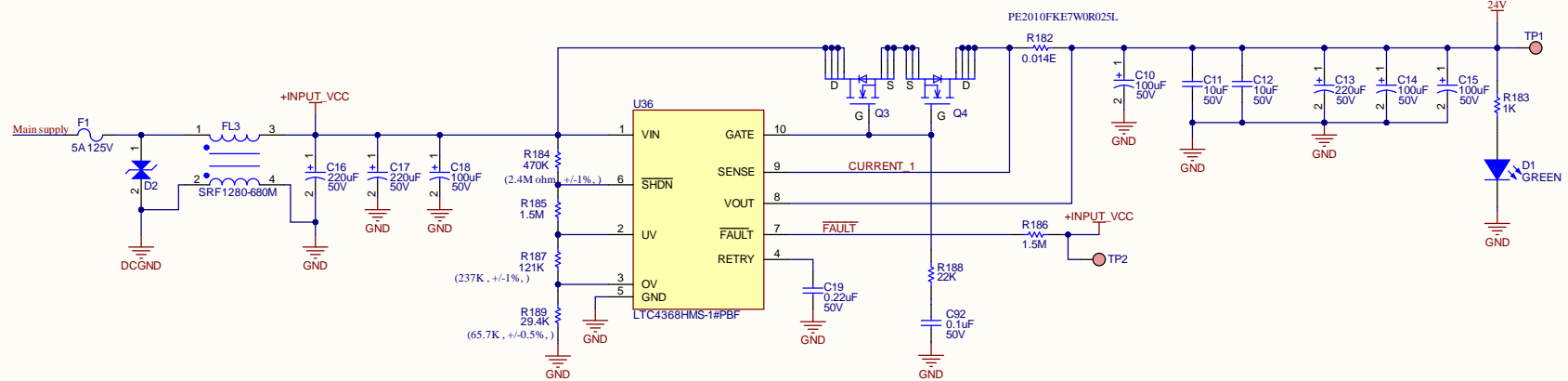
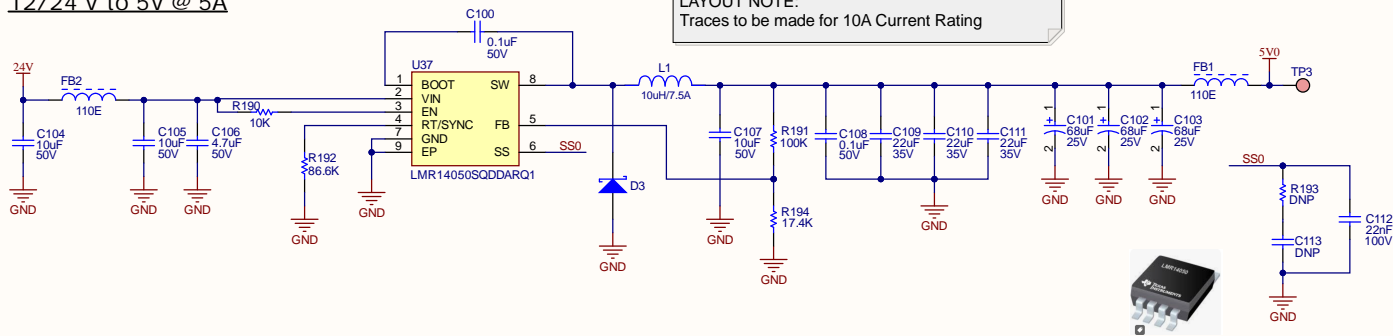


INPUT JACK AND FILTER (24V)



