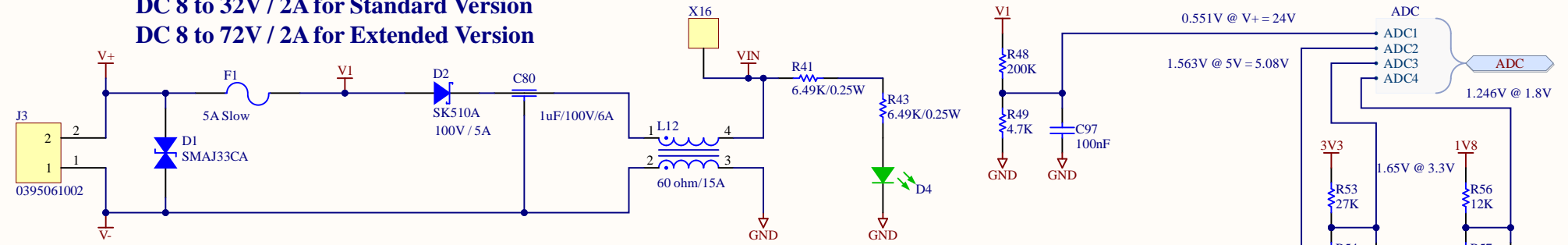
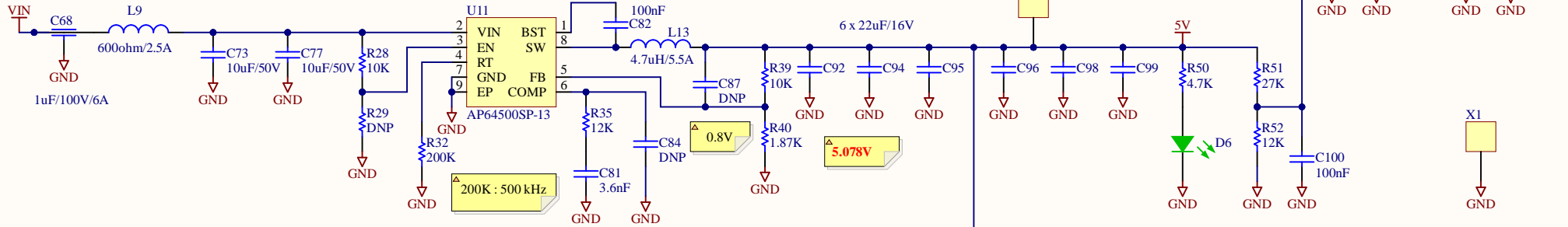


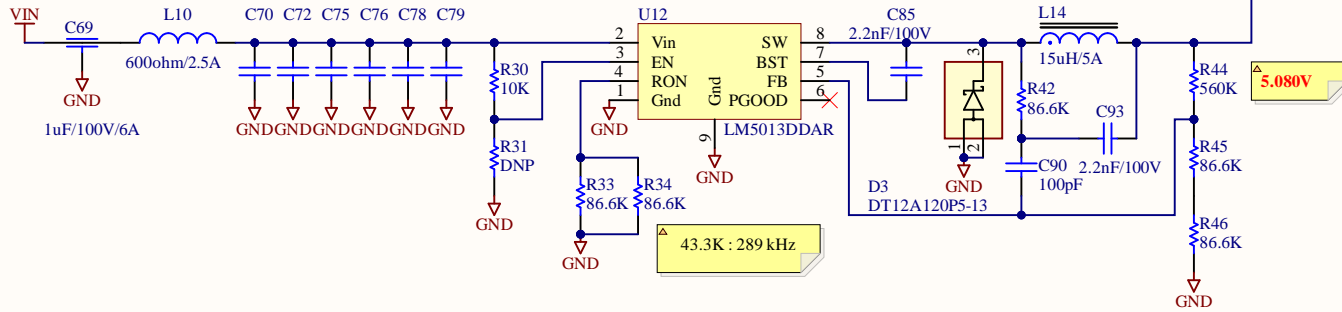
DC 8 to 32V / 2A for Standard Version
DC 8 to 72V / 2A for Extended Version



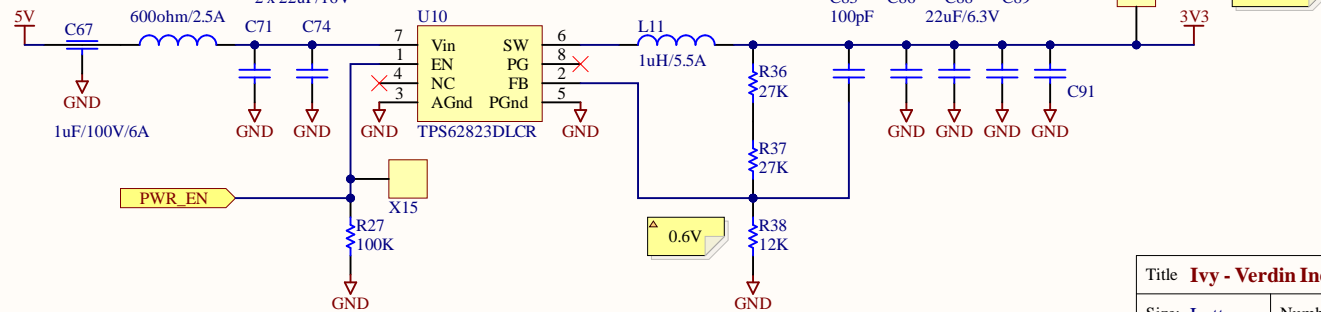
Step-Down 5V / 3A for Standard Version



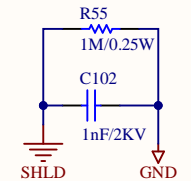
Step-Down 5V / 3A for Extended Version



Step-Down 3.3V / 1A



Mounting Holes connections



Title **Ivy - Verdin Industrial Board**

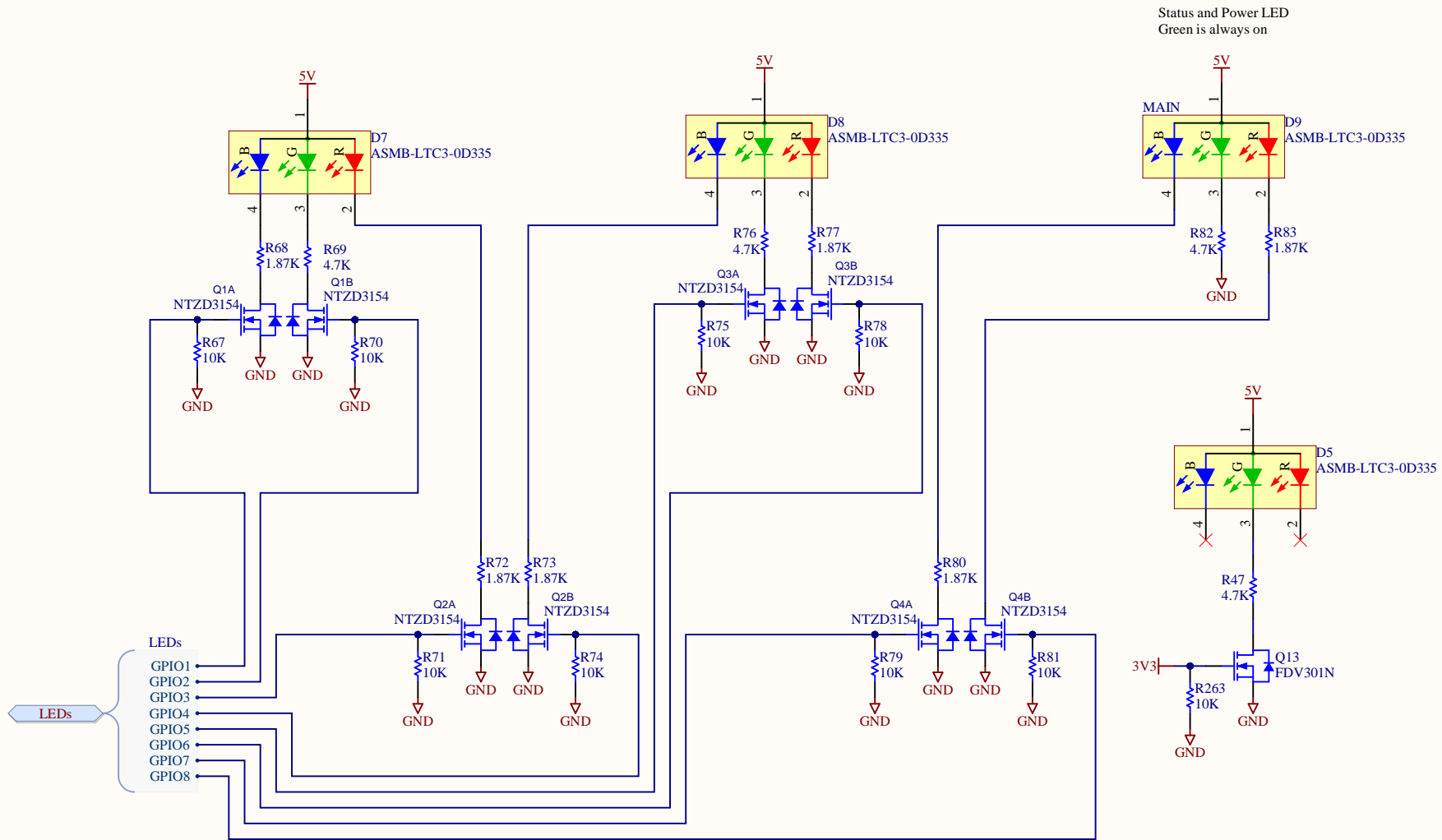
Size: Letter Number:46806004 Revision:

Date: 11/14/2024 Time: 11:14:04 AM Sheet of

File: 100_Power.SchDoc

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Title **Ivy - Verdin Industrial Board**

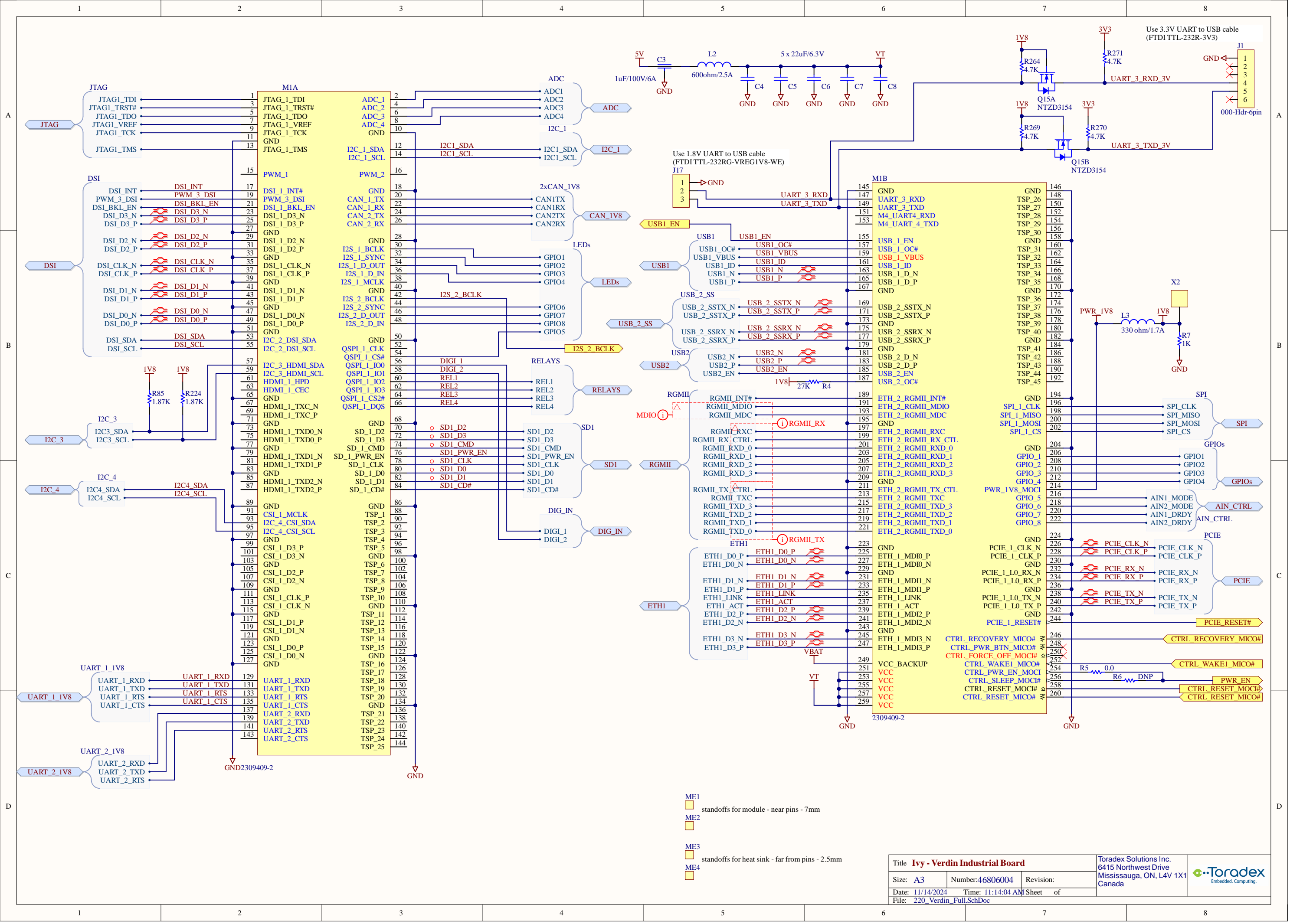
Size: Letter Number: 46806004 Revision:

Date: 11/14/2024 Time: 11:14:04 AM Sheet of

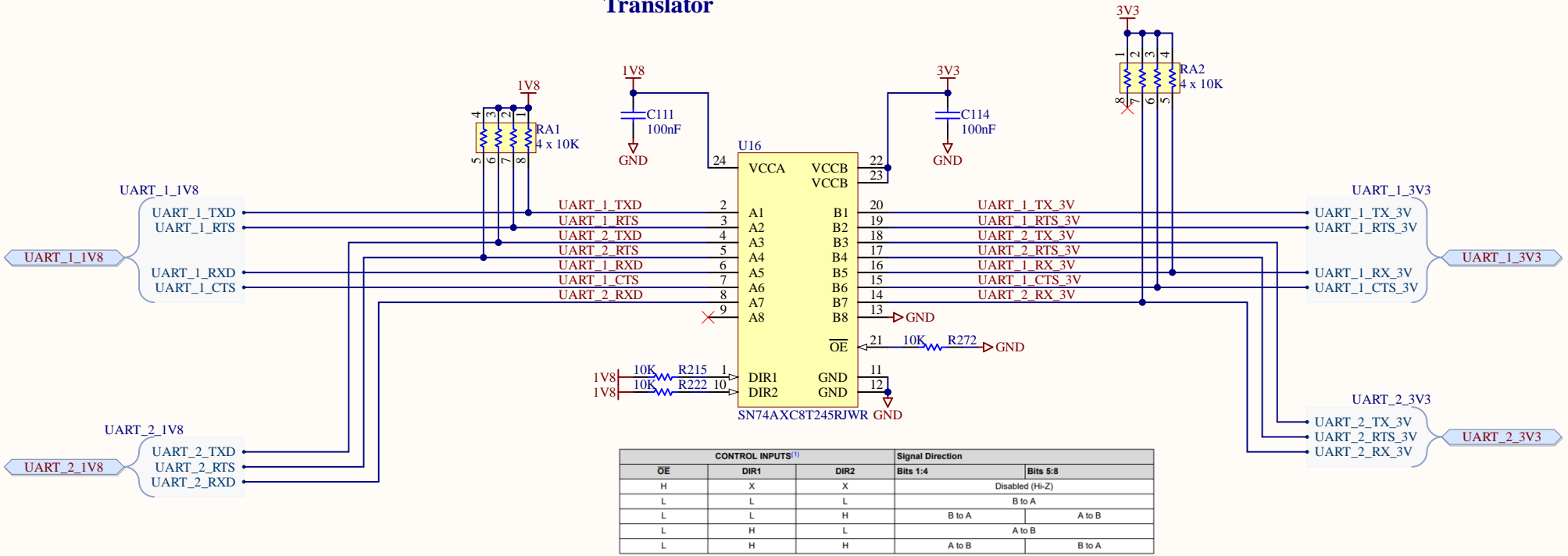
File: 150_Status_LEDs.SchDoc

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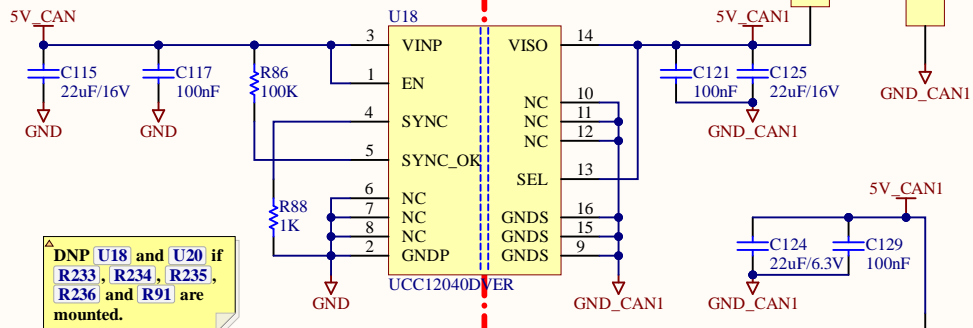
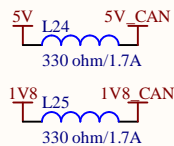


Translator



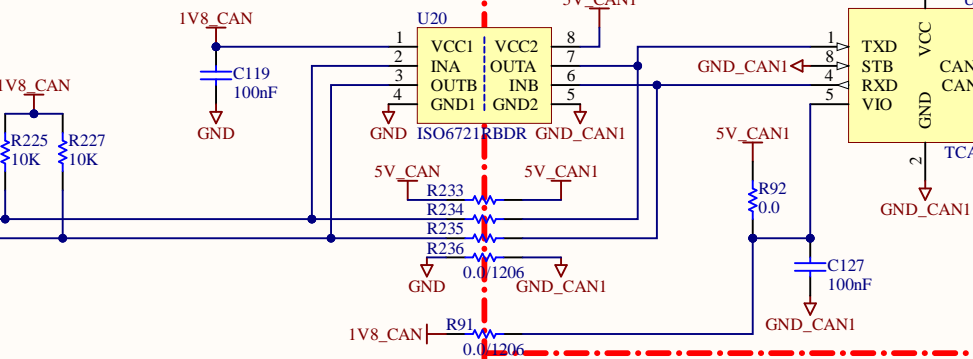
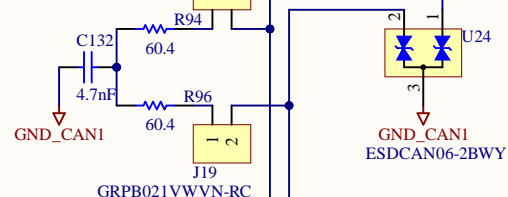
CONTROL INPUTS ⁽¹⁾			Signal Direction	
OE	DIR1	DIR2	Bits 1:4	Bits 5:8
H	X	X	Disabled (Hi-Z)	
L	L	L	B to A	
L	L	H	B to A	A to B
L	H	L	A to B	
L	H	H	A to B	B to A

CAN Transceiver #1



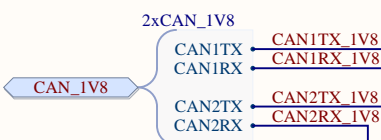
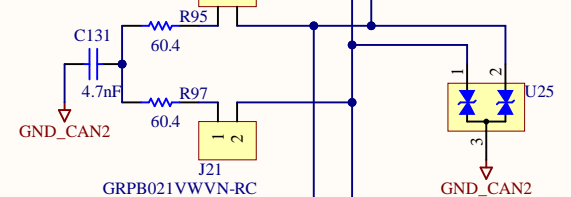
DNP U18 and U20 if R233, R234, R235, R236 and R91 are mounted.

Termination



DNP U19 and U21 if R237, R238, R239, R240 and R90 are mounted.

