


Notes - Unless otherwise noted

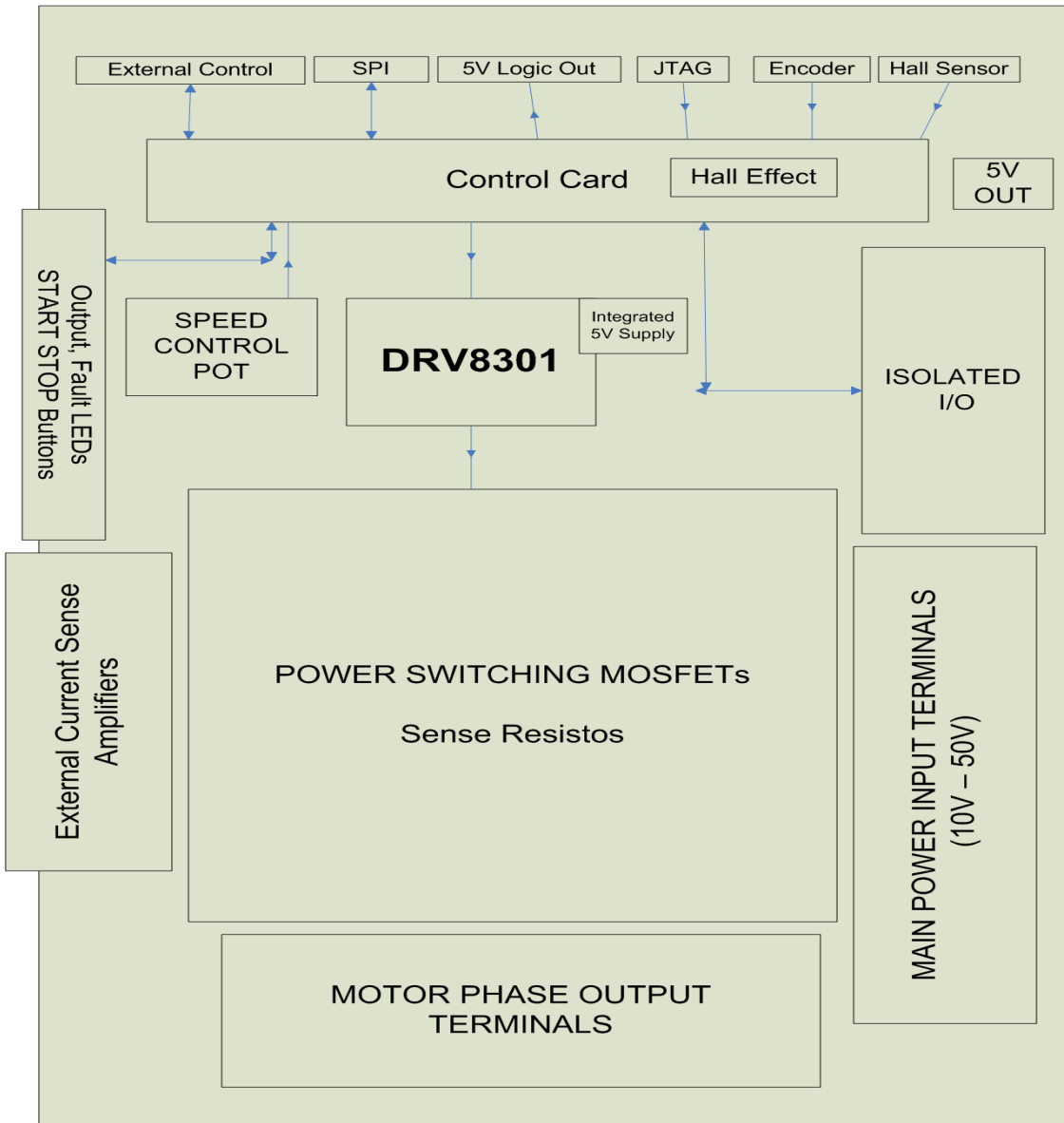
1. Resistances values in Ohms
2. Capacitance values in microfarads (uF)
3. All 0.1uF and 0.01uF capacitors are decoupling and should be placed near the IC they are shown with.

