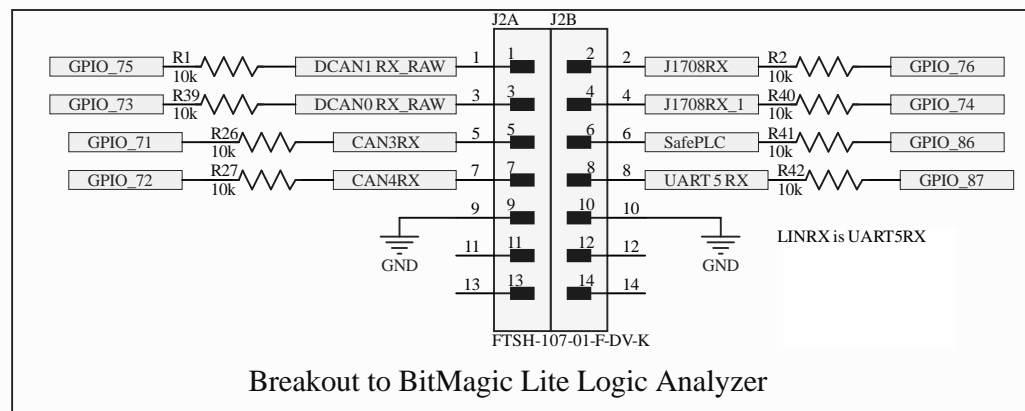
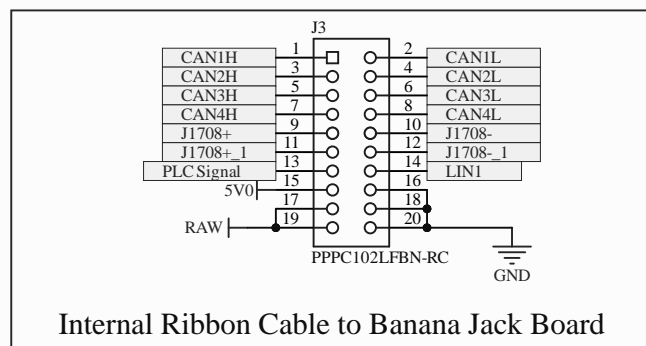
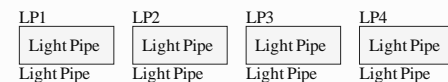
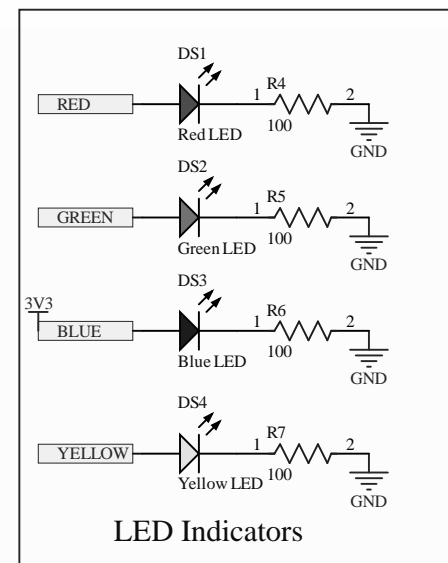
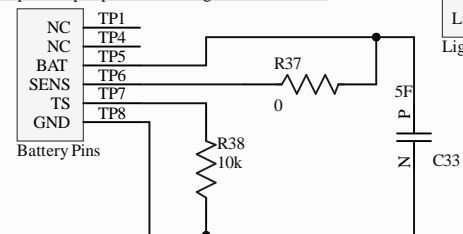
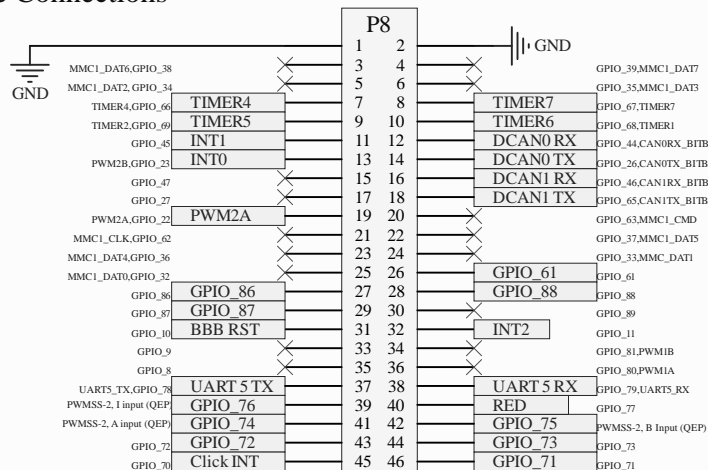
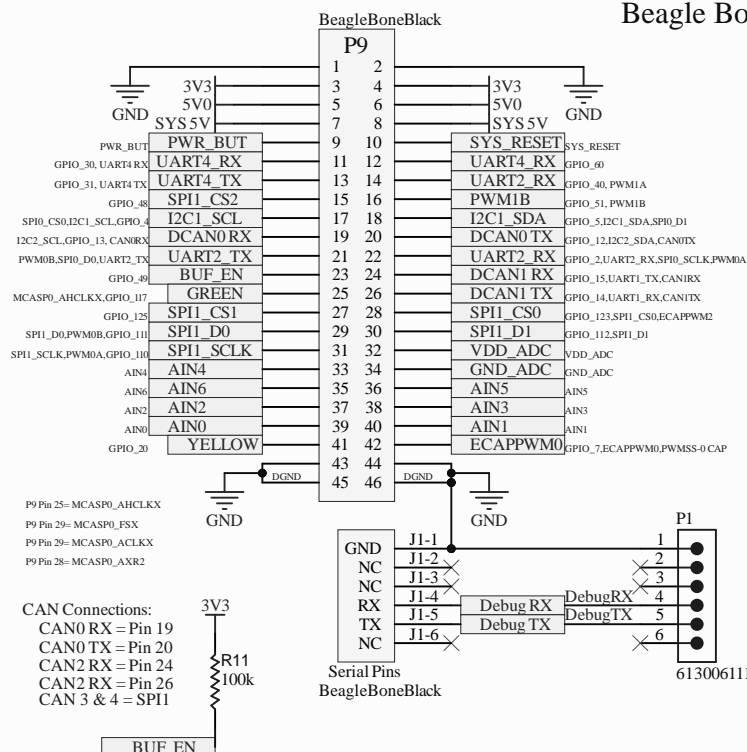


References:

https://users.freebasic-portal.de/tjf/Projekte/libpruio/doc/html/_cha_pins.html

Beagle Bone Connections

Title: **Ultimate Truck Hacking Platform**

Subtitle: Beagle Bone Black Headers

Date: 2/7/2024 Time: 10:37:29 AM

File: UTHPBeagleBone-Headers.SchDoc

Revision: 1

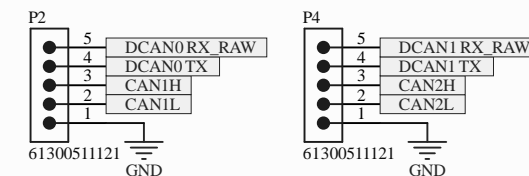
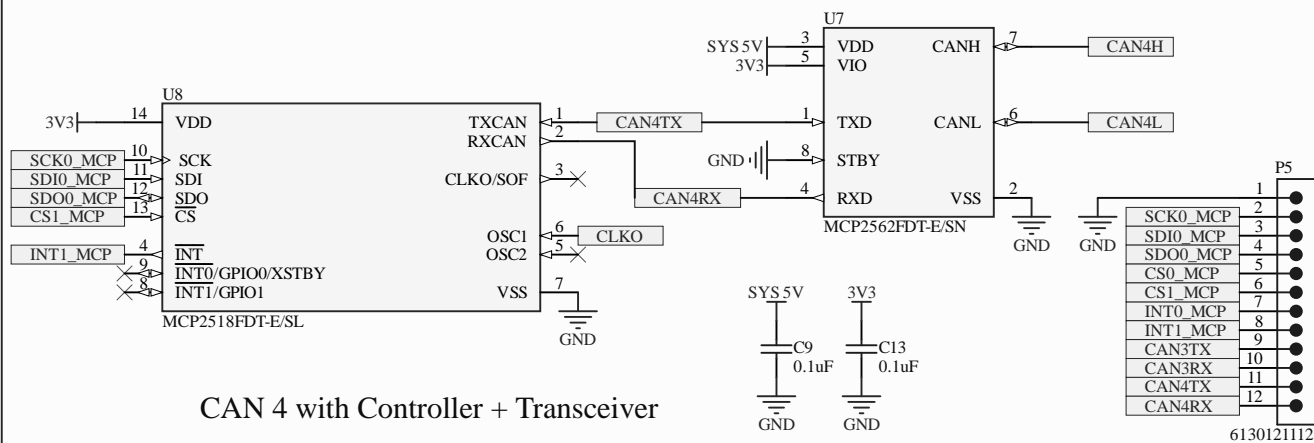
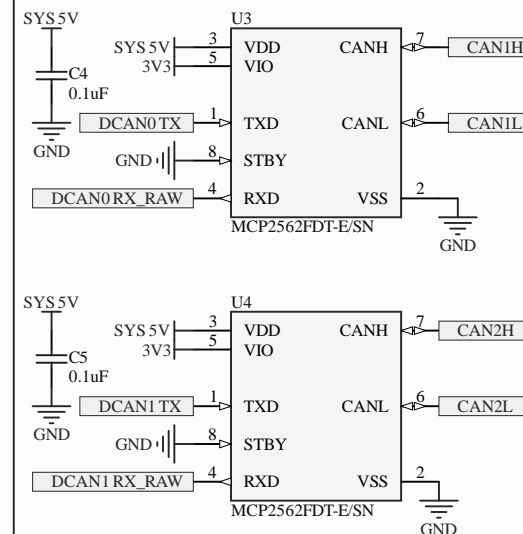
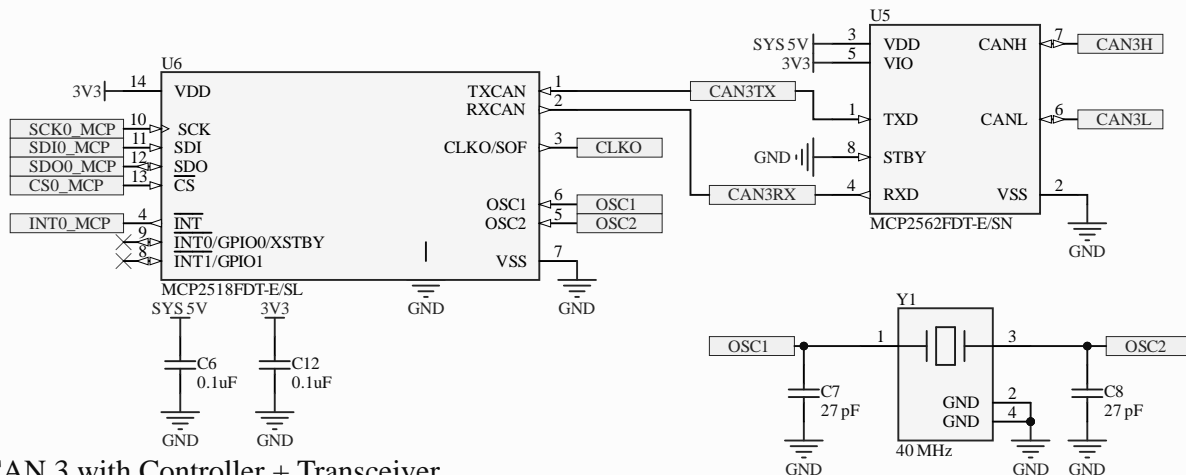
Sheet 1 of 6

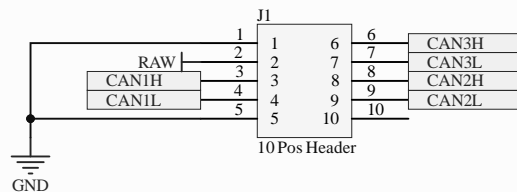
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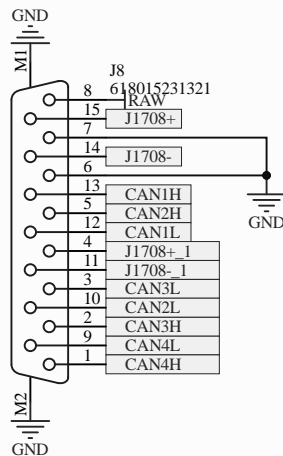
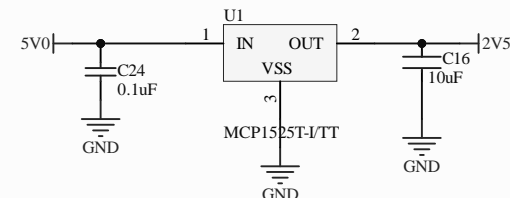
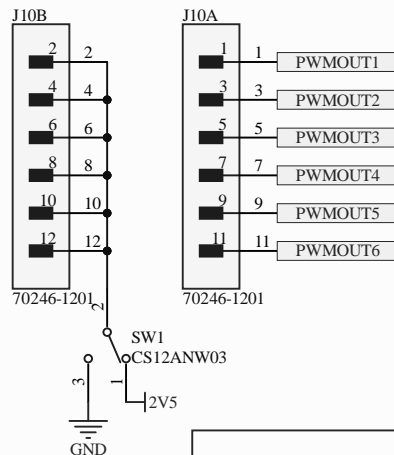


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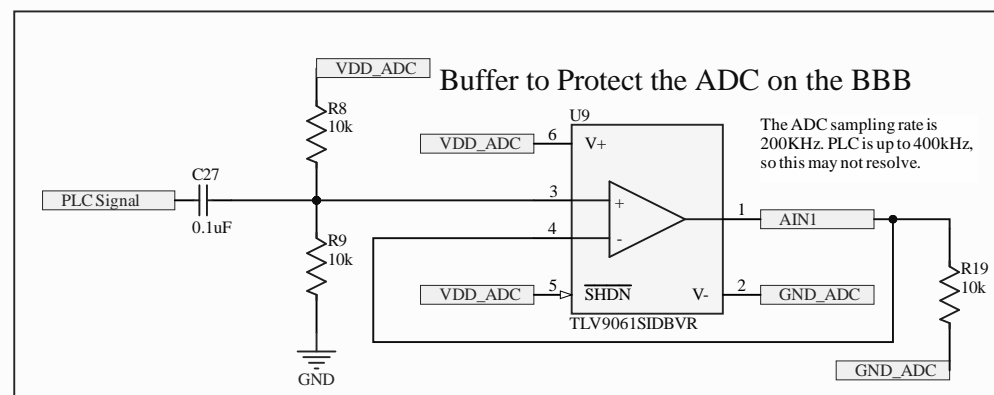


Internal Deutsch 9-pin Connectors
9-Pin connector Interface (Use PG11 Cordgrip)

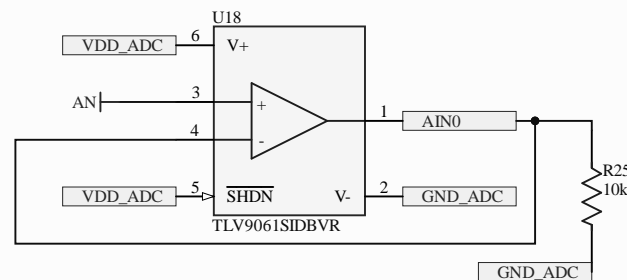


Pinout Compatible with the DG DPA 4

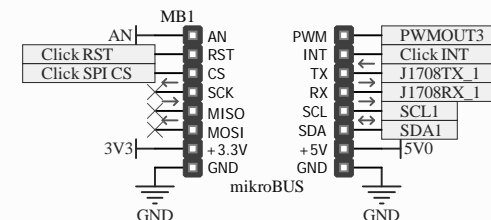
External Vehicle Connector



Buffer to Protect the ADC on the BBB



MikroBus Expansion



<https://www.mikroe.com/click>

<https://download.mikroe.com/documents/standards/mikrobus/mikrobus-standard-specification-v200.pdf>

Title: **Ultimate Truck Hacking Platform**

Subtitle: Board Interfaces

Date: 2/7/2024 Time: 10:37:29 AM

File: UTHPEdge Connectors.SchDoc

Revision: 1

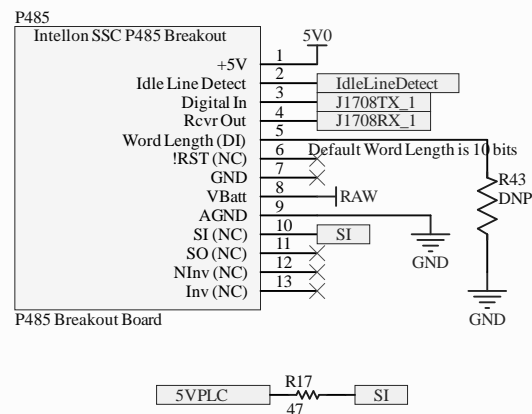
Sheet 3 of 6

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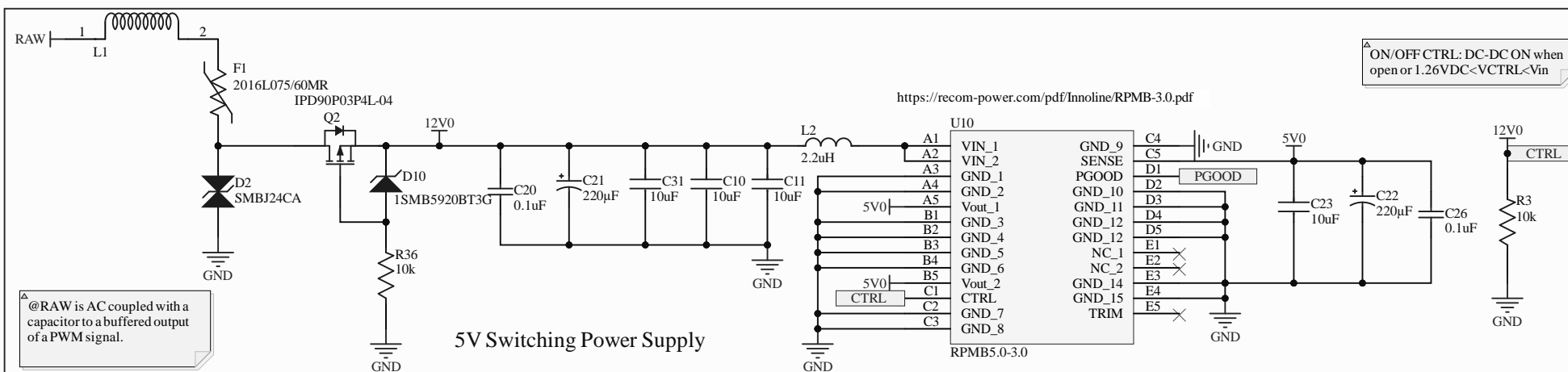
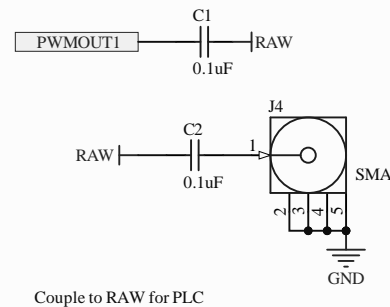
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Power Line Carrier Coupling



Title: **Ultimate Truck Hacking Platform**

Subtitle: Power, LIN, Logic Buffer

Date: 2/7/2024 Time: 10:37:29 AM

File: UTHP Power Supply and PLC.SchDoc

Revision: 1

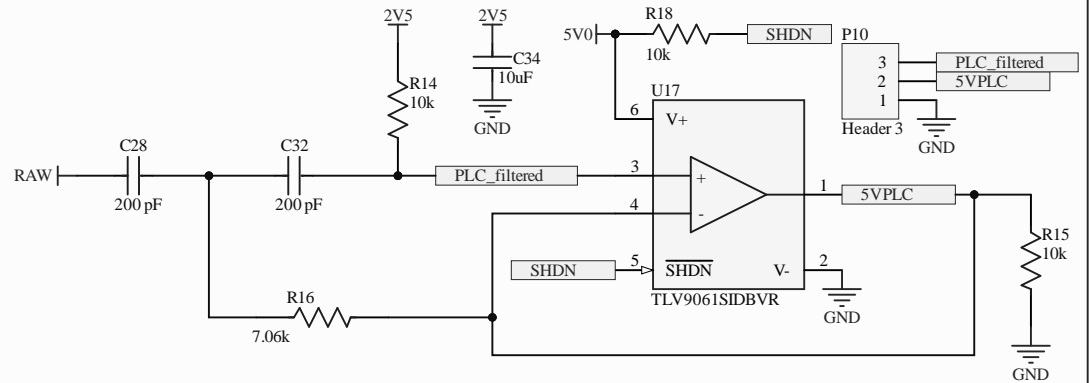
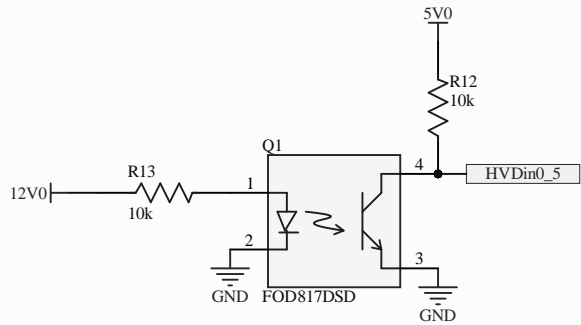
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2nd Order Sallen-Key High Pass Filter for 80 KHz Cutoff

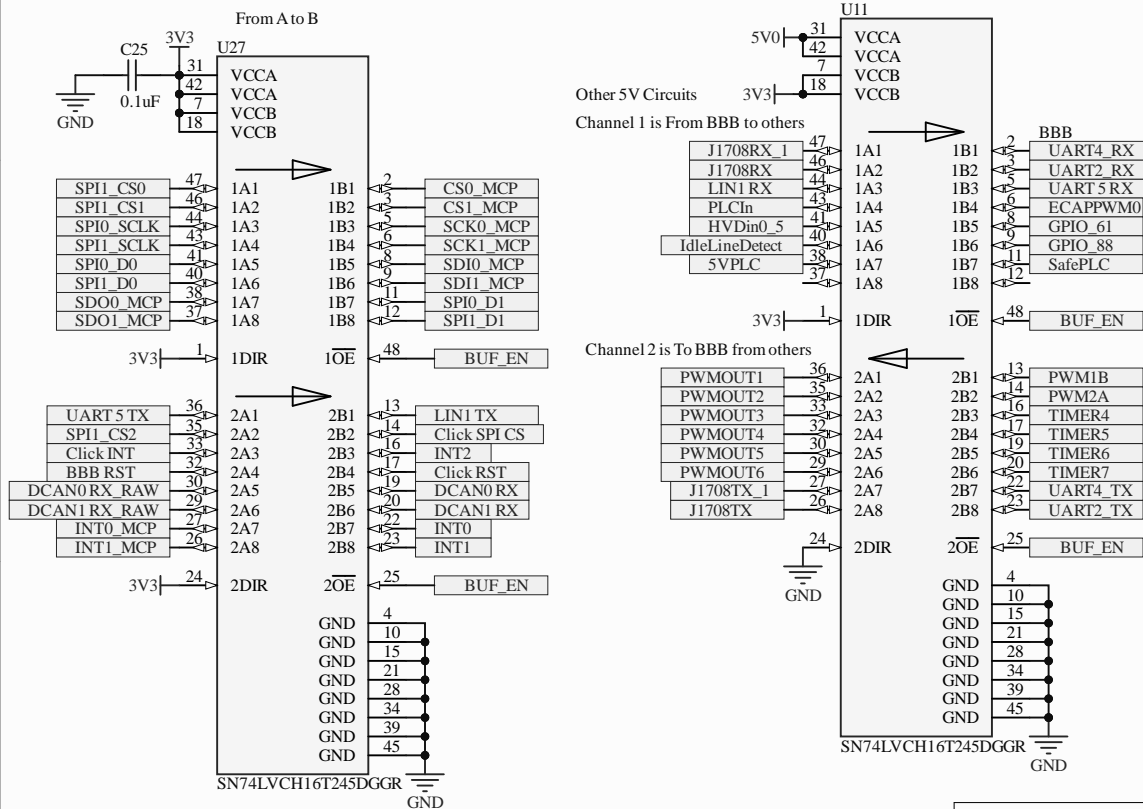


Table 1. Function Table (Each Transceiver)⁽¹⁾

CONTROL INPUTS		OUTPUT CIRCUITS		OPERATION
\overline{OE}	DIR	A PORT	B PORT	
L	L	Enabled	Hi-Z	B data to A bus
L	H	Hi-Z	Enabled	A data to B bus
H	X	Hi-Z	Hi-Z	Isolation

1D1R connected to 3.3V, 2D1R connected to ground. When OE is low and DIR is high, data transmission is from A to B. When OE is low and DIR is low, data transmission is from B to A. When OE is high, both output ports will be high-impedance

https://www.ti.com/lit/ds/symlink/sn74lvch16t245.pdf?HQS=dis-dk-null-digikeymode-dsf-pf-null-ww&ts=1693516940823&ref_url=https%3A%253A%252F%252Fwww.ti.com%252Fgeneral%252Fdocus%252Fsupplyproductinfo.jsp%253Dfstid%253D10%2526gotoUrl%253Dhttps%253A%252F%252Fwww.ti.com%252Fgeneral%252Fdocus%252Fsupplyproductinfo.jsp%253Dfstid%253D10

Title: *Ultimate Truck Hacking Platform*

Subtitle: Circuit Protections

Date: 2/7/2024 Time: 10:37:29 AM

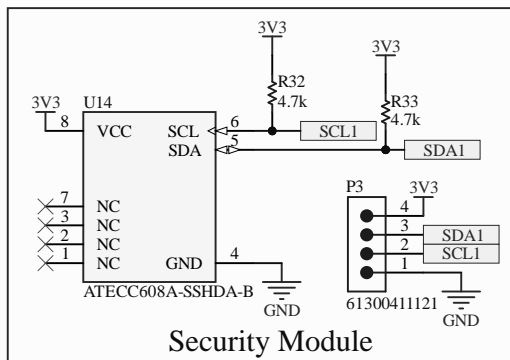
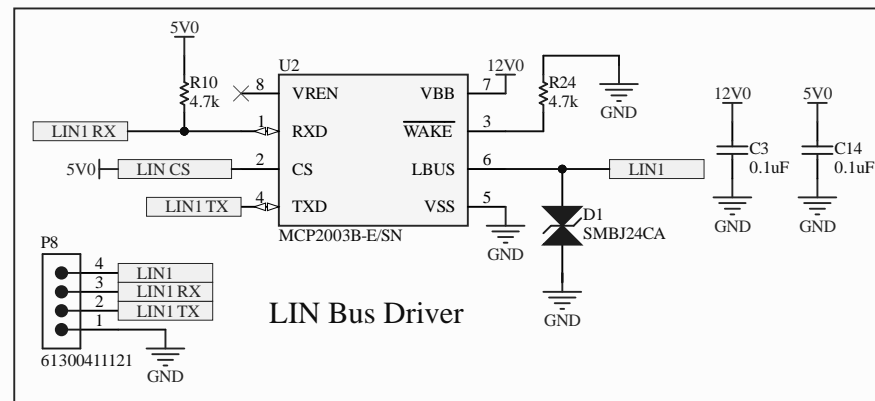
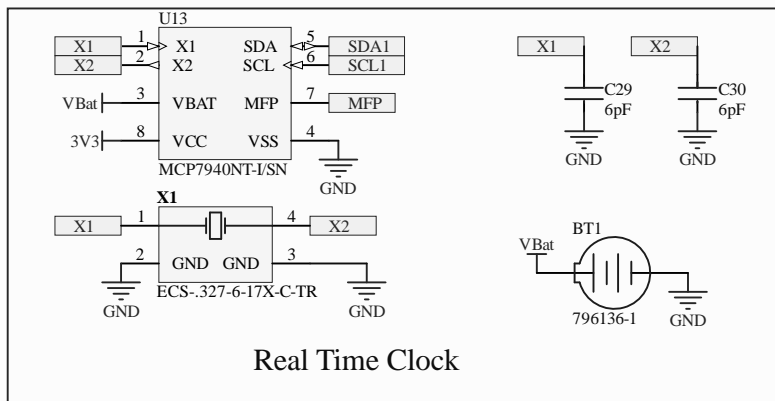
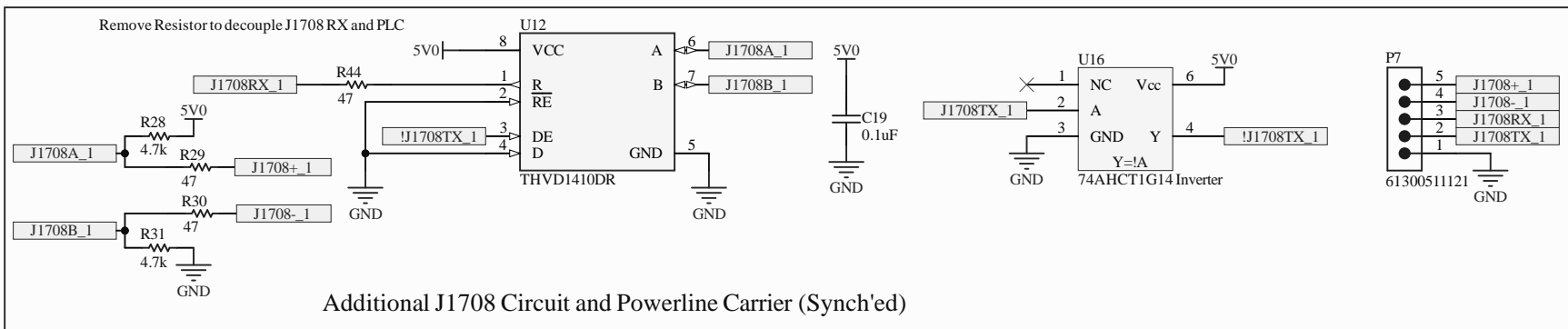
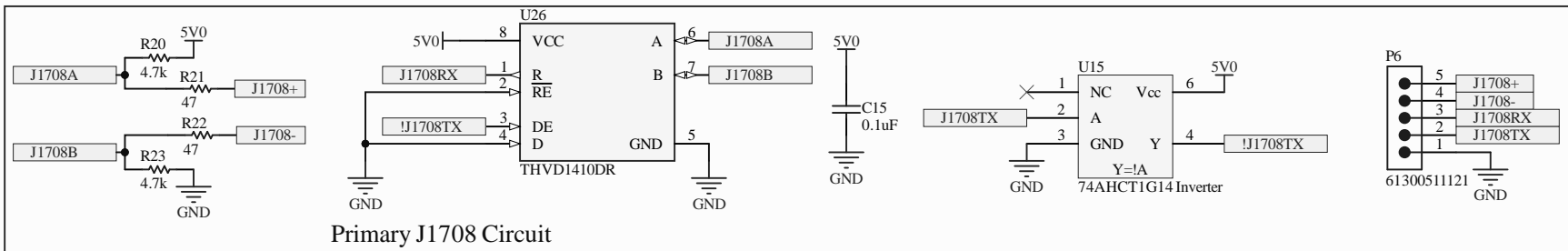
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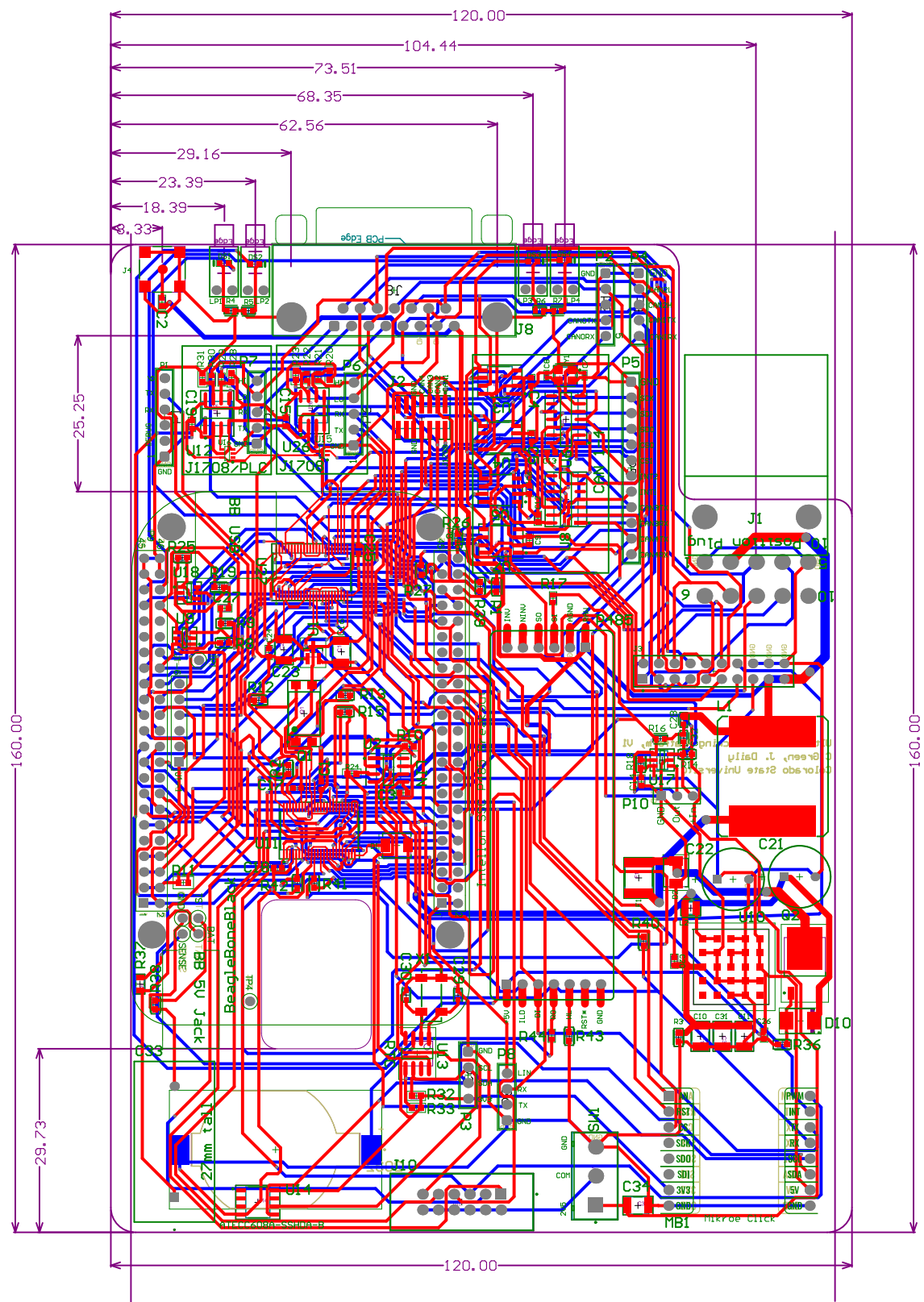
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Board Stack Report