Termination



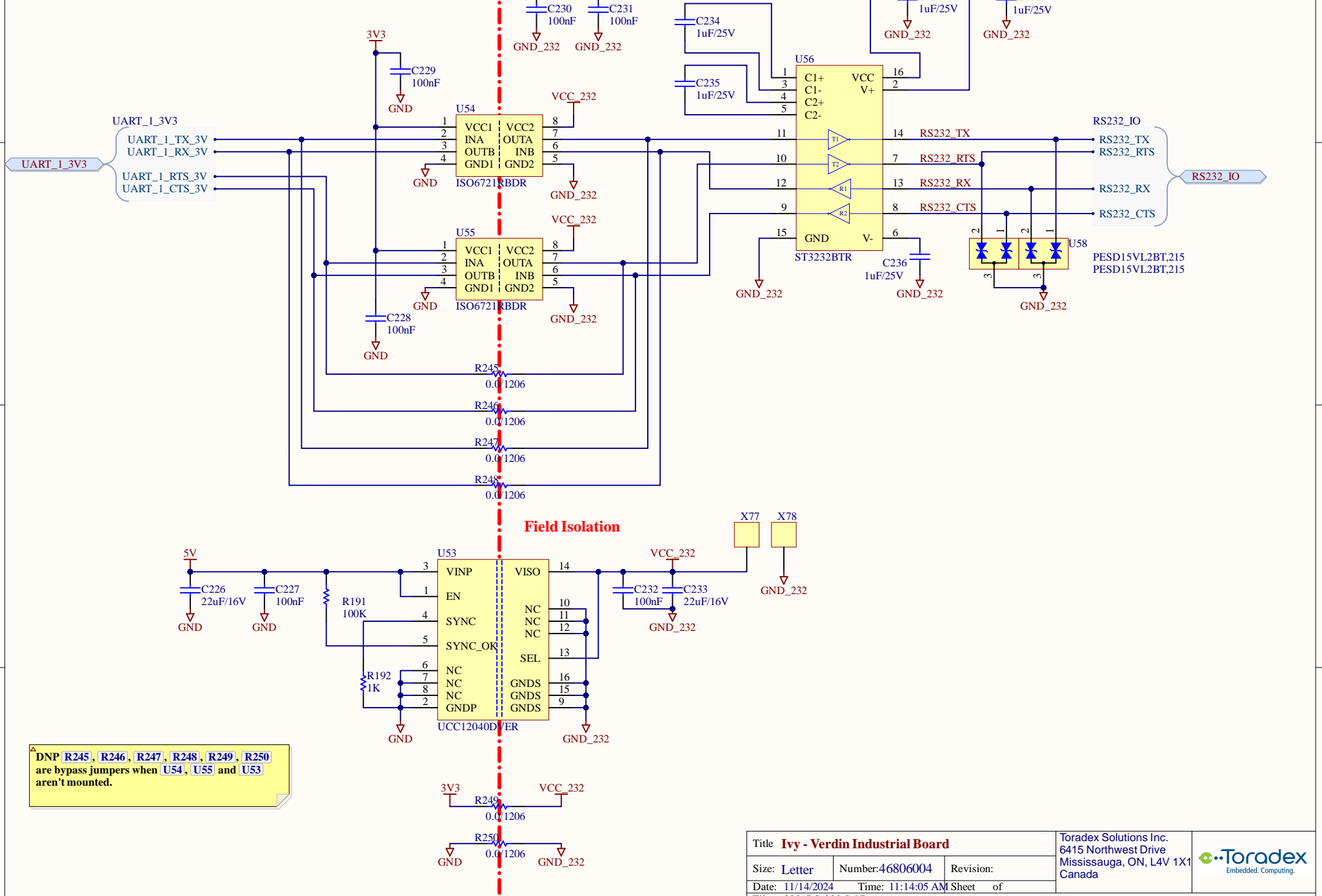
Field Isolation 1

Field Isolation 2

Field Isolation 2

Title Ivy - Verdin Industrial Board			Toradex Solutions Inc. 6415 Northwest Drive Mississauga, ON, L4V 1X1 Canada	
Size: Letter	Number: 46806004	Revision:		
Date: 11/14/2024	Time: 11:14:05 AM	Sheet of		
File: 300_CAN_Transceivers.SchDoc				

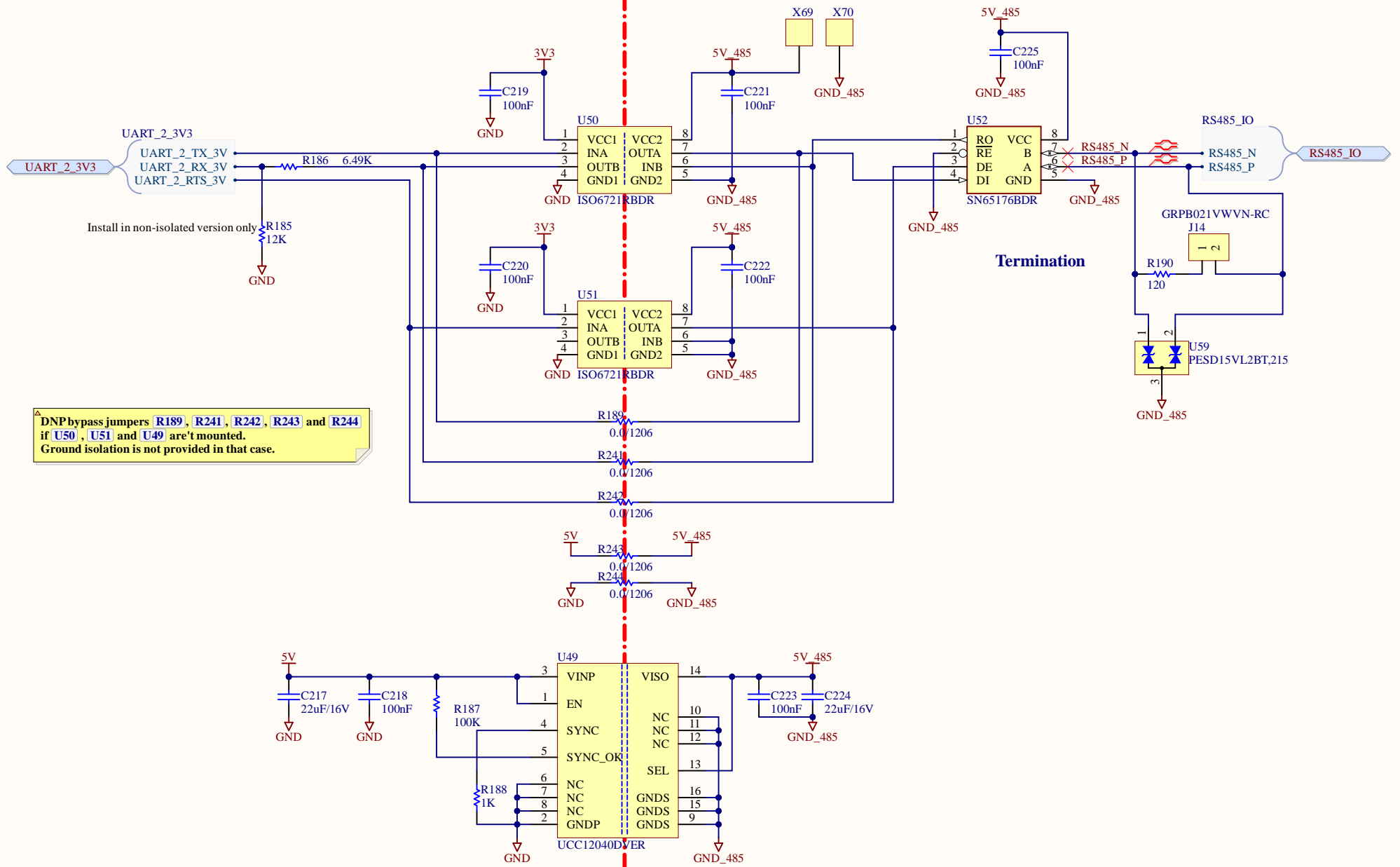
RS-232 Transceiver



DNP R245, R246, R247, R248, R249, R250 are bypass jumpers when U54, U55 and U53 aren't mounted.

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Size: Letter	Number: 46806004	Revision:		
Date: 11/14/2024	Time: 11:14:05 AM	Sheet of		
File: 320_RS-232.SchDoc				

RS-485 Transceiver



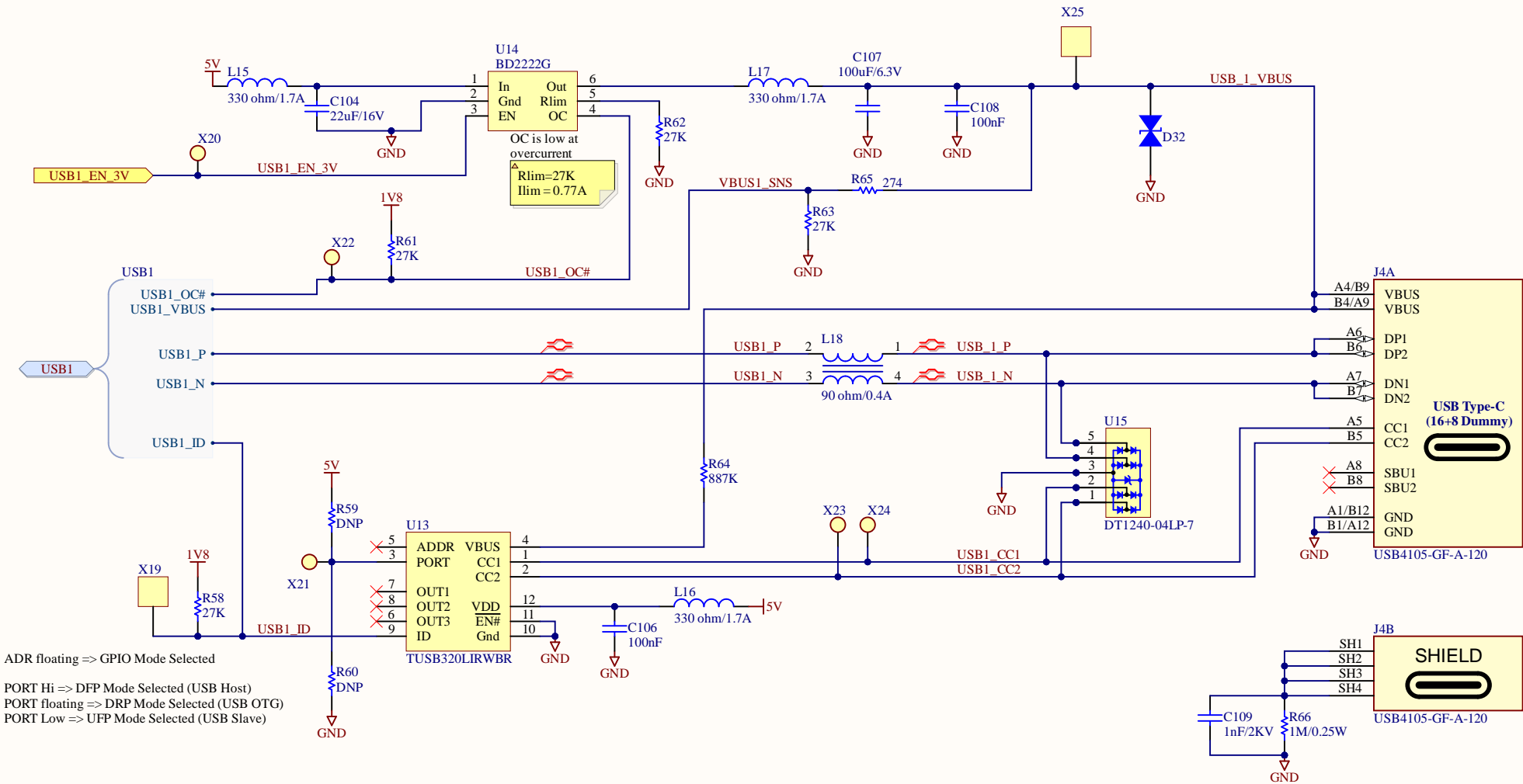
DNP bypass jumpers **R189**, **R241**, **R242**, **R243** and **R244** if **U50**, **U51** and **U49** are't mounted. Ground isolation is not provided in that case.

