

REVISION HISTORY					
REV	DESCRIPTION	CAT	DWN	ENGR	SEE JPL DATA MANAGEMENT SYSTEM FOR APPROVAL SIGNATURES AND DATES
A	----- INITIAL RELEASE -----	II	-	-	
B	CHANGED WHEB CONNECTOR, P6 TO 50 PINS. ADC_CS AND SG_SWAP ARE NOW ADC_CS1 AND ADC_CS2. SG_ENA IS NOW SPARE3. FL_METER_ENA AND THERMISTOR ENABLE CHANGED TO nADC_DRDY1 AND nADC_DRDY2 RETURN SIGNALS FROM THE WHEB ADCs. CFG0 THRU CFG2 NOW ARE INPUTS FROM THE WHEB. ADDED FLASH DEVICE, U11. ADDED SPI ADDRESS DECODER, U5. ADDED 1-WIRE INTERFACE, U13. ADDED SPI PROGRAMMING SIGNALS FOR WING BOARD FPGAs. ADDED ON-BOARD 3.0V REFERENCE DEVICE, U14, AND BUFFERS, U15, AND ISOLATION TEST CIRCUITS.	II	C. SHELTON	C. SHELTON	

SHEET LIST

- 1. Sheet list
- 2. Edge Sensor and Segment Interface
- 3. MPU
- 4. Power Supplies
- 5. CAN Interface

		CONTRACT NO _____		JET PROPULSION LABORATORY CALIFORNIA INSTITUTE OF TECHNOLOGY PASADENA, CA 91109			
		DWN	C. Shelton	TITLE SCHEMATIC DIAGRAM, USEB MICRO-CONTROLLER UNIT			
		ENGR	C. Shelton				
		SEE JPL DATA MANAGEMENT SYSTEM FOR APPROVAL SIGNATURES AND DATES		SIZE DAI DWG NO REV B 23835 10398569 B			
10398570	TMT						
NEXT ASSEMBLY	USED ON						
APPLICATION							

NOTES: UNLESS OTHERWISE SPECIFIED

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DO NOT SCALE DRAWING
INTERPRET DIMENSIONING AND
TOLERANCING PER ASME Y14.5 2009
INTERPRET DWG PER ASME Y14.100