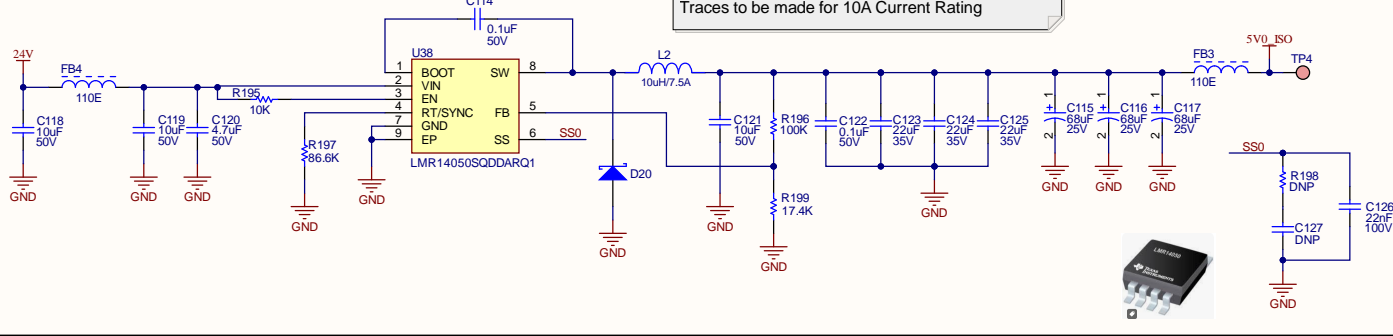
12/24 V to 5V @ 5A

LAYOUT NOTE:
Traces to be made for 10A Current Rating



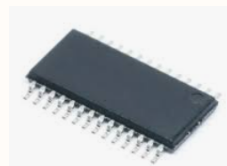
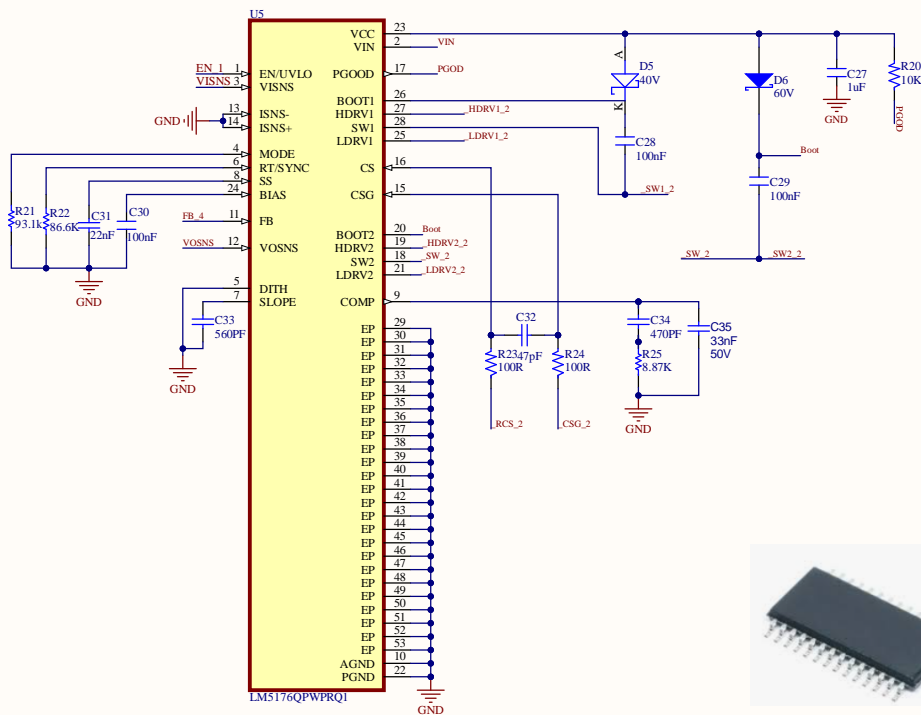
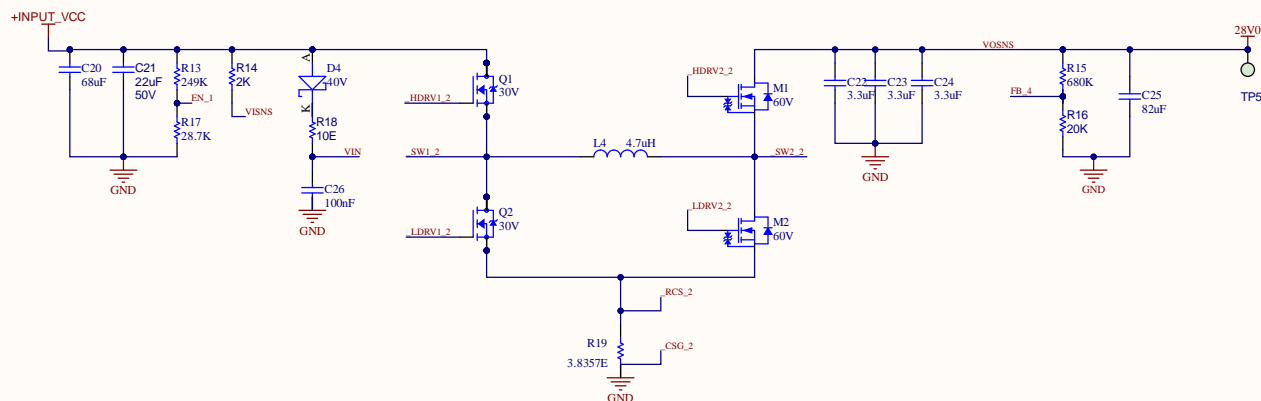
12/24 V to 5V ISO @ 5A

LAYOUT NOTE:
Traces to be made for 10A Current Rating



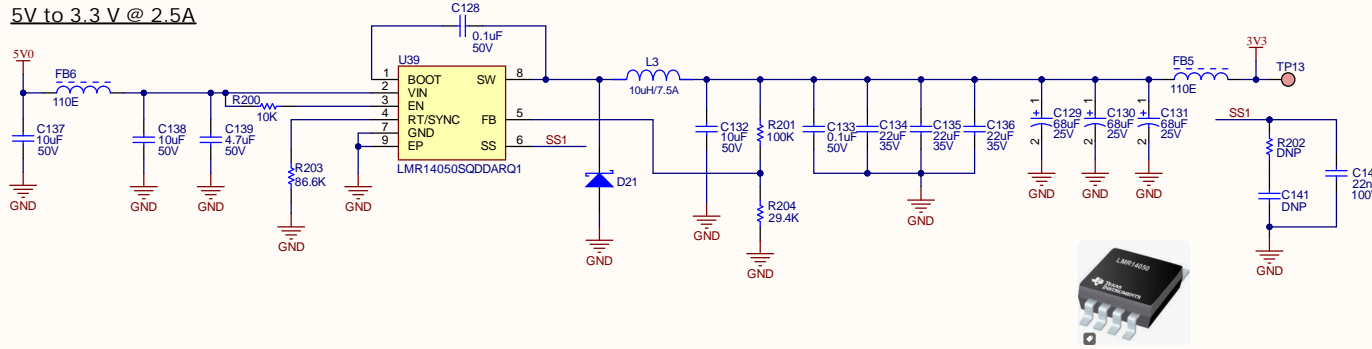
Title		
Size	Number	Revision
A3		
Date:	6/26/2025	Sheet of
File:	C:\Users\...\DC_ConverterSchDoc	Drawn By:

24 V to 28V @ 10A BOOST CONVERTER

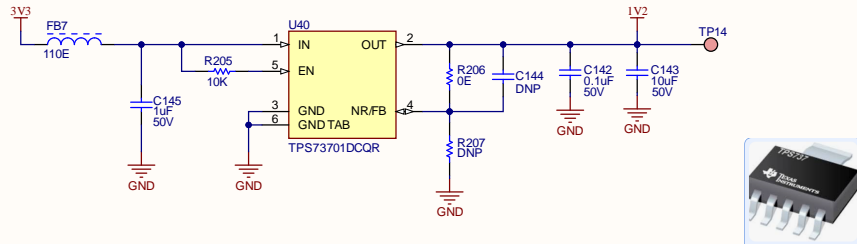


Title		
Size	Number	Revision
A3		
Date:	6/26/2025	Sheet of
File:	C:\Users\...\Boost Converter.SchDoc	Drawn By:

5V to 3.3 V @ 2.5A



3.3 V to 1.2V @ 1A

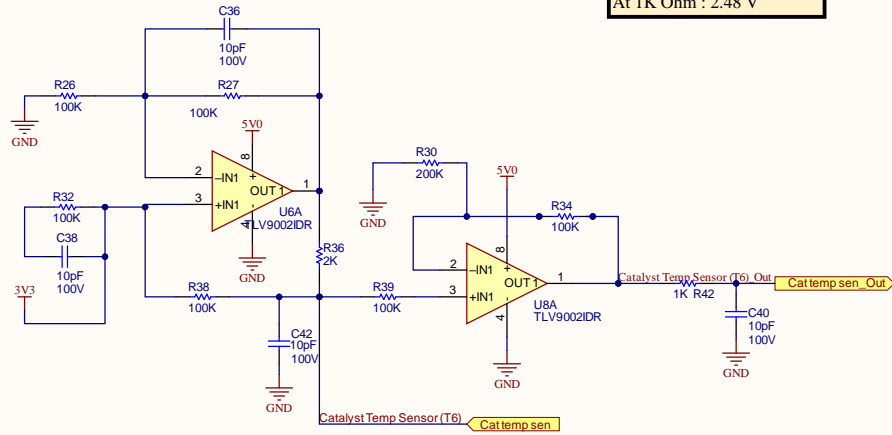


Title		
Size	Number	Revision
A3		
Date:	6/26/2025	Sheet of
File:	C:\Users\...\DC_Converter_1.SchDoc	Drawn By:

Resistive Load Circuits

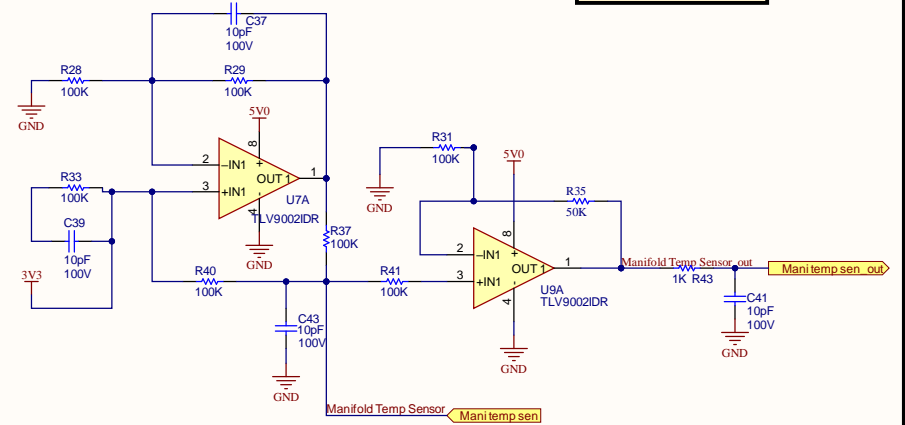
Catalyst Temperature Sensor (169 to 710 Ohm)

At 100 Ohm : 249.97 mV.
At 1K Ohm : 2.48 V



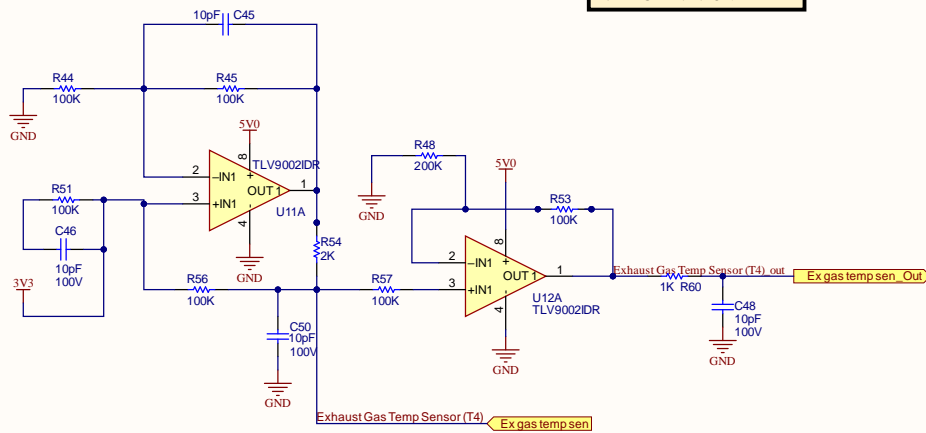
Manifold Pressure Sensor (89.28 to 45303 Ohm)

At 50 Ohm : 8.86 mV.
At 50K Ohm : 2.85 V



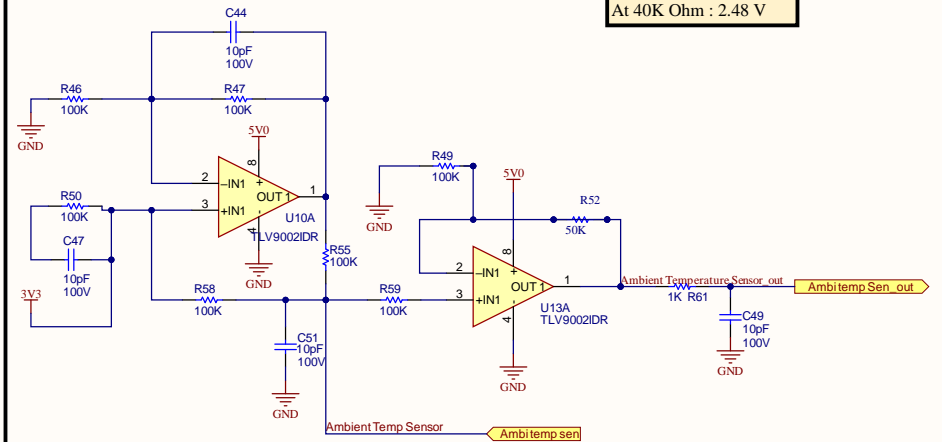
Exhaust Gas Temperature Sensor (169 to 710 Ohm)

At 100 Ohm : 249.97 mV.
At 1K Ohm : 2.48 V



Ambient Temperature Sensor (17.75 to 38833.11 Ohm)

At 10 Ohm : 8.86 mV.
At 40K Ohm : 2.48 V

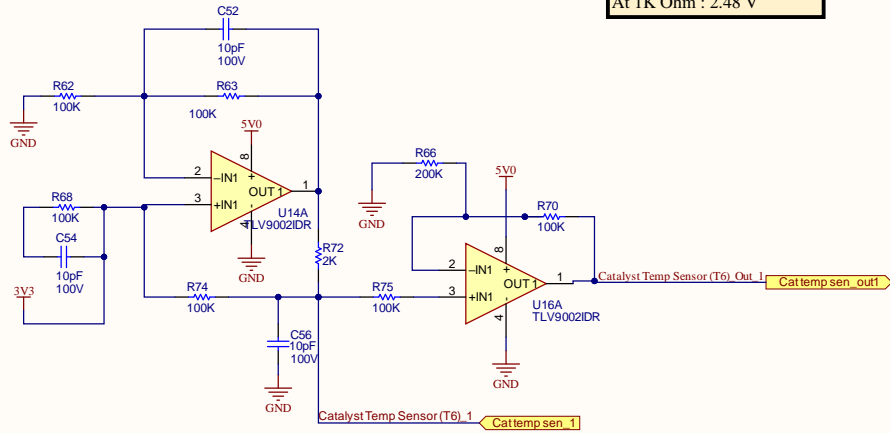


Title		
Size	Number	Revision
A3		
Date:	6/26/2025	Sheet of
File:	C:\Users\Resistive I.SchDoc	Drawn By:

Resistive Load Circuits (This section would be DNP and designed for future expansion)

