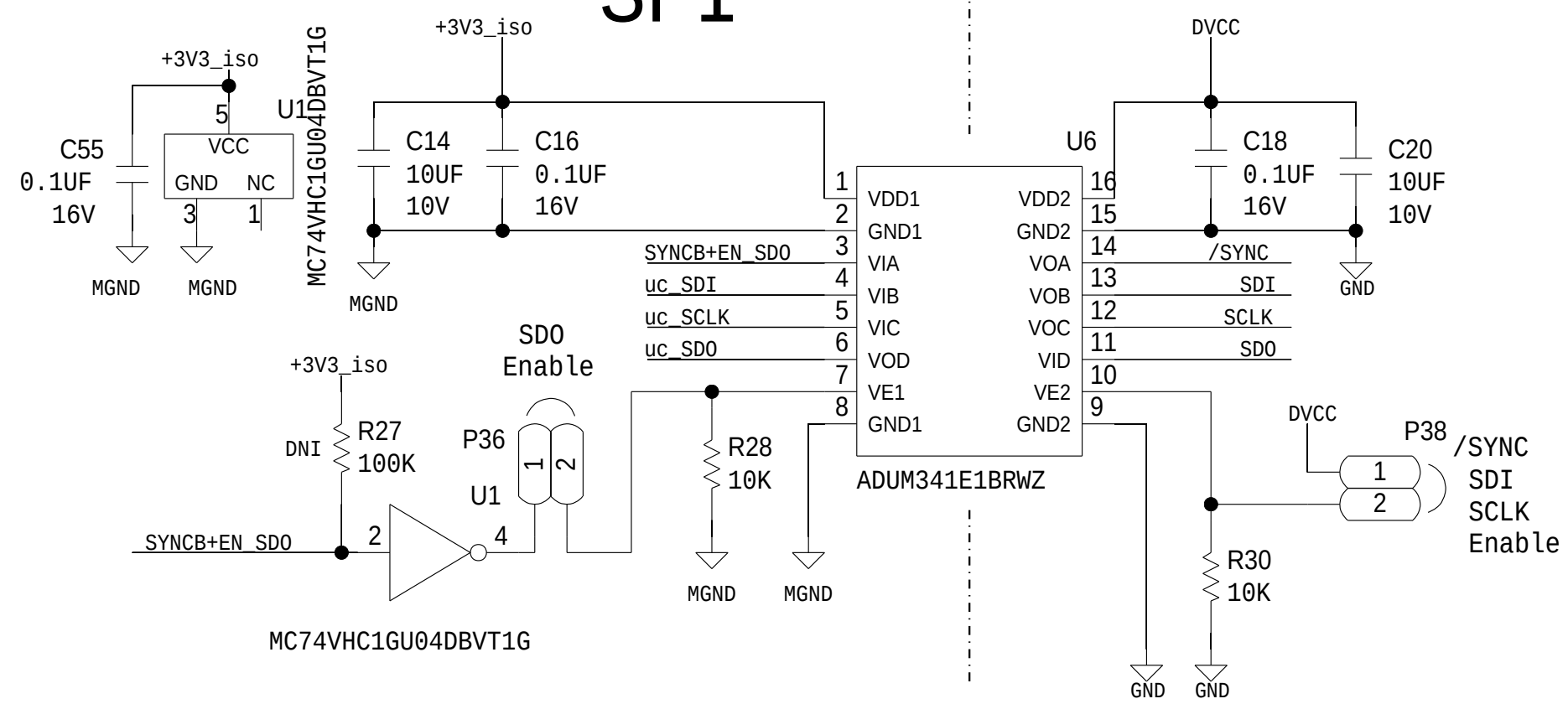
ALERT + ADC_RDY



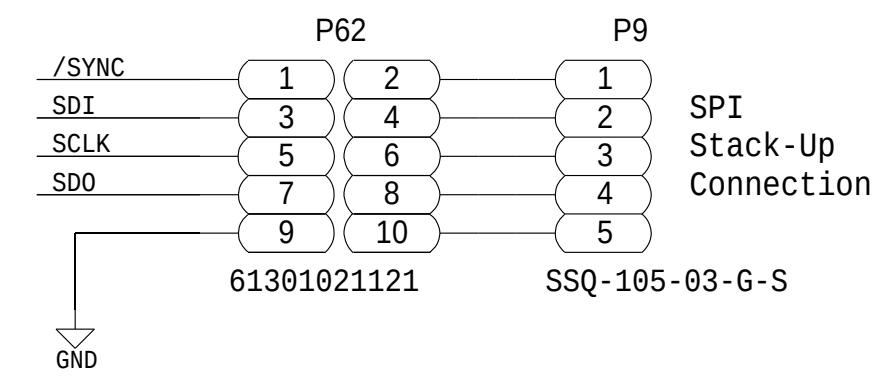
ISOLATORS DIGITAL



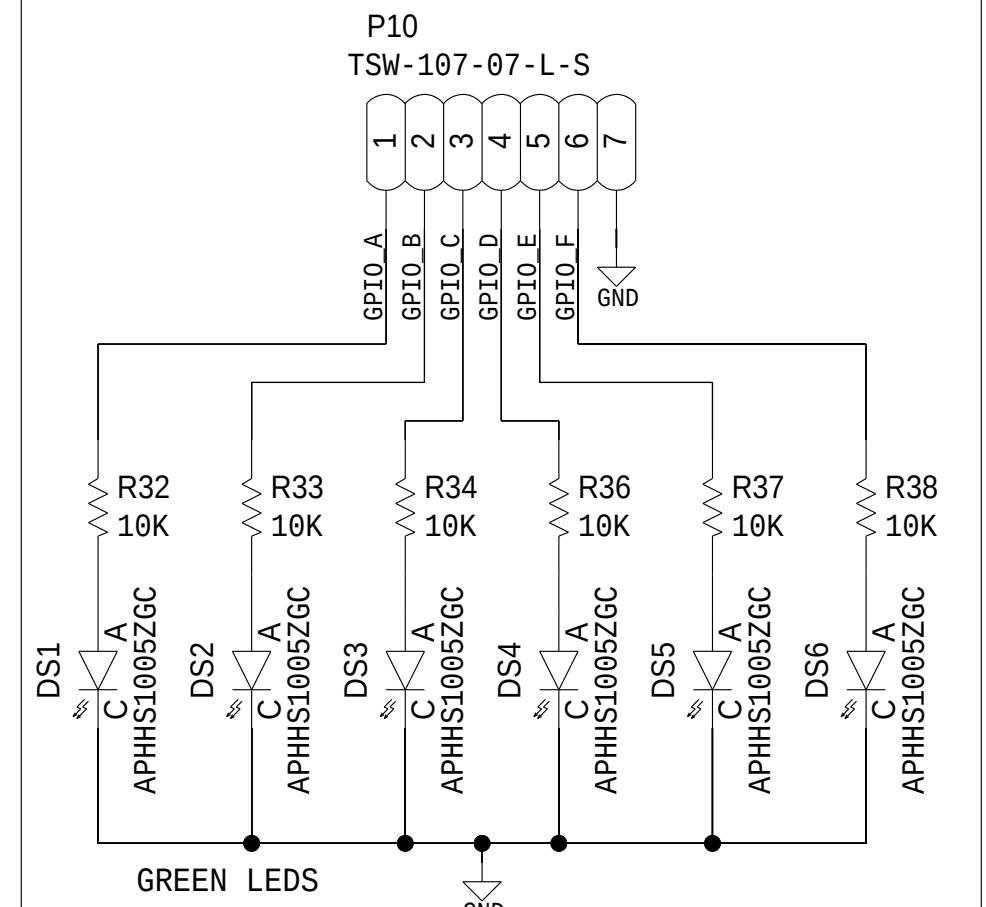
SPI



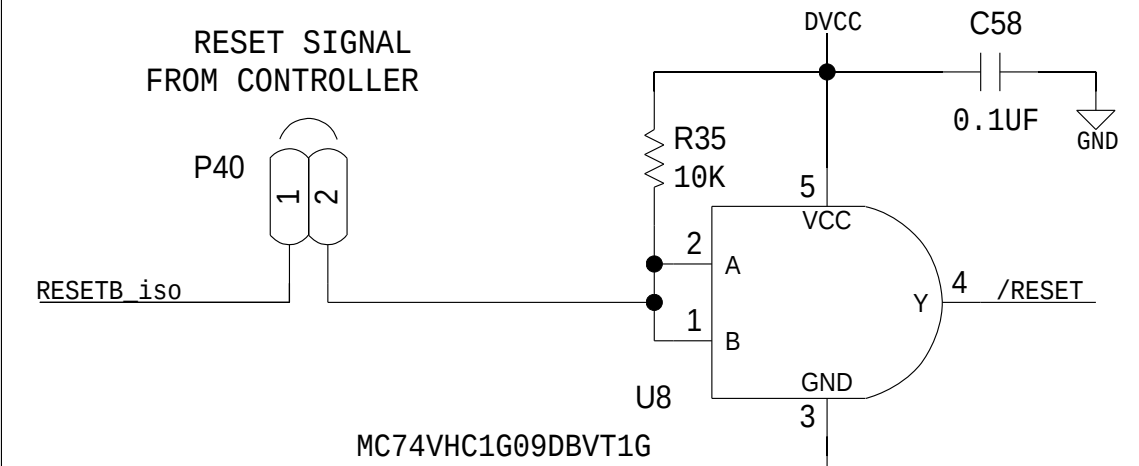
SPI CONNECTION



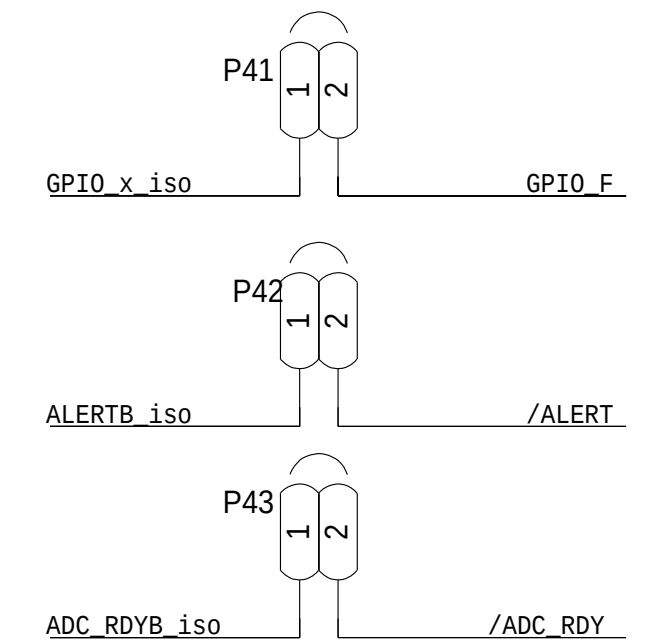
GPIO LEDS



RESET SIGNAL



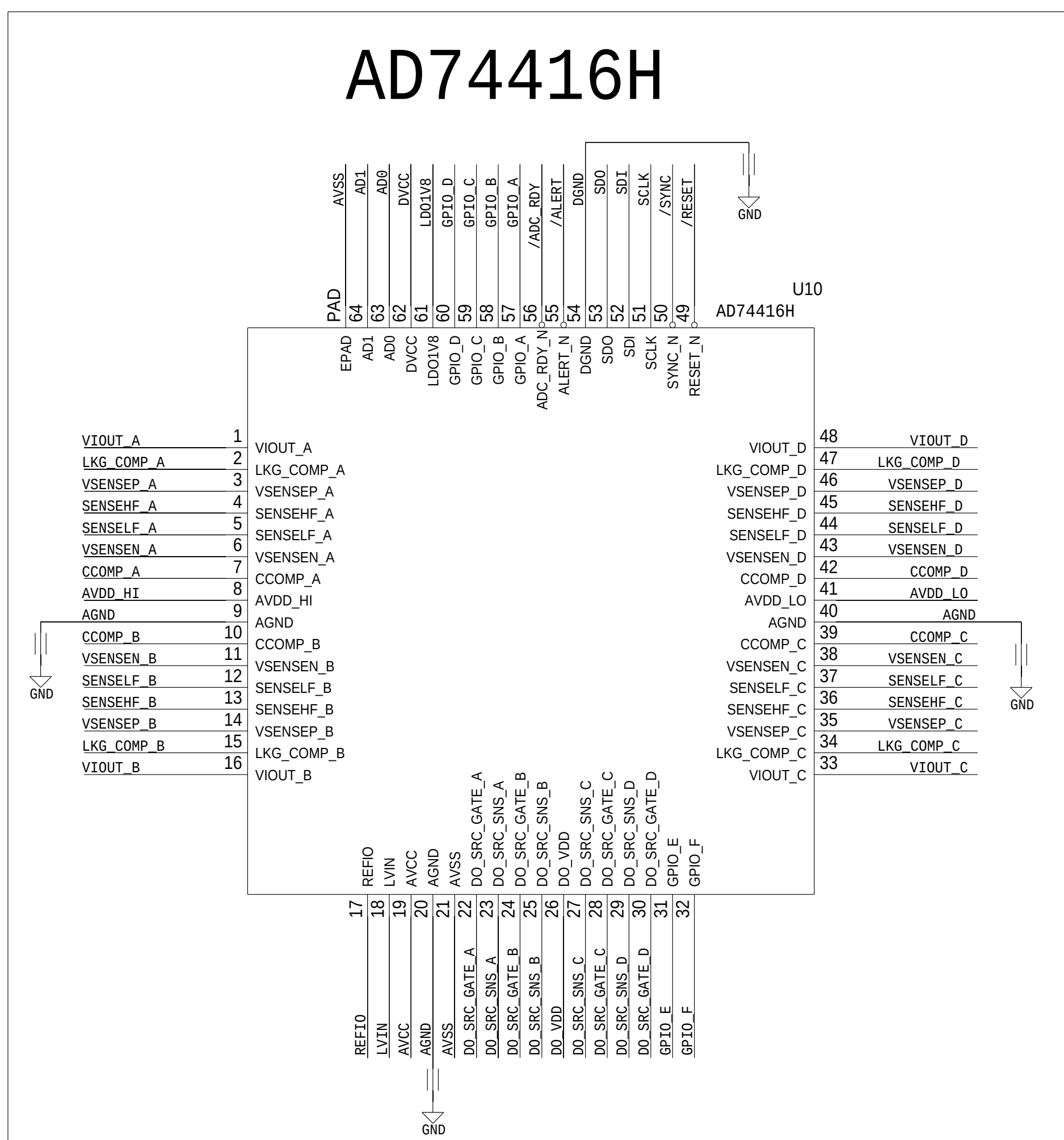