REVISION HISTORY			
REV	DESCRIPTION	DATE	ENG
A1	INITIAL SCHEMATIC	04-08-2011	AIY
A2	REMOVED ANALOG SWITCHES CHANGED FEEDBACK	05-12-2011	AKS
A3	CHANGED THE SIZE OF THE SENSE RESISTORS ADDED PULL-UP/PULL-DOWN ON SPI LINES REMOVED 0-OHM RESISTORS ON CURRENT SENSE	05-25-2011	AKS
B1	FIXED DRV8301 CURRENT SENSE POLARITY NO-POP ALL EXTERNAL CURRENT SENSE COMPONENTS CHANGED C14 TO 25V 0805 PACKAGE FETS CHANGED TO VISHAY SUM110N06-3M9H CHANGED CURRENT SENSE RESISTORS TO 2mOHM RECONFIGURED DC BUS CAPS SPLIT POWER CONNECTOR INTO TWO CONNECTORS	07-14-2011	JPW
C1	LAYOUT CHANGES TO IMPROVE GROUND CONNECTIONS FOR DE-COUPLING CAPACITORS C10, C14, C72 CREATED BOM VARIANT FOR DRV8302 CHANGED R12, R13, R21 TO 1K CHANGED R43, R47 TO 1K ( DRV8302 ONLY)	08-12-2011	AKS
D1	POPULATED EXTERNAL GAIN OP-AMPS AND CHANGED CONNECTIONS FOR THESE TO DAUGHTER CARD	01-18-2012	

- Page 1 - Title - Index - Revisions
- Page 2 - Block Diagram
- Page 3 - DRV8301/DRV8302
- Page 4 - Isolation Circuitry
- Page 5 - DIMM Socket - Connectors - Switches
- Page 6 - Power Input - Voltage Regulators - Current Sense Amplifiers
- Page 7 - Half Bridges - Motor Output

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# DRV8301 EVM Block Diagram

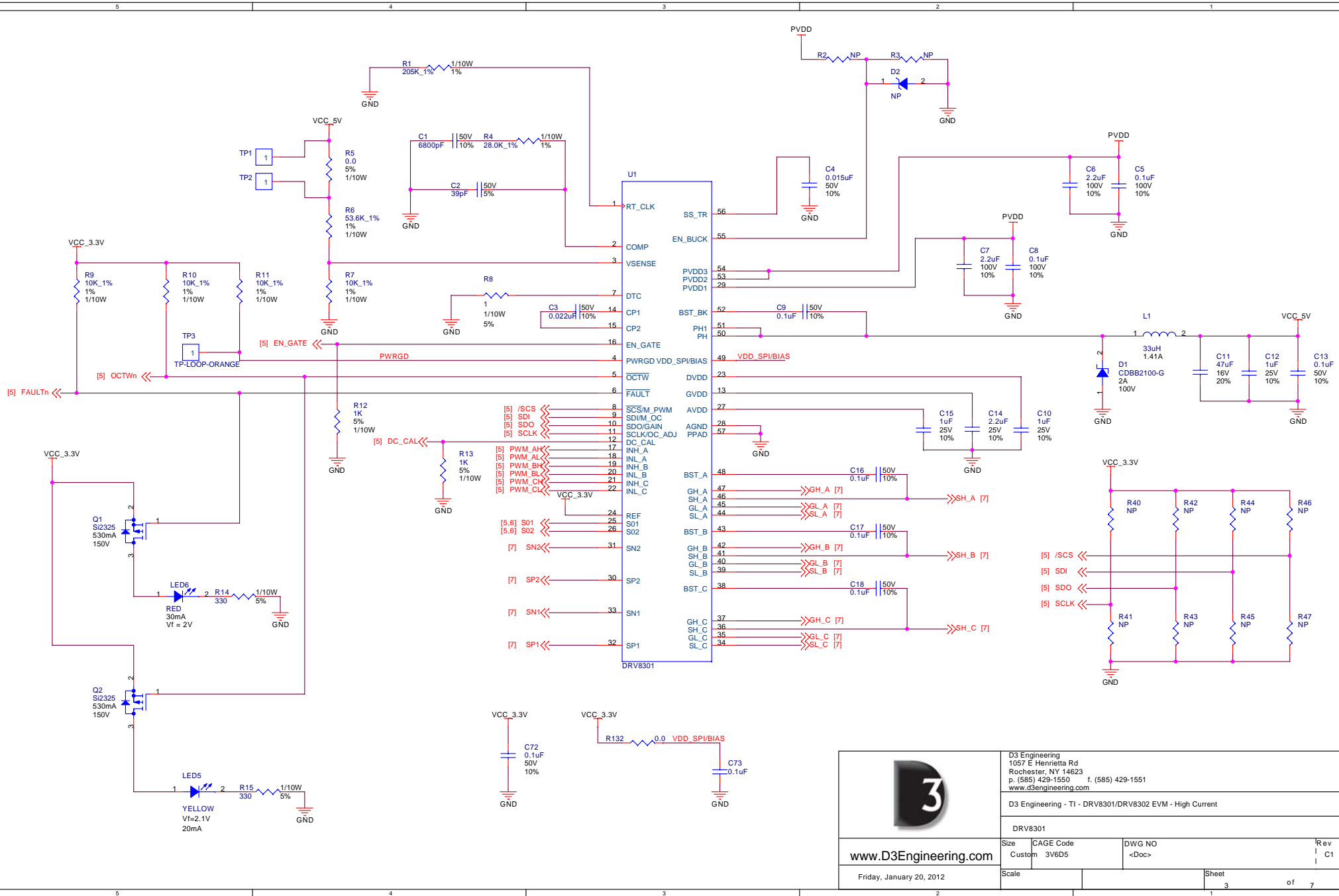


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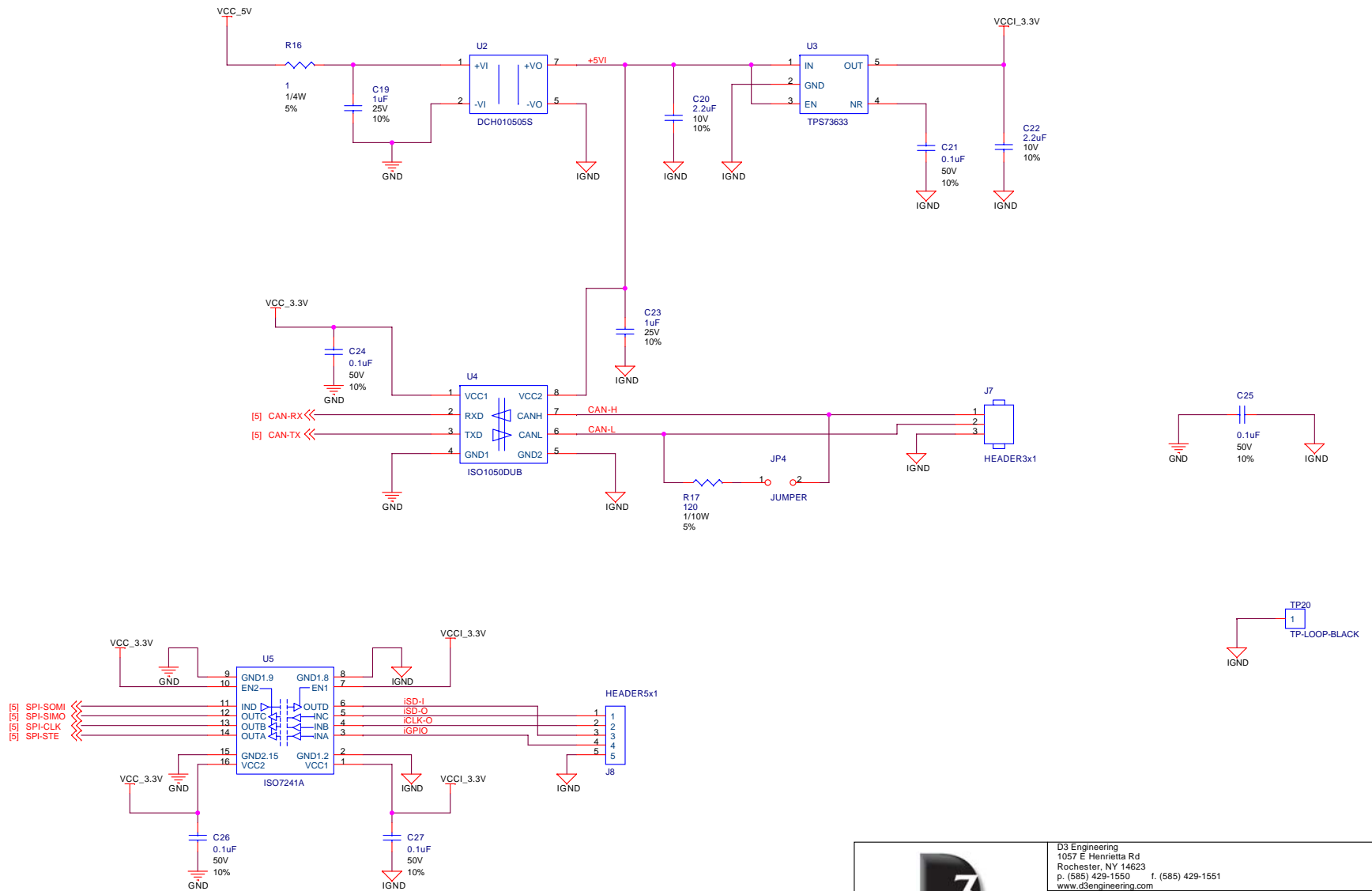
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Block Diagram

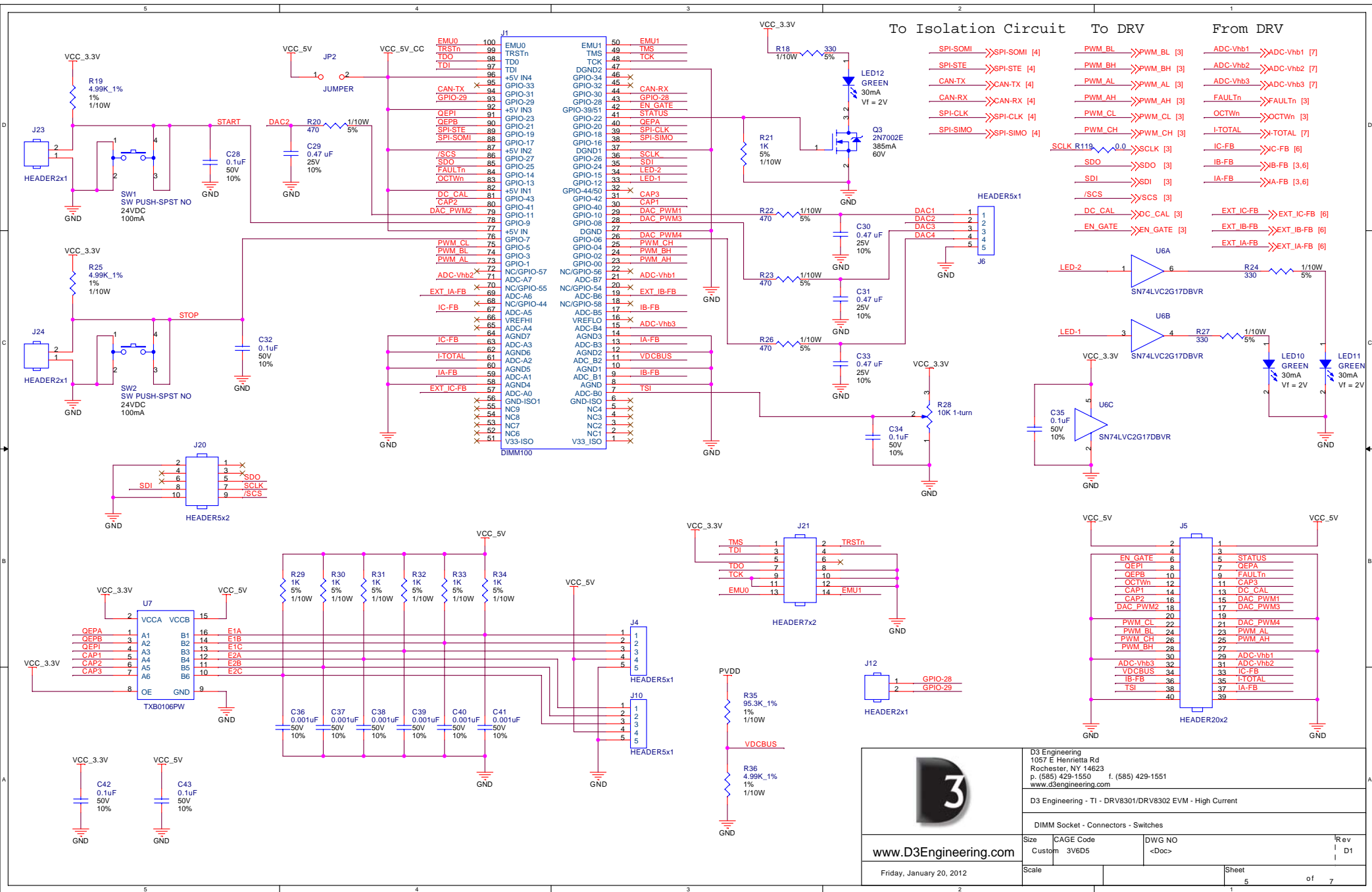
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DRV8301			
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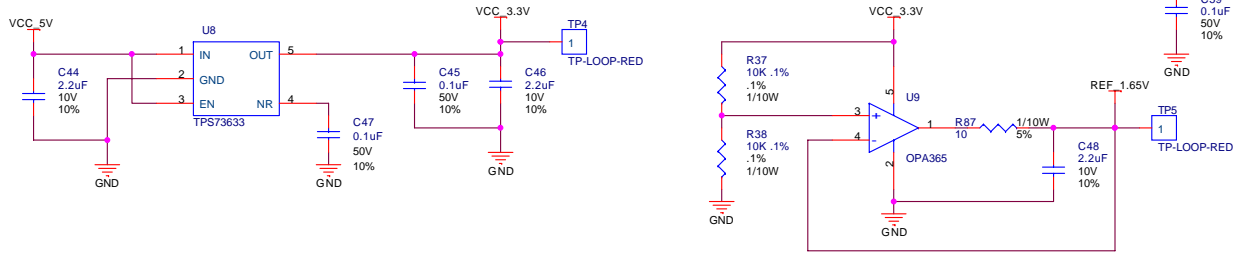
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DIMM Socket - Connectors - Switches

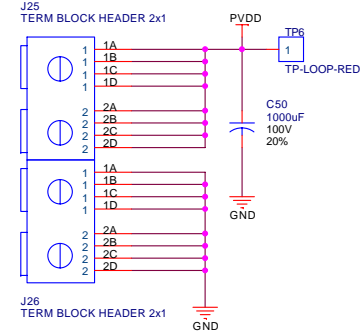
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### 3.3V Voltage Regulator, 1.65V Reference Voltage

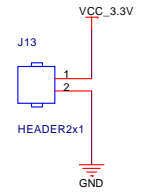


### MAIN POWER IN

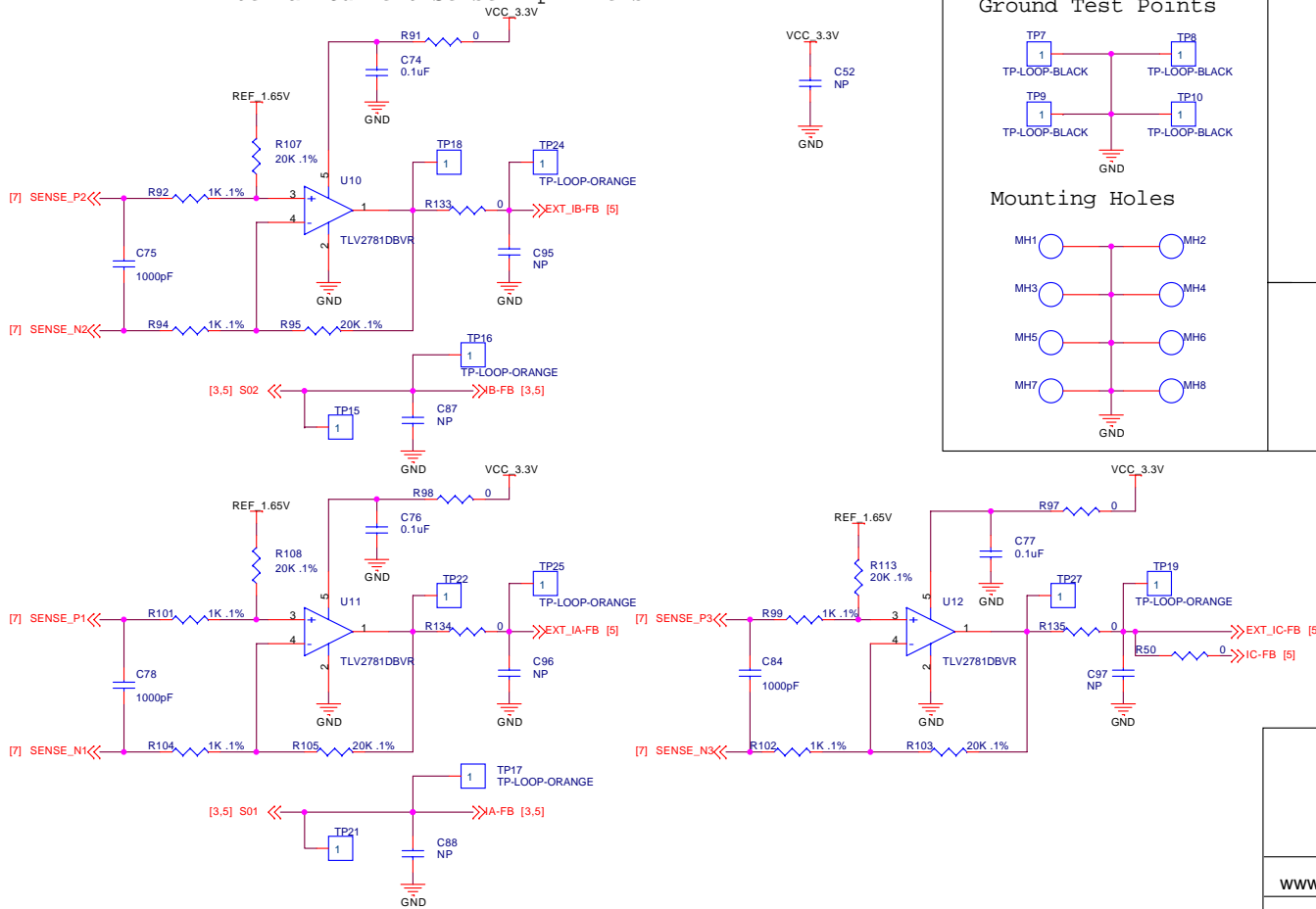
PVDD  
 NOM = 48V  
 MAX = 60V



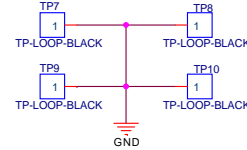
### User Power Access



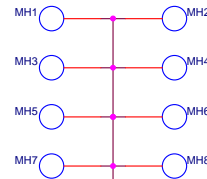
### External Current Sense Amplifiers



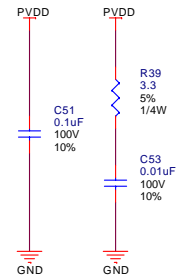
### Ground Test Points



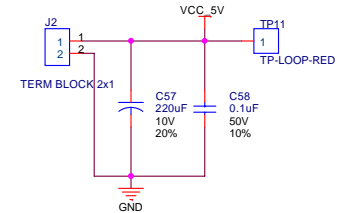
### Mounting Holes



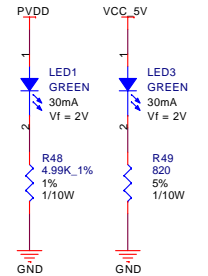
### EMI Snubber



### 5V Output



### Power Indicator LEDs



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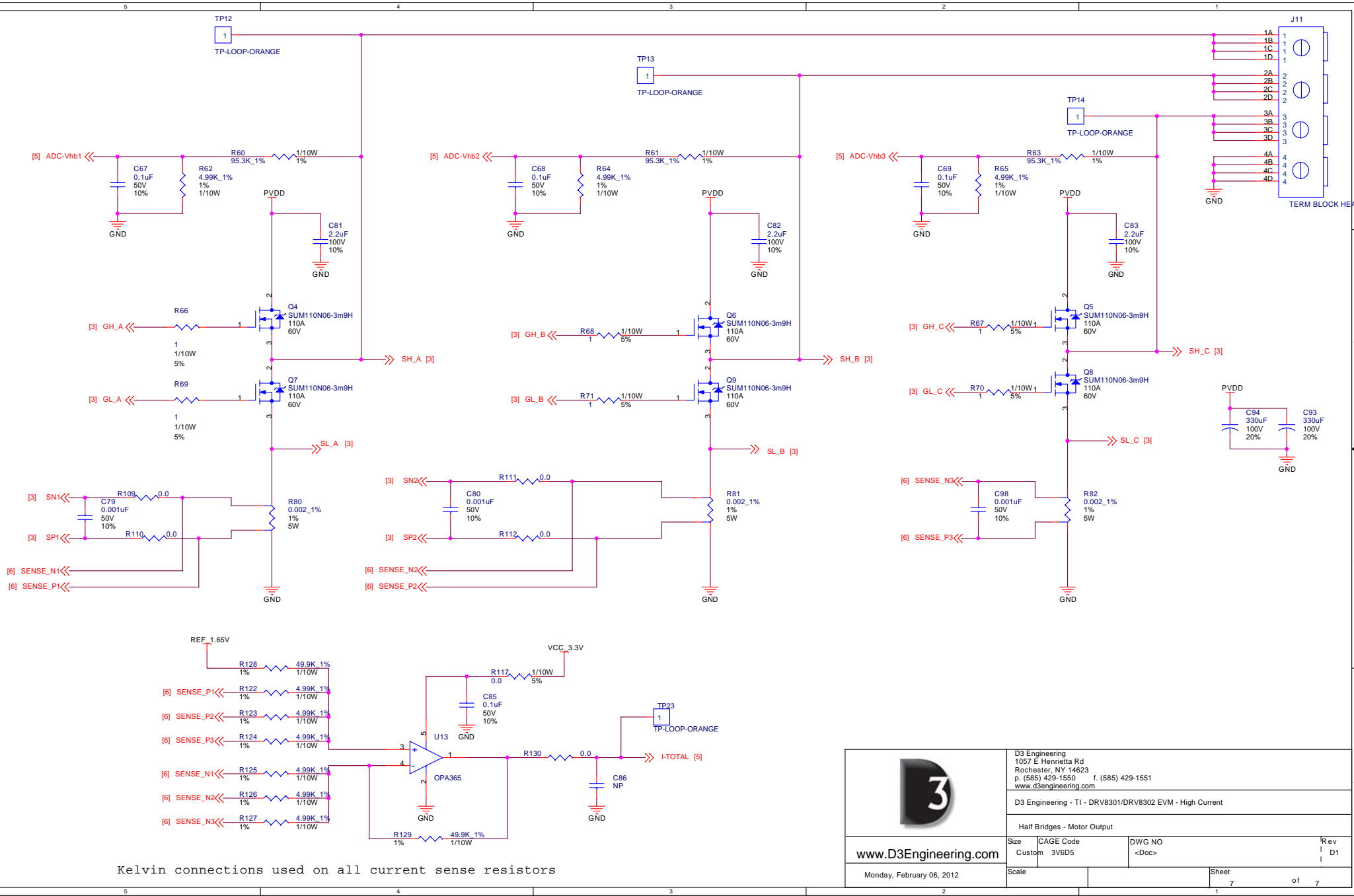
Power Input - Voltage Regulators - Current Sense Amplifiers

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Kelvin connections used on all current sense resistors

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