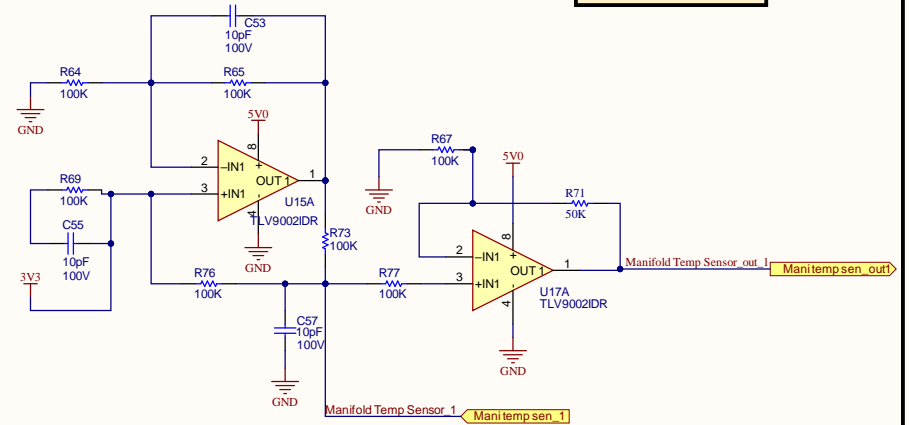
Catalyst Temperature Sensor (169 to 710 Ohm)

At 100 Ohm : 249.97 mV.
At 1K Ohm : 2.48 V



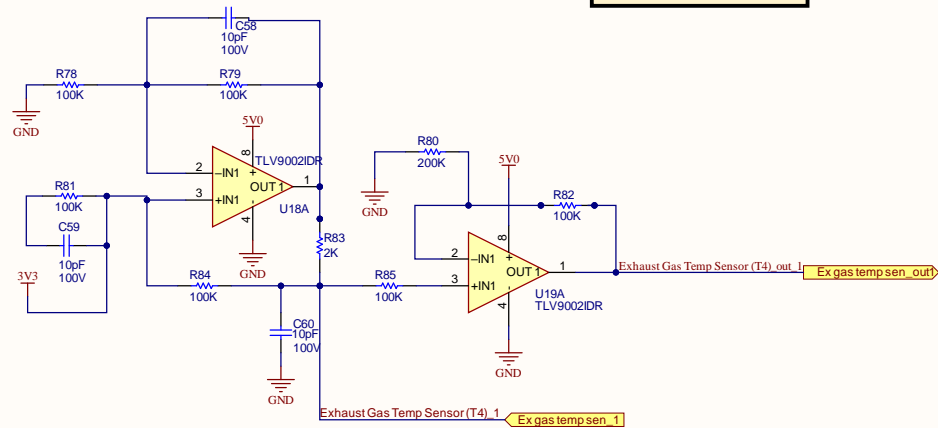
Manifold Pressure Sensor (89.28 to 45303 Ohm)

At 50 Ohm : 8.86 mV.
At 50K Ohm : 2.85 V



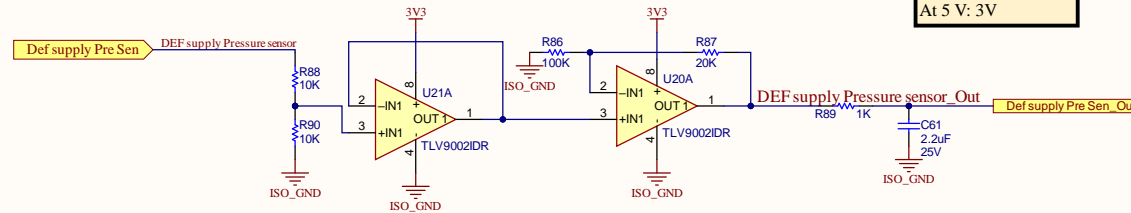
Exhaust Gas Temperature Sensor (169 to 710 Ohm)

At 100 Ohm : 249.97 mV.
At 1K Ohm : 2.48 V

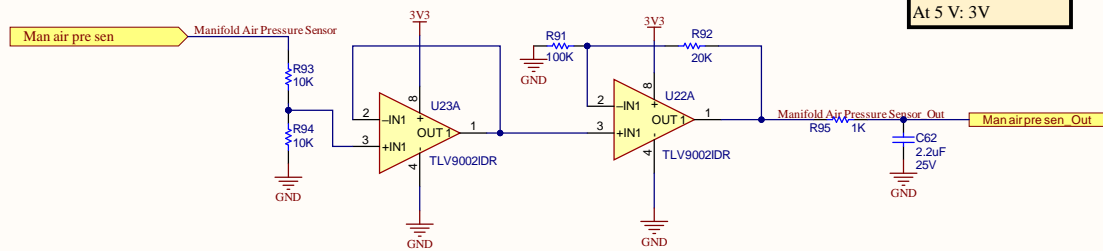


Voltage Load Circuits

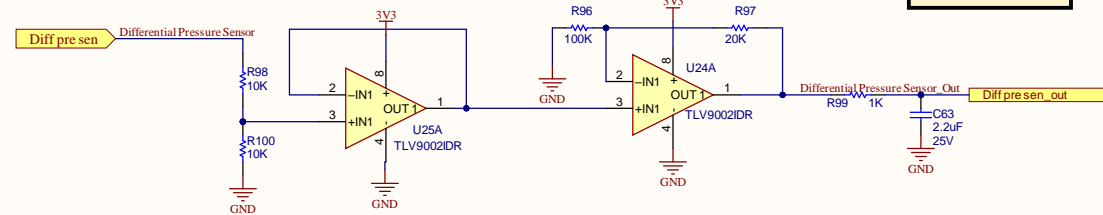
DEF Supply Pressure Sensor (0.25V to 4.75V)