DIGITAL SIGNALS



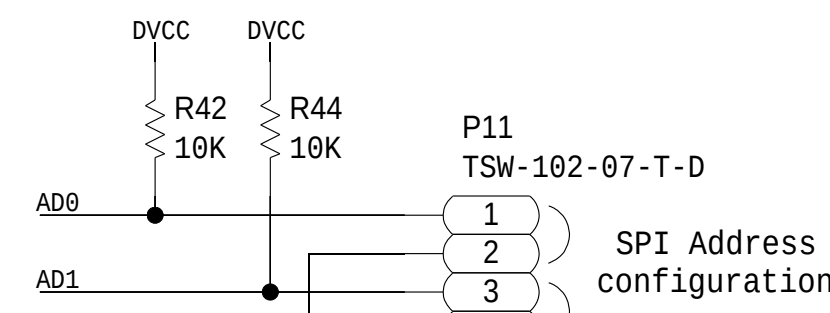
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SCHEMATIC				
HW TYPE : Customer Evaluation Z				
Product(s) : AD74416H				
: AD74414H				
DESIGN VIEW	DRAWING NO.			REV
<DESIGN_VIEW>	02_074829			C
PTD ENGINEER	SIZE	SCALE	SHEET	OF
A. PAVLIK	D	1:1	2	5