Termination

Field Isolation RS485

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Size: Letter	Number: 46806004	Revision:		
Date: 11/14/2024	Time: 11:14:05 AM	Sheet of		
File: 330_RS-485.SchDoc				

USB1 - OTG



Title **Ivy - Verdin Industrial Board**

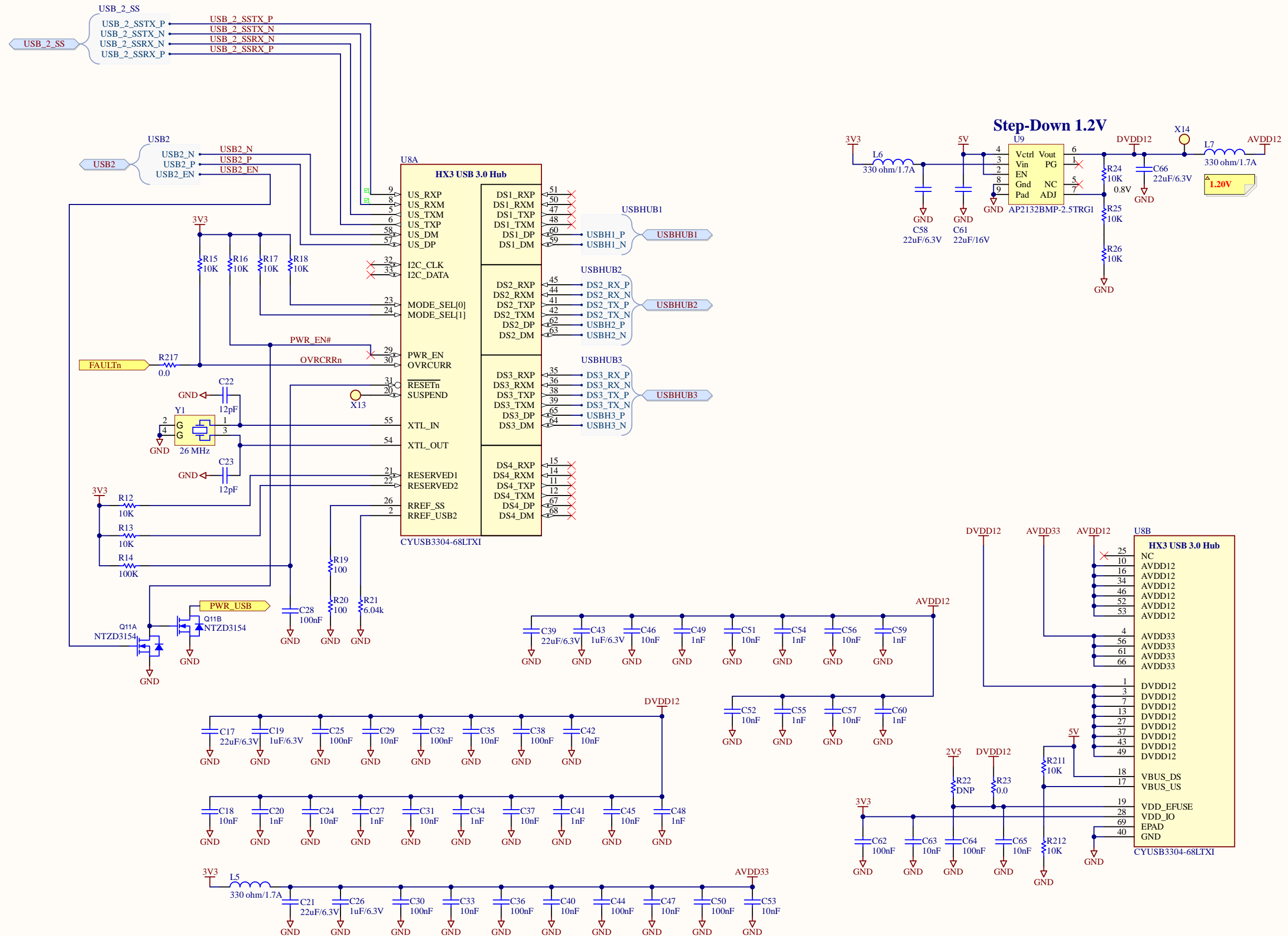
Date: 11/14/2024 Time: 11:14:05 AM Sheet of

File: 400_USB1_OTG.SchDoc

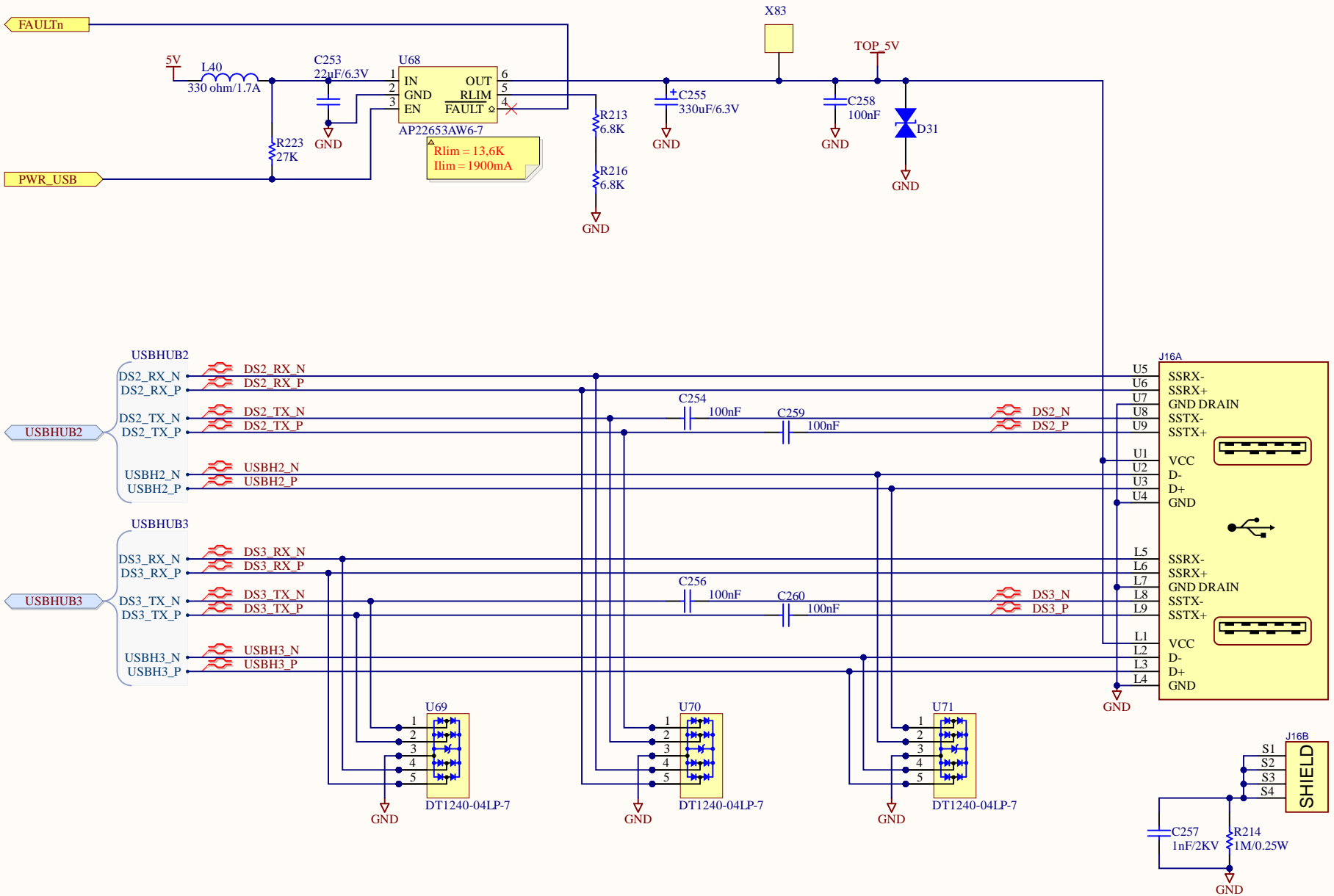
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USB Hub



2x USB Type-A Host Connectors



Title **Ivy - Verdin Industrial Board**

Size: Letter

Number: 46806004

Revision:

Date: 11/14/2024

Time: 11:14:06 AM

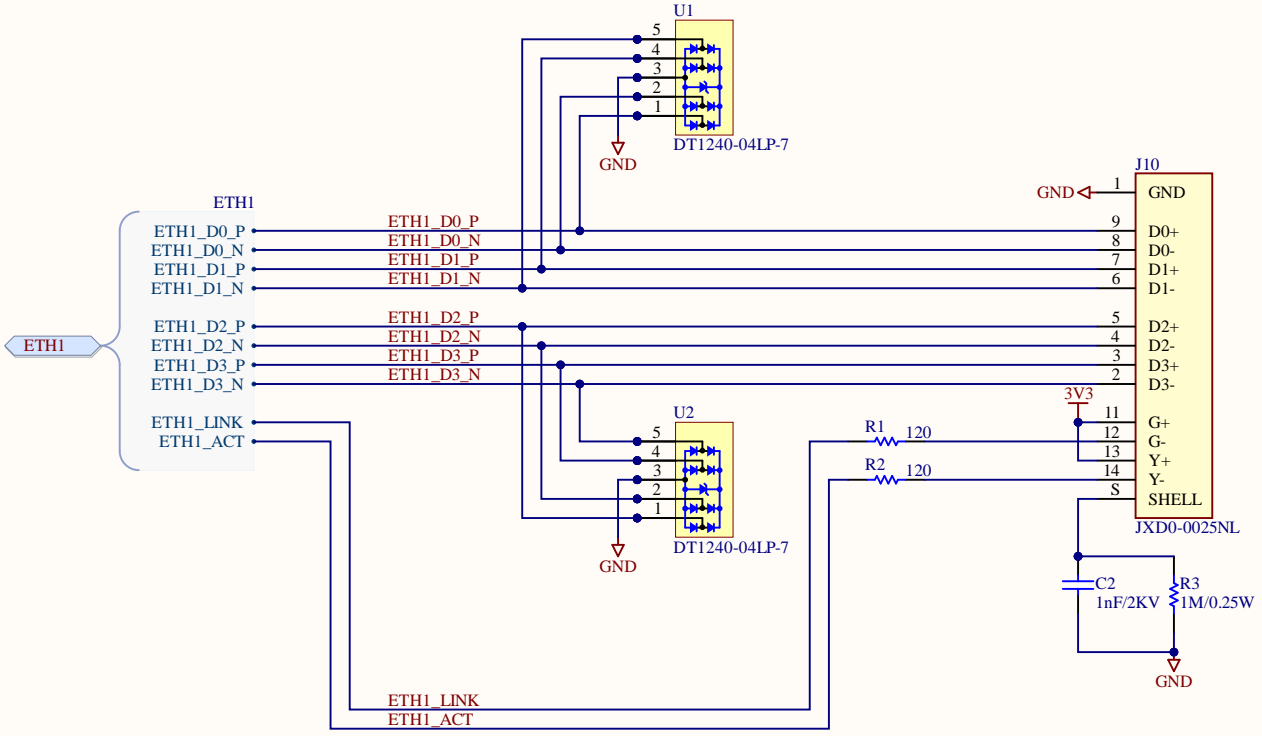
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File: 510_USB_Type_A_Conn.SchDoc

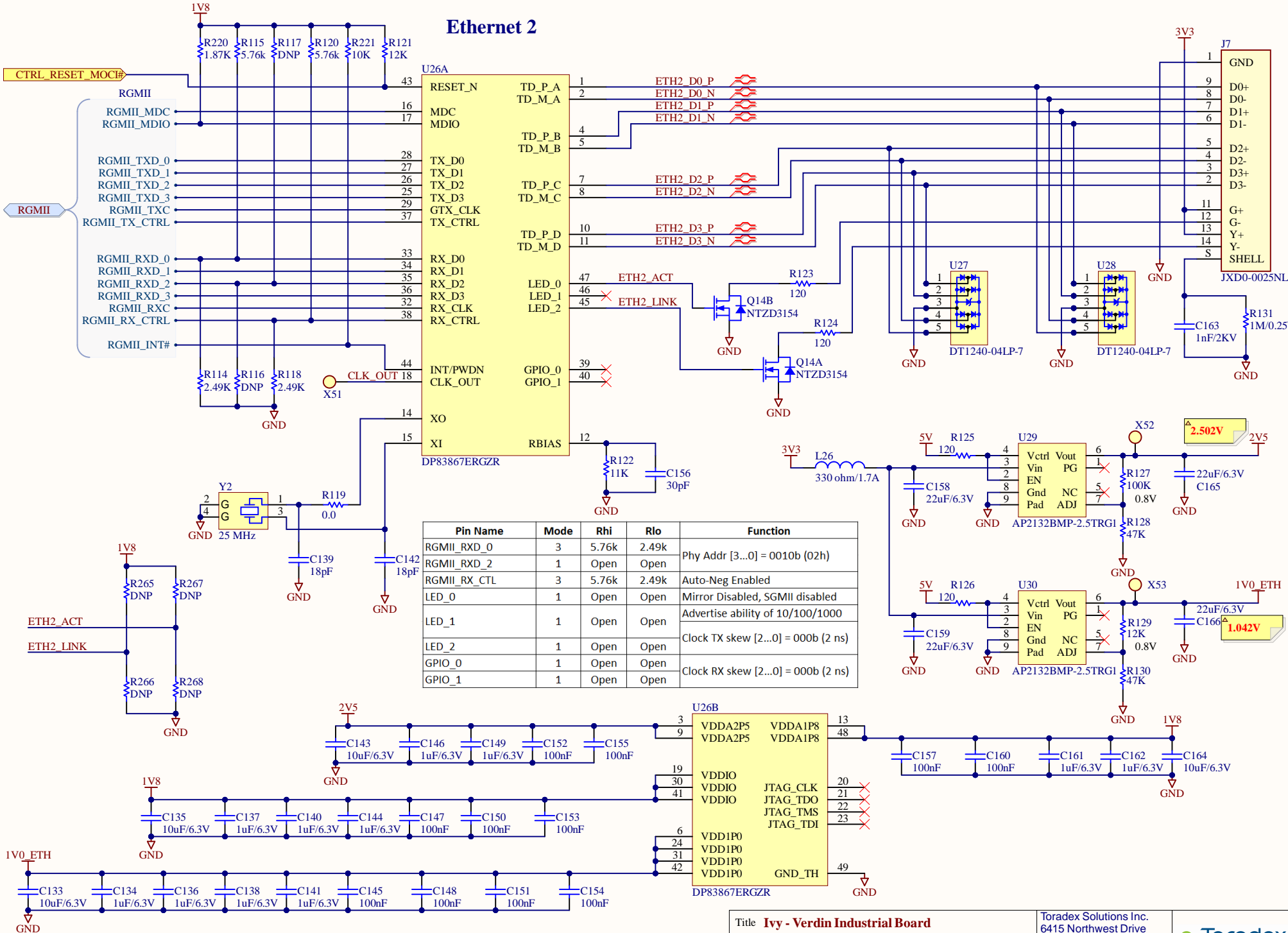
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Gbit Ethernet Connection



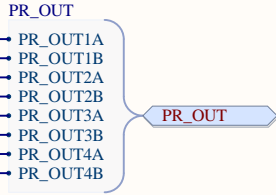
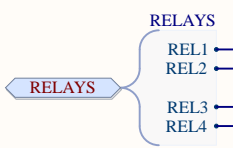
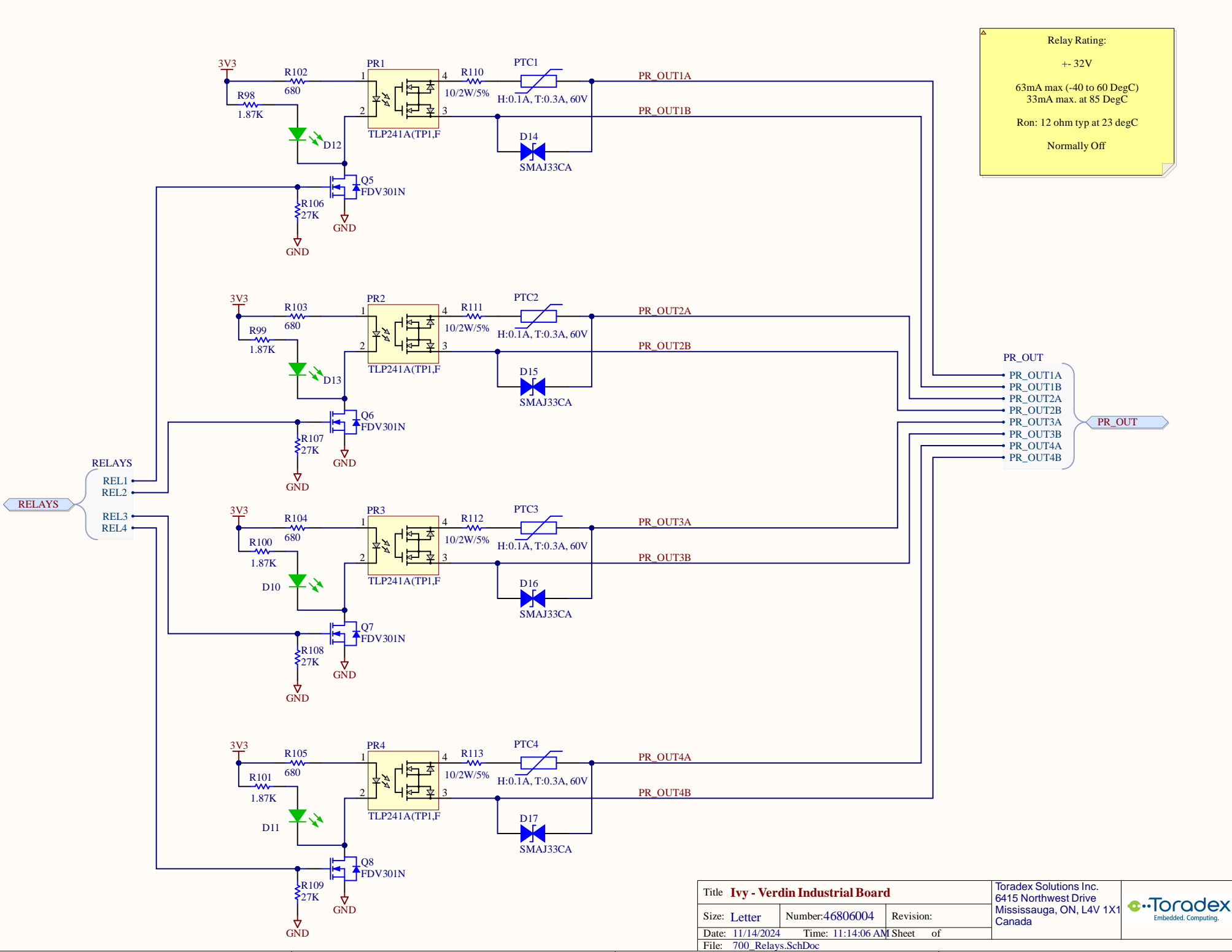
Ethernet 2



