

A

A

B

B

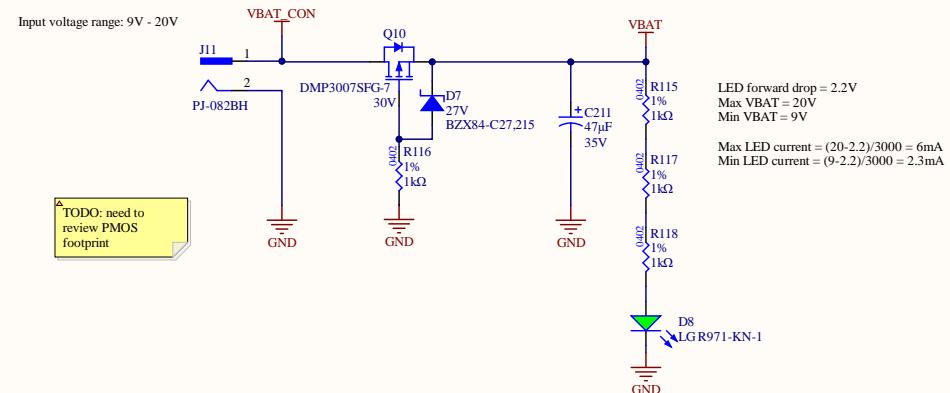
C

C

D

D

Power Jack Reverse Polarity Protection

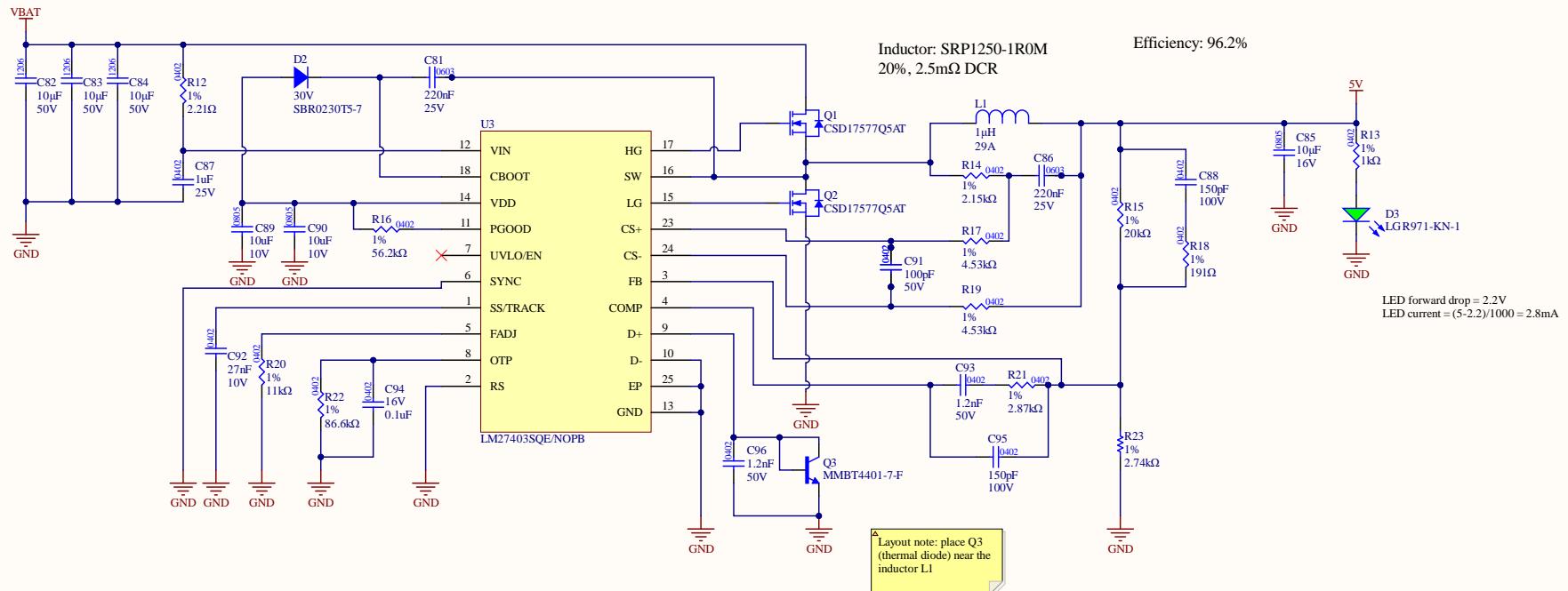


Title: Power Connector	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	
Date: 2021-07-28	Sheet: 1 of 26



5V Buck Converter @ 16A

Input voltage range: 9V - 20V



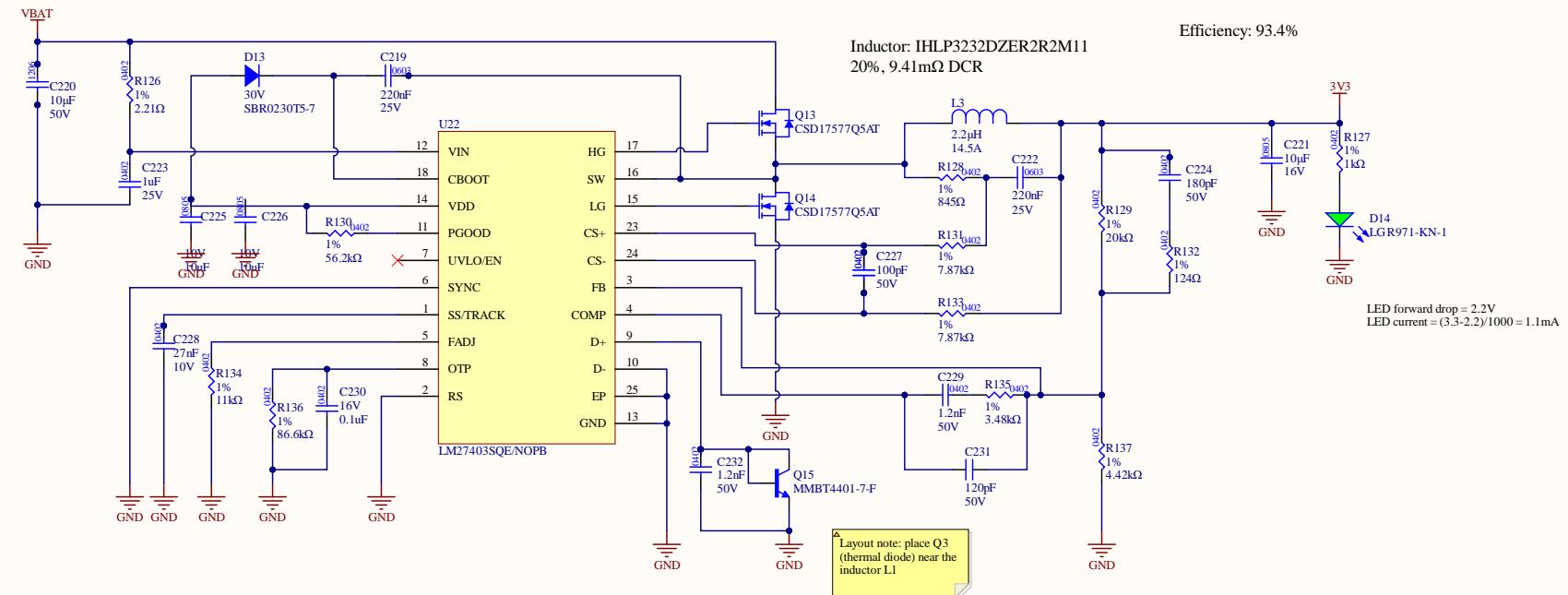
Webench reference design: <https://webench.ti.com/appinfo/webench/scripts/SDP.cgi?ID=E23207869D5F0DD4>

Title: 5V Power	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	Date: 2021-07-28



3.3V Buck Converter @ 6A

Input voltage range: 9V - 20V



Title:	3.3V Power
Project:	Jetson AGX Xavier Carrier Board.PjPcb
Rev:	1
Reviewer:	*
Engineer:	Cindy Li
Date:	2021-07-28
Sheet:	3 of 26



A

A

B

B

C

C

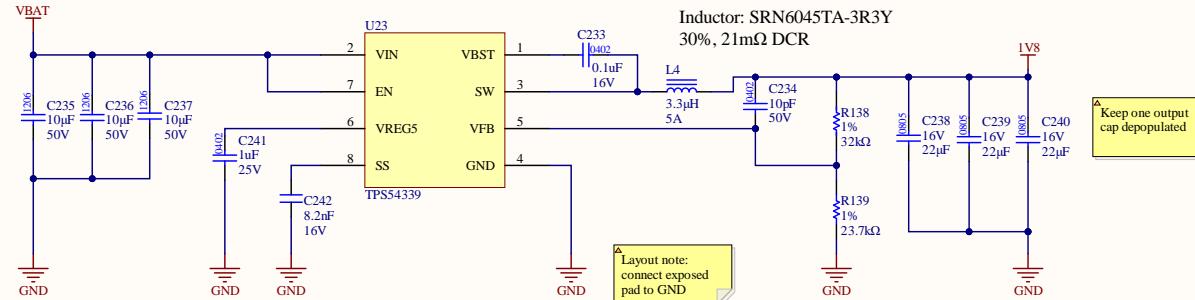
D

D

1.8V Buck Converter @ 2A

Input voltage range: 9V - 20V

Efficiency: 82.5%



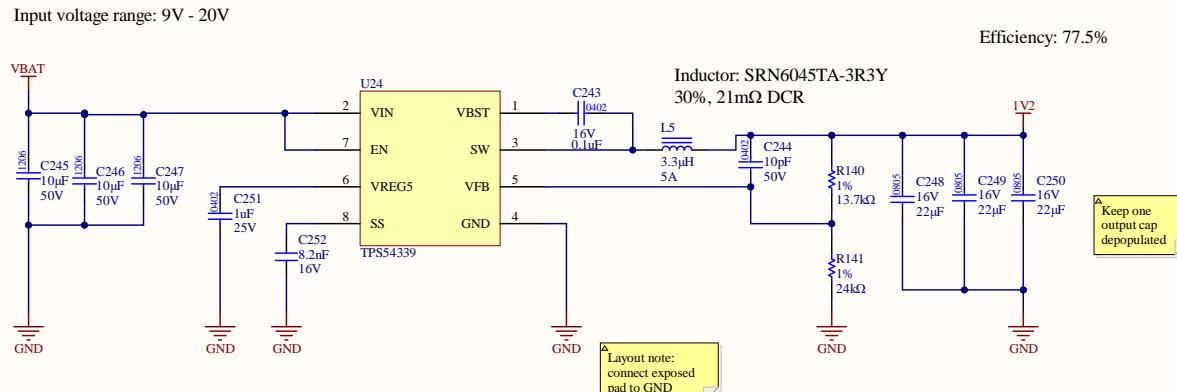
A

A

1.2V Buck Converter @ 2A

B

B