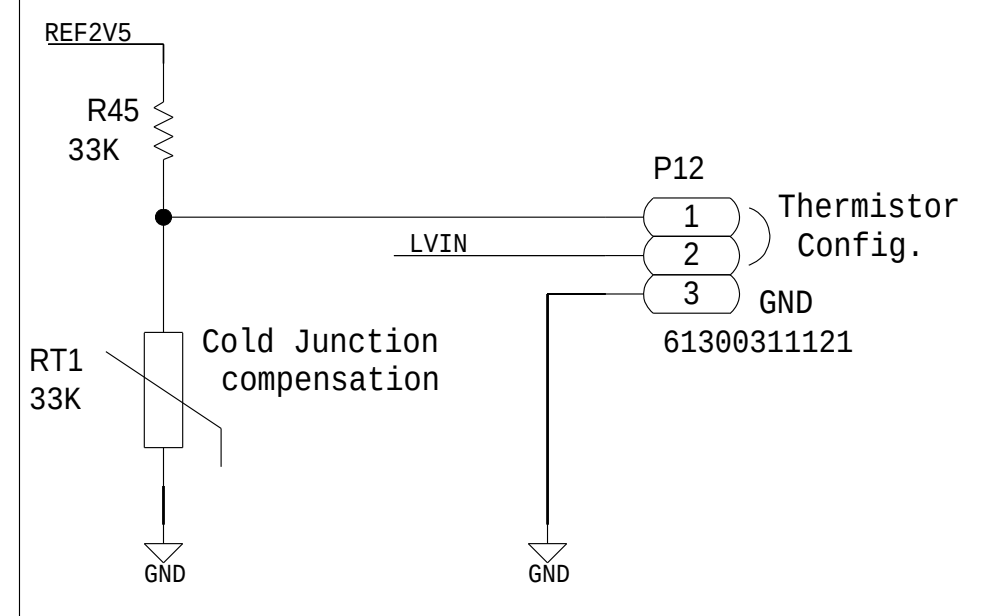
AD74416H & DECOUPLING



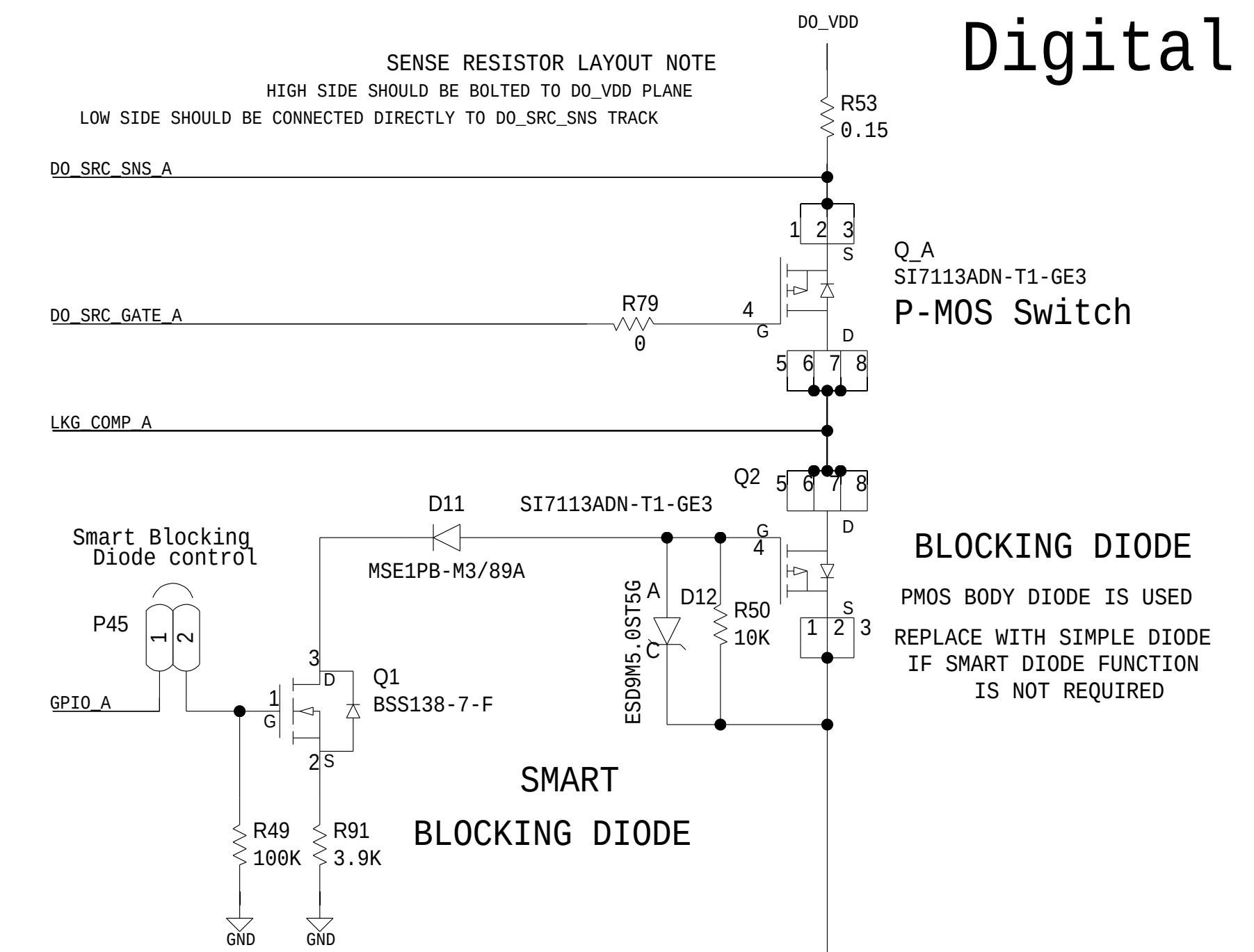
ADDRESS PINS



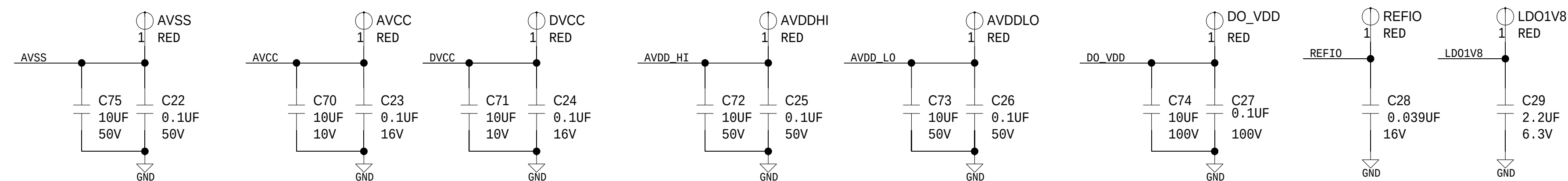
LVIN PIN



CHANNEL A

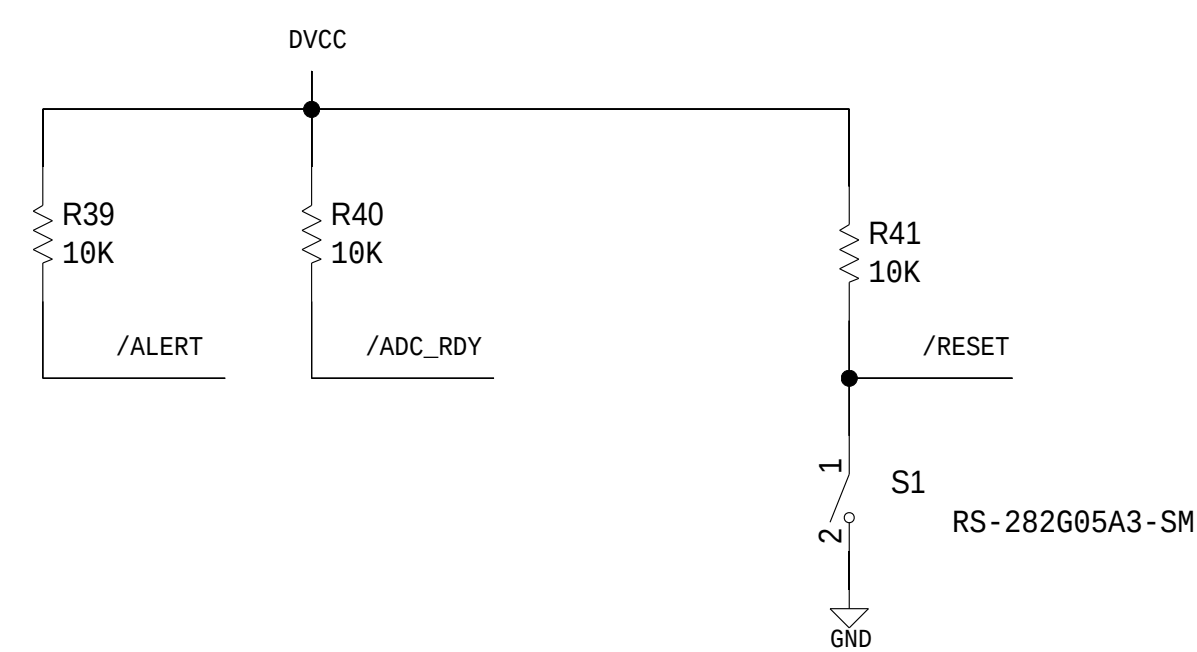


DECOUPLING CAPACITORS

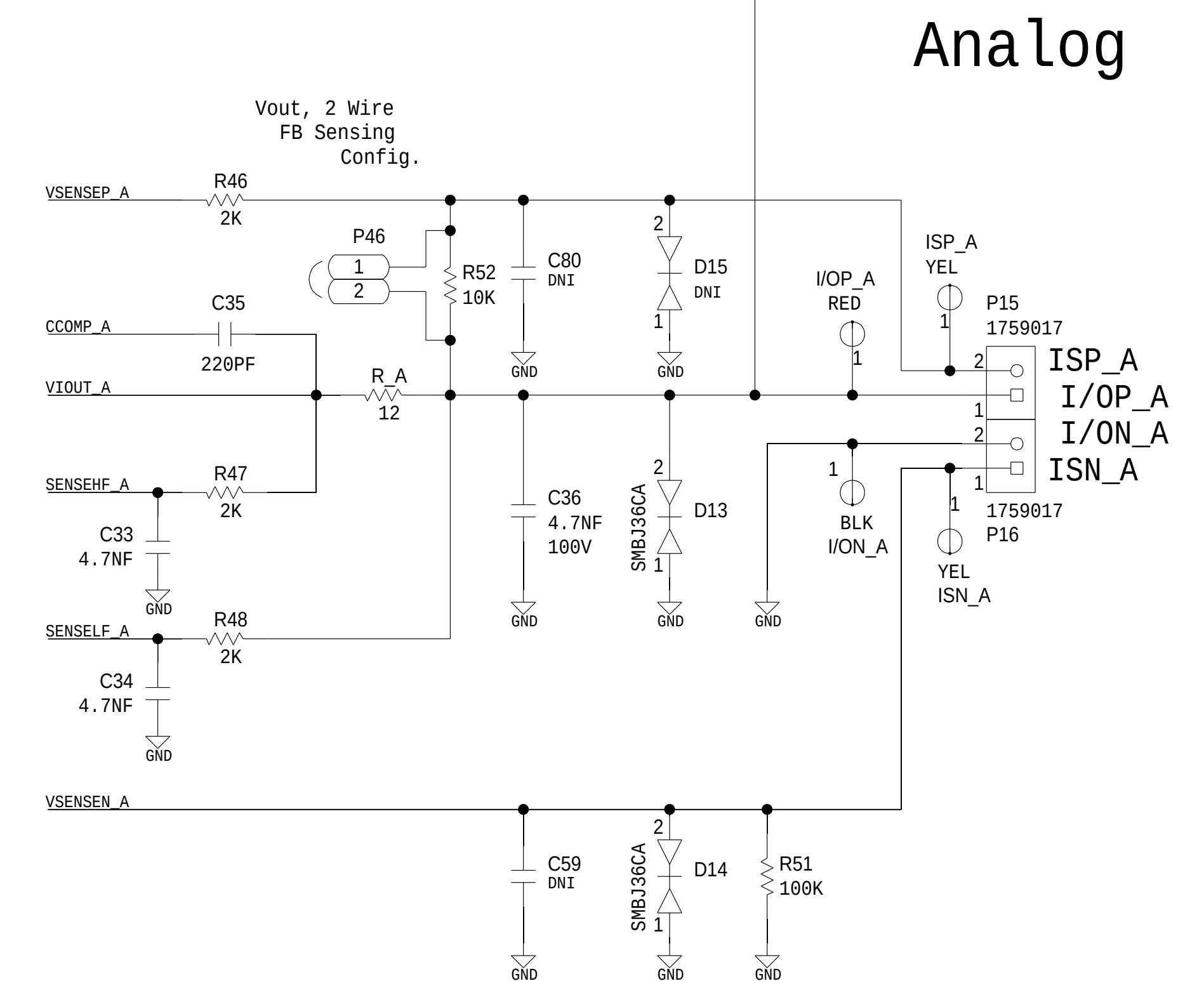
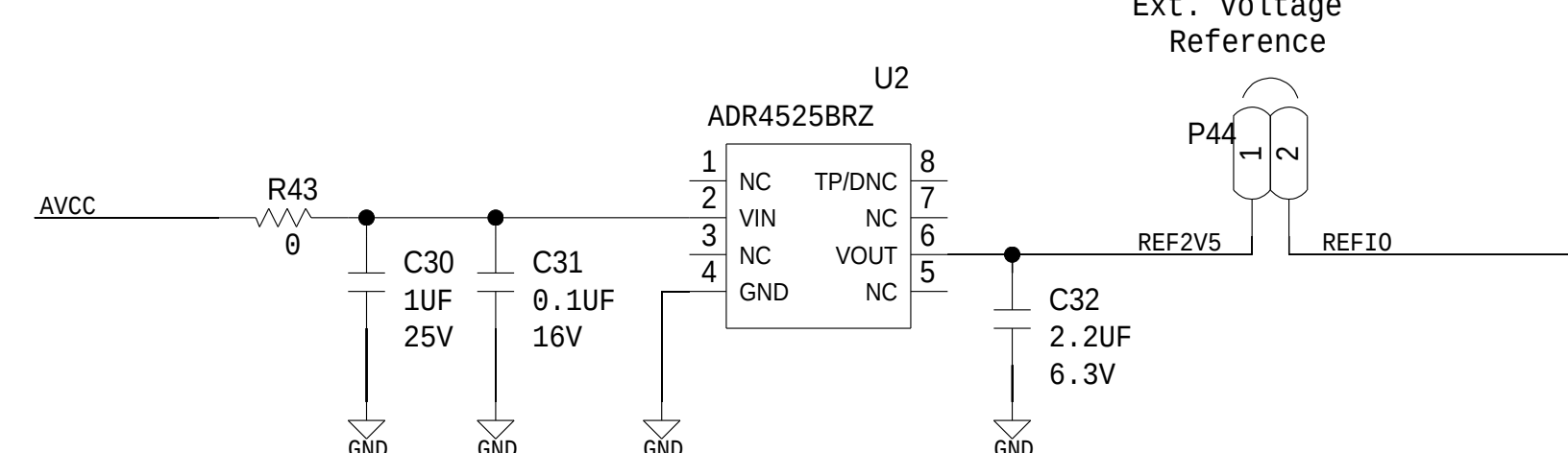


Place as close as possible to the AD7441xH pins

PULLUPS & RESET



EXTERNAL REFERENCE
2.5V

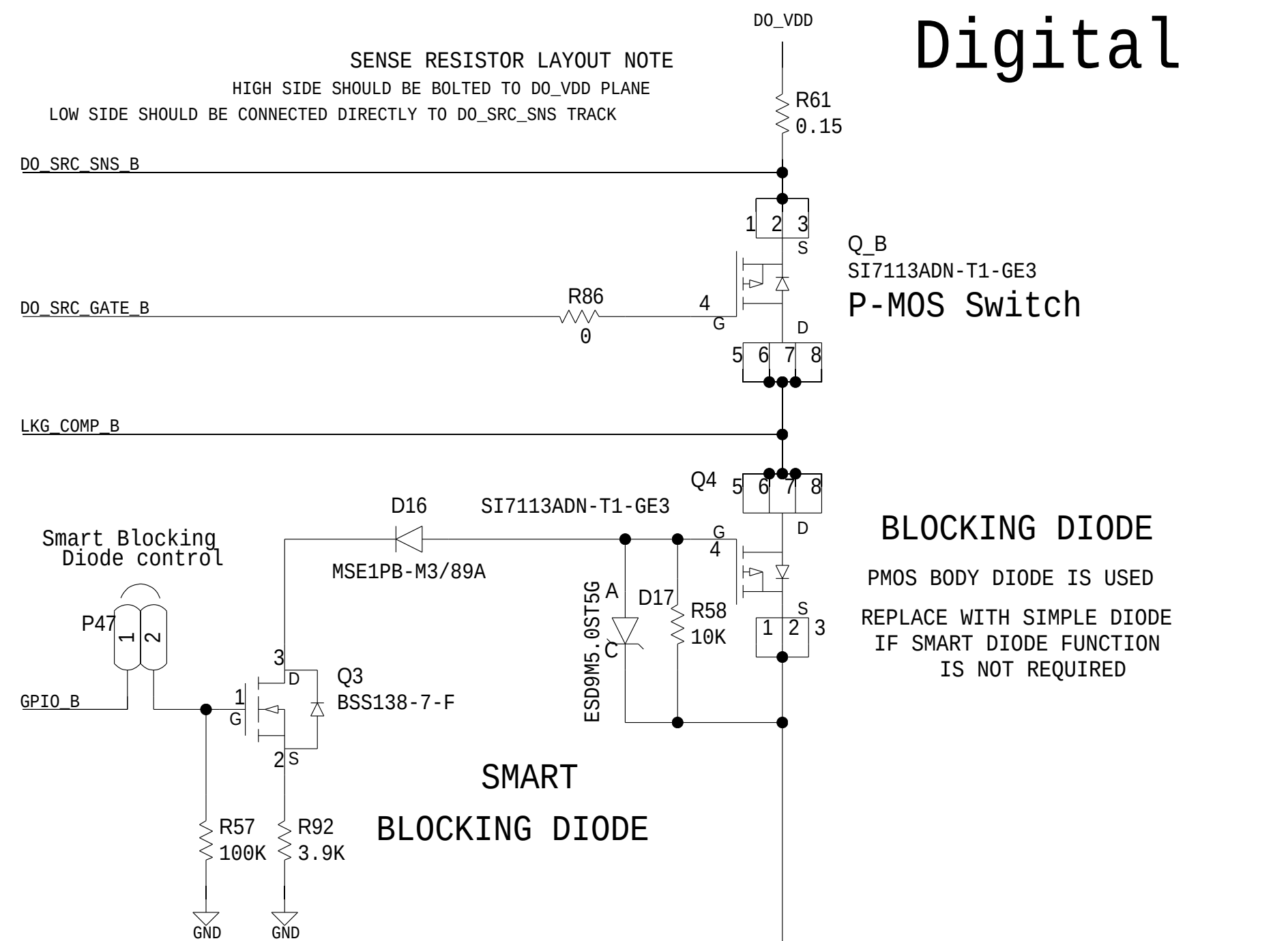


ANALOG DEVICES		SCHEMATIC			
HW TYPE : Customer Evaluation Z Product(s) : AD74416H : AD74414H					
DESIGN VIEW <DESIGN_VIEW>		DRAWING NO. 02_074829		REV C	
PTD ENGINEER A. PAVLIK		SIZE D	SCALE 1:1	SHEET 3	OF 5

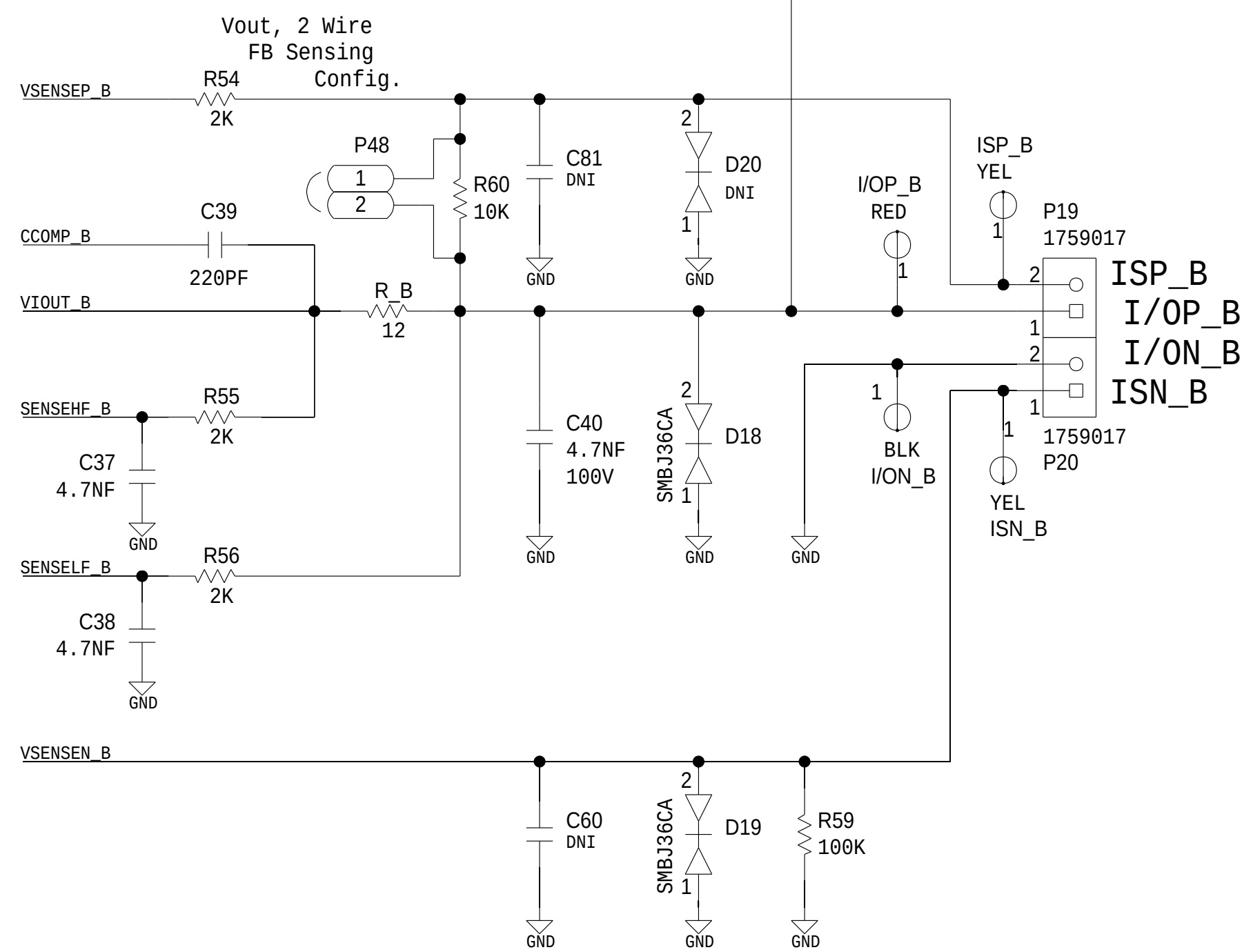
AD74416H FRONT-END

CHANNEL B

Digital

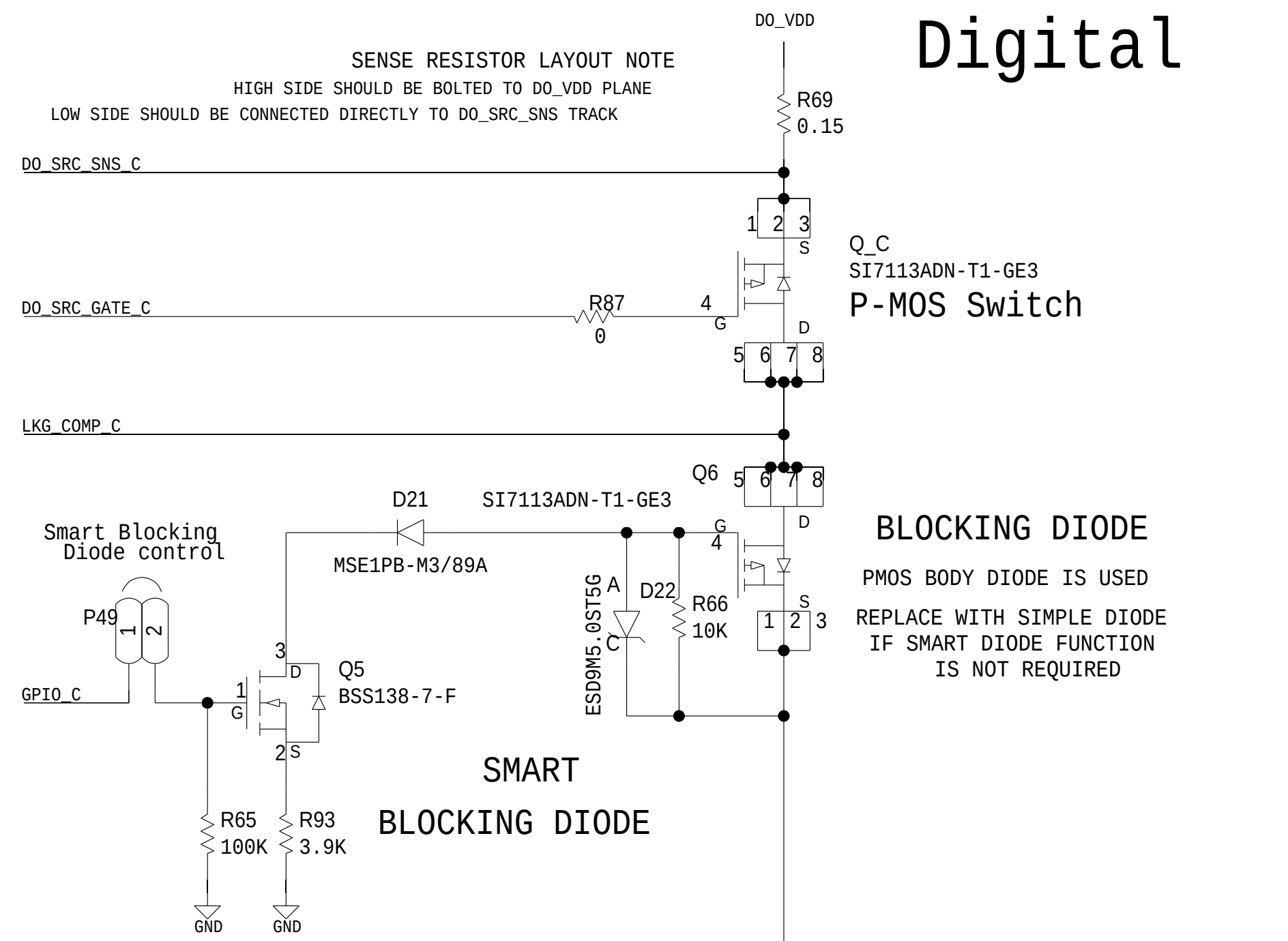


Analog

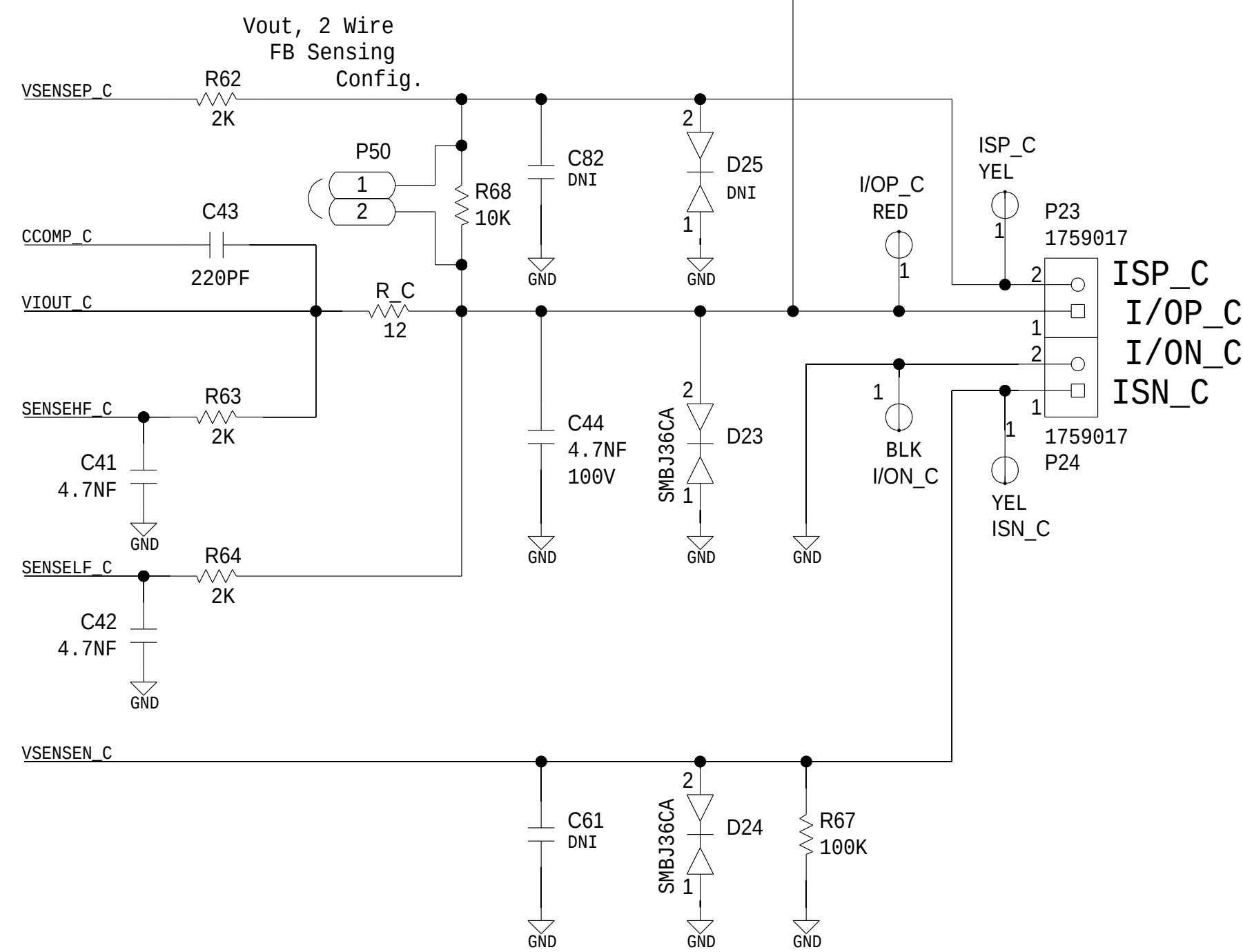


CHANNEL C

Digital

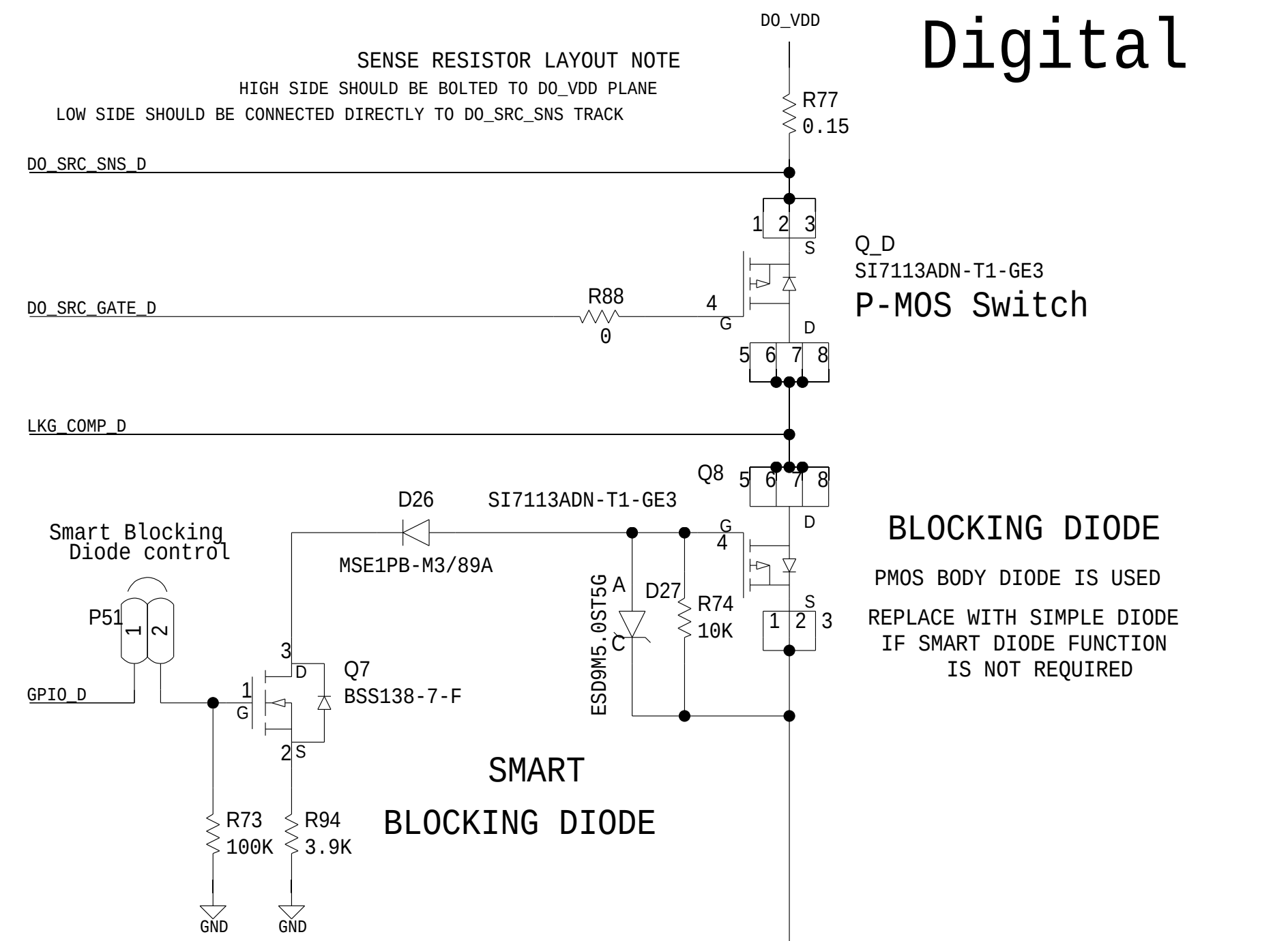


Analog

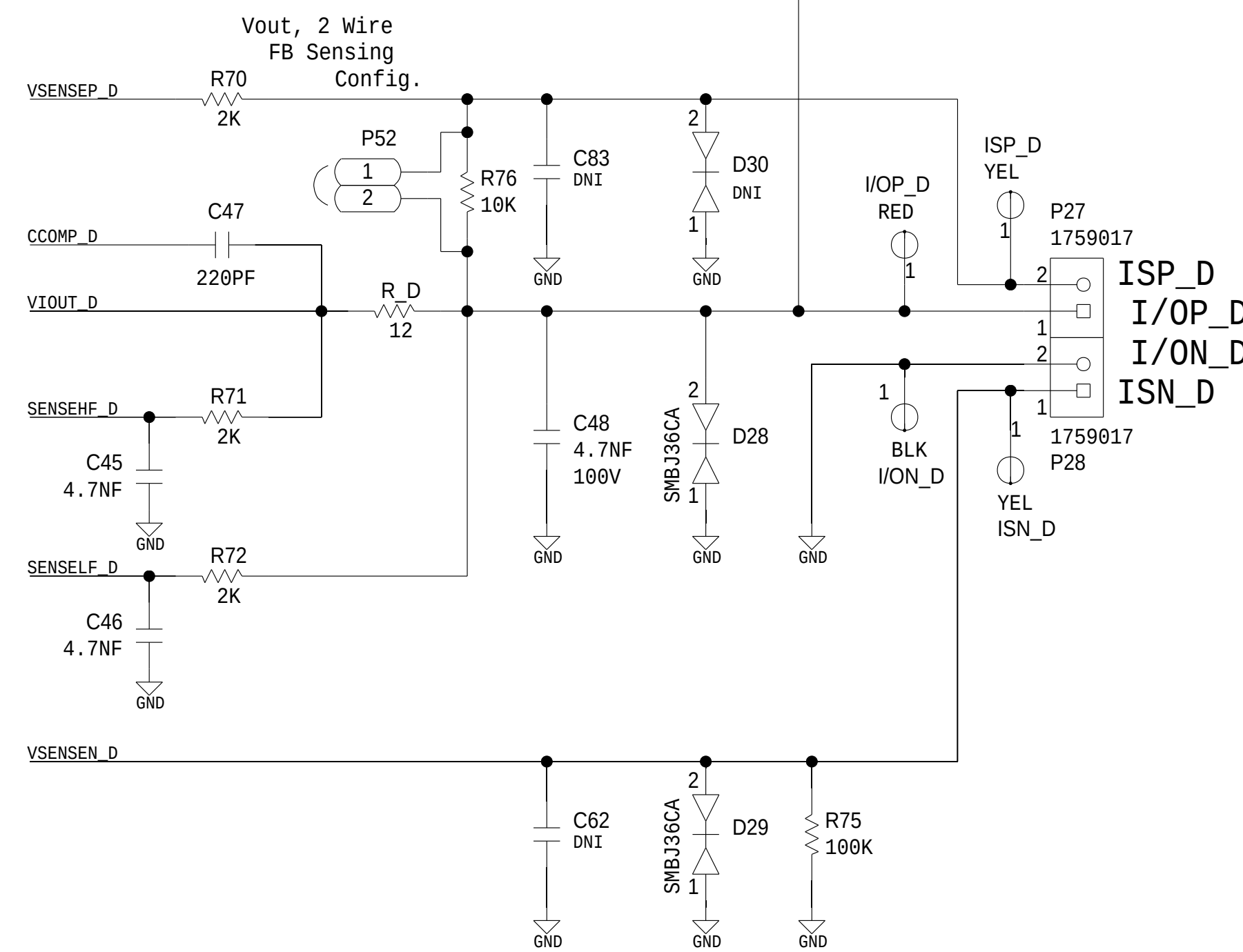


CHANNEL D

Digital



Analog



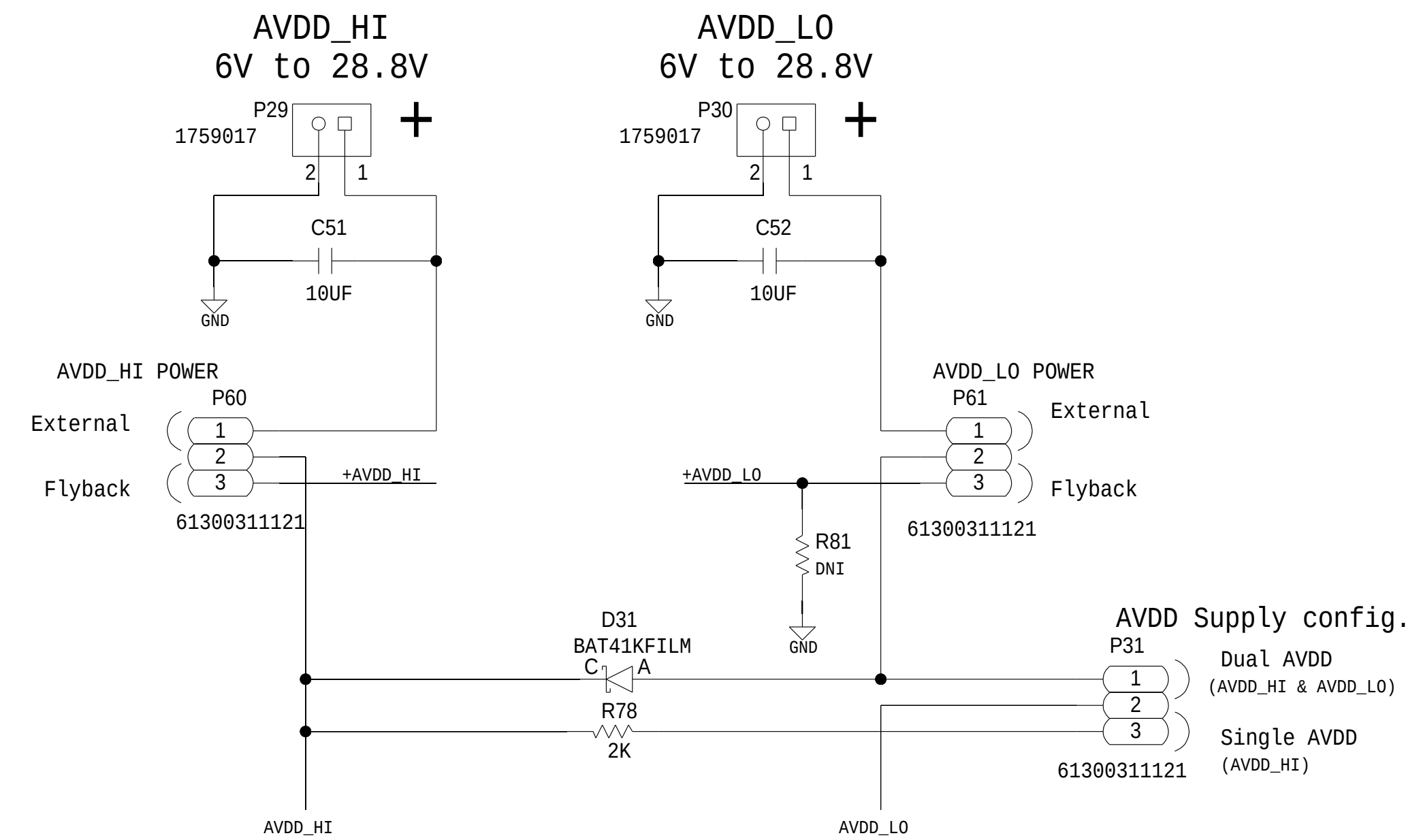
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SCHEMATIC			
HW TYPE : Customer Evaluation Z Product(s): AD74416H : AD74414H			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_074829	REV C	
PTD ENGINEER A. PAVLIK	SIZE D	SCALE 1:1	SHEET 4 OF 5

POWER SUPPLIES

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

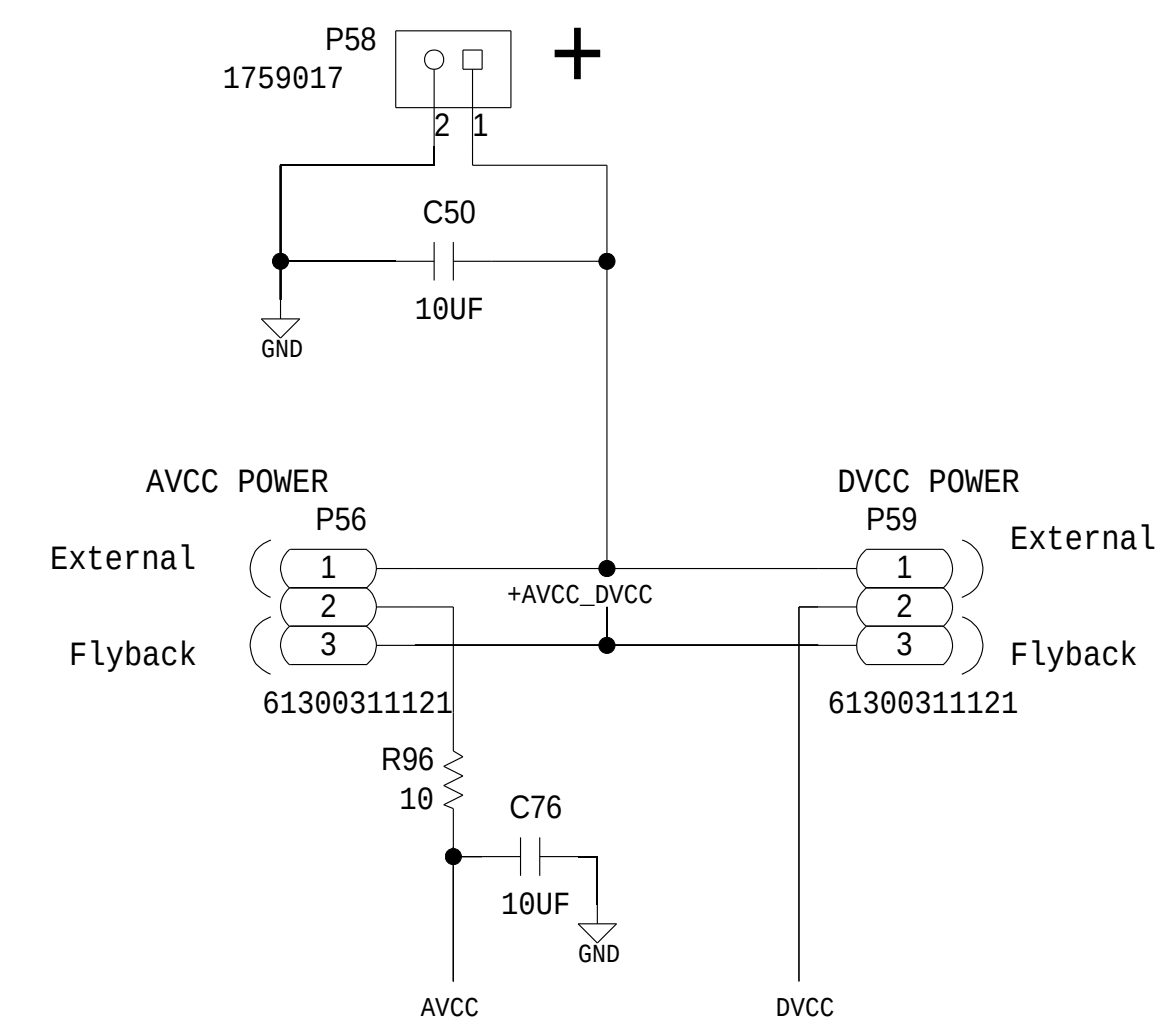
AVDD_HI & AVDD_LO



AVCC & DVCC

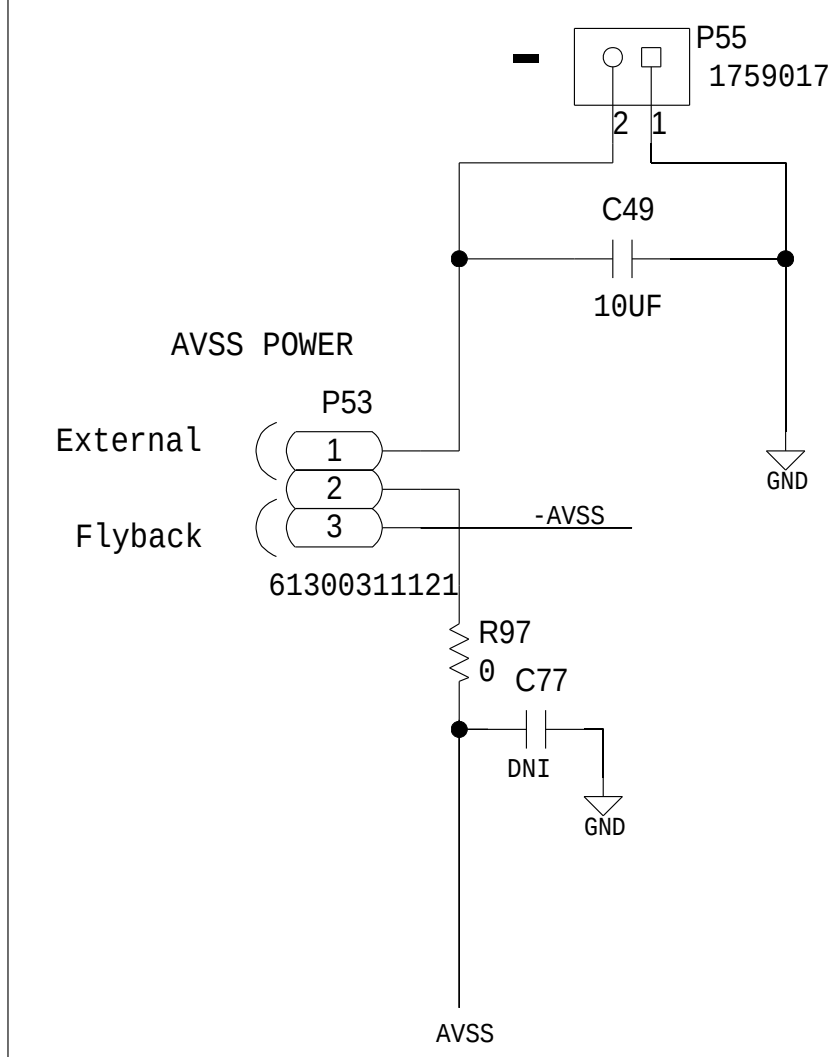
(4.5V to 5.5V) (2.7V to 5.5V)

"4.5V to 5.5V"



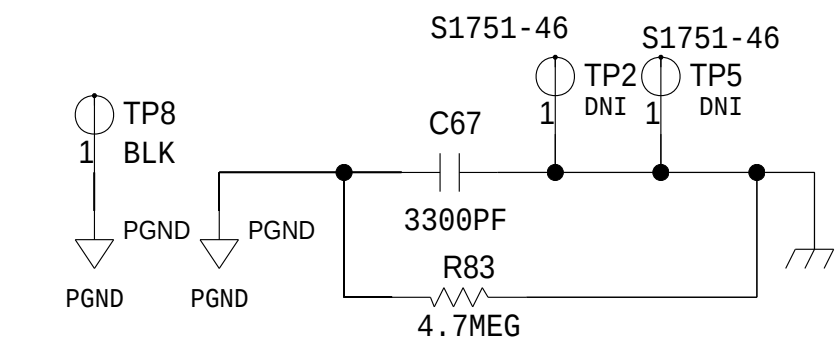
AVSS

-2.5V to -18V



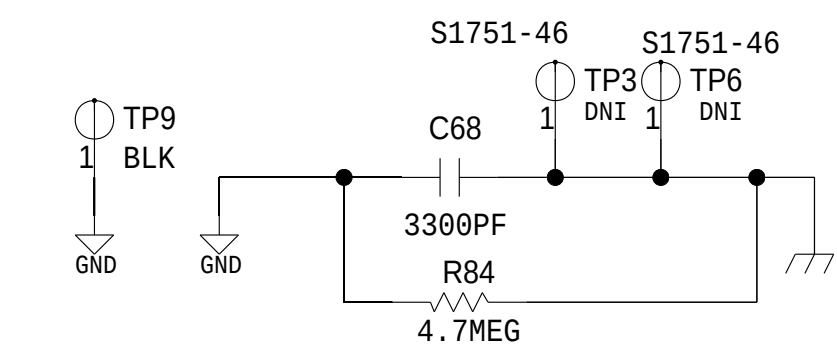
GROUNDING

PGND - Primary
Flyback Ground

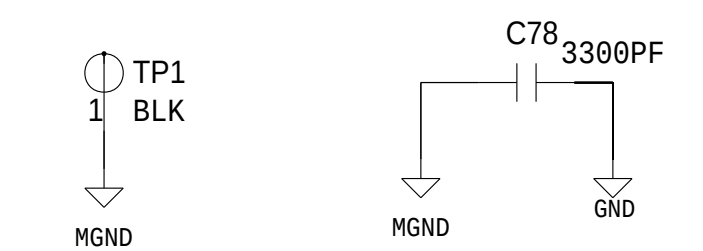


PGND AND GND IS CONNECTED VIA CAPACITOR
SEE FLYBACK POWER SOLUTION SECTION

GND - AD74416H
Front-end Ground



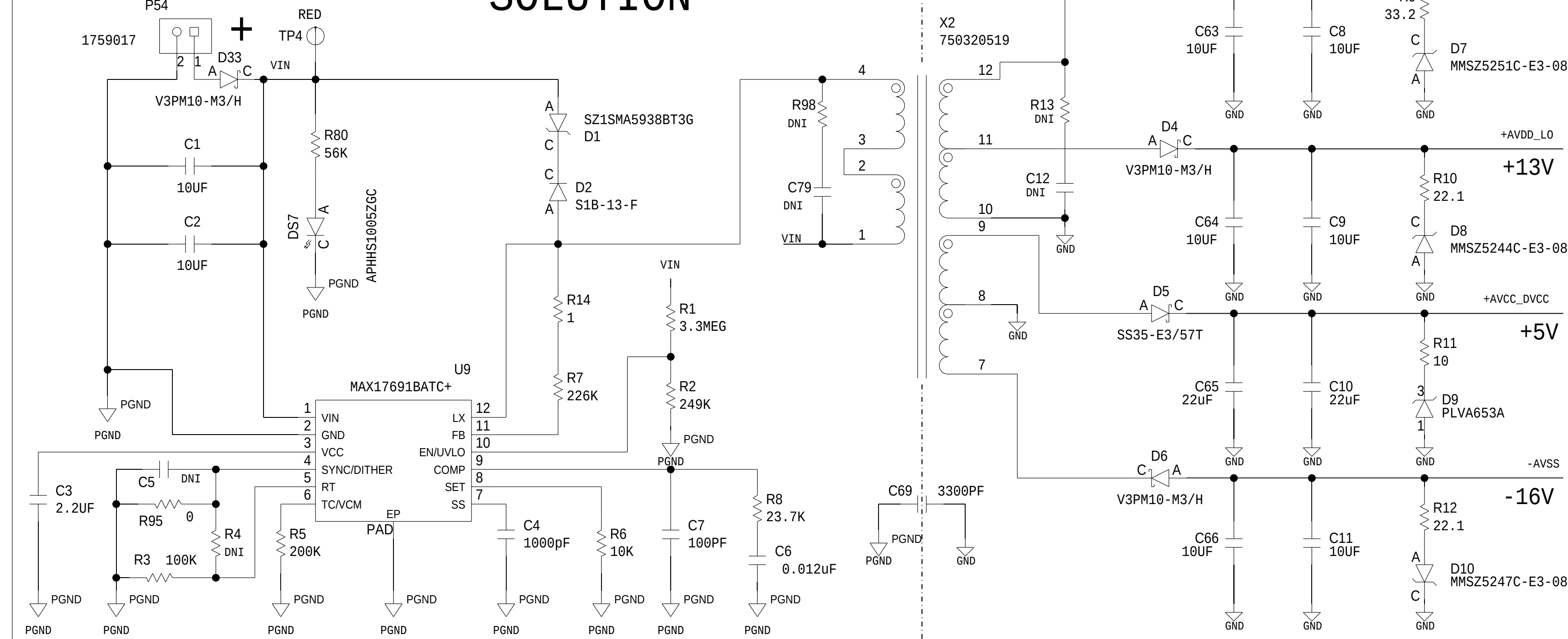
MGND - ARDUINO/PMOD
Digital interface
ground, see page 2



VIN

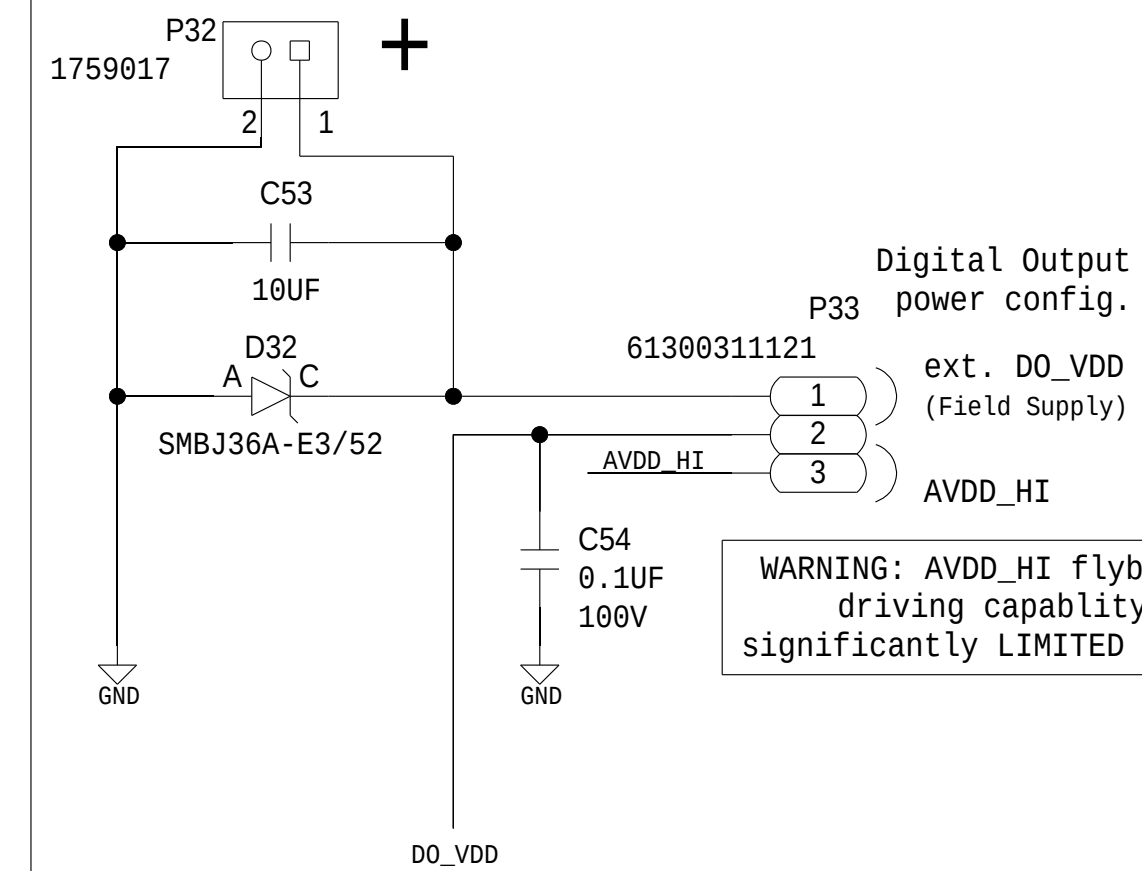
24V
(19.8V TO 28.8V)

FLYBACK POWER SOLUTION



DO_VDD

10V to 35V



WARNING: AVDD_HI flyback driving capability is significantly LIMITED <100mA



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SCHEMATIC

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HW TYPE      : Customer Evaluation Z
Product(s)   : AD74416H
              : AD74414H
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DESIGN VIEW	<DESIGN_VIEW>
PTD ENGINEER	A. PAVITK

DRAWING NO.	02 074829
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SIZE D	SCALE 1:1	SHEET 5 OF 5
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