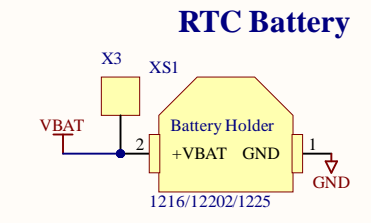
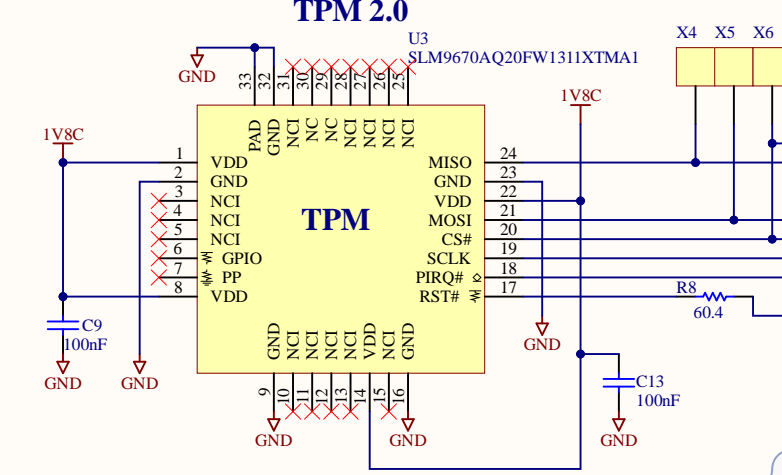
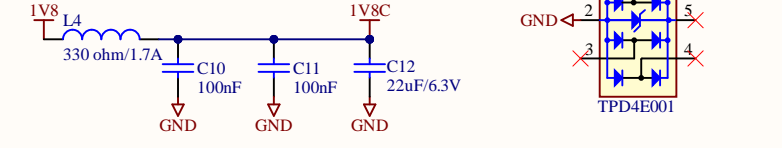
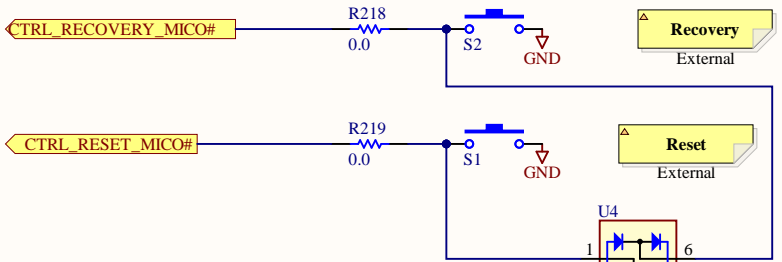
Pin Name	Mode	Rhi	Rlo	Function
RGMII_RXD_0	3	5.76k	2.49k	Phy Addr [3...0] = 0010b (02h)
RGMII_RXD_2	1	Open	Open	
RGMII_RX_CTL	3	5.76k	2.49k	Auto-Neg Enabled
LED_0	1	Open	Open	Mirror Disabled, SGMII disabled
LED_1	1	Open	Open	Advertise ability of 10/100/1000
LED_2	1	Open	Open	Clock TX skew [2...0] = 000b (2 ns)
GPIO_0	1	Open	Open	Clock RX skew [2...0] = 000b (2 ns)
GPIO_1	1	Open	Open	

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Size: Letter	Number: 46806004	Revision:		
Date: 11/14/2024	Time: 11:14:06 AM	Sheet of		
File: 620_Ethernet2.SchDoc				

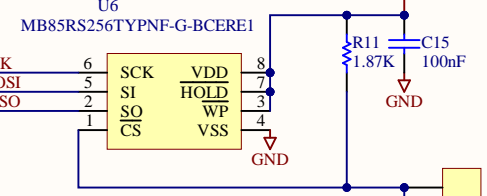
Relay Rating:
 +- 32V
 63mA max (-40 to 60 DegC)
 33mA max. at 85 DegC
 Ron: 12 ohm typ at 23 degC
 Normally Off



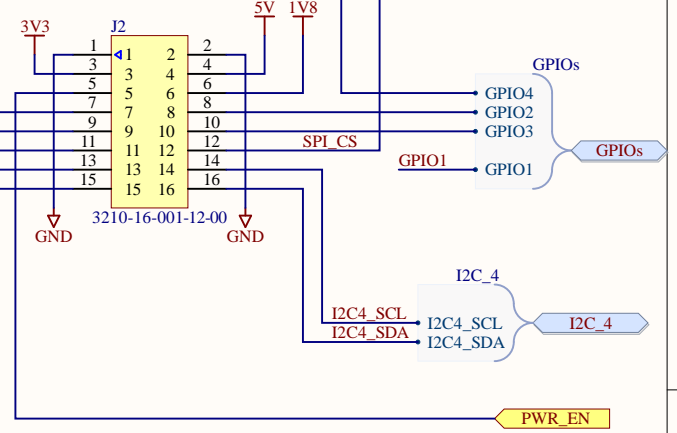
Title Ivy - Verdin Industrial Board			Toradex Solutions Inc. 6415 Northwest Drive Mississauga, ON, L4V 1X1 Canada	
Size: Letter	Number: 46806004	Revision:		
Date: 11/14/2024	Time: 11:14:06 AM	Sheet of		
File: 700_Relays.SchDoc				



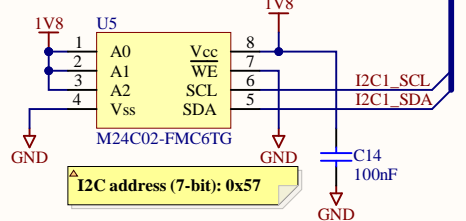
FRAM 32K x 8



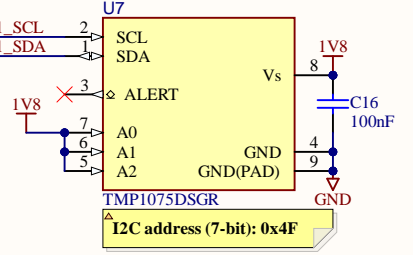
Extension Connector



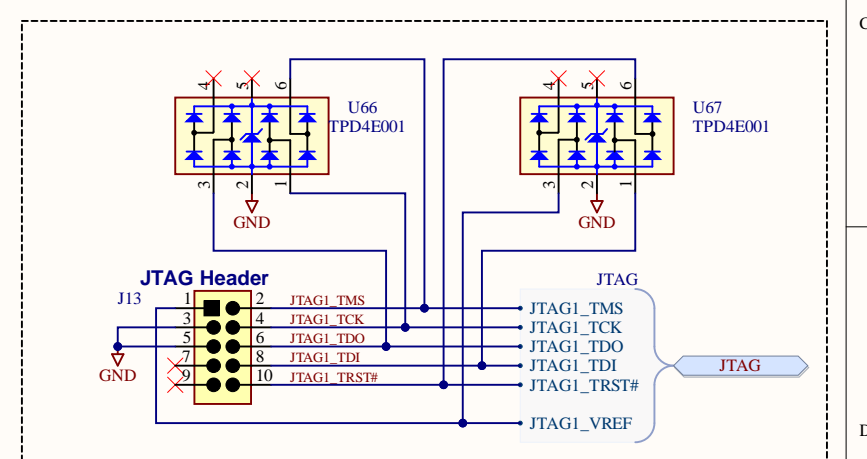
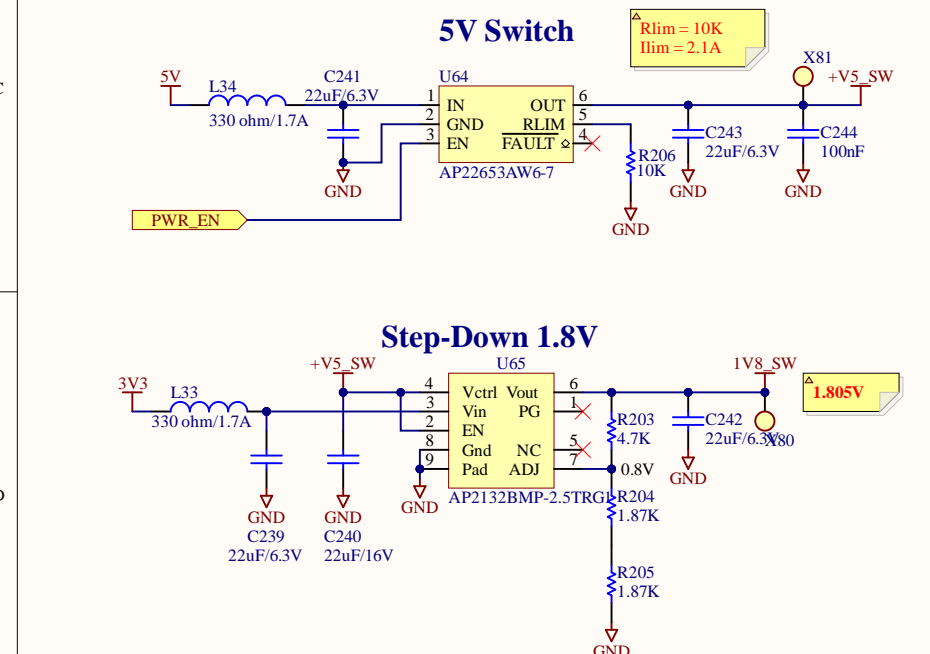
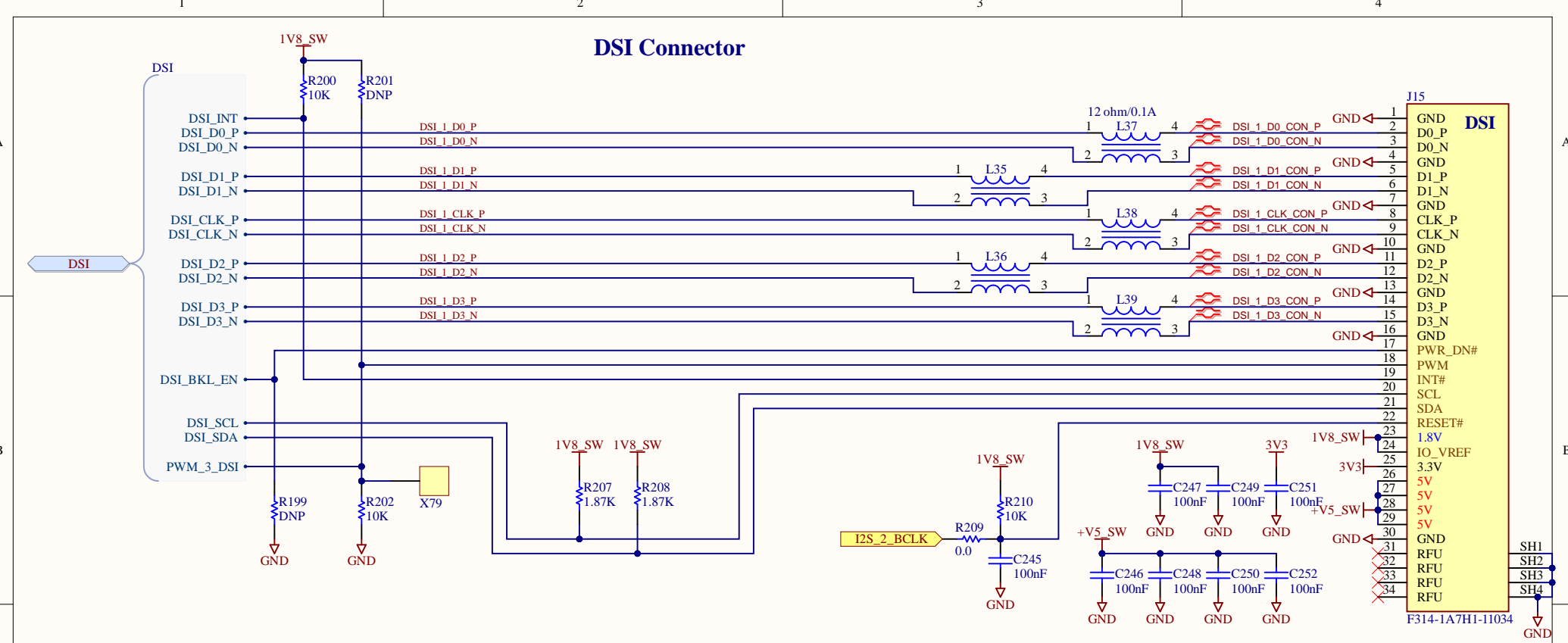
EEPROM 32Kx8



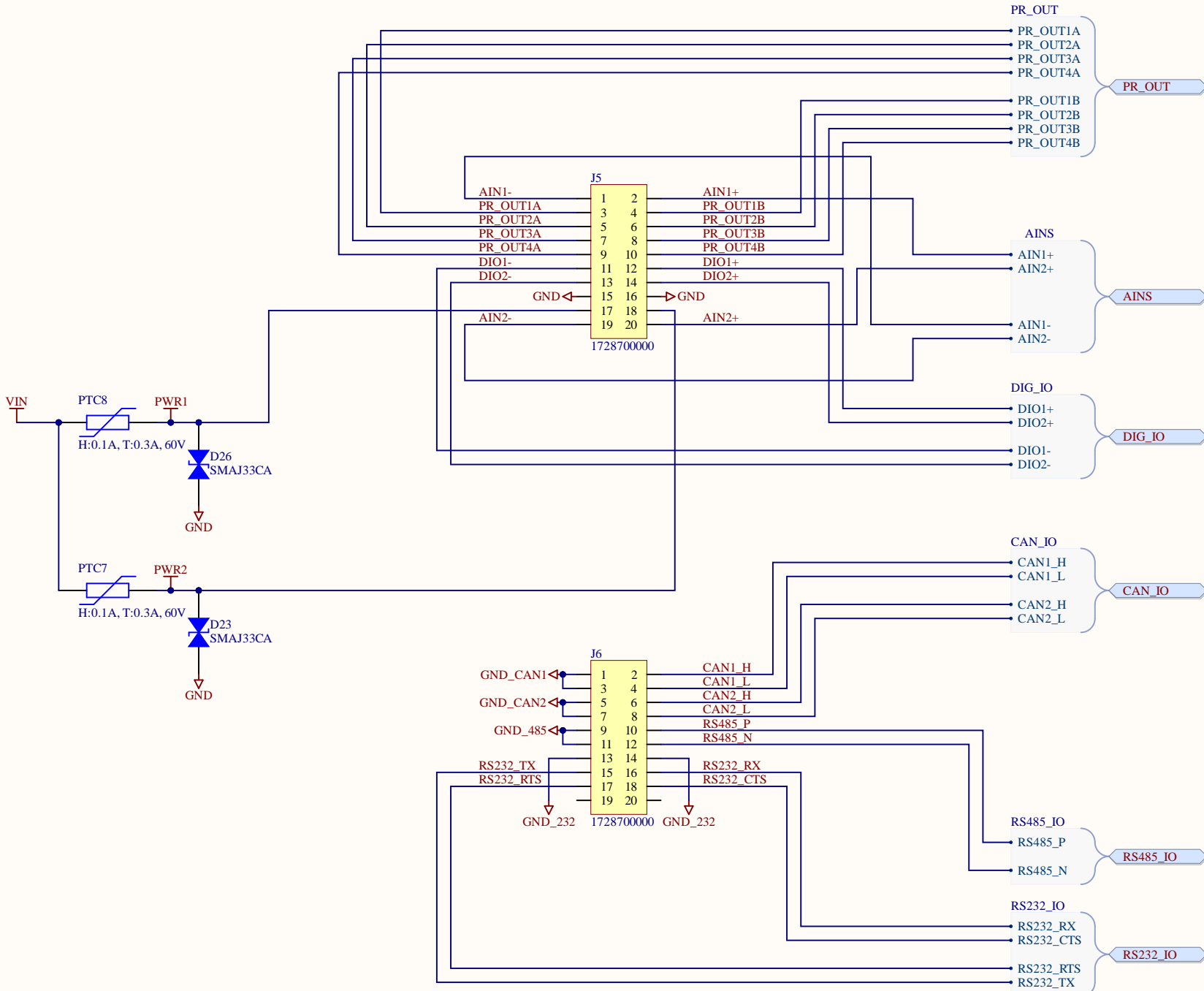
TEMP Sensor



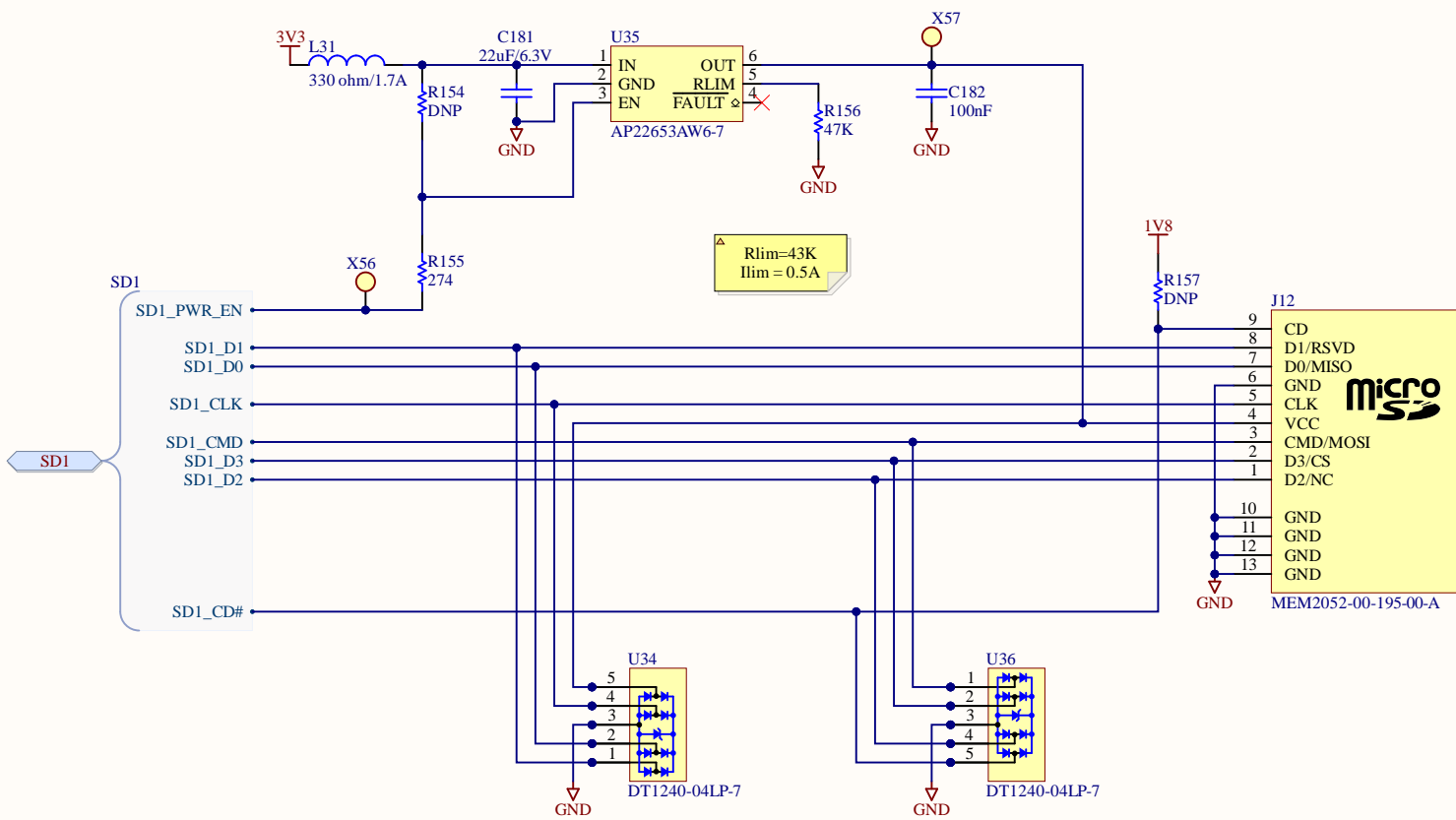
Title Ivy - Verdin Industrial Board			Toradex Solutions Inc. 6415 Northwest Drive Mississauga, ON, L4V 1X1 Canada	
Size: Letter	Number: 46806004	Revision:		
Date: 11/14/2024	Time: 11:14:06 AM	Sheet of		
File: 800_Peripherals.SchDoc				

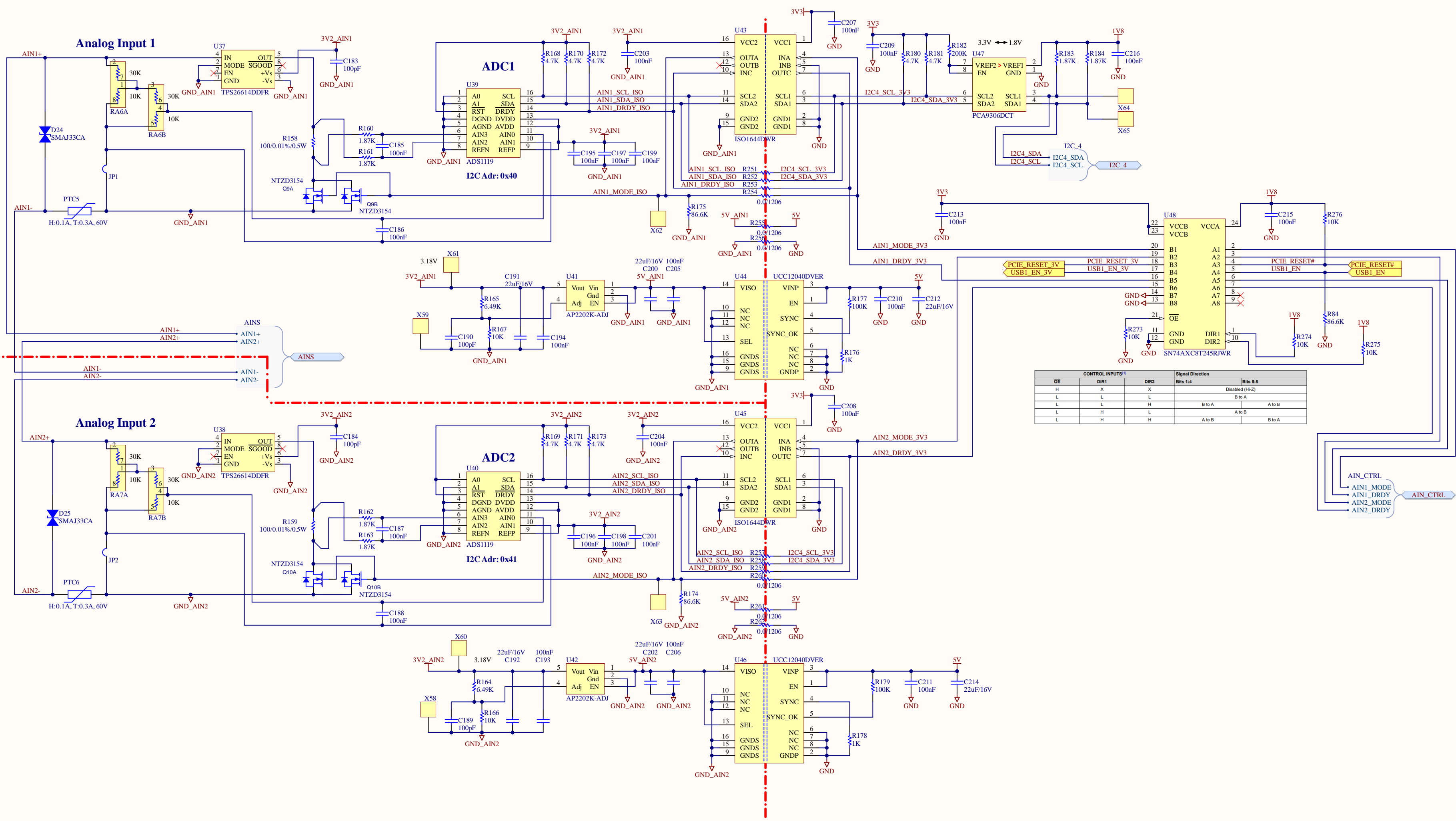


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Size: Letter	Number: 46806004	Revision:		
Date: 11/14/2024	Time: 11:14:06 AM	Sheet of		
File: 810_AUX_Connectors.SchDoc				

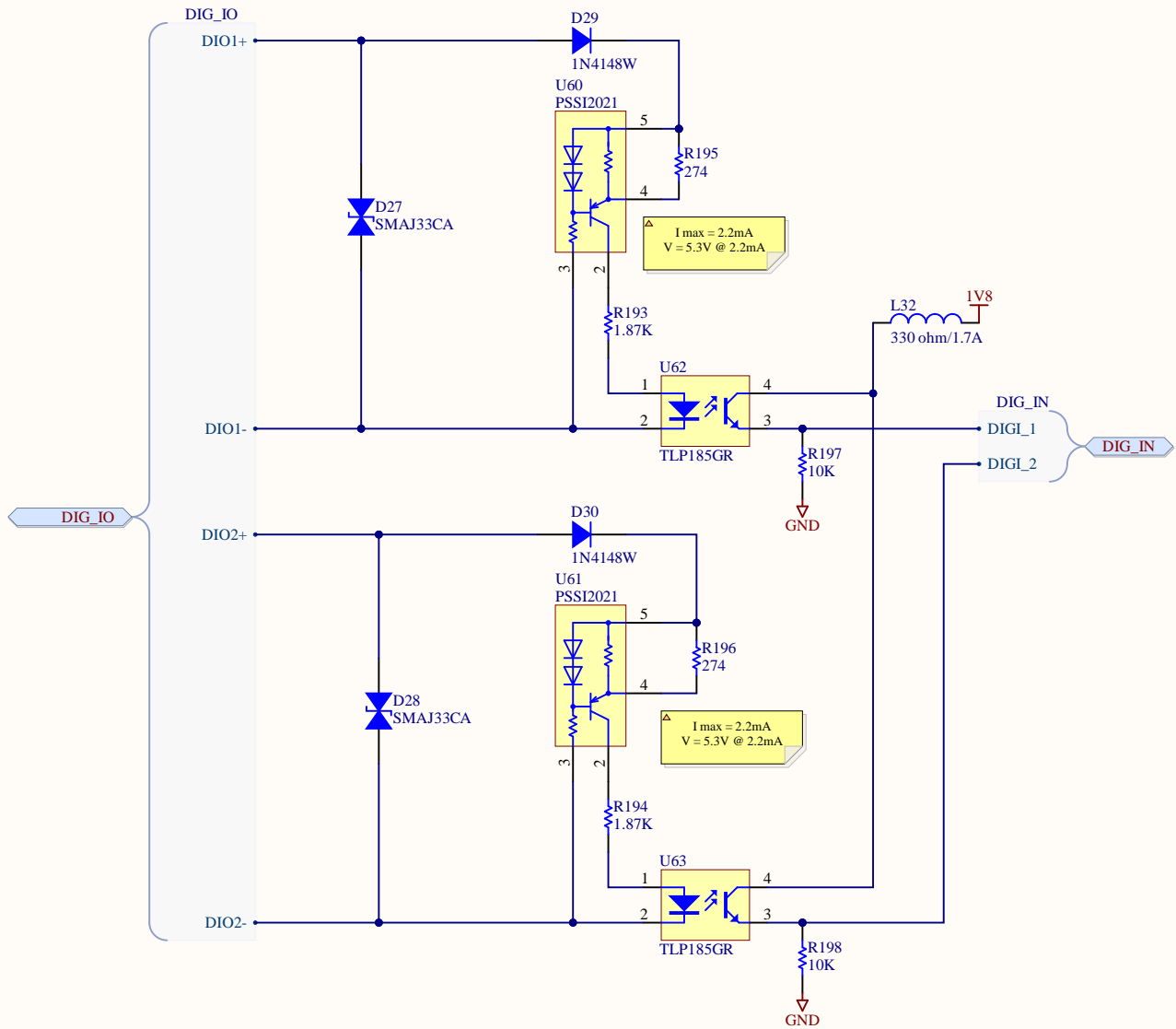


Micro-SD Card





OE	CONTROL INPUTS ¹		Signal Direction	
	DIR1	DIR2	Bits 1:4	Bits 5:8
H	X	X	Disabled (H-Z)	Disabled (H-Z)
L	L	L	B to A	B to A
L	L	H	B to A	A to B
L	H	L	A to B	A to B
L	H	H	A to B	B to A



Isolated Digital IO

Digital Inputs rating:
 max input voltage +-32V
 +5 to +32V to turn on

Title **Ivy - Verdin Industrial Board**

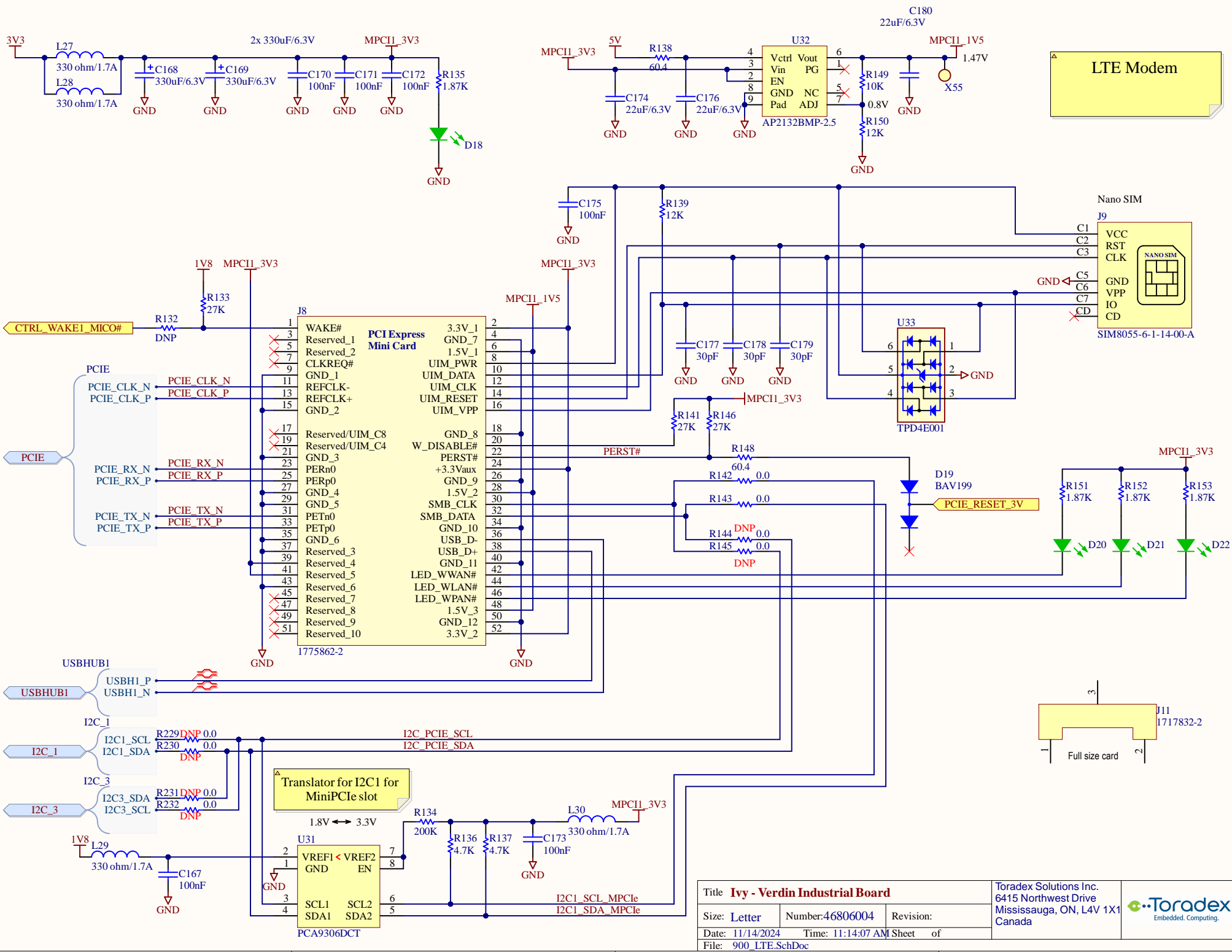
Size: Letter Number:46806004 Revision:

Date: 11/14/2024 Time: 11:14:07 AM Sheet of

File: 850_DIGIN.SchDoc

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Size: Letter	Number: 46806004	Revision:		
Date: 11/14/2024 Time: 11:14:07 AM Sheet of				
File: 900_LTE.SchDoc				