Manifold Air pressure



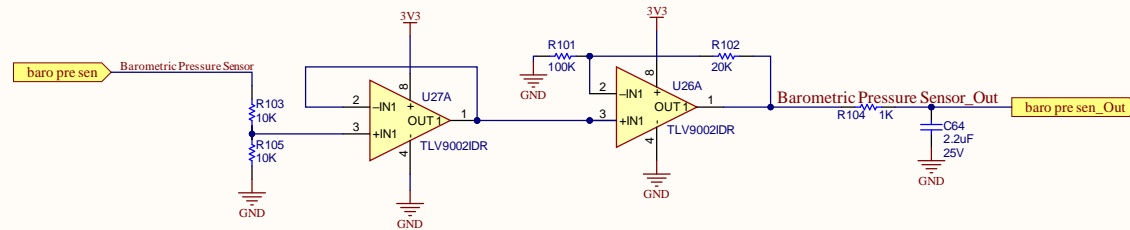
Differential Pressure Sensor



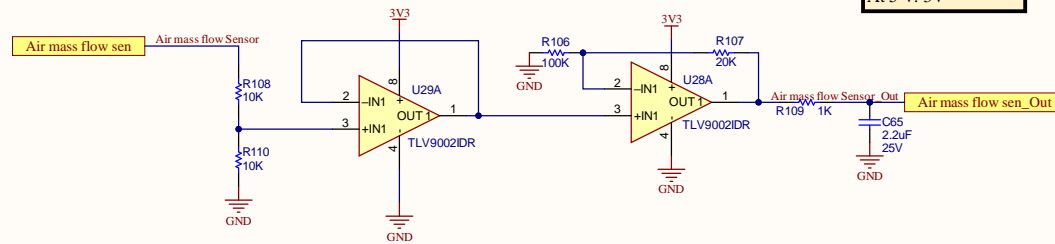
Title		
Size A3	Number	Revision
Date:	6/26/2025	Sheet of
File:	C:\Users\... \Voltage Sense.SchDoc	Drawn By:

Voltage Load Circuits

Barometric Pressure Sensor

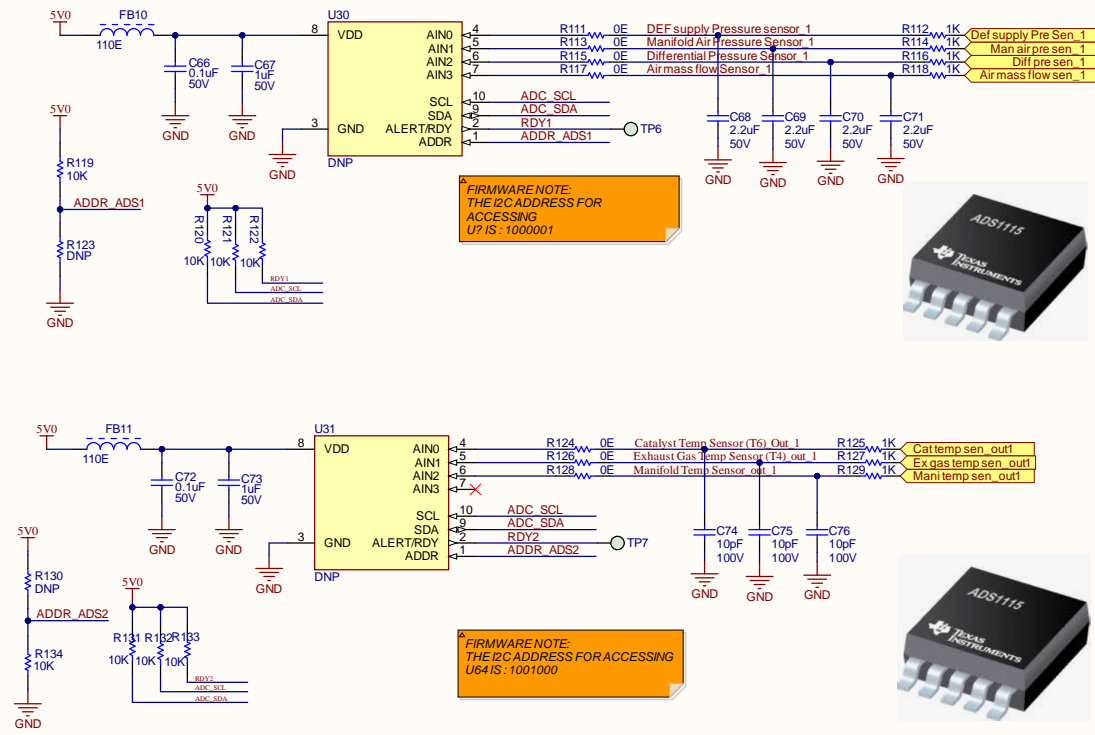


Air mass flow Sensor



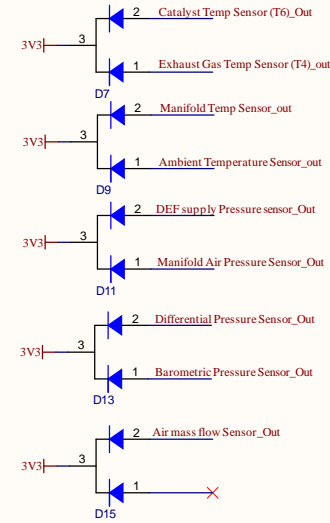
Title		
Size A3	Number	Revision
Date: 6/26/2025	Sheet of	
File: C:\Users\...\Voltage Sense 2.SchDoc	Drawn By:	

ADC (This section would be DNP and designed for future expansion)

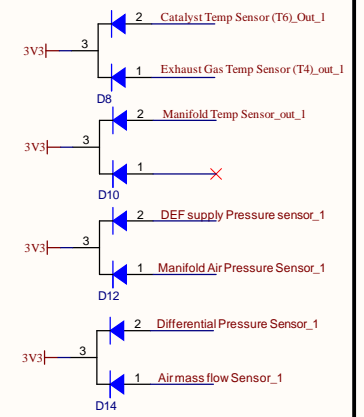


Protection Circuit for Sensor inputs

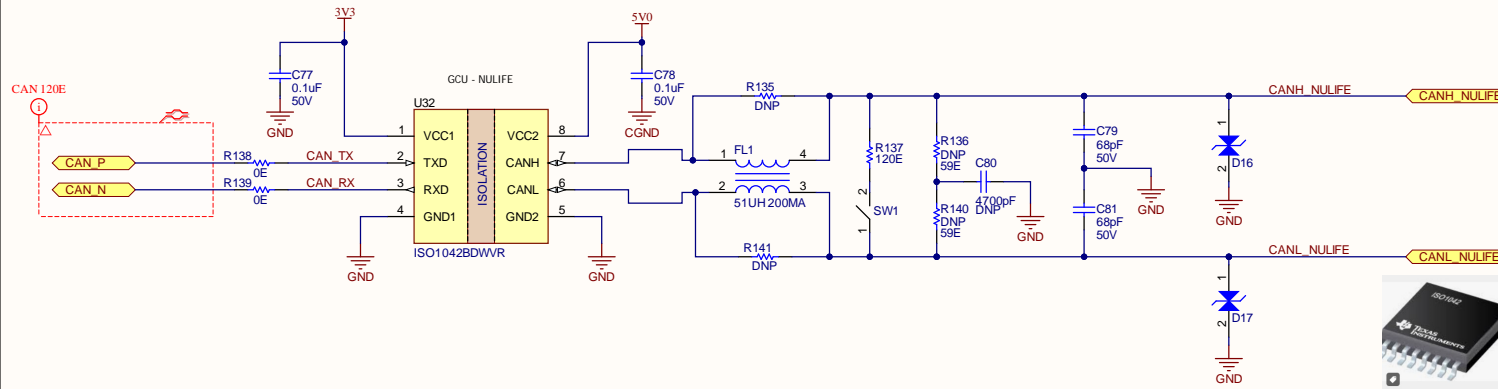
Should be placed



(DNP)