ALTUM GENERATED
REV 03/2020

4

3

2

1

B

B

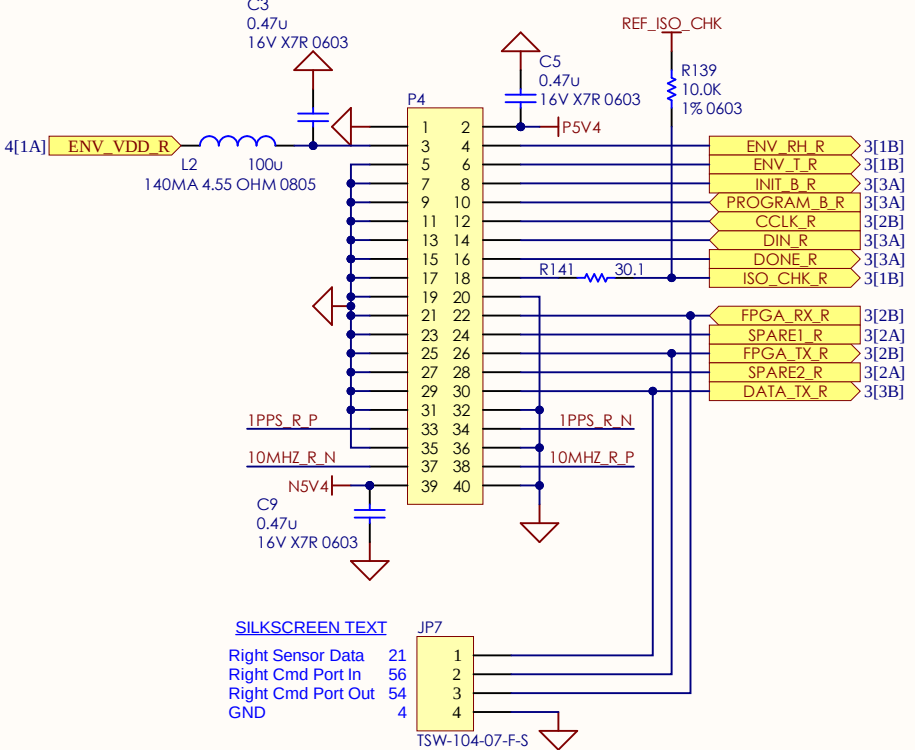
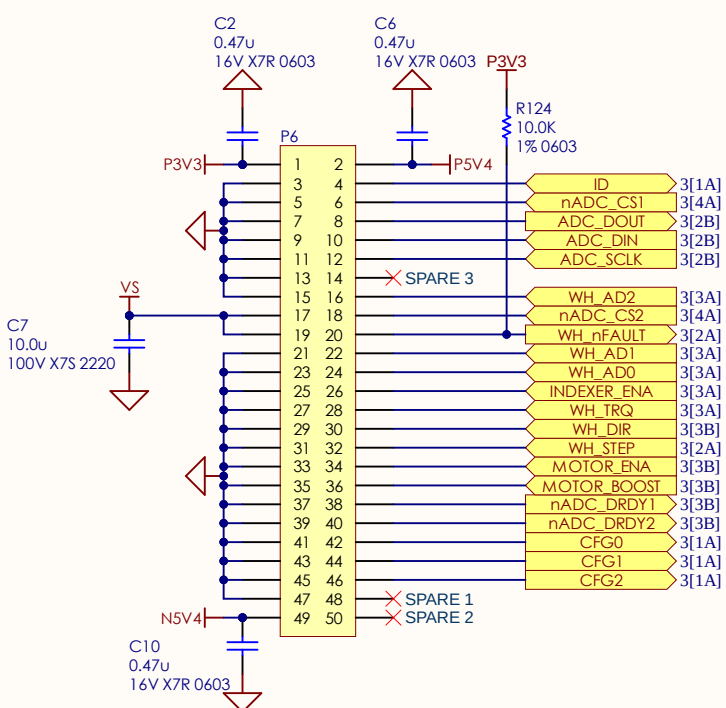
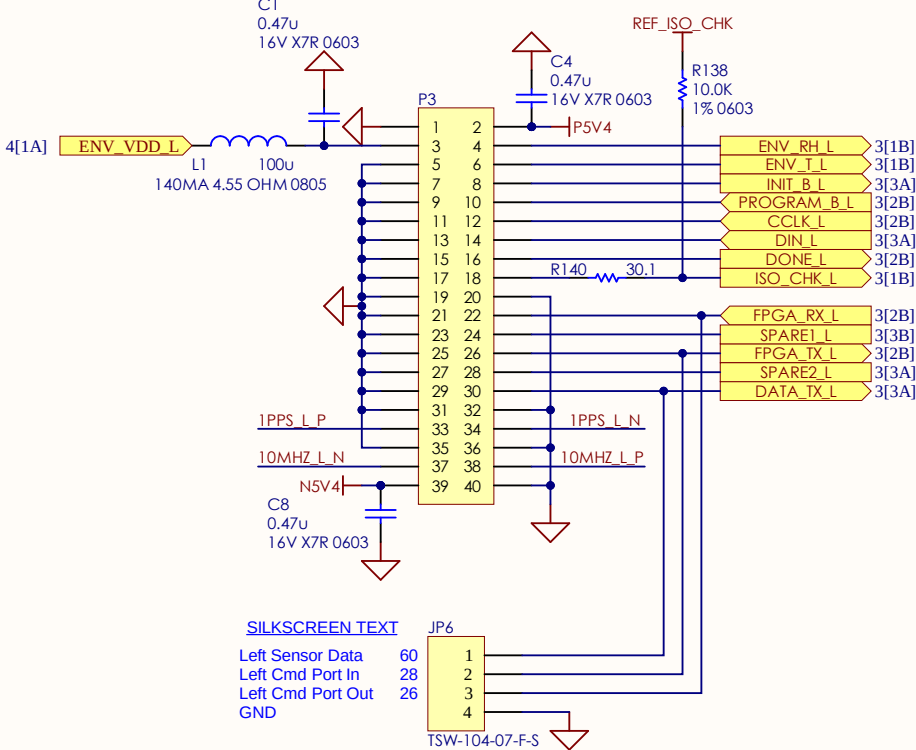
A