C

C

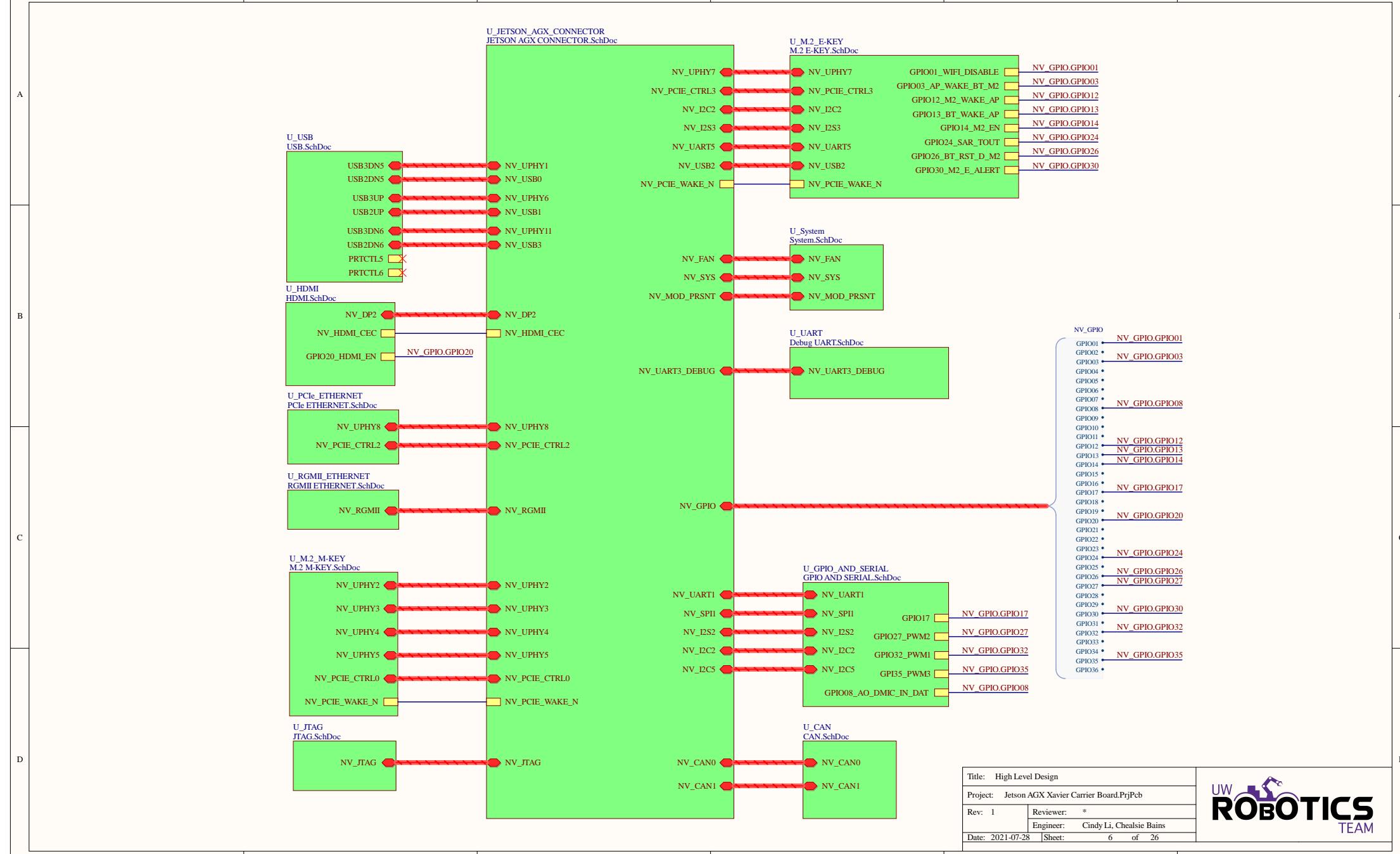
[Webench reference design: https://webench.ti.com/appinfo/webench/scripts/SDP.cgi?ID=348A2FAA81A09D71](https://webench.ti.com/appinfo/webench/scripts/SDP.cgi?ID=348A2FAA81A09D71)

D

D

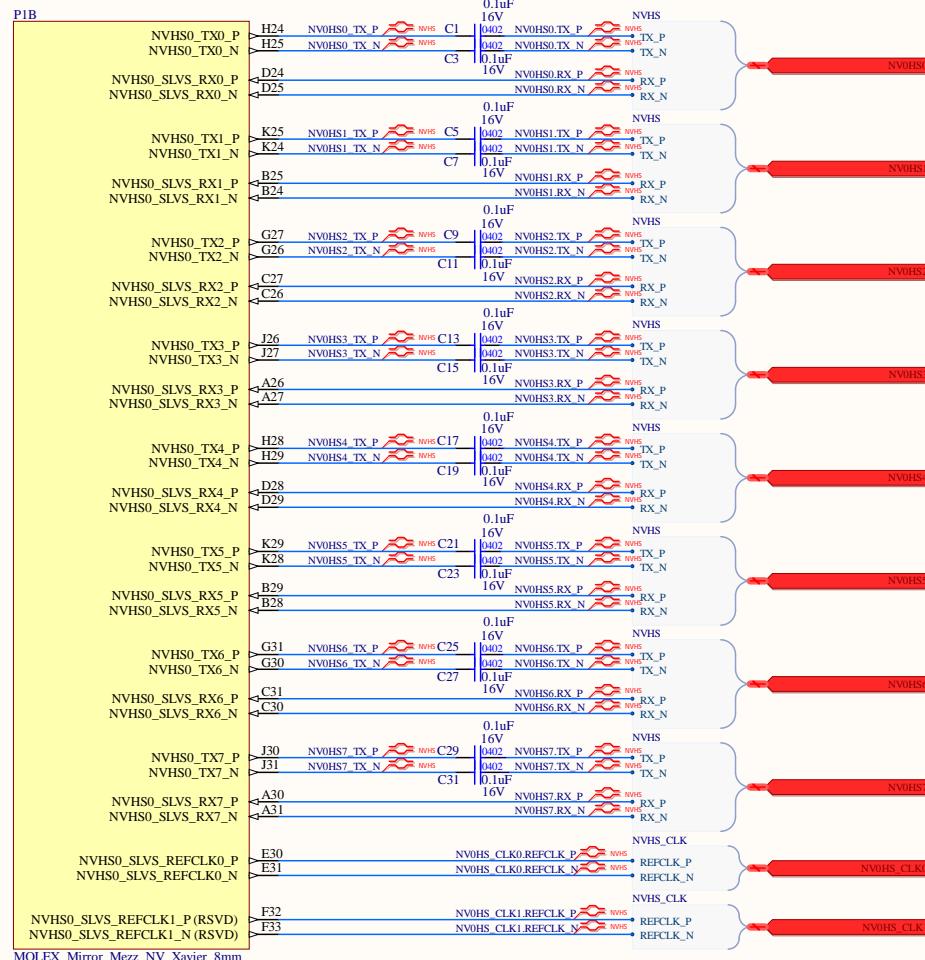
Title: 1.2VPower	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	Date: 2021-07-28
Sheet: 5	of 26





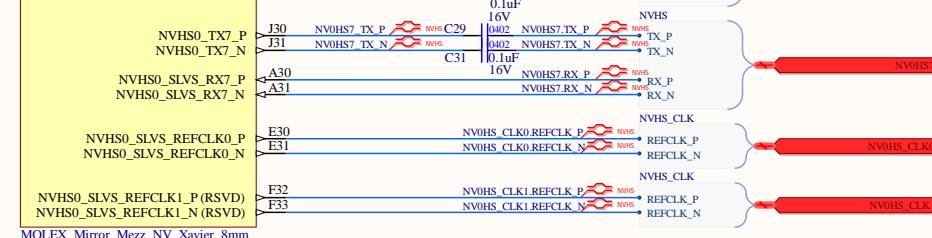
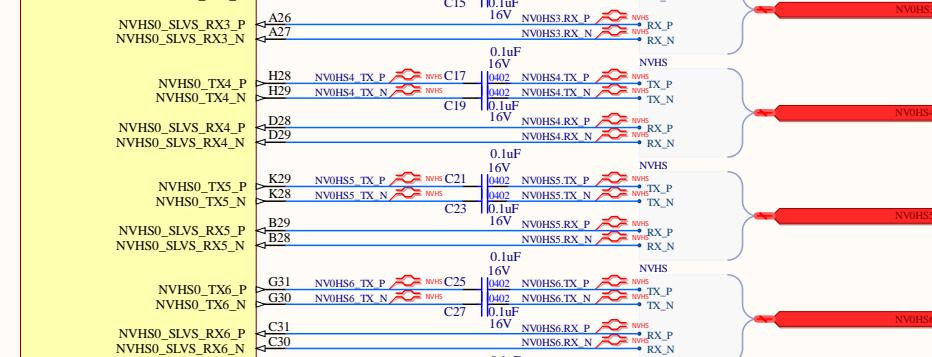


A



MOLEX_Mirror_Mezz_NV_Xavier_8mm

B



MOLEX_Mirror_Mezz_NV_Xavier_8mm

