

8 7 6 5 4 3 2 1

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	07APR22	R. WHITNEY
B	CHANGES AS PER ECR-109621	04OCT22	R. WHITNEY
C	CHANGES AS PER ECR-113566	11APR23	R. WHITNEY
D	CHANGES AS PER ECR-115079	08AUG23	R. WHITNEY

# EVAL-AD2437A1MZ

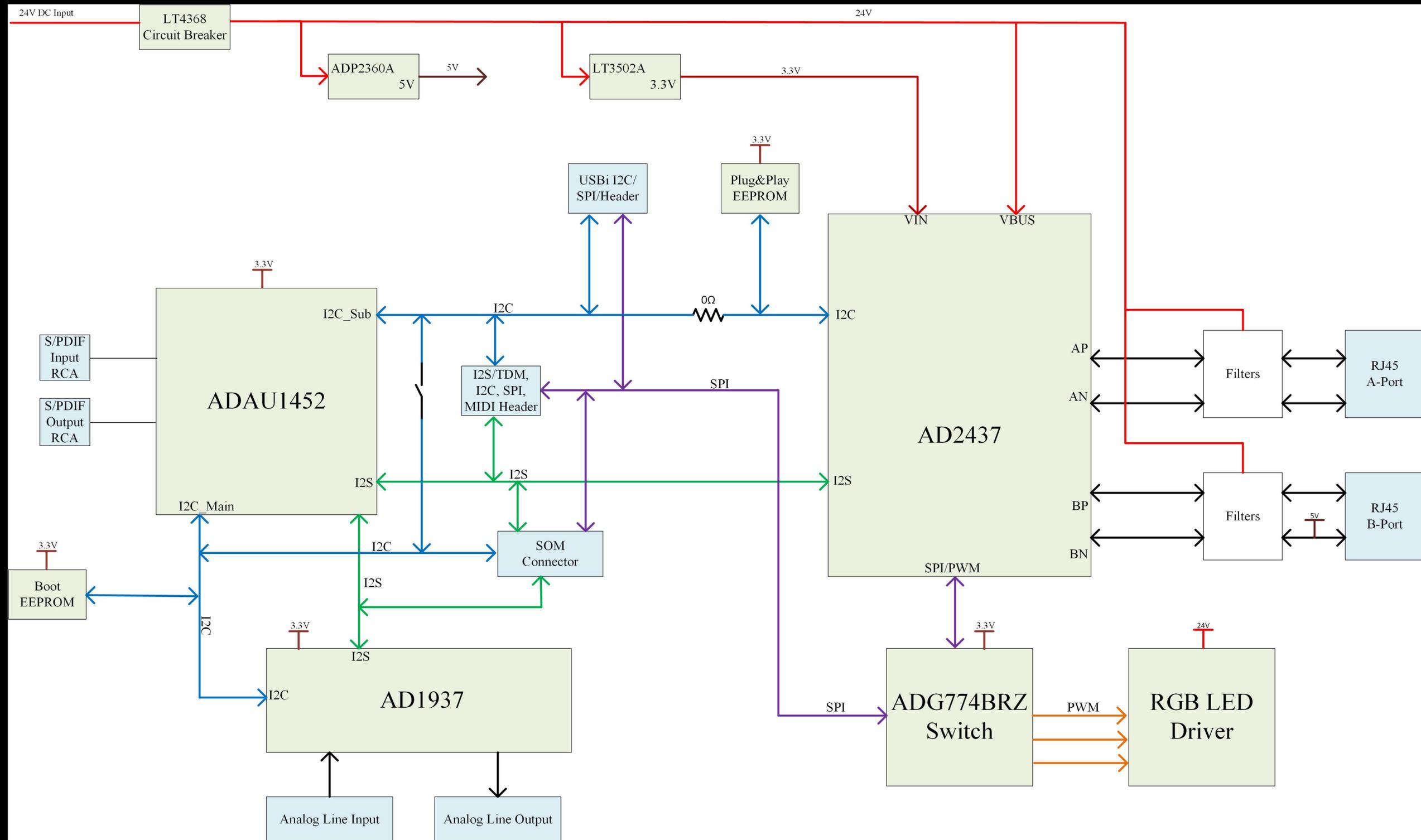
## RJ45 MAIN/LOCAL-POWERED SUB-NODE

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

TEMPLATE ENGINEER -	DATE	<b>SCHEMATIC</b>		
HARDWARE SERVICES M. VALE	07APR22			
HARDWARE SYSTEMS -		HW TYPE : Customer Evaluation Z		
TEST ENGINEER -		Product(s): AD2437 : N/A		
COMPONENT ENGINEER A. GIRON	07APR22	PACKAGE : LeadCount-lead BodySize PackageType-family : Pitch-pitch StyleVendor Style		
TEST PROCESS -		<User Define>		
HARDWARE RELEASE K. JABATAN	07APR22	<User Define>		
DESIGNER R. PLANADA	07APR22	MASTER PROJECT TEMPLATE TBD	TESTER TEMPLATE no_template	DRAWING NO. 02_067221
PTD ENGINEER R. WHITNEY	07APR22	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		REV. D
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 13

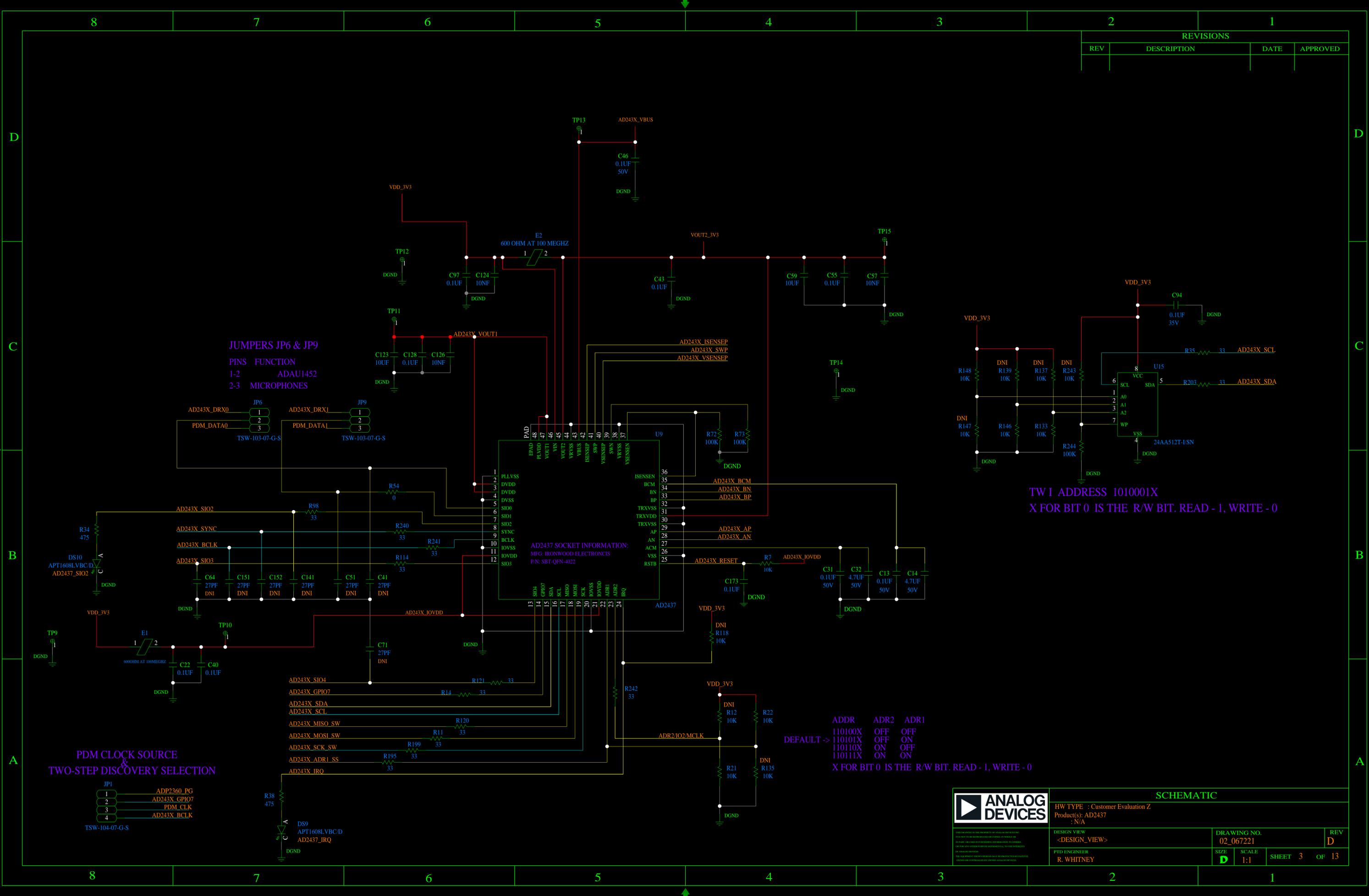
8 7 6 5 4 3 2 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



	<b>SCHEMATIC</b>		
	HW TYPE : Customer Evaluation Z Product(s): AD2437 : N/A		
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_067221	REV D	
PTD ENGINEER R. WHITNEY	SIZE D	SCALE 1:1	SHEET 2 OF 13

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



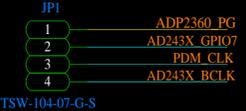
**JUMPERS JP6 & JP9**  
 PINS FUNCTION  
 1-2 ADAU1452  
 2-3 MICROPHONES



**AD2437 SOCKET INFORMATION:**  
 MFG: IRONWOOD ELECTRONICS  
 P/N: SBT-QFN-4022

TWI ADDRESS 1010001X  
 X FOR BIT 0 IS THE R/W BIT. READ - 1, WRITE - 0

**PDM CLOCK SOURCE & TWO-STEP DISCOVERY SELECTION**

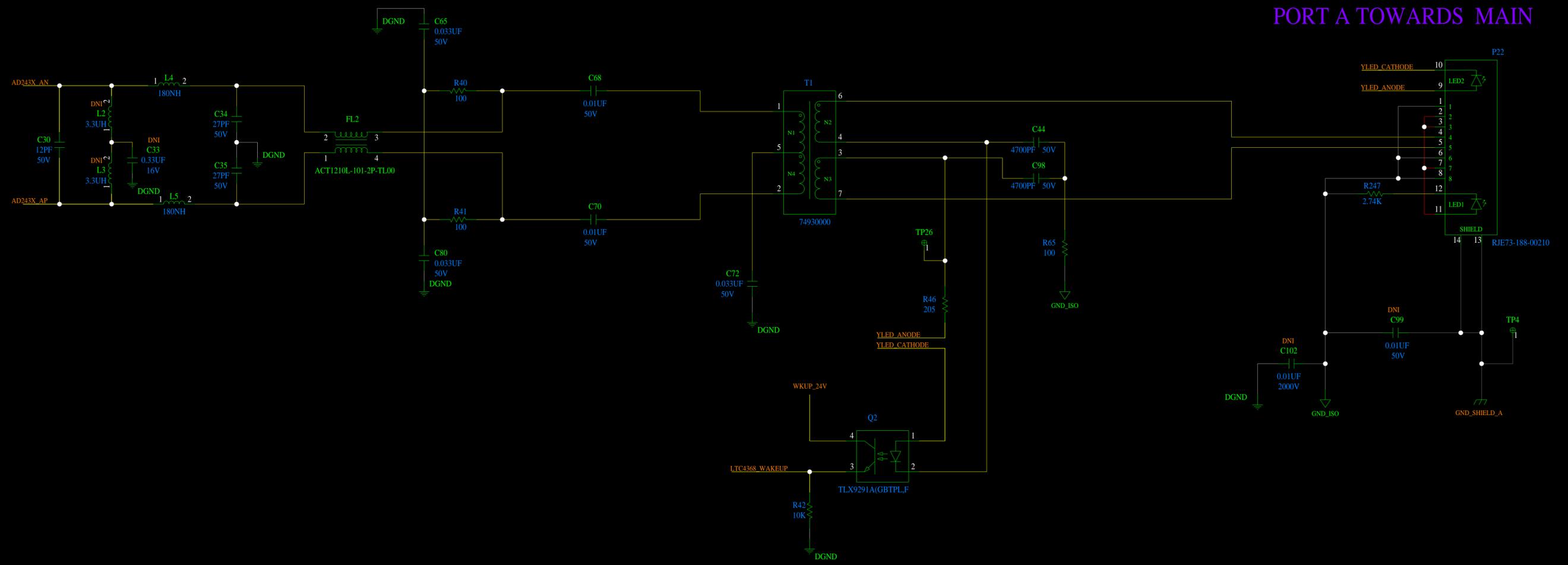


ADDR ADR2 ADR1  
 110100X OFF OFF  
 110101X OFF ON  
 110110X ON OFF  
 110111X ON ON  
 X FOR BIT 0 IS THE R/W BIT. READ - 1, WRITE - 0



<b>SCHEMATIC</b>			
HW TYPE : Customer Evaluation Z			
Product(s): AD2437			
: N/A			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_067221	REV D	
PTD ENGINEER R. WHITNEY	SIZE D	SCALE 1:1	SHEET 3 OF 13

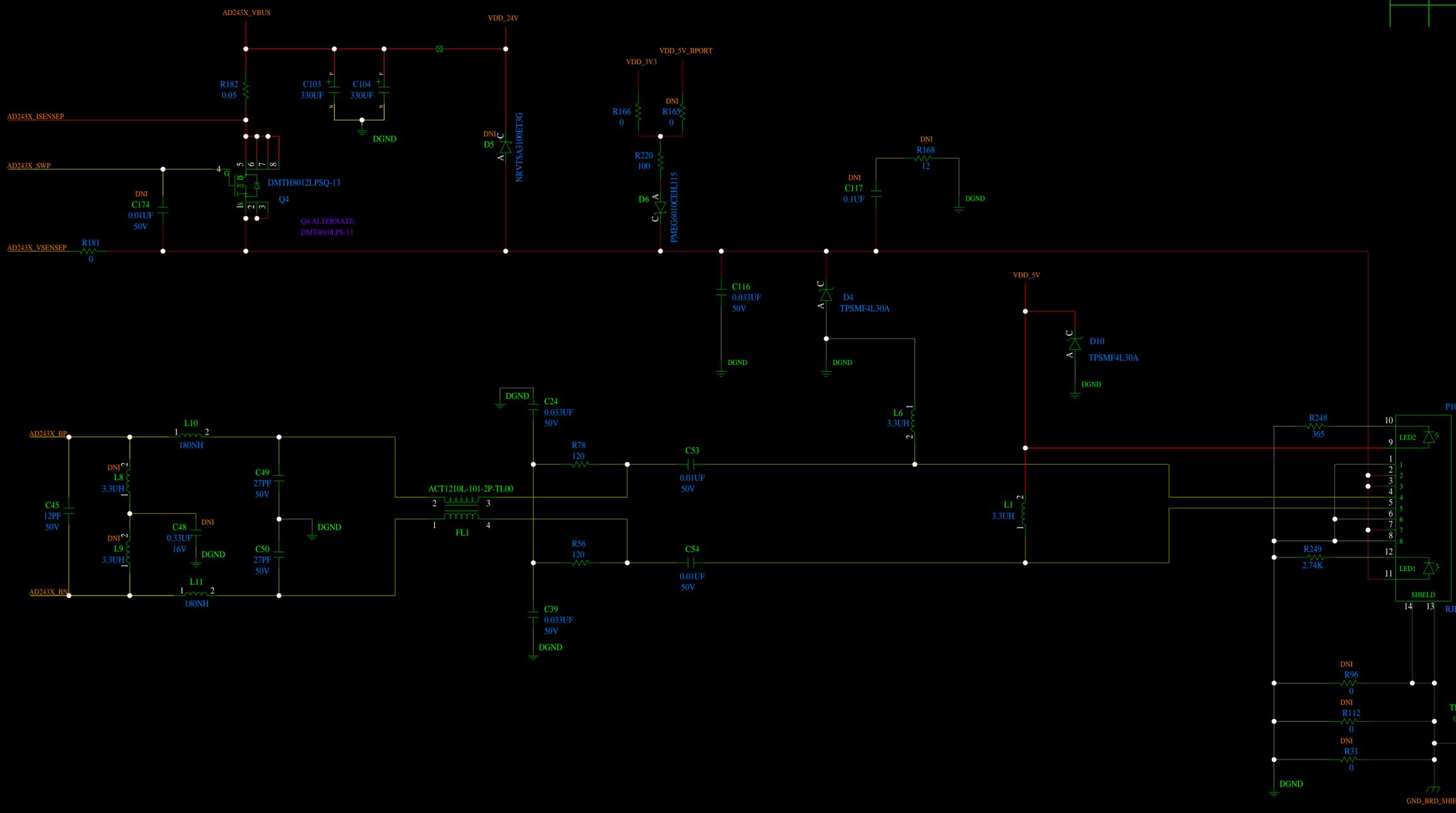
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



PORT A TOWARDS MAIN

	<b>SCHEMATIC</b>		
	HW TYPE : Customer Evaluation Z Product(s): AD2437 ; N/A		
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_067221	REV D	
PTD ENGINEER R. WHITNEY	SIZE D	SCALE 1:1	SHEET 4 OF 13

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

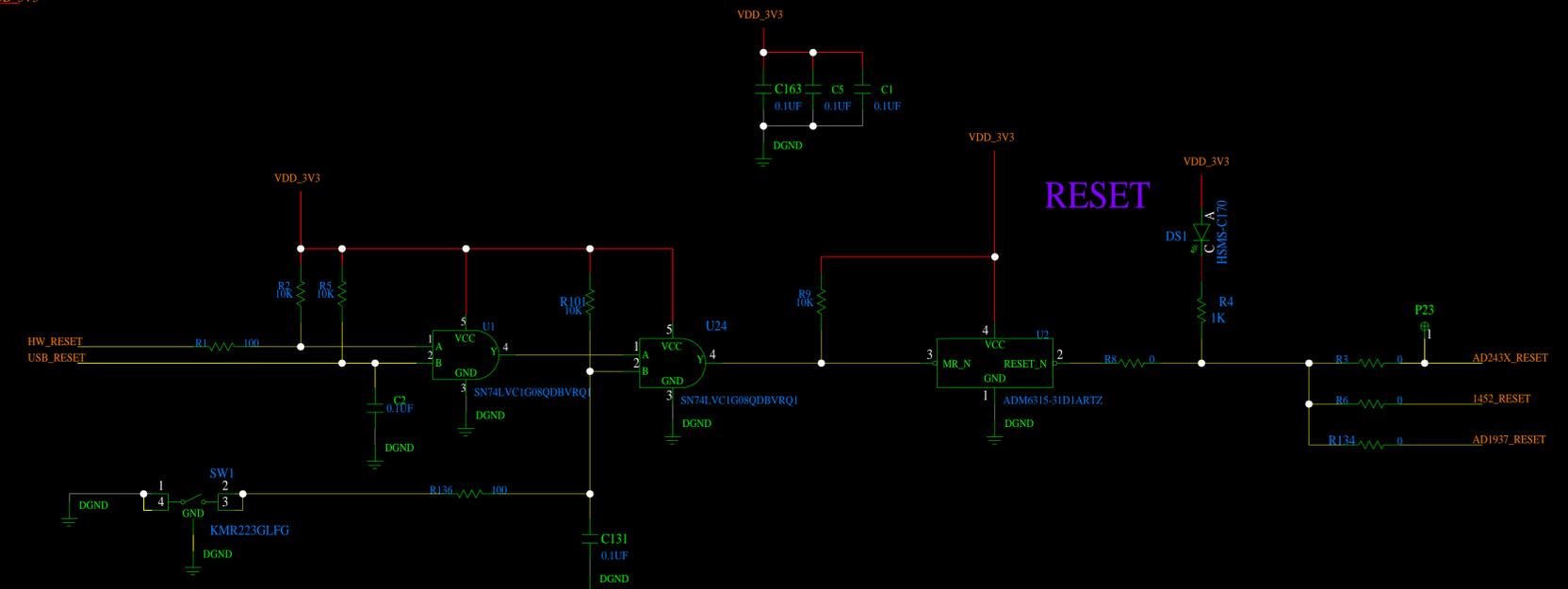
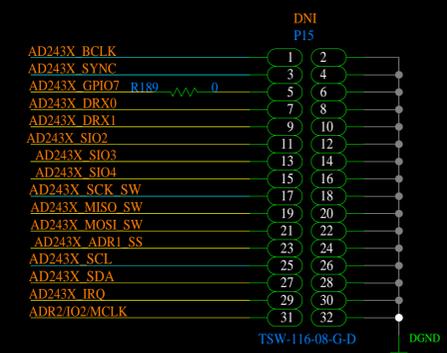
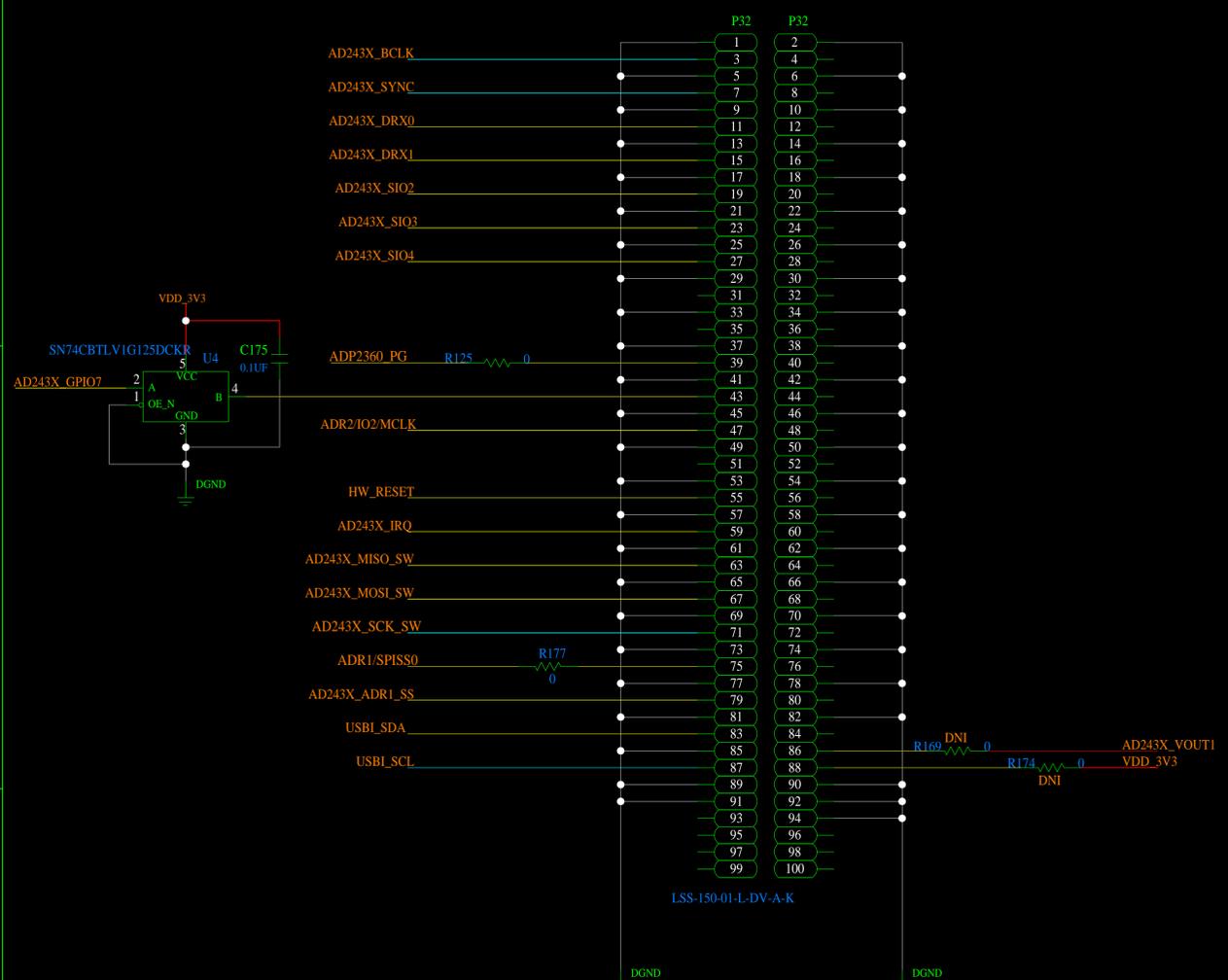


PORT B TOWARDS SUB

	<b>SCHEMATIC</b>		
	HW TYPE : Customer Evaluation Z Product(s): AD2437 ; N/A		
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_067221	REV D	
PTD ENGINEER R. WHITNEY	SIZE D	SCALE 1:1	SHEET 5 OF 13

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

A2B CONNECTOR



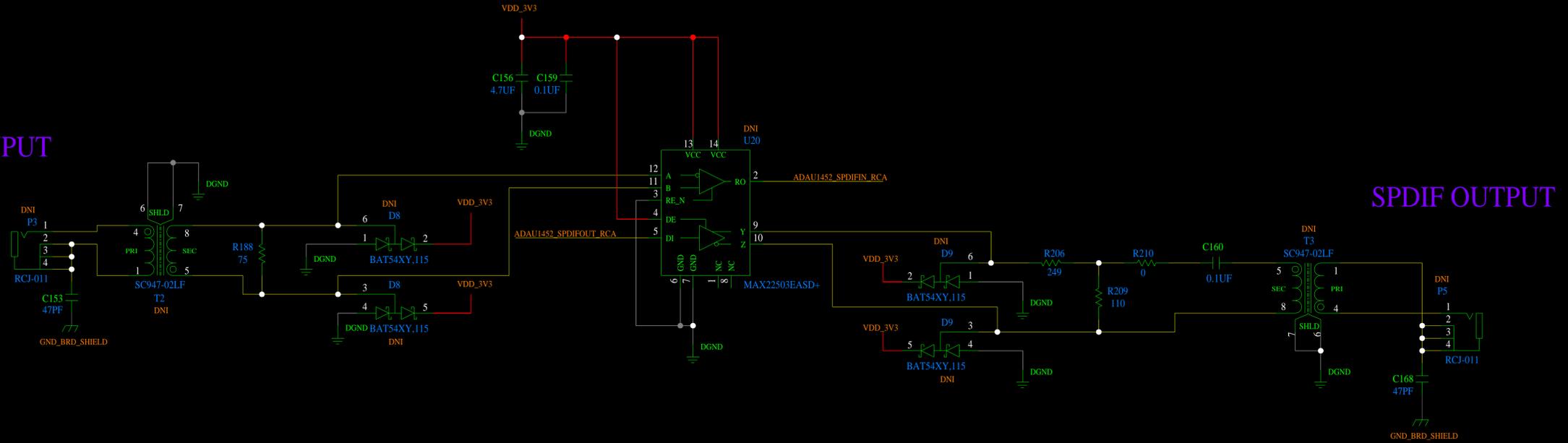
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	HW TYPE : Customer Evaluation Z Product(s): AD2437 ; N/A		
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_067221	REV D	
PTD ENGINEER R. WHITNEY	SIZE D	SCALE 1:1	SHEET 6 OF 13



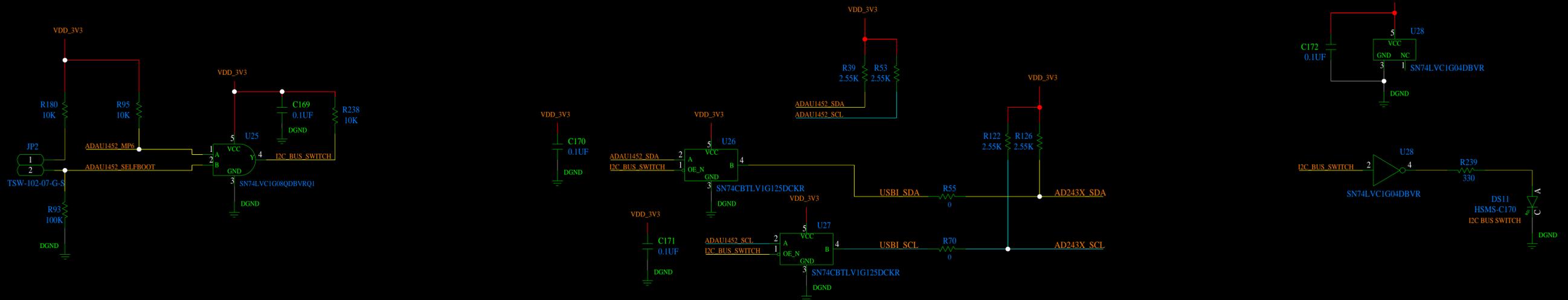
# SPDIF ALTERNATE CIRCUIT

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

## SPDIF INPUT



## ADAU1452 I2C BUS SWITCH



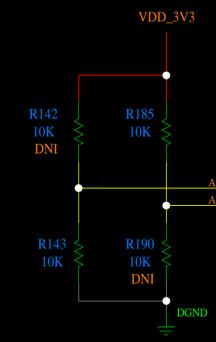
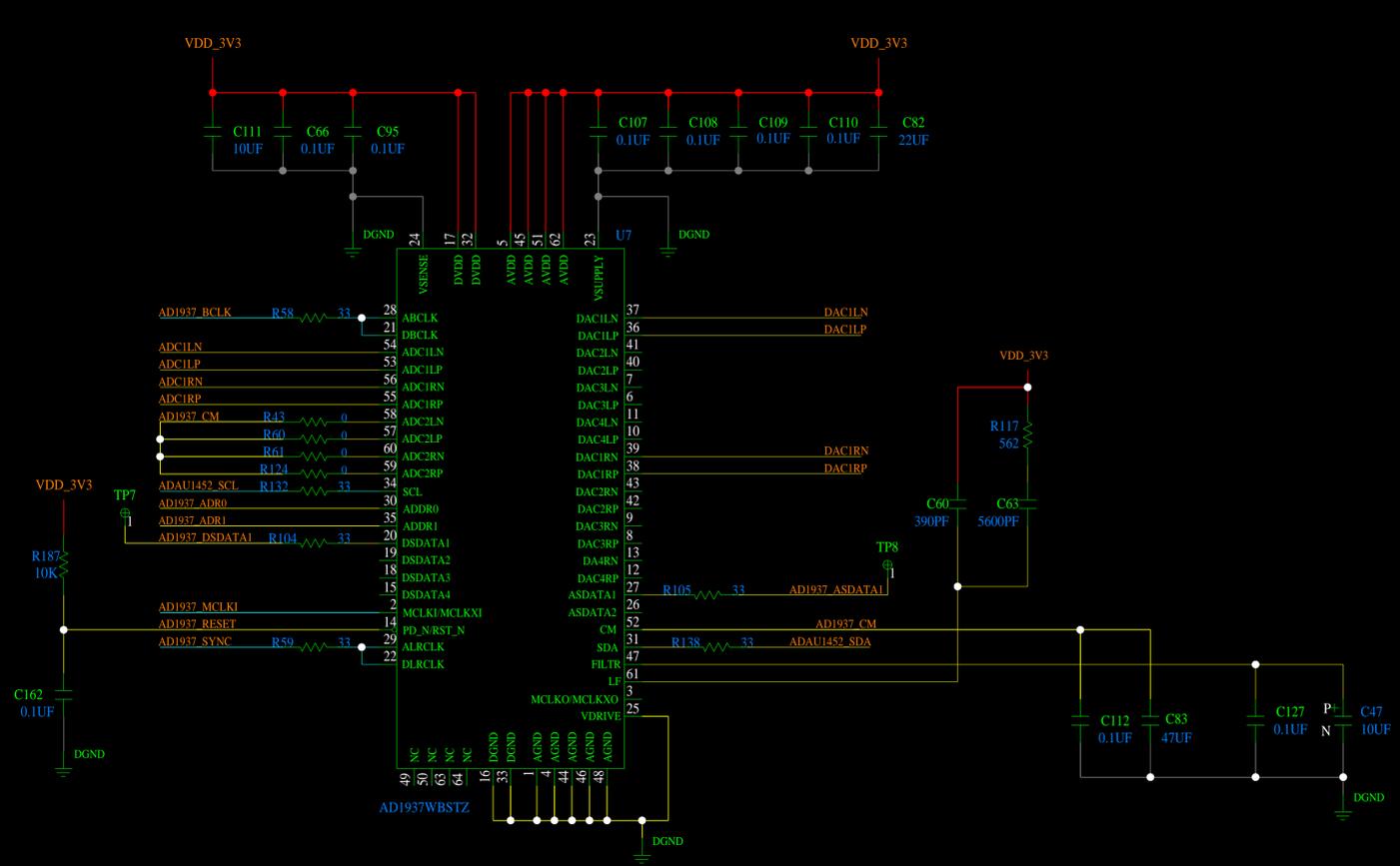
WP	Selfboot		I2C Bus Switch	Use Case and Action
JP2	JP3	ADAU1452_MP6	U26, U27	
OPEN	OPEN	X	CLOSED	Program/Parameter write from AD2437 or USBi to ADAU1452 or Boot EEPROM
CLOSED	OPEN	X	CLOSED	Program/Parameter write from AD2437 or USBi to ADAU1452
X	CLOSED	1 -> 0	OPEN -> CLOSED	Self Boot of ADAU1452 from Boot EEPROM
X	X	1	OPEN	Parameter Write from ADAU1452 to Boot EEPROM



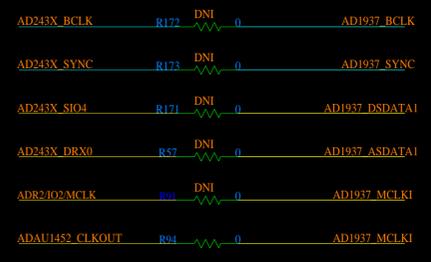
DESIGN VIEW  
<DESIGN\_VIEW>

SCHEMATIC			
HW TYPE : Customer Evaluation Z			
Product(s): AD2437			
: N/A			
DESIGN VIEW	DRAWING NO.	REV	
<DESIGN_VIEW>	02_067221	D	
PTD ENGINEER	SIZE	SCALE	SHEET 8 OF 13
R. WHITNEY	D	1:1	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

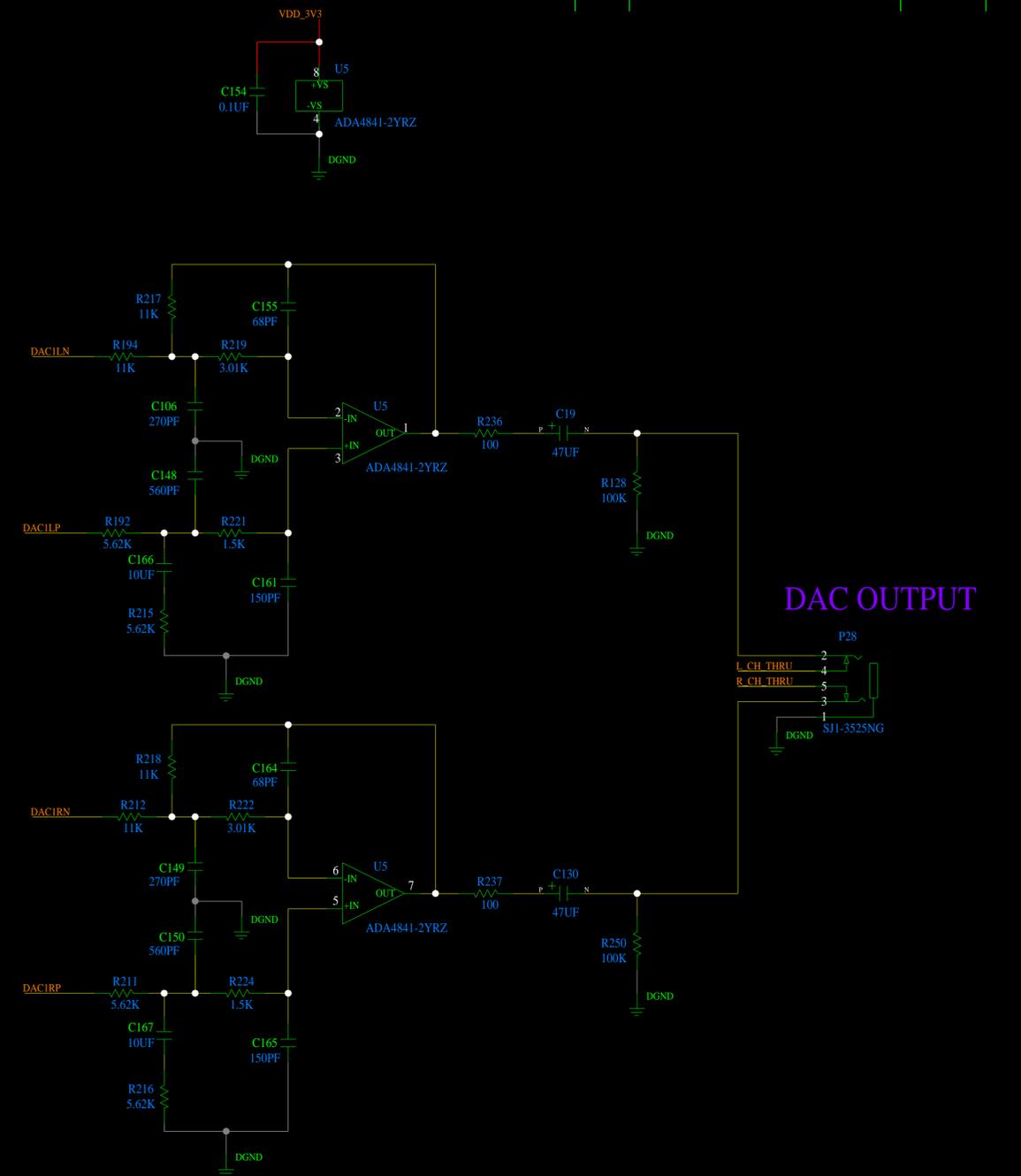
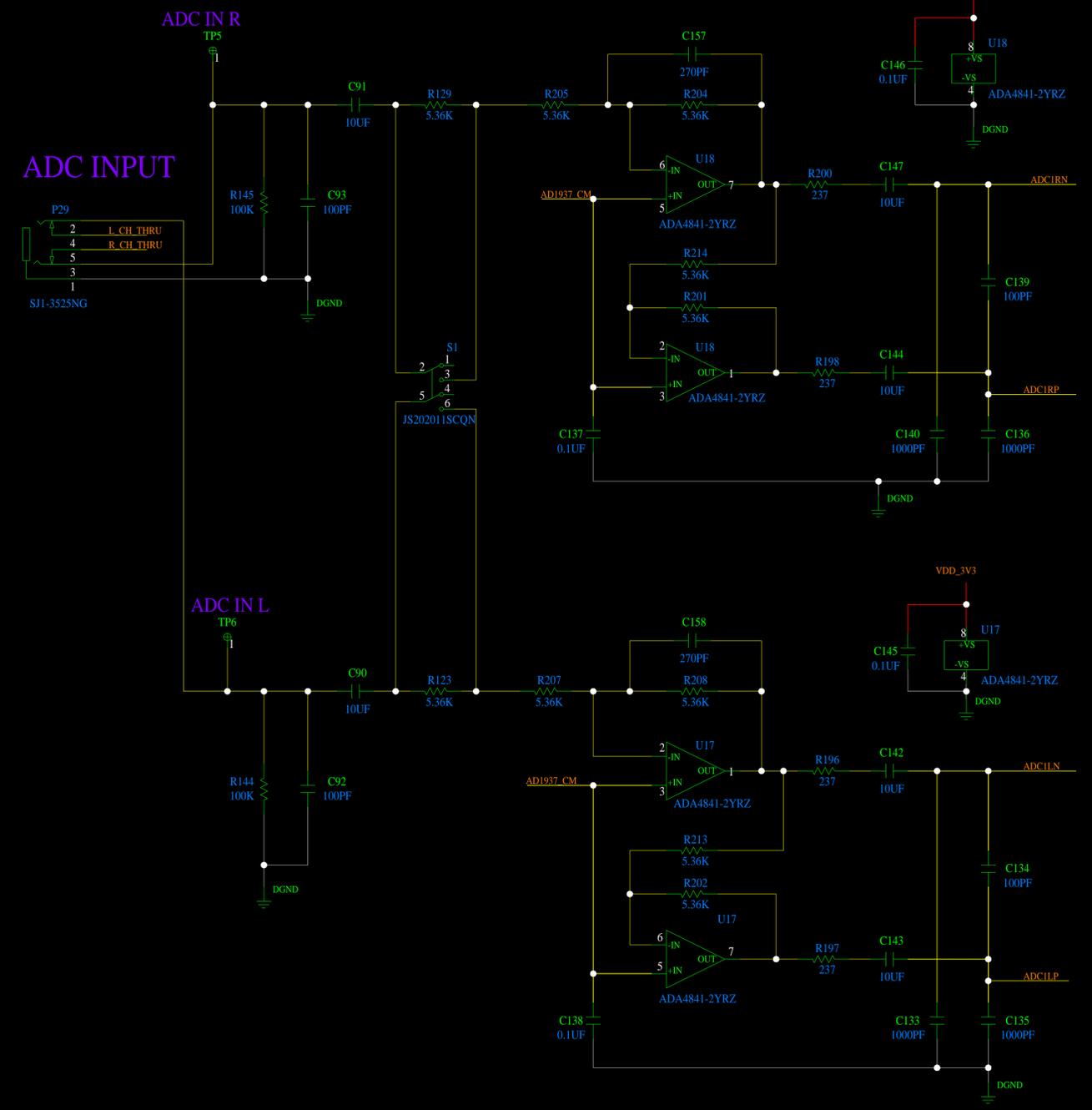


TW I ADDRESS 0000110X  
 X FOR BIT 0 IS THE R/W BIT. READ - 1, WRITE - 0



	<b>SCHEMATIC</b>		
	HW TYPE : Customer Evaluation Z Product(s): AD2437 ; N/A		
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_067221	REV D	
PTD ENGINEER R. WHITNEY	SIZE D	SCALE 1:1	SHEET 9 OF 13

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



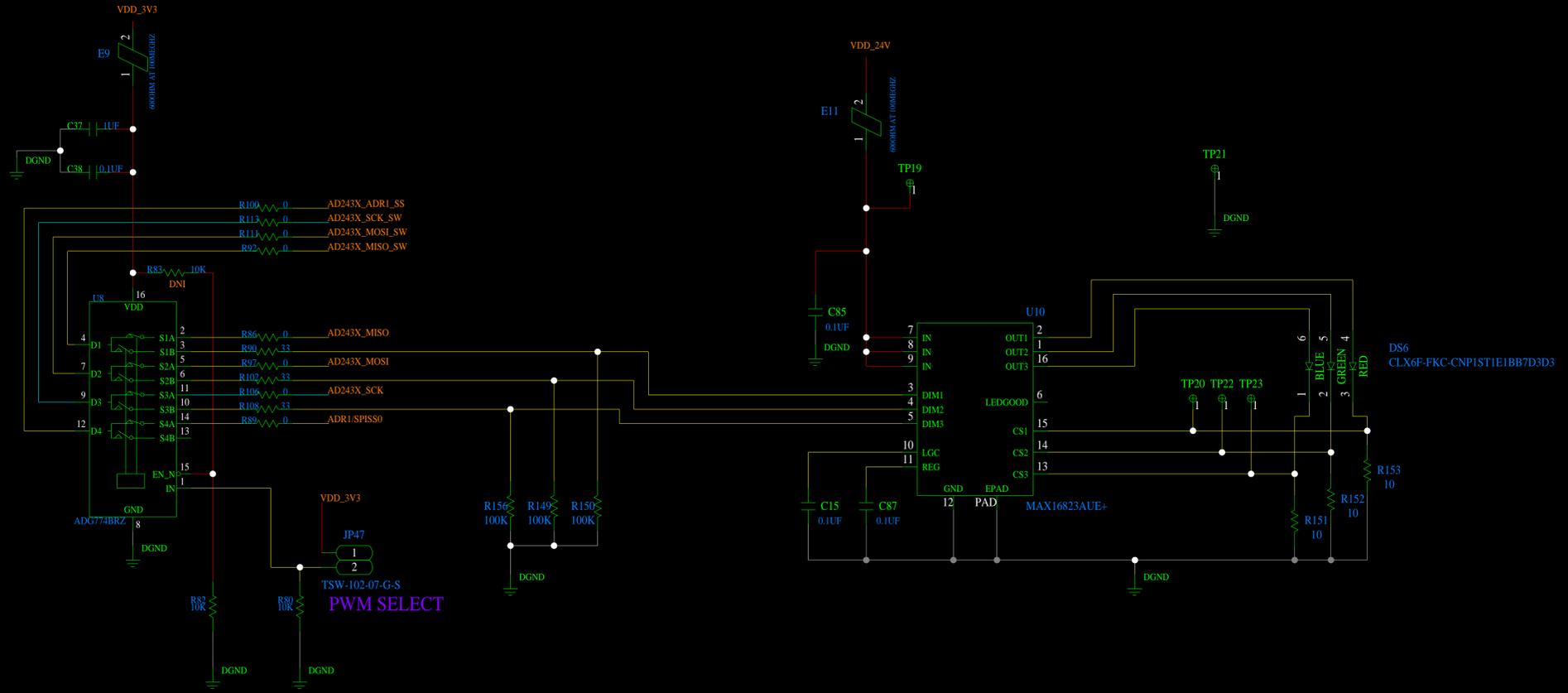
ADC INPUT

DAC OUTPUT



<b>SCHMATIC</b>			
HW TYPE : Customer Evaluation Z			
Product(s): AD2437			
: N/A			
DESIGN VIEW	DRAWING NO.	REV	
<DESIGN_VIEW>	02_067221	D	
PTD ENGINEER	SIZE	SCALE	SHEET 10 OF 13
R. WHITNEY	D	1:1	

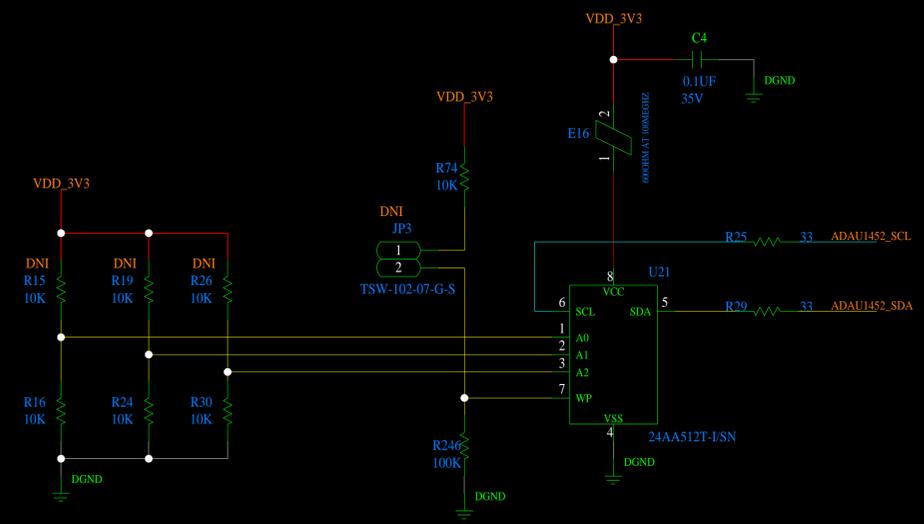
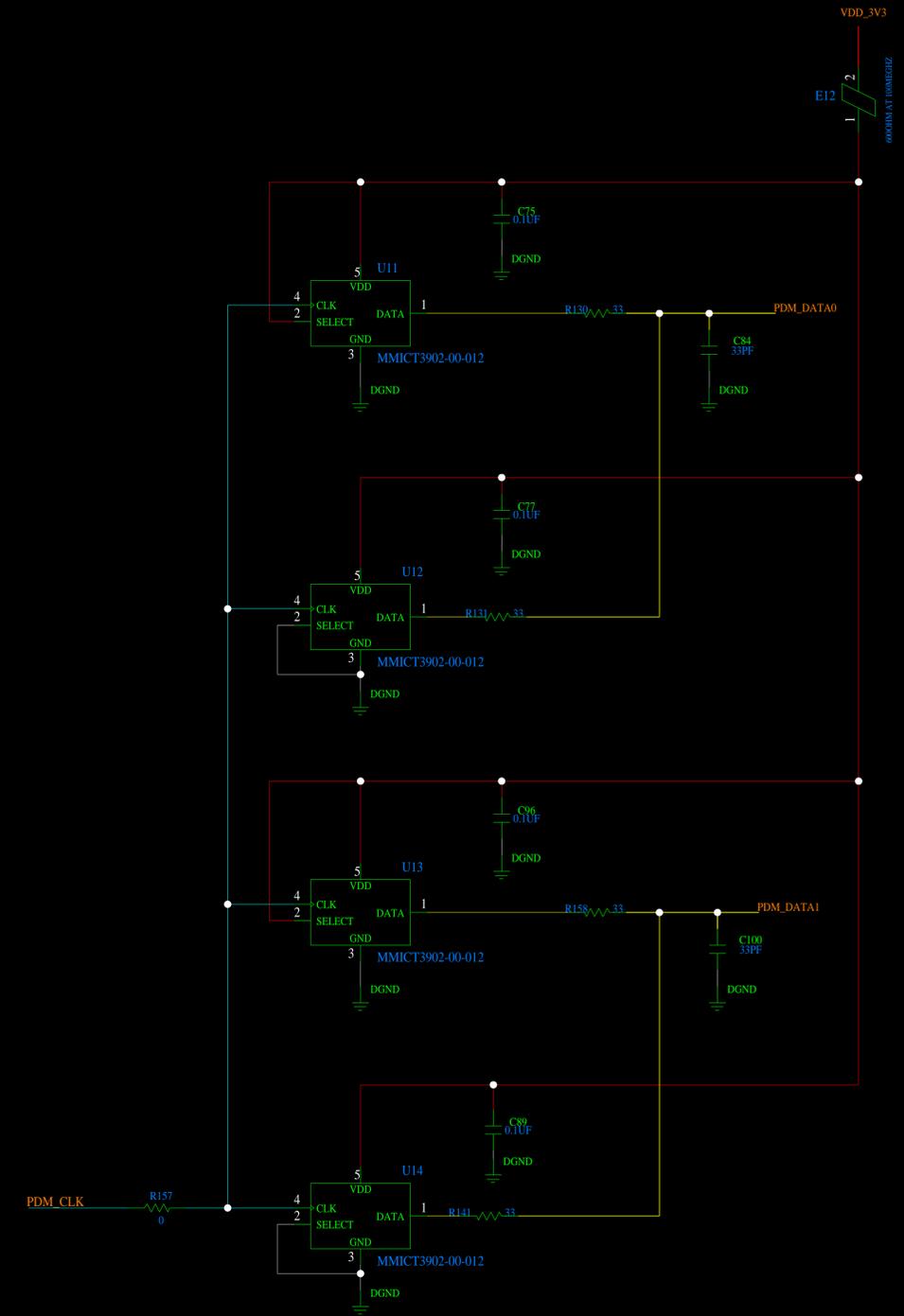
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



	<b>SCHEMATIC</b>		
	HW TYPE : Customer Evaluation Z Product(s): AD2437 ; N/A		
	DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_067221	REV D
PTD ENGINEER R. WHITNEY	SIZE D	SCALE 1:1	SHEET 11 OF 13

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



TW I ADDRESS 1010000X  
 X FOR BIT 0 IS THE R/W BIT. READ - 1, WRITE - 0

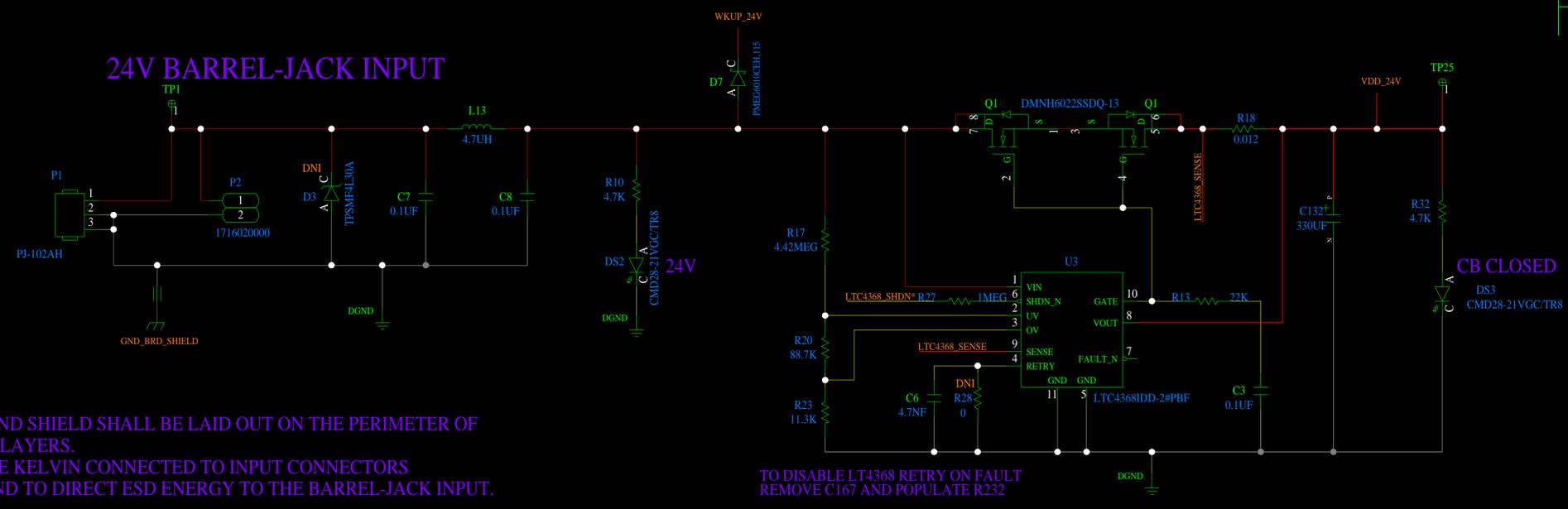


<b>SCHEMATIC</b>			
HW TYPE : Customer Evaluation Z			
Product(s): AD2437			
: N/A			
DESIGN VIEW	DRAWING NO.	REV	
<DESIGN_VIEW>	02_067221	D	
PTD ENGINEER	SIZE	SCALE	SHEET 12 OF 13
R. WHITNEY	D	1:1	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

### 24V BARREL-JACK INPUT

INPUT POWER SUPPLY:  
MFG: KAGA ELECTRONICS USA  
P/N: KTPS65-2430DT-3P-VI-C-P1  
VNOM = 24V AT 72W



LTC4368 CIRCUIT BREAKER SETTINGS:  
OV\_LIM = 25.2V  
UV\_LIM = 22.8V  
OC\_LIM = 4.17A  
OC\_REV\_LIM = -0.25A  
I\_INRUSH = 0.35A  
RETRY\_DELAY = 0.025 SEC

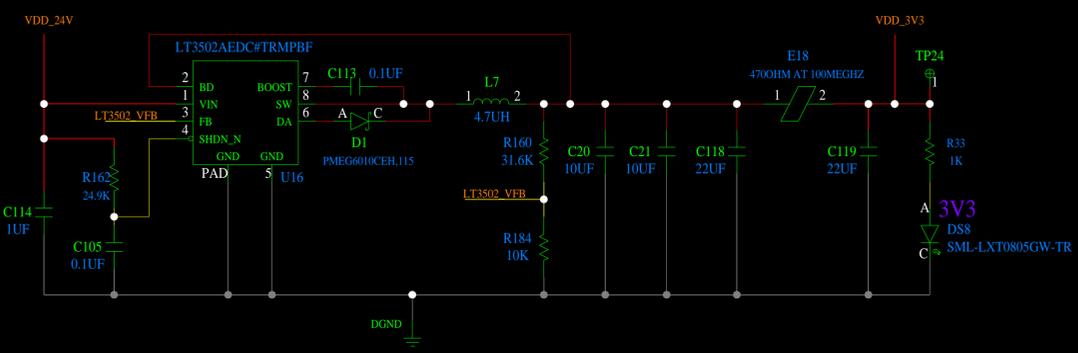
GND\_BRD\_SHIELD: A GROUND SHIELD SHALL BE LAID OUT ON THE PERIMETER OF THE BOARD THROUGH ALL LAYERS. GND\_BRD\_SHIELD SHALL BE KELVIN CONNECTED TO INPUT CONNECTORS NEEDING A CHASSIS GROUND TO DIRECT ESD ENERGY TO THE BARREL-JACK INPUT.

TO DISABLE LT4368 RETRY ON FAULT REMOVE C167 AND POPULATE R232

### LTC4368 WAKEUP

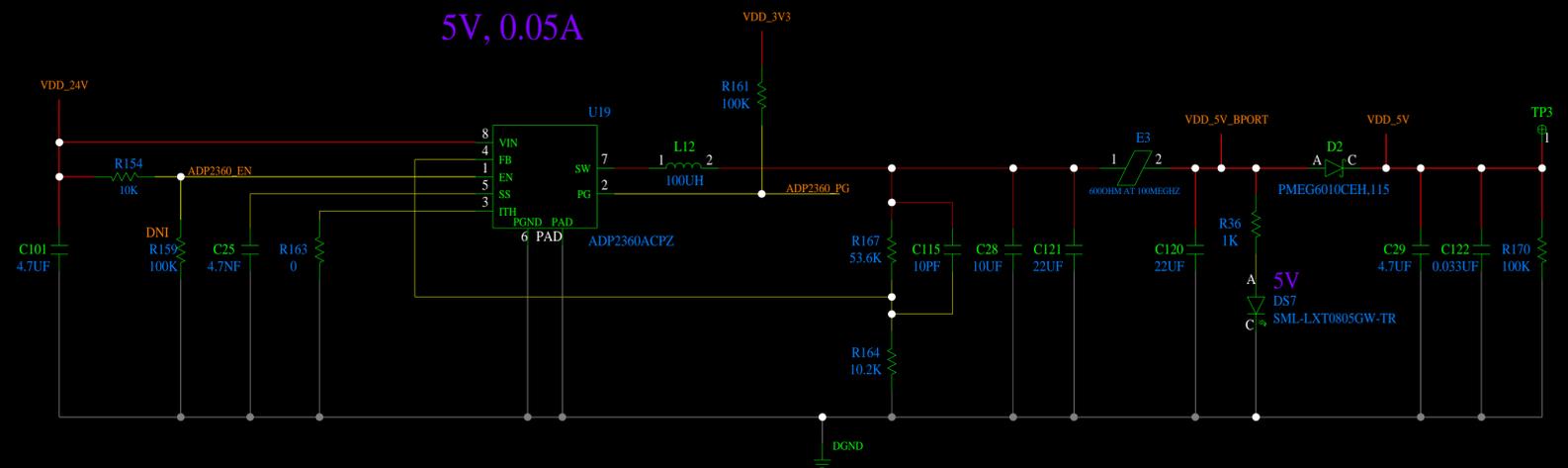


### 3.3V, 0.5A



REPLACE R182 (24.9K OHM) WITH A 0 OHM RESISTOR TO DISABLE SOFT-START OF LT3502

### 5V, 0.05A



SCHEMATIC			
HW TYPE : Customer Evaluation Z			
Product(s): AD2437			
: N/A			
DESIGN VIEW	DRAWING NO.		REV
<DESIGN_VIEW>	02_067221		D
PTD ENGINEER	SIZE	SCALE	SHEET 13 OF 13
R. WHITNEY	D	1:1	