A

Left Edge Sensor Interface

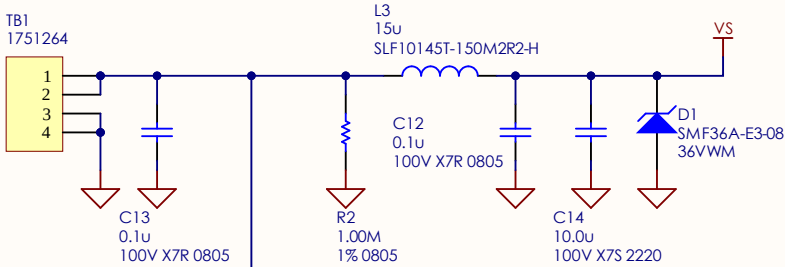
Warping Harness Interface

Right Edge Sensor Interface



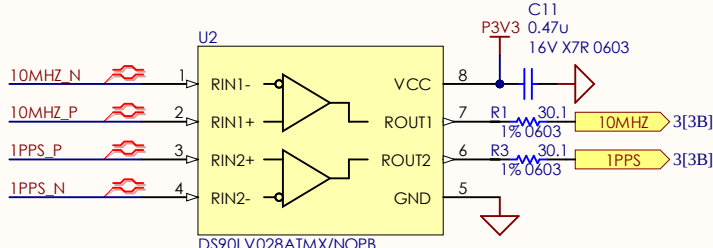
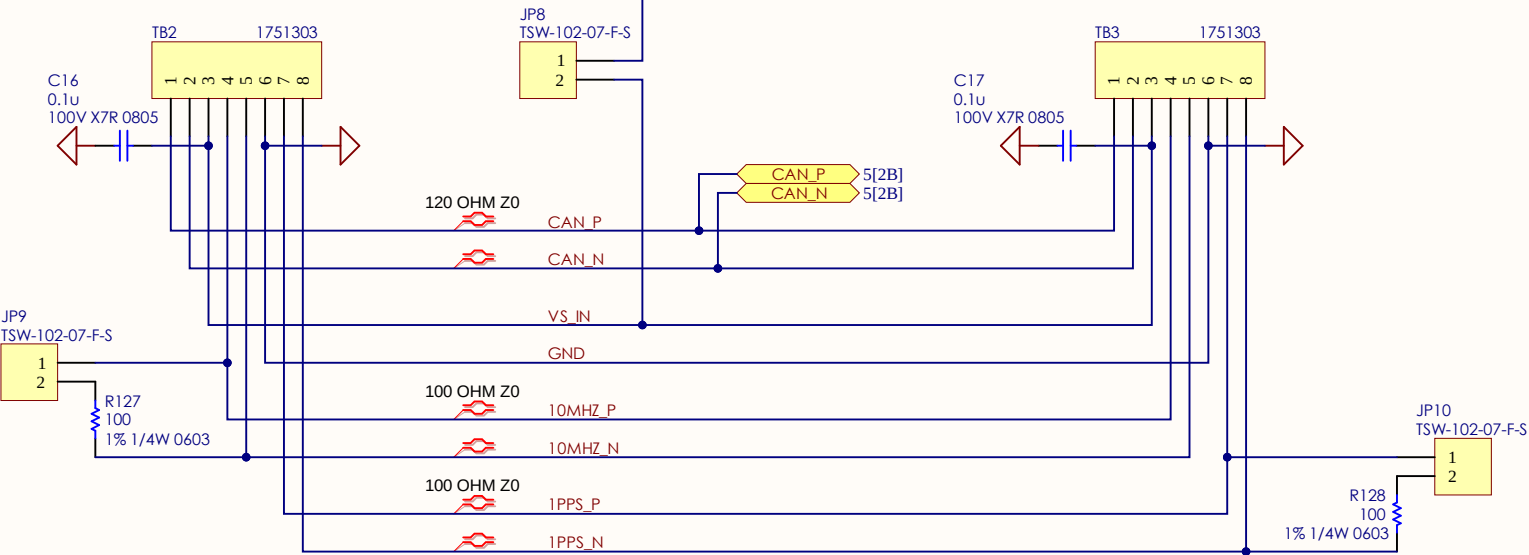
EXTERNAL SUPPLY

+4 TO +36 VDC 1-2
COMMON 3-4

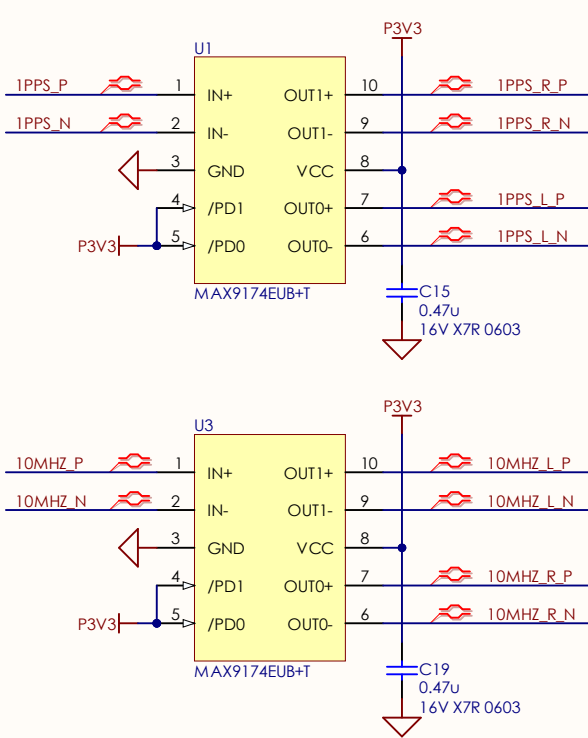


Left Segment Interface

Right Segment Interface



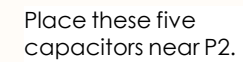
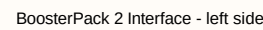
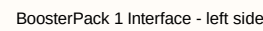
HARD CLOCK BUFFERS
Keep input stub length short.



EDGE SENSOR & SEGMENT I/O

SIZE	DAI	DWG NO	REV
B	23835	10398569	B
SCALE:	NONE	SHEET 2 OF 5	

1. ALL ZERO OHM RESISTORS ON THIS SHEET ARE SIZE 0603.
2. ALL OTHER RESISTORS ON THE SHEET ARE 1%, SIZE 0603 EXCEPT AS NOTED.



MPU

SIZE B	DAI 23835	DWG NO 10398569	REV B
SCALE: NONE		SHEET 3 OF 5	

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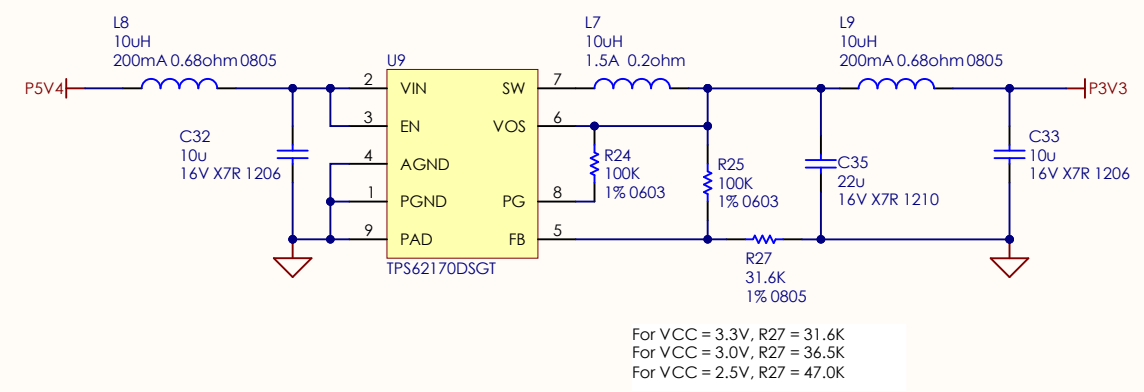
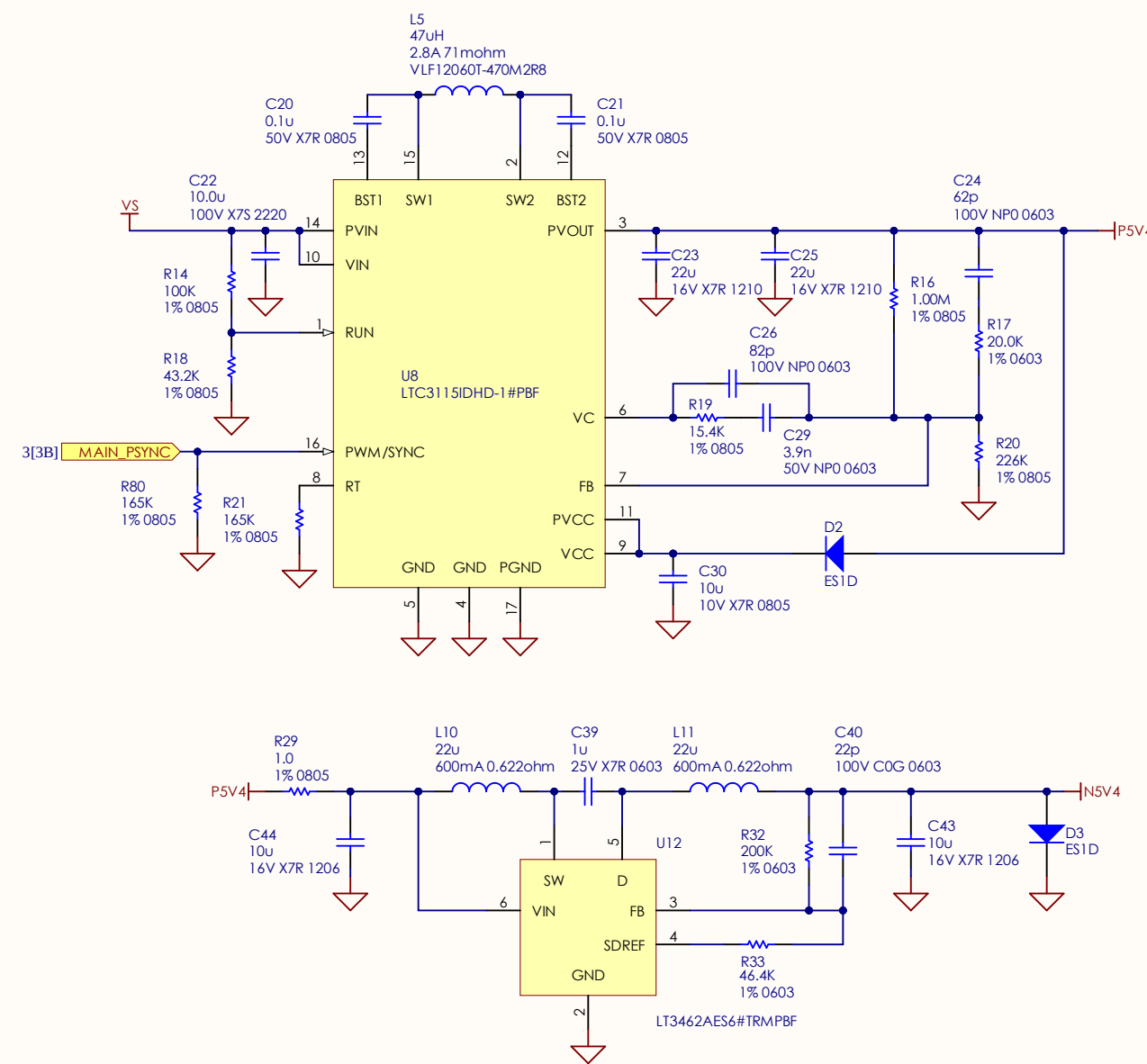
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B

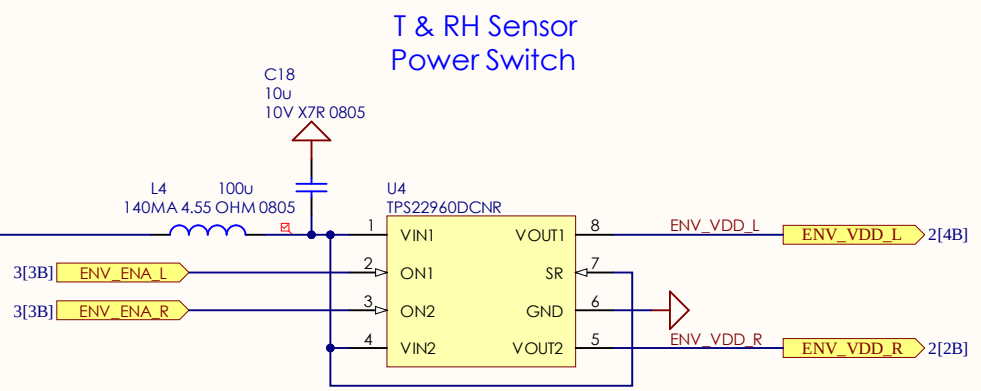
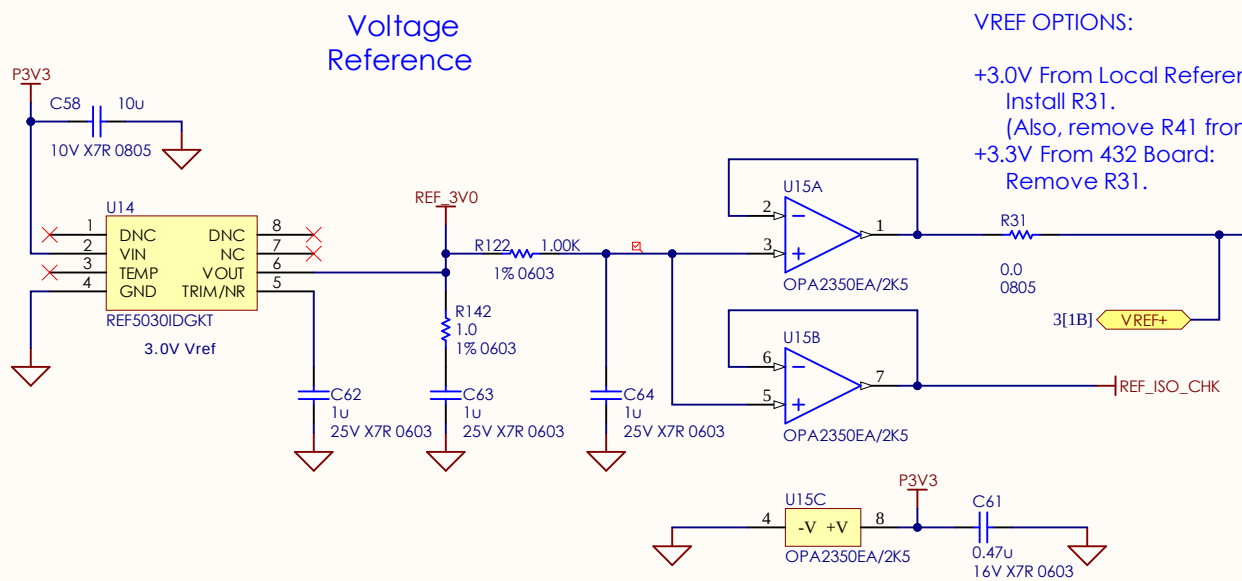
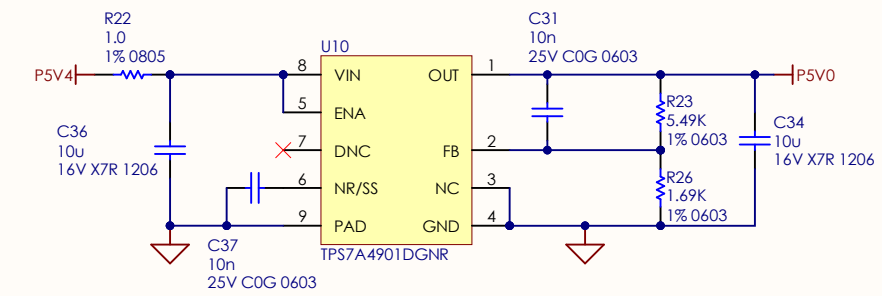
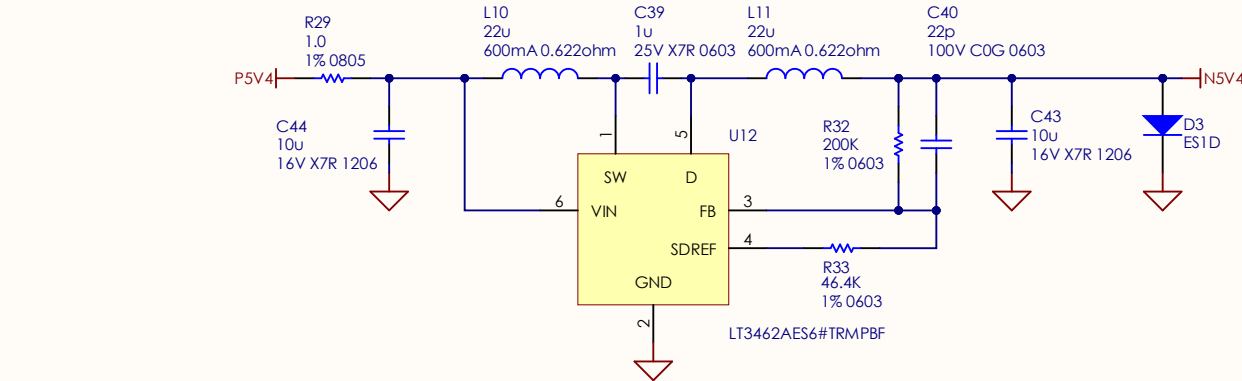
B