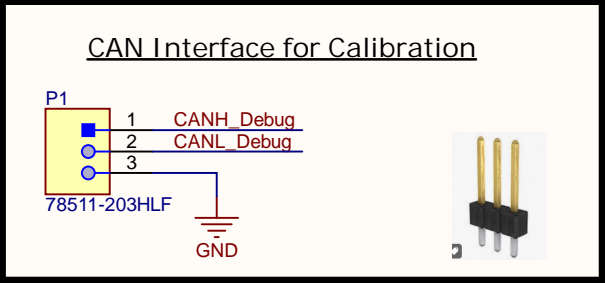
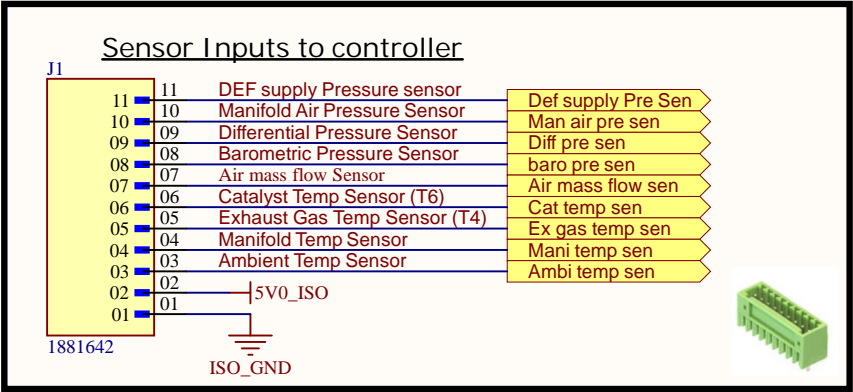
CAN Interface



Title		
Size	Number	Revision
A3		
Date:	6/26/2025	Sheet of
File:	C:\Users\...ADC and CAN.SchDoc	Drawn By:

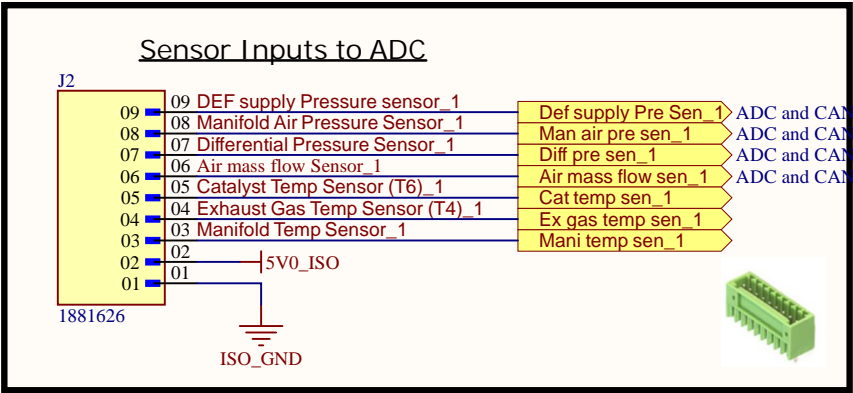
A

A



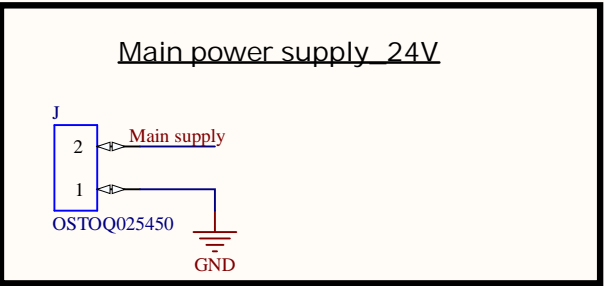
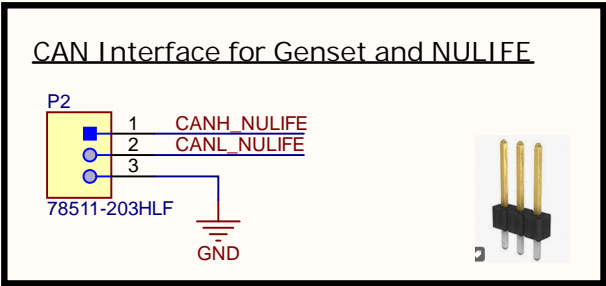
B

B



C

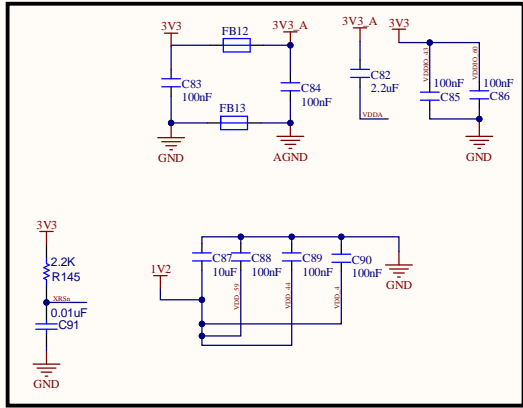
C



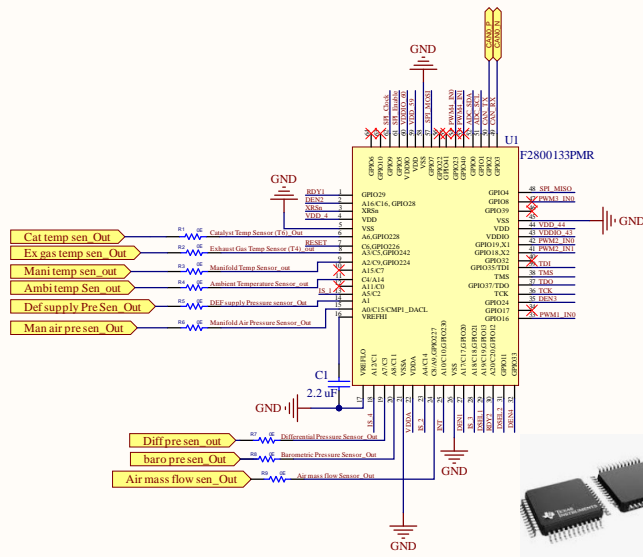
D

D

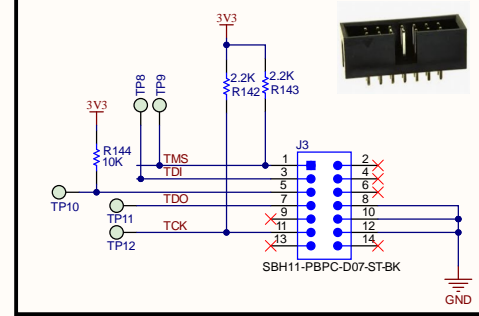
Title		
Size	Number	Revision
A		
Date:	6/26/2025	Sheet of
File:	C:\Users\...\Connector Interface.SchDoc	Drawn By:



Microcontroller Interface

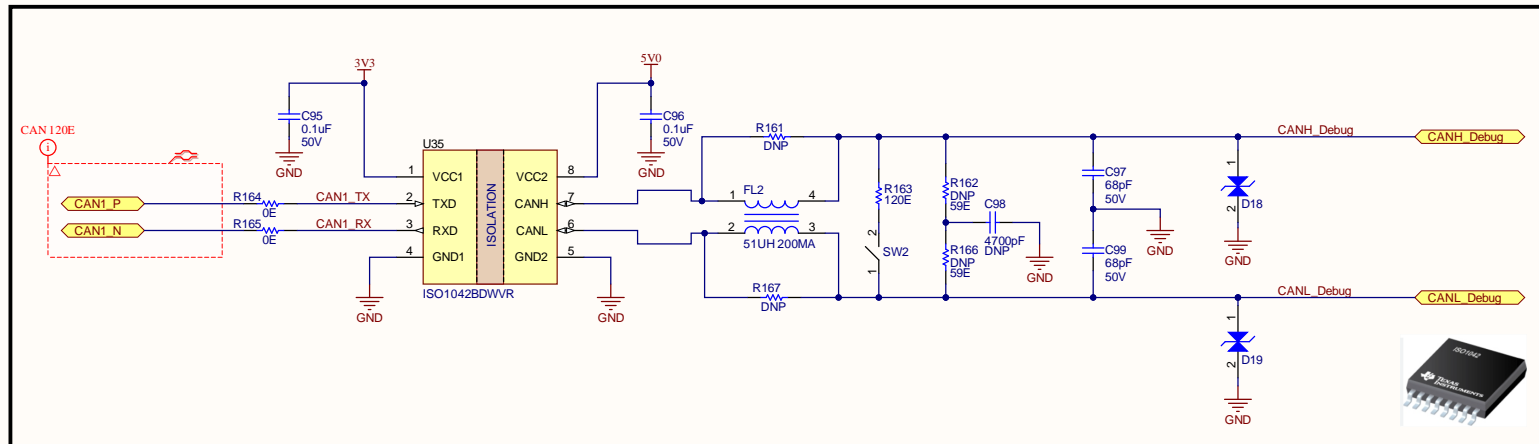
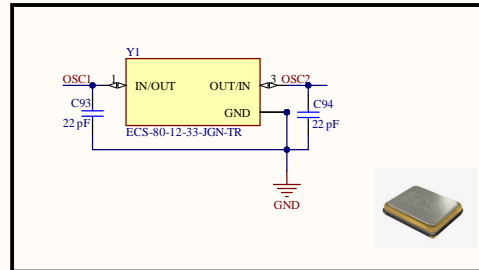
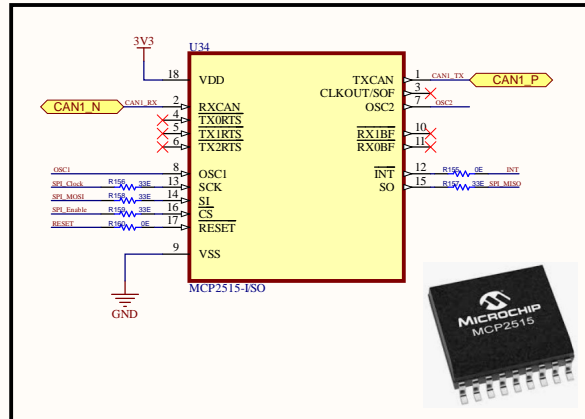


Programming Interface for Controller



Title		
Size	Number	Revision
A3		
Date:	6/26/2025	Sheet of
File:	C:\Users\...\Microcontroller.SchDoc	Drawn By:

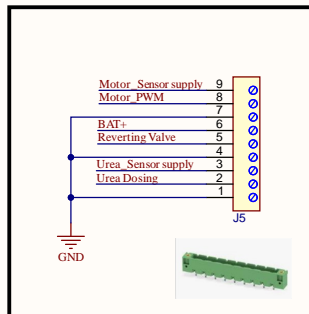
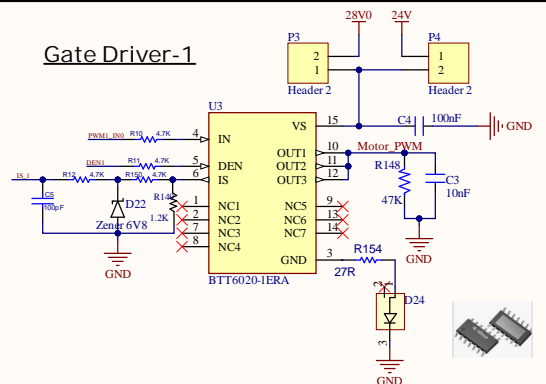
SPI to CAN Converter



Title		
Size	Number	Revision
A3		
Date:	6/26/2025	Sheet of
File:	C:\Users\... SPI to CAN Converter.SchDoc	Drawn By:

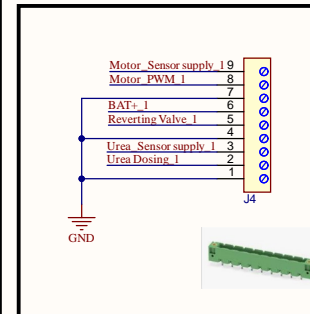
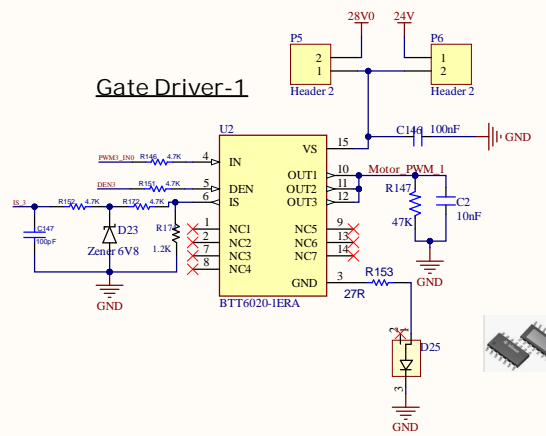
Output-1

Gate Driver-1

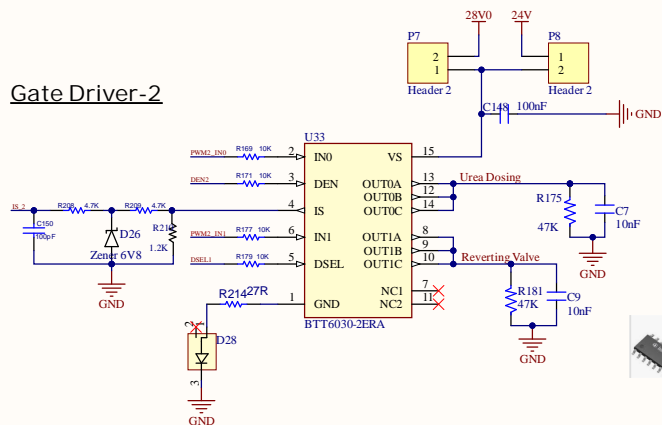


Output-2 (This section would be DNP)

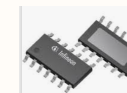
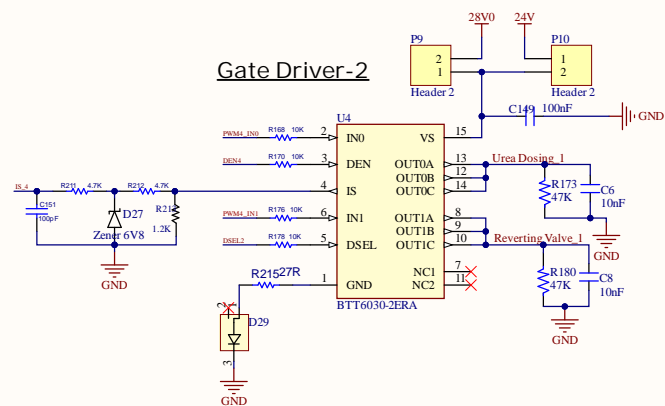
Gate Driver-1



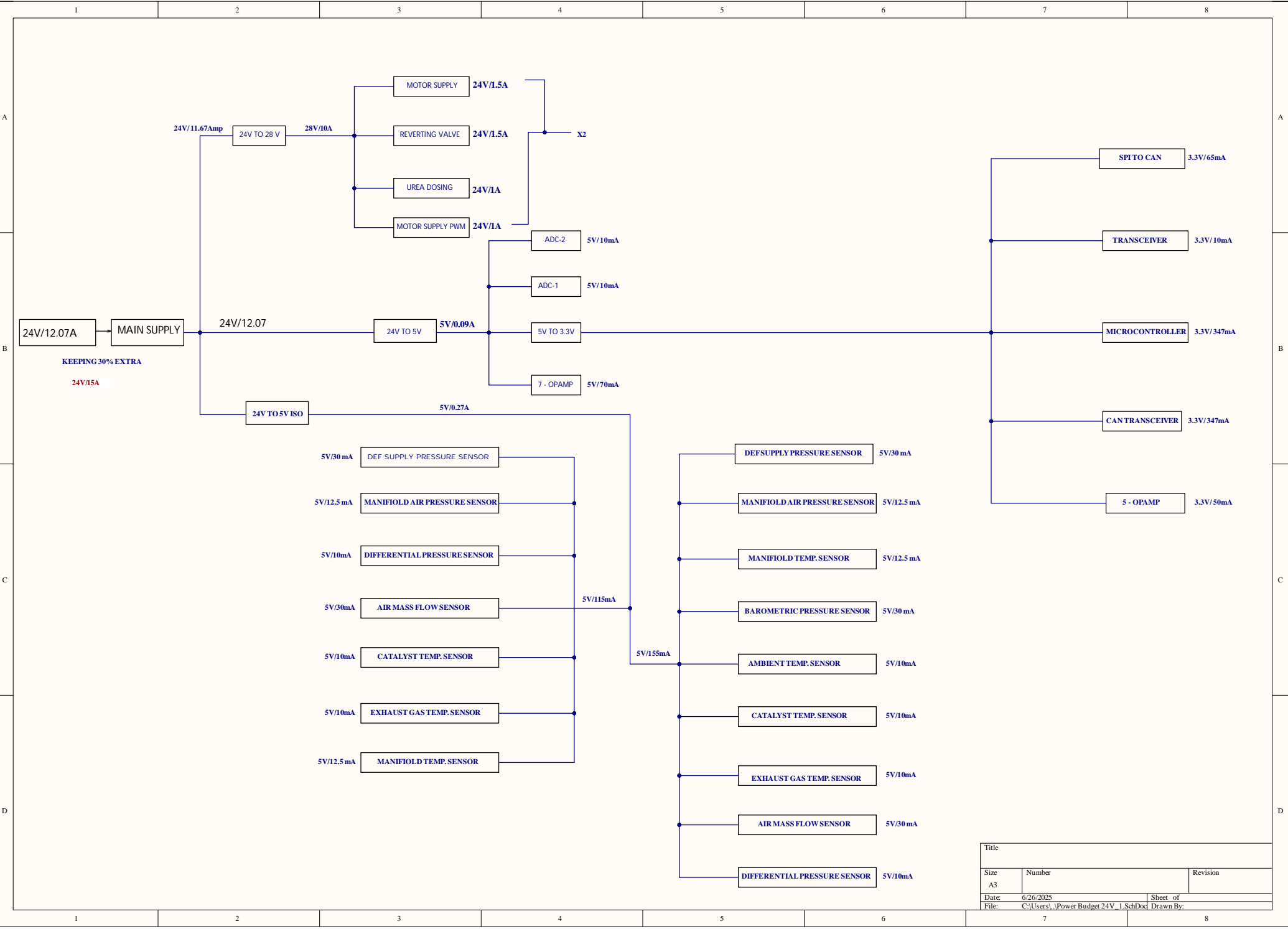
Gate Driver-2



Gate Driver-2



Title		
Size	Number	Revision
A3		
Date:	6/26/2025	Sheet of
File:	C:\Users\...\Gate Driver.SchDoc	Drawn By:



Title		
Size	Number	Revision
A3		
Date:	6/26/2025	Sheet of
File:	C:\Users\...\Power Budget 24V_1.SchDoc	Drawn By:

