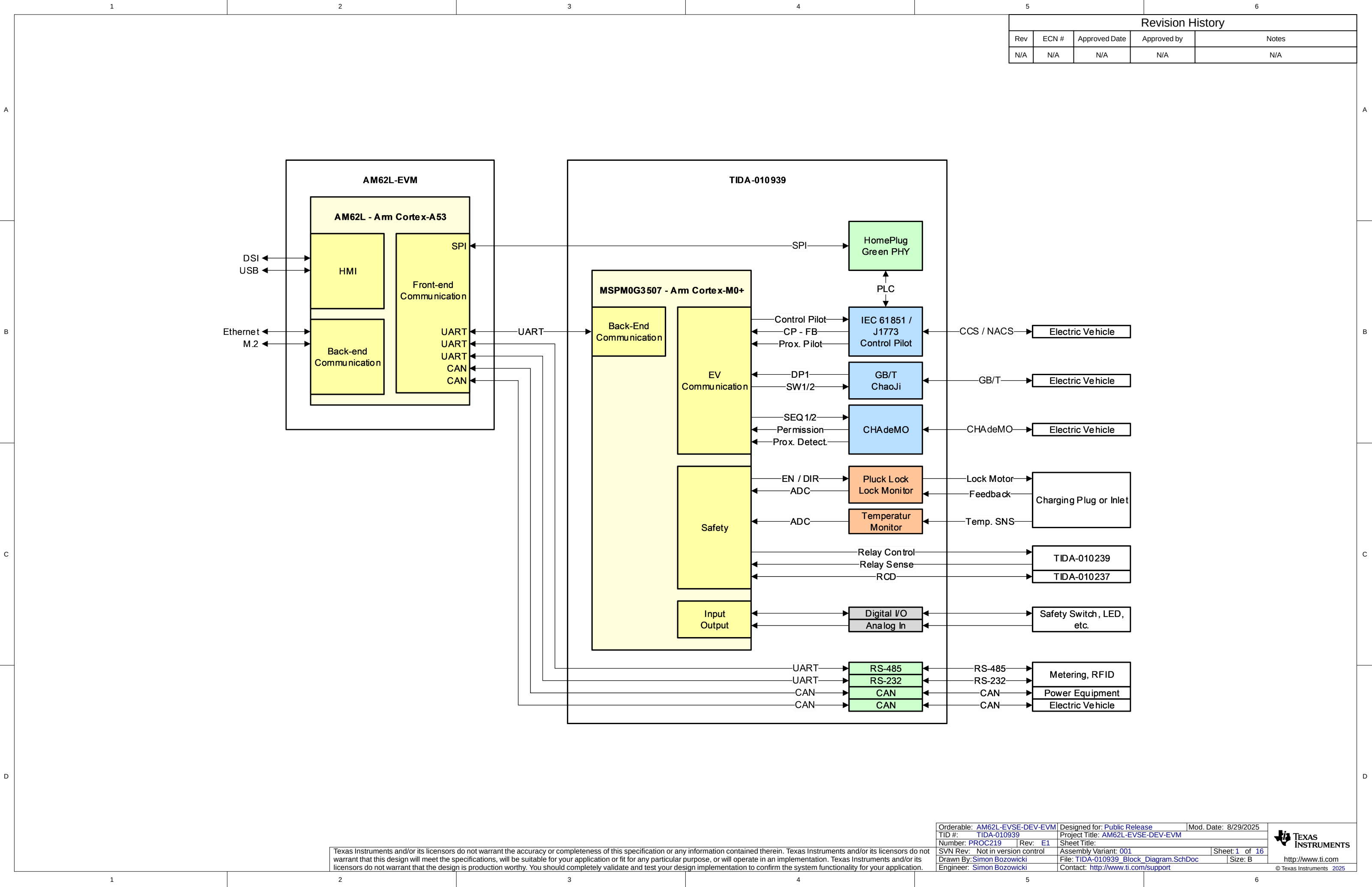
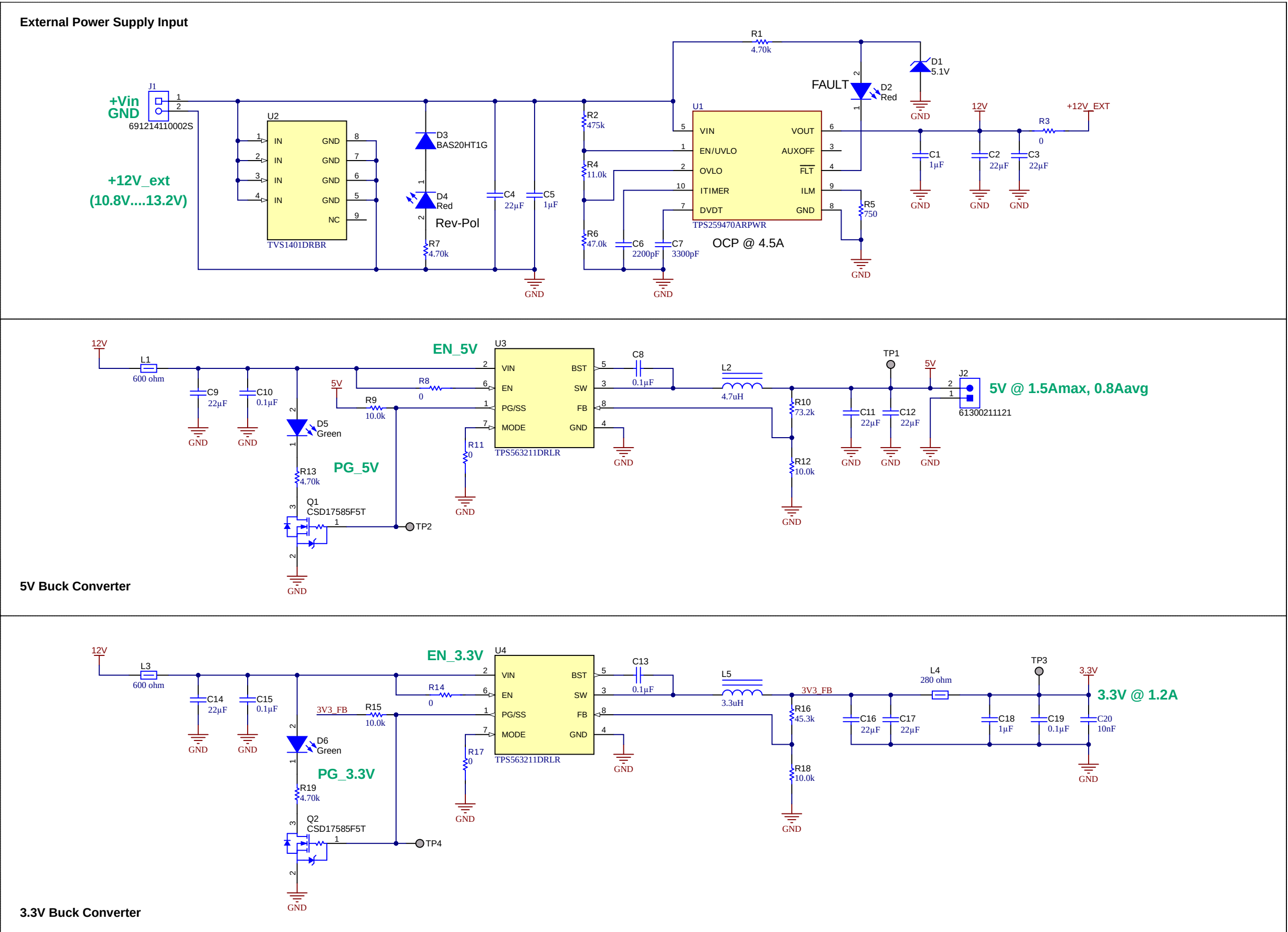




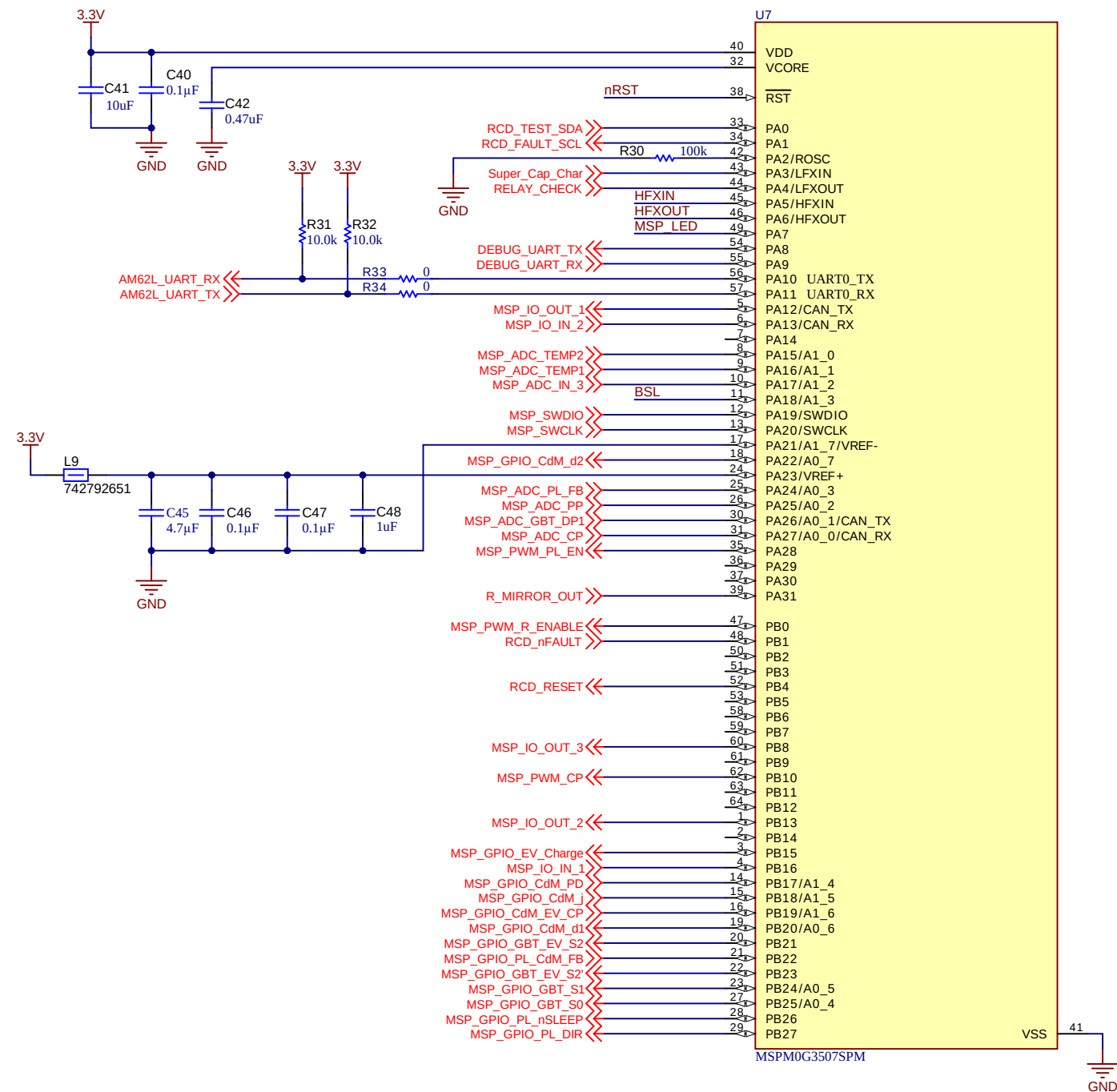
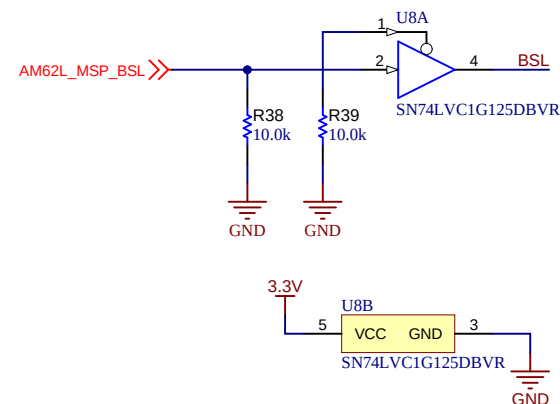
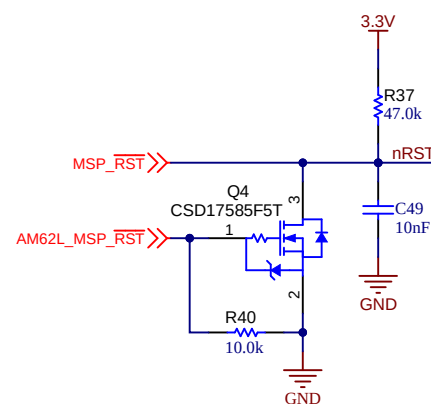
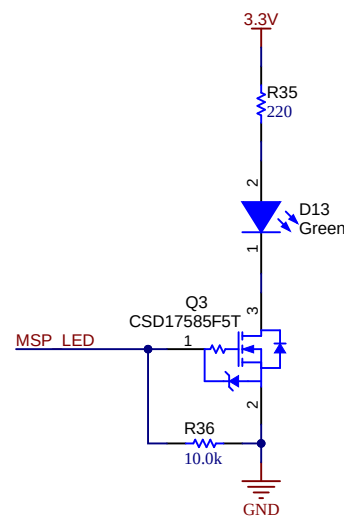
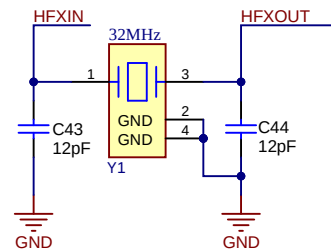
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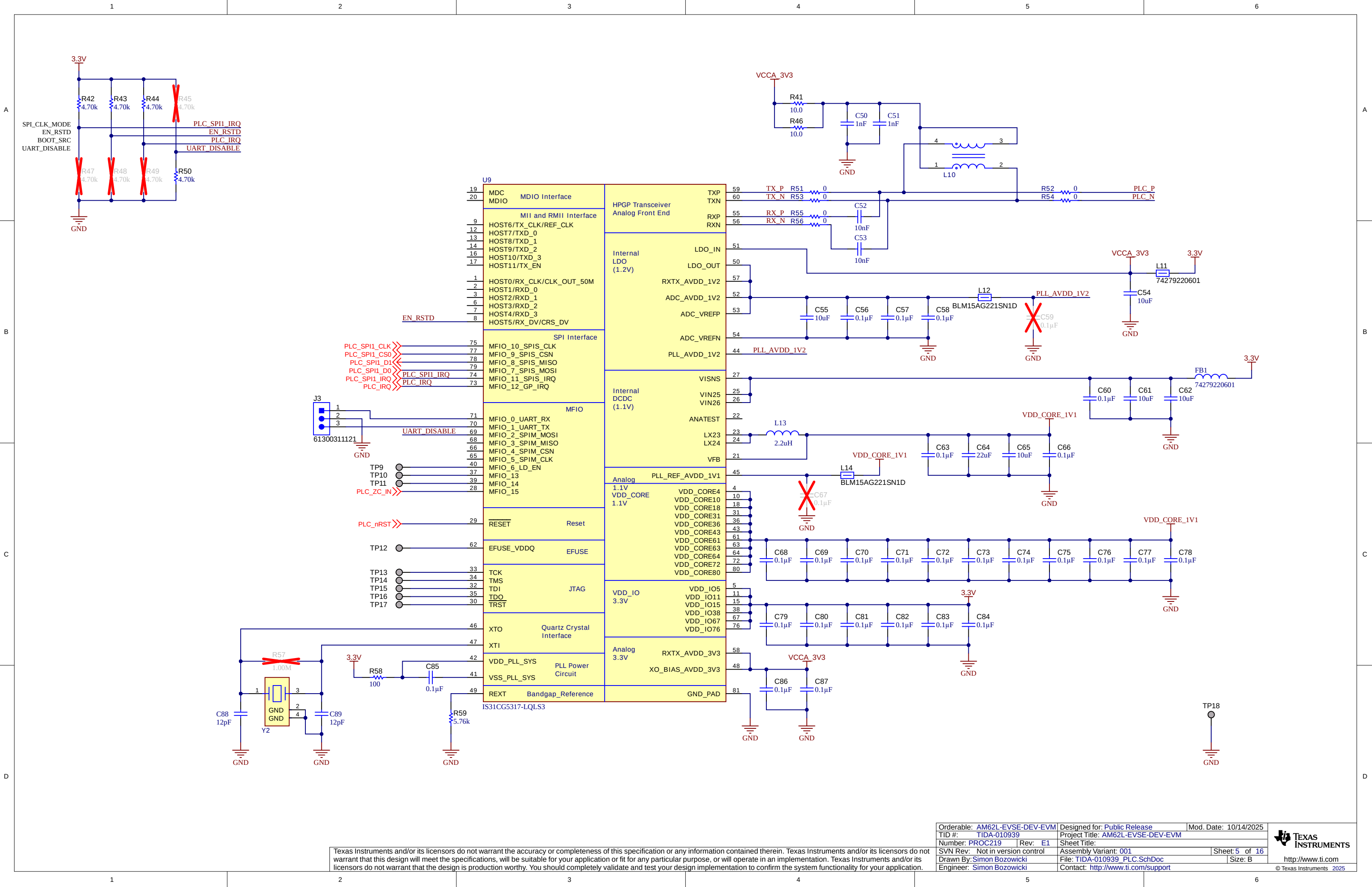
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TID #: TIDA-010939	Project Title: AM62L-EVSE-DEV-EVM	
Number: PROC219	Rev: E1	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 1 of 16
Drawn By: Simon Bozowicki	File: TIDA-010939_Block_Diagram.SchDoc	Size: B
Engineer: Simon Bozowicki	Contact: http://www.ti.com/support	



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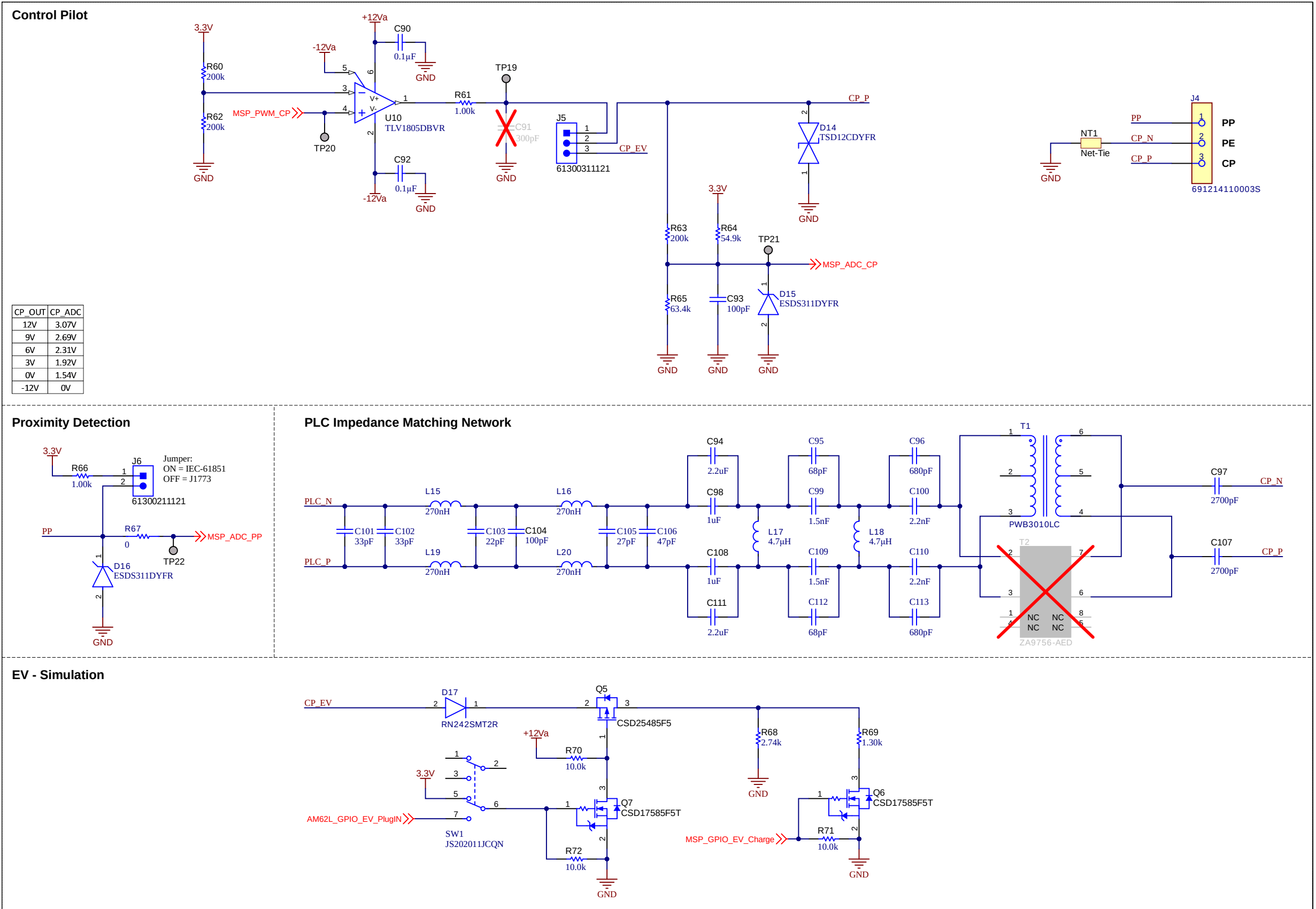
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Number: PROC219	Rev: E1	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 2 of 16
Drawn By: Simon Bozowicki	File: TIDA-010939_Power_IN_Dig.SchDoc	Size: B
Engineer: Simon Bozowicki	Contact: http://www.ti.com/support	





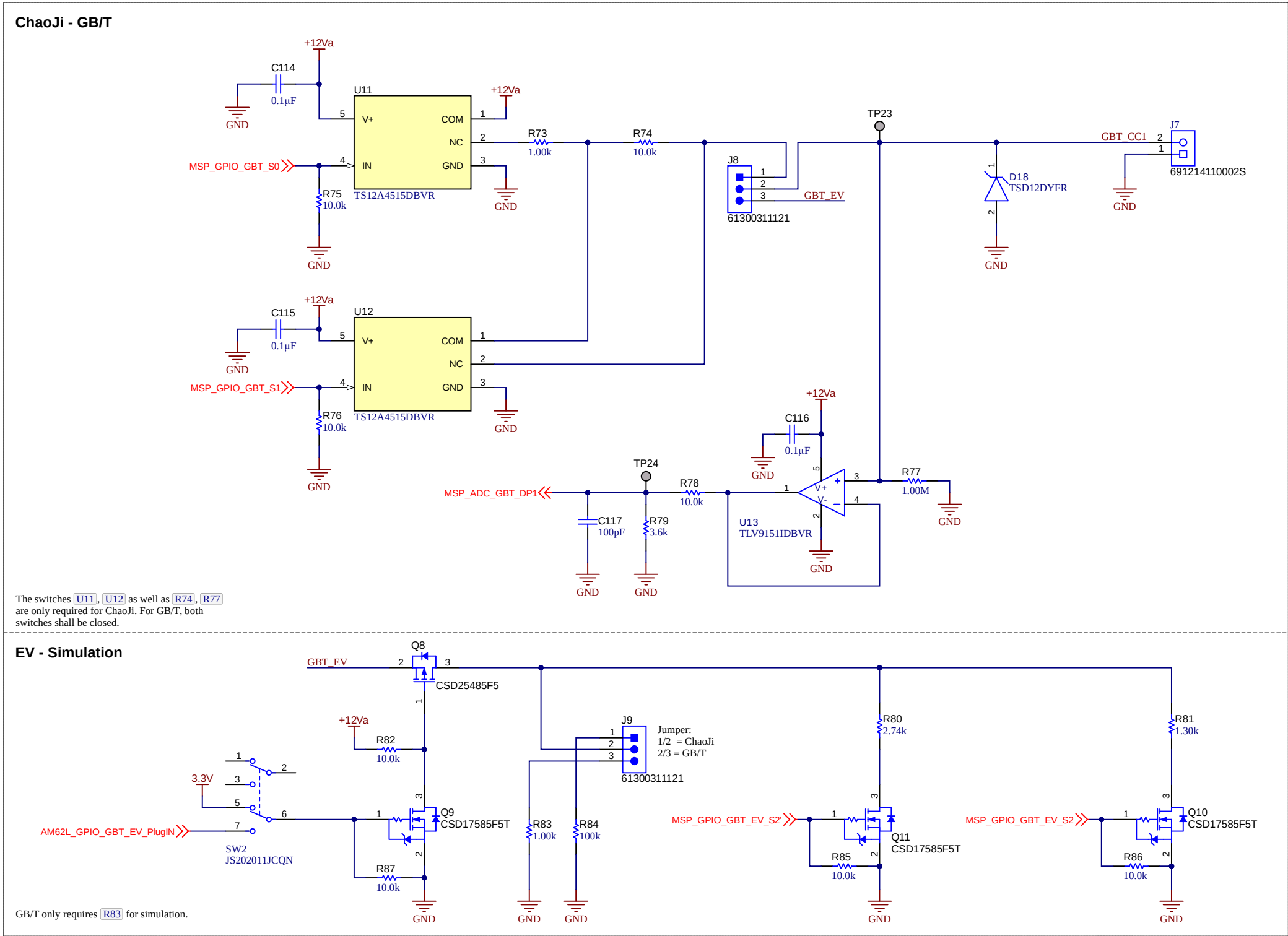
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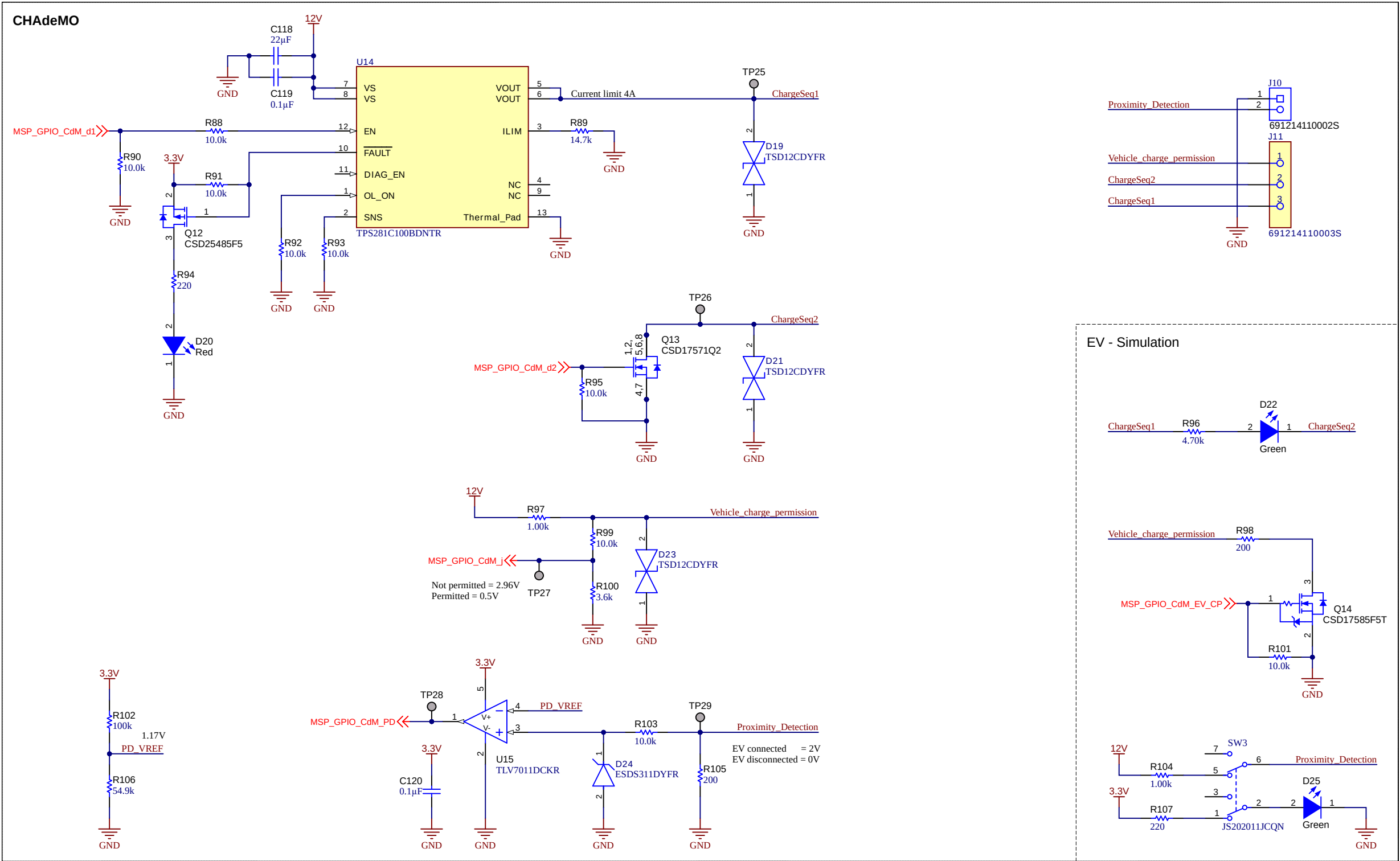
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Number: PROC219	Rev: E1	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 5 of 16
Drawn By: Simon Bozowicki	File: TIDA-010939_PLC.SchDoc	Size: B
Engineer: Simon Bozowicki	Contact: http://www.ti.com/support	



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Orderable: AM62L-EVSE-DEV-EVM	Designed for: Public Release	Mod. Date: 10/15/2025
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Number: PROC219	Rev: E1	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 6 of 16
Drawn By: Simon Bozowicki	File: TIDA-010939_Pilot_Interface.SchDoc	Size: B
Engineer: Simon Bozowicki	Contact: http://www.ti.com/support	





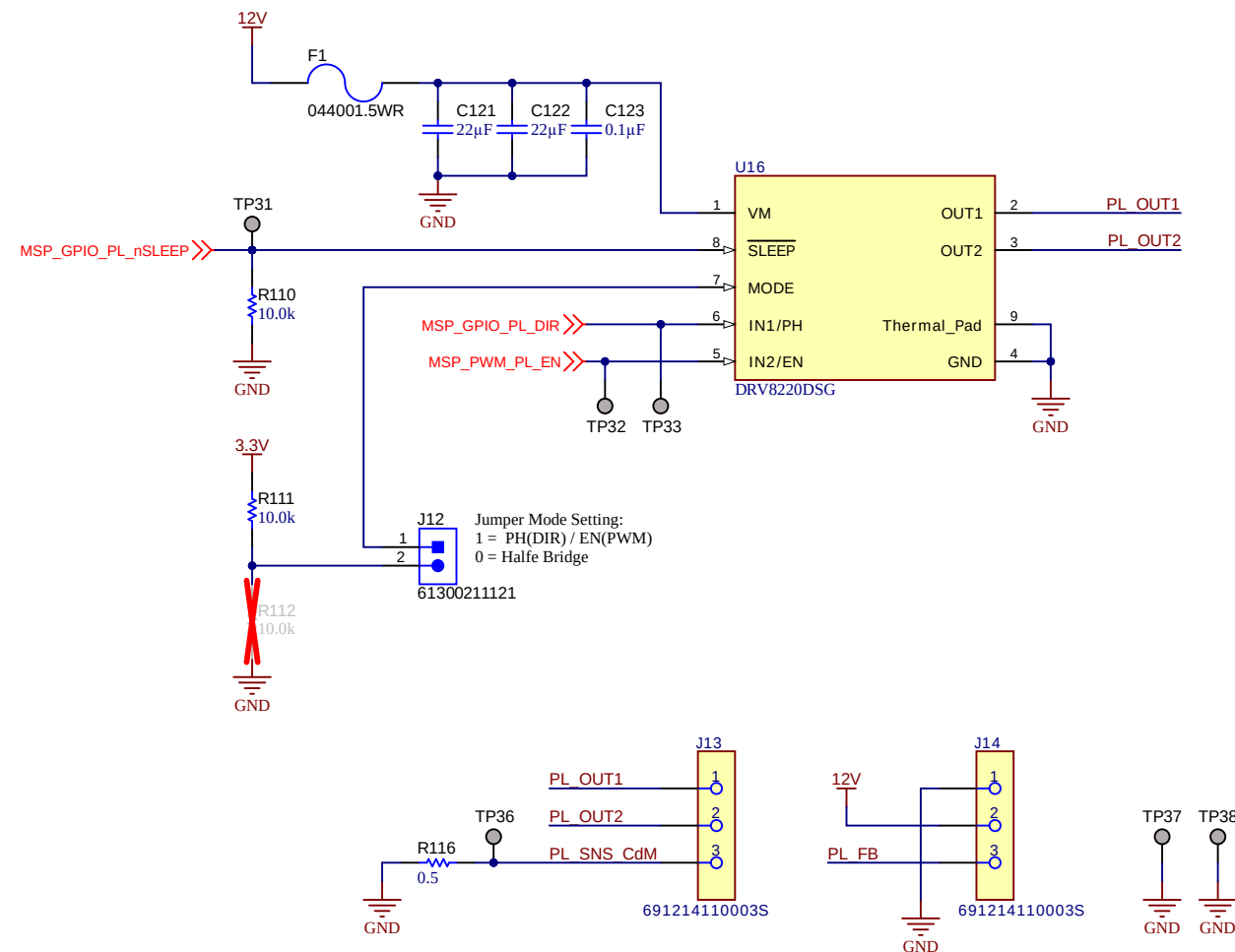
Requirements of the power supply to the vehicle according to IEEE Std 2030.1.1-2021

Supply voltage 12 V (dc) $\pm 10\%$, Continuous rating 2 A, 24 W - Short-circuit current to the vehicle shall decrease less than 6 A within 1 s after the short circuit occurs. Charge Sequence 1/2 is used to switch the EVs HV relay.

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TID #: TIDA-010939	Project Title: AM62L-EVSE-DEV-EVM	
Number: PROC219	Rev: E1	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 8 of 16
Drawn By: Simon Bozowicki	File: TIDA-010939_CHAdemo_SchDoc	Size: B
Engineer: Simon Bozowicki	Contact: http://www.ti.com/support	

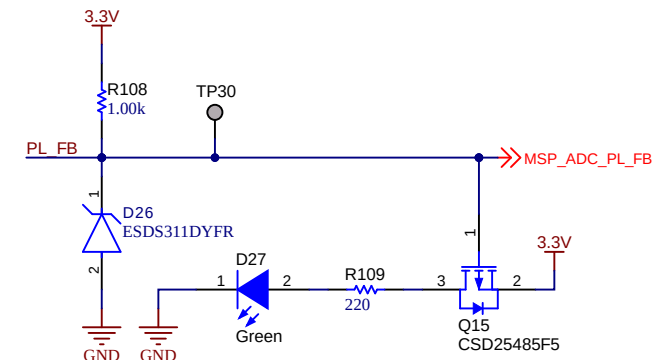
DRV8220DSG / Motor DRV Plug Lock



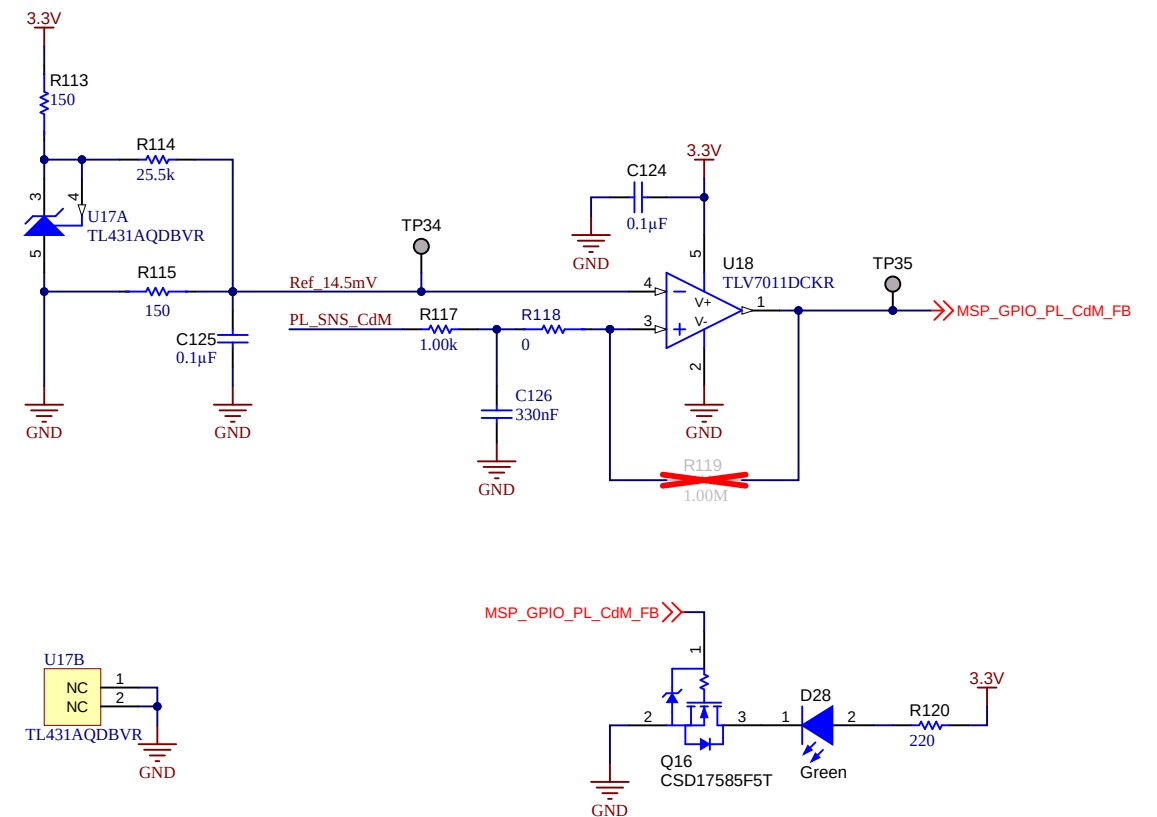
Charging inlets / plug contain a motorized locking mechanism, designed to prevent removal of the cable during the charging cycle, when hazardous voltages can be present and to prevent cable theft. For CCS or GB/T the motor is a simple DC motor, driving a locking pin. For proper operation, 12V is being applied in different polarities to the DC motor to push a pin into the inlet, or to extract it.

The CHAdMO pluck lock consist of a solenoid, located in the charging plug, that only can be activated if the pluck is mated with the electric vehicle. To monitor the status of the lock, the current consumption of the solenoid shall be measured.

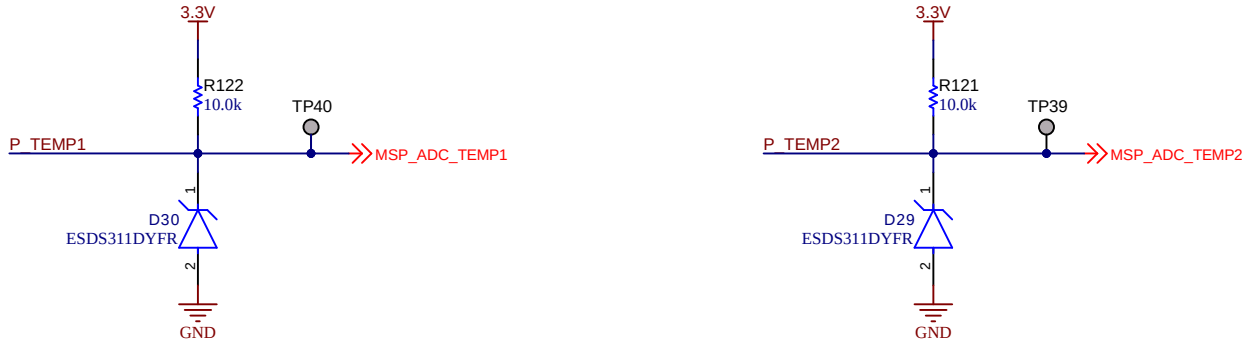
Feedback CCS/GBT - dedicated switch / resistors inside the charging plug



Feedback CHAdEMO - via current sense



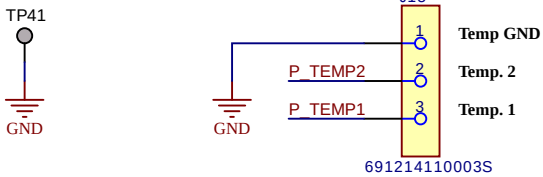
Temperatur sensing



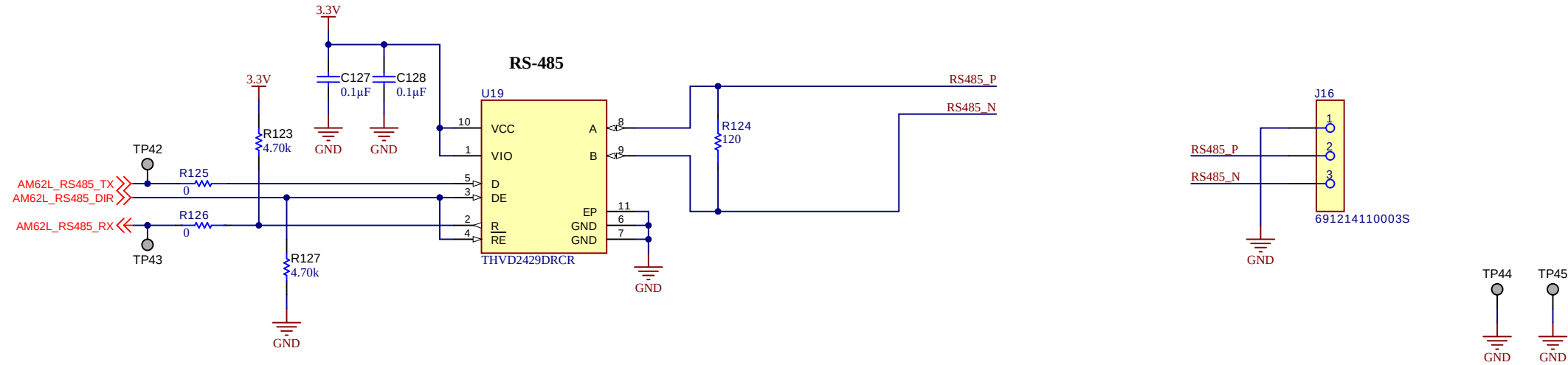
Charging plugs and inlets come with integrated PT1000 temperature sensors. During high current charging, it is possible to encounter dangerous temperatures if the cable or contactors are damaged. The SECC will shut down the charging cycle in case limits are exceeded. To verify functionality of the sensors the temperature difference between two sensors can be measured during idle state.

PT1000, Measurement Current 0.33mA

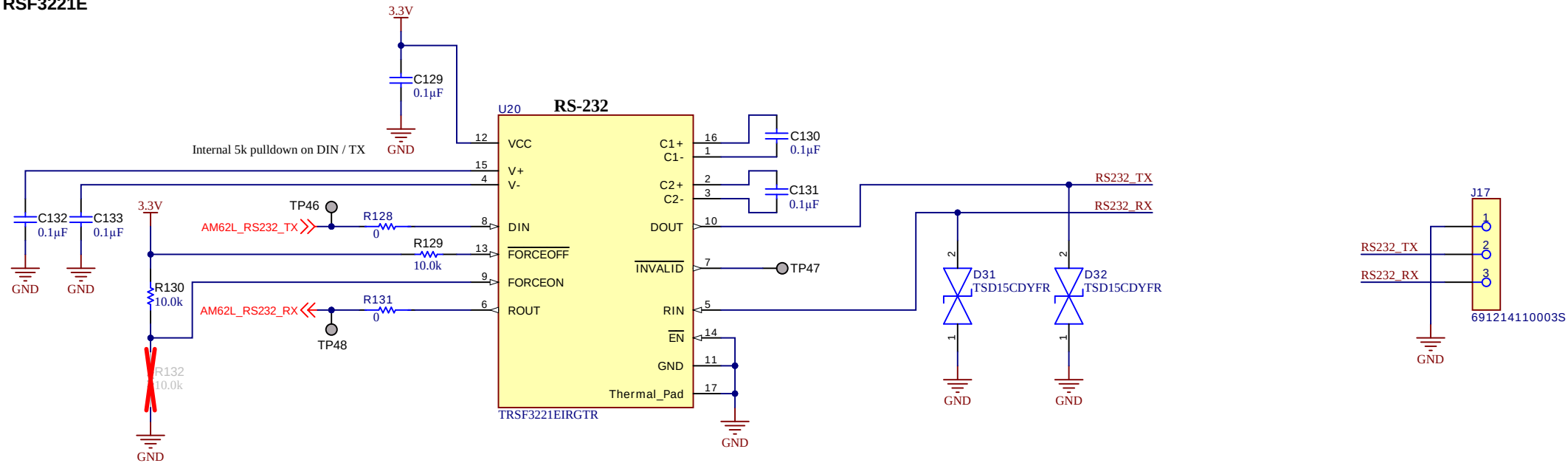
Temperatur °C	R
-40	842.7
-20	921.6
0	1000
20	1077.9
40	1155.4
60	1232.4
80	1309.0
100	1385.1



RS-485 Transceiver / THVD2429

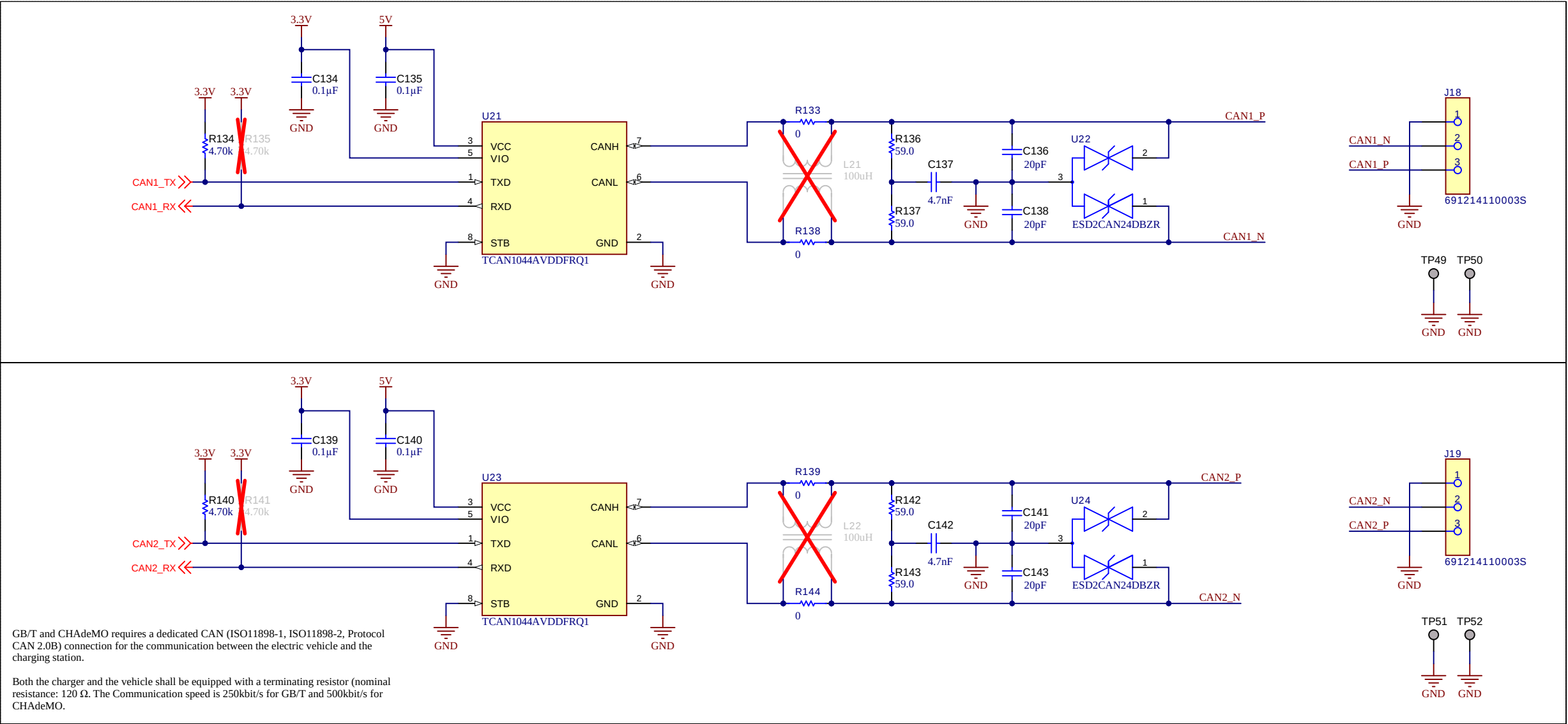


RS-232 Transceiver / TRSF3221E



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TCAN1044AVDDFRQ1 / CAN Transceiver



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Number: PROC219	Rev: E1	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 12 of 16
Drawn By: Simon Bozowicki	File: TIDA-010939_CAN.SchDoc	Size: B
Engineer: Simon Bozowicki	Contact: http://www.ti.com/support	

A

B

C

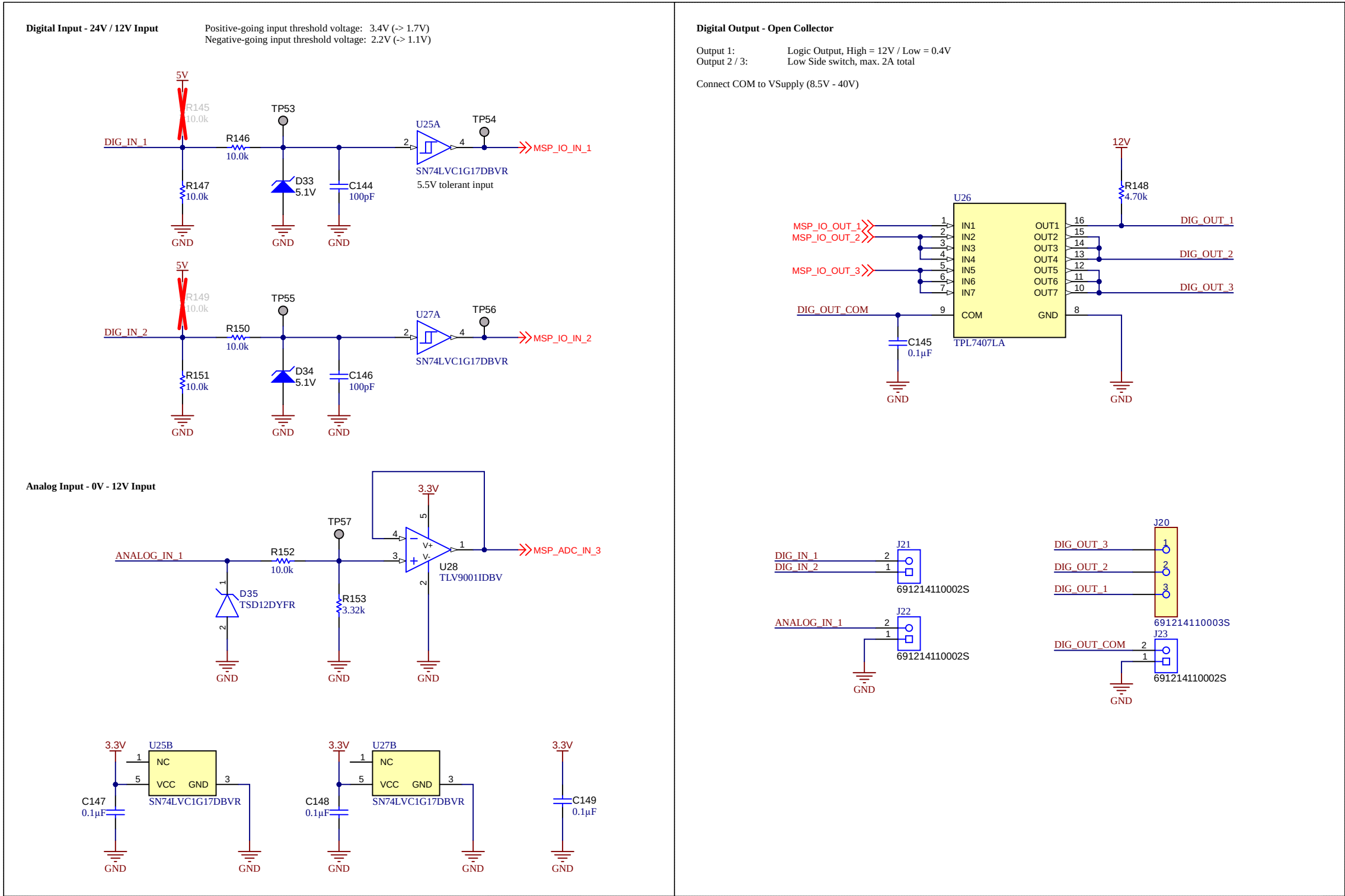
D

A

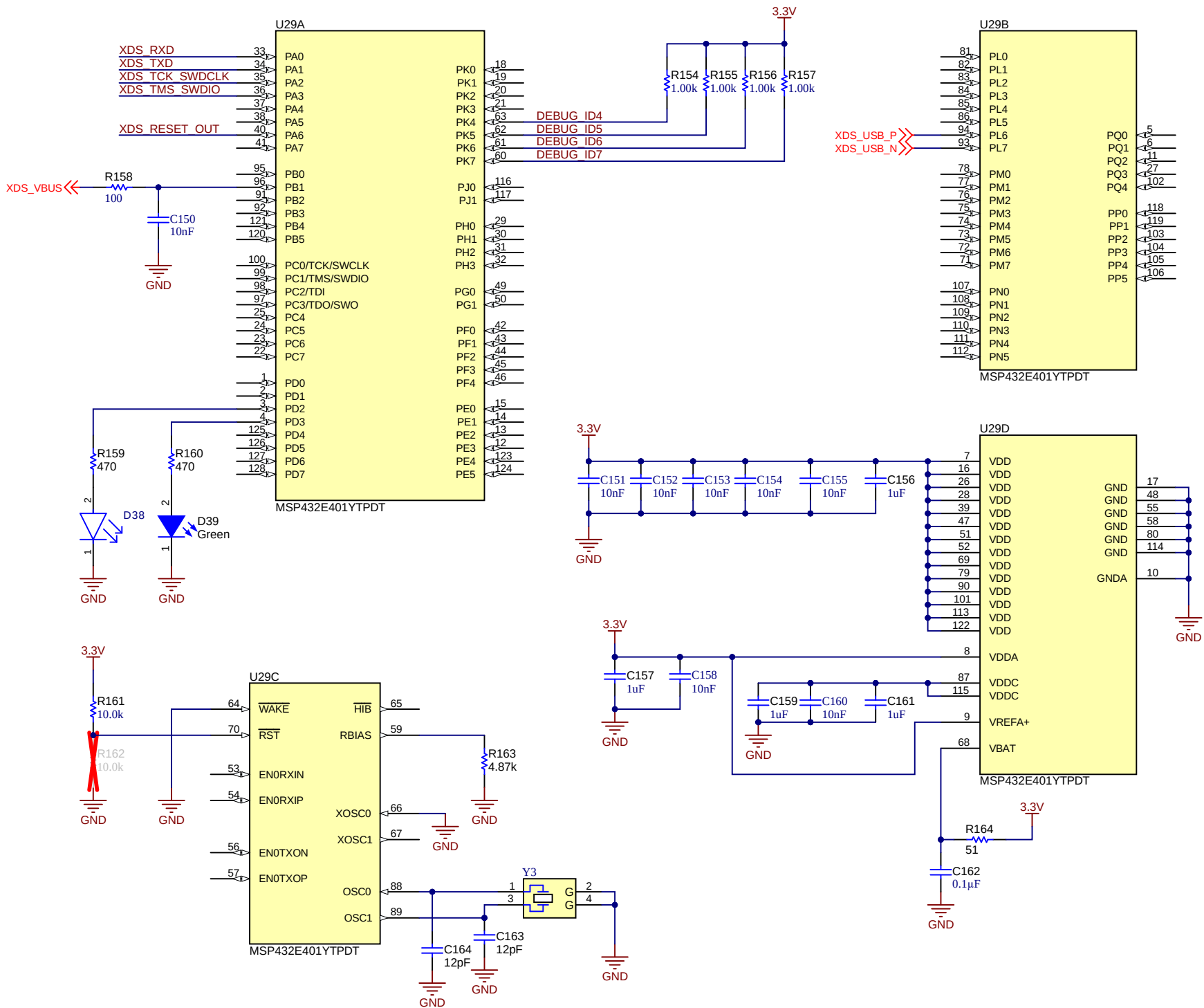
B

C

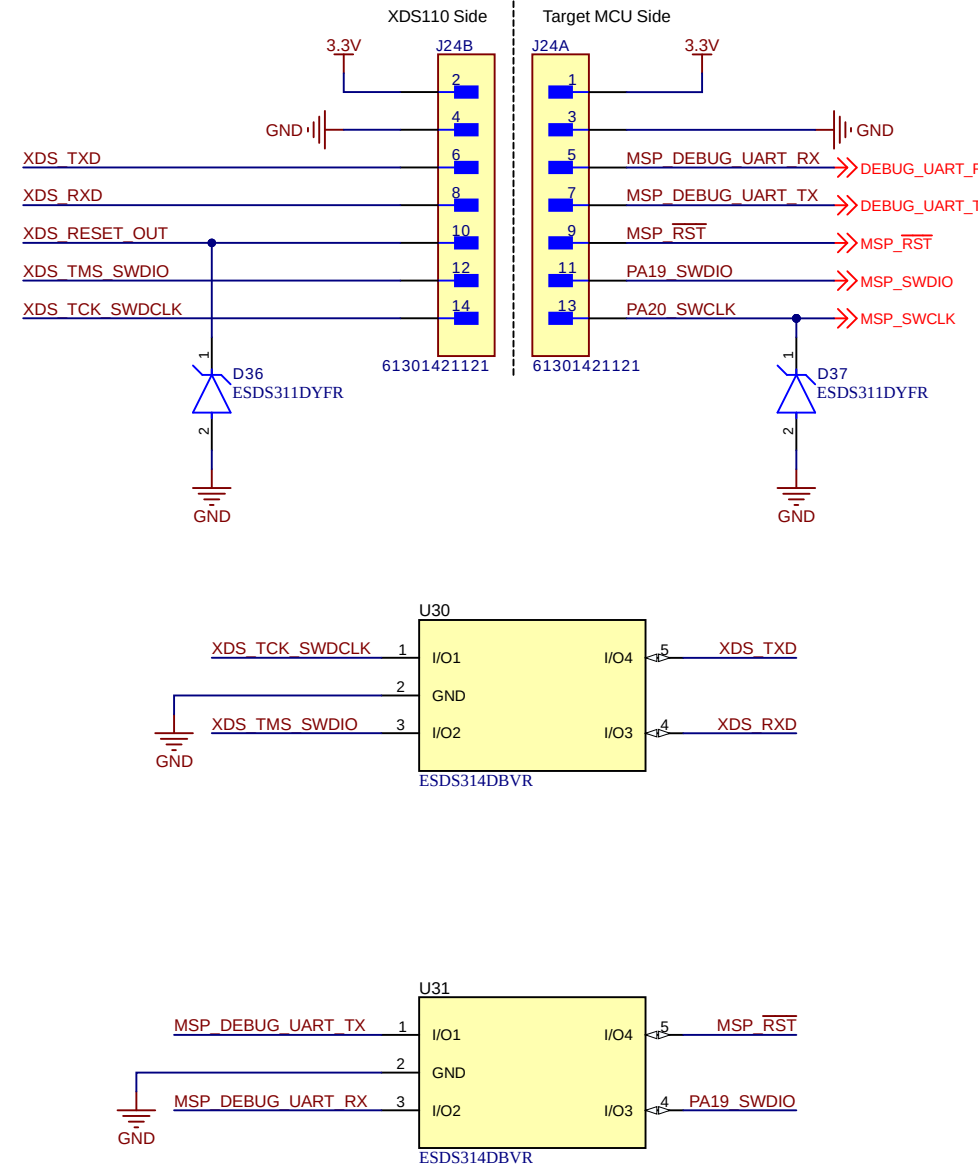
D



XDS110 Device



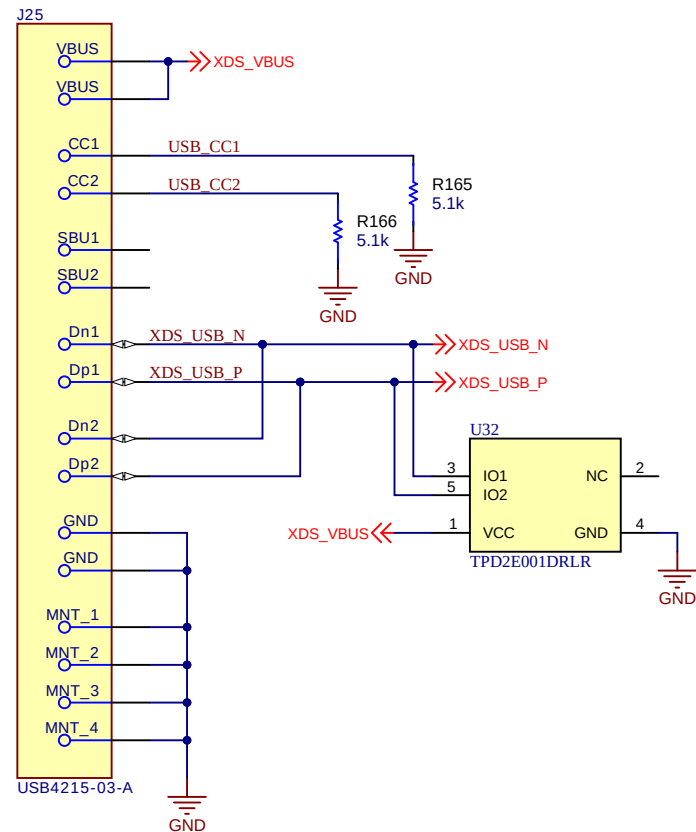
XDS110 Target Interface



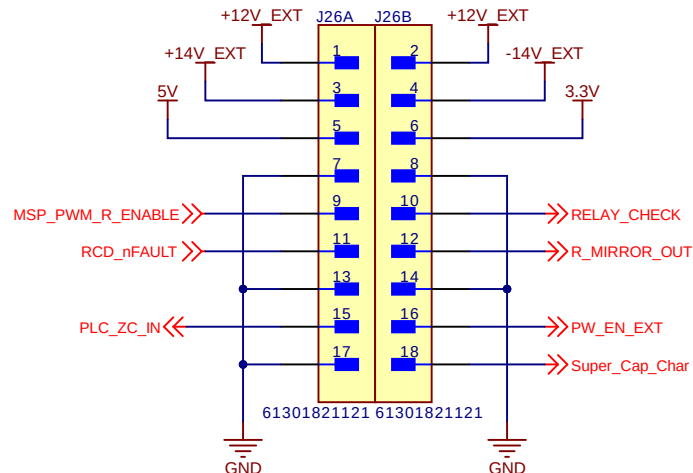
To debug the MSPM0, ensure that the jumpers on J24 are connected to pass the SWDIO and SWDCLK signals to the MCU. RXD and TXD are optional. These are for Channel B of the Debugger to enable a serial interface to the connected PC.

If debugging an external target, remove the jumpers and connect the external target.

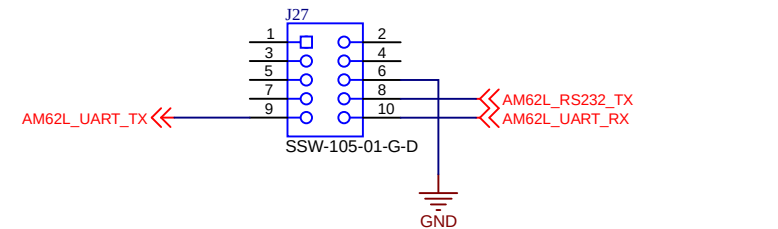
USB-C / Programming



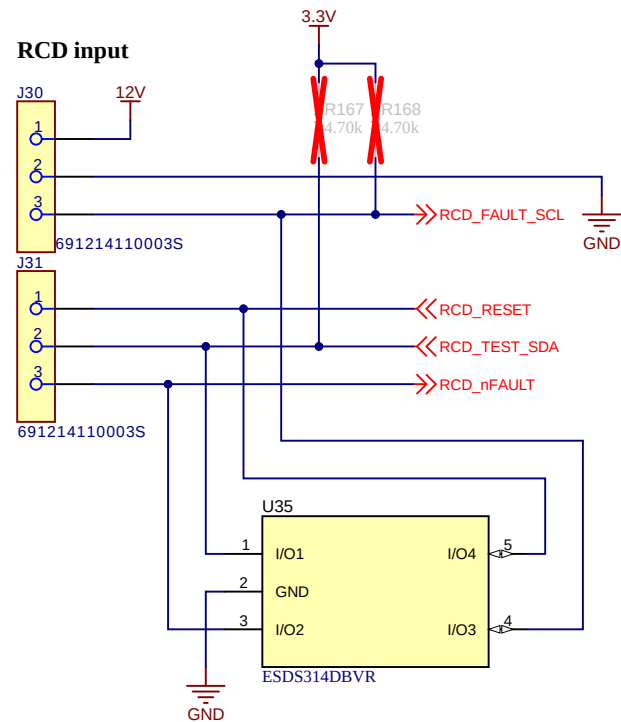
TIDA-010239 Connector



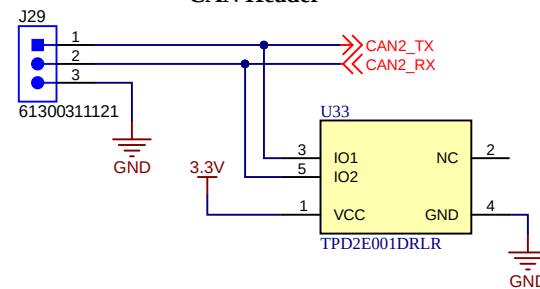
AM62L EVM Connector



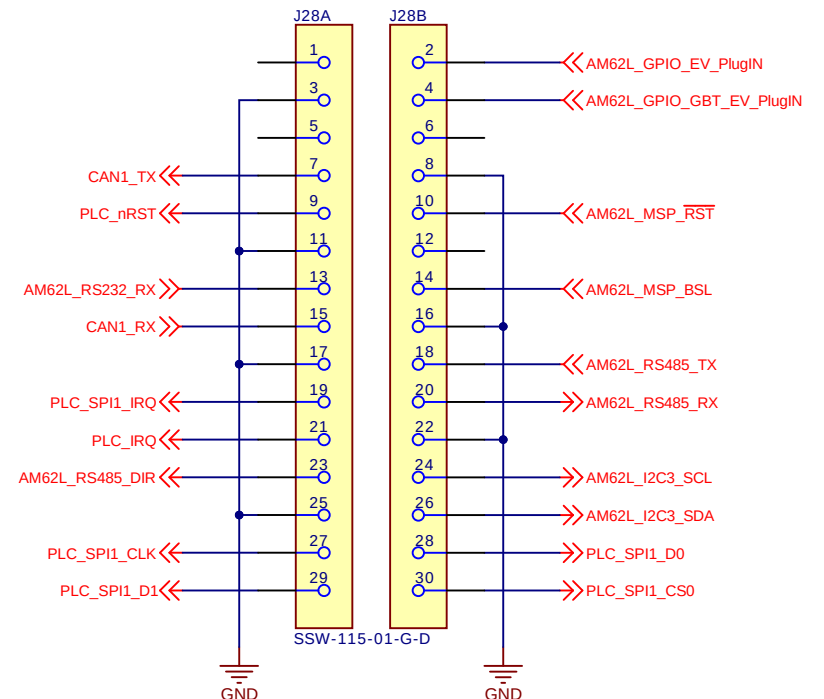
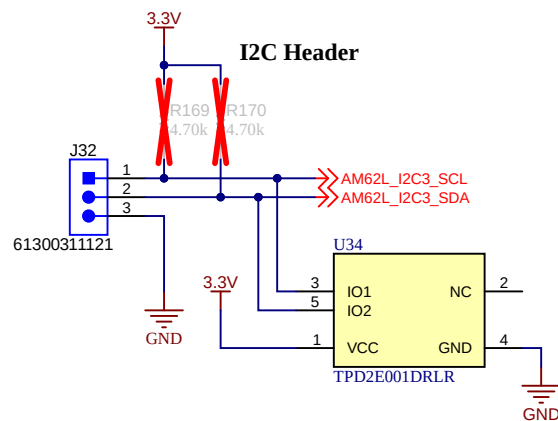
RCD input



CAN Header



I2C Header

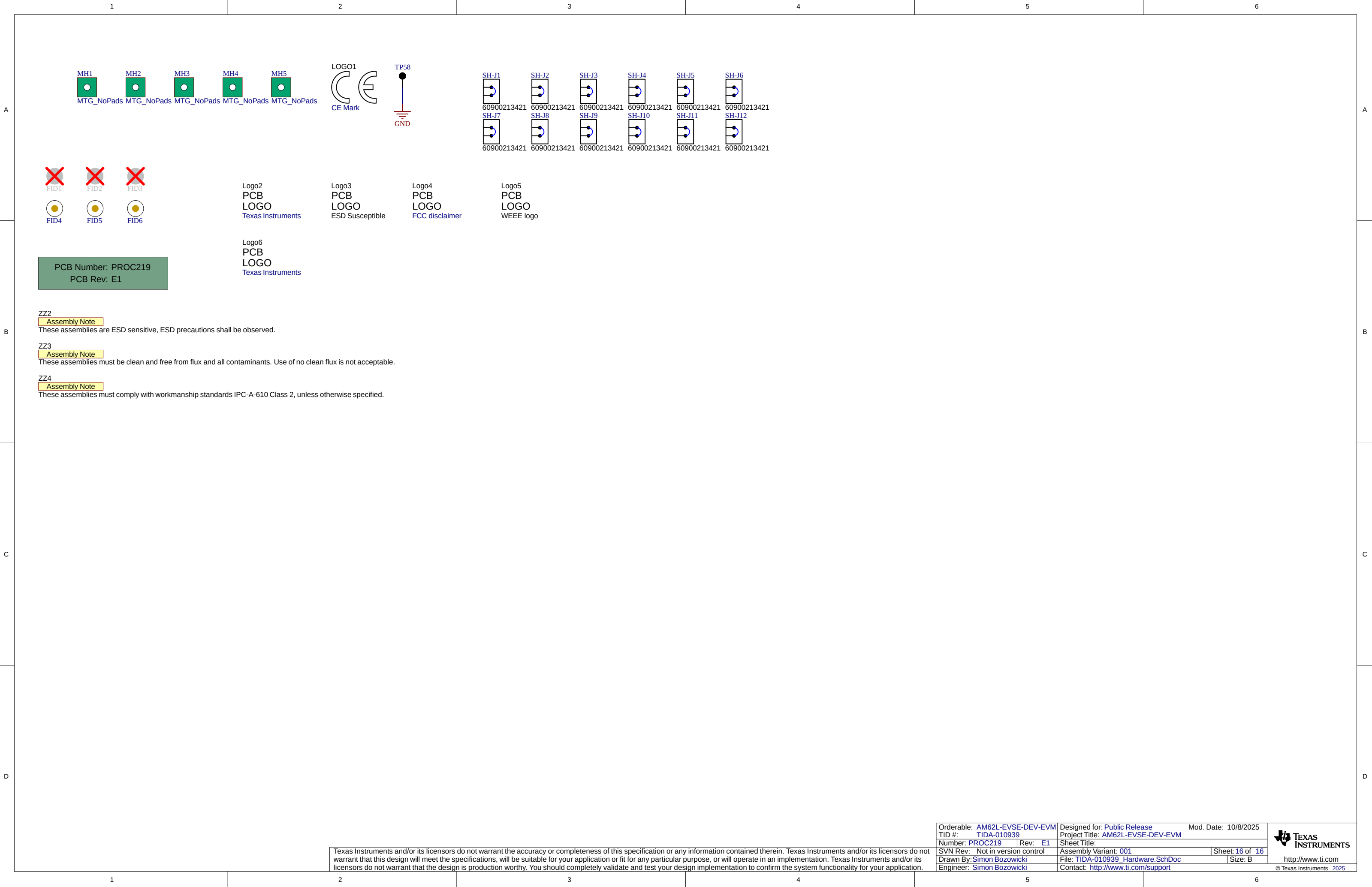


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TID #: TIDA-010939	Project Title: AM62L-EVSE-DEV-EVM	
Number: PROC219	Rev: E1	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 15 of 16
Drawn By: Simon Bozowicki	File: TIDA-010939 Connectors.SchDoc	Size: B
Engineer: Simon Bozowicki	Contact: http://www.ti.com/support	

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