A

A



For VCC = 3.3V, R27 = 31.6K
For VCC = 3.0V, R27 = 36.5K
For VCC = 2.5V, R27 = 47.0K



POWER SUPPLIES

SIZE	DAI	DWG NO	REV
B	23835	10398569	B
SCALE:	NONE	SHEET 4 OF 5	REV 03/2020

4

3

2

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2

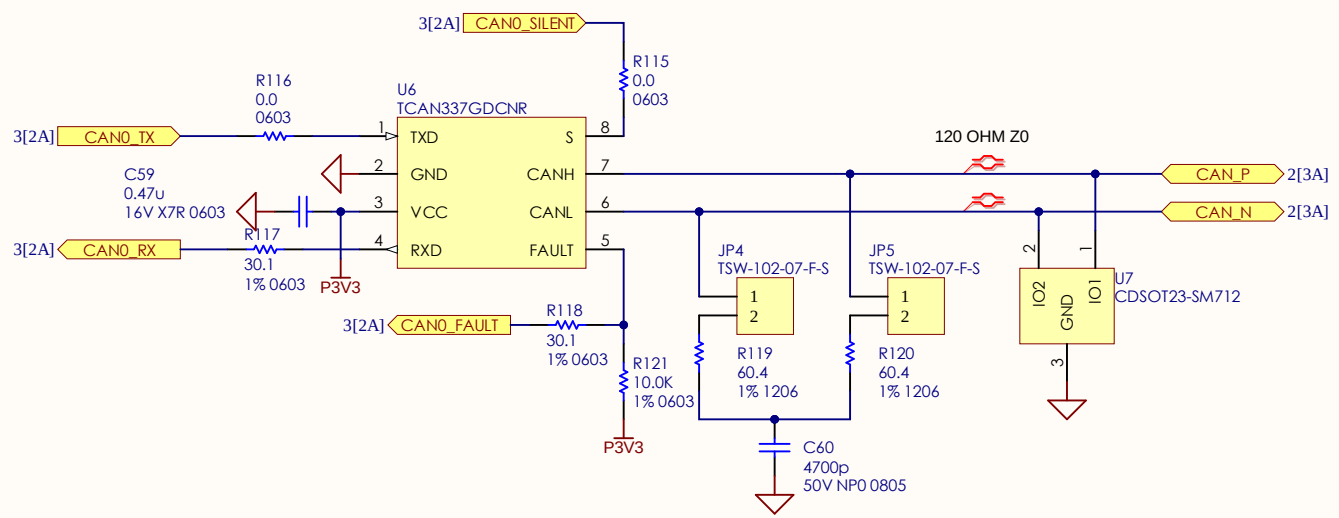
1

B

B

A

A



CAN INTERFACE

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SIZE	DAI	DWG NO	REV
B	23835	10398569	B
SCALE:	NONE	SHEET 5 OF 5	REV 03/2020

4

3

2

1

JPL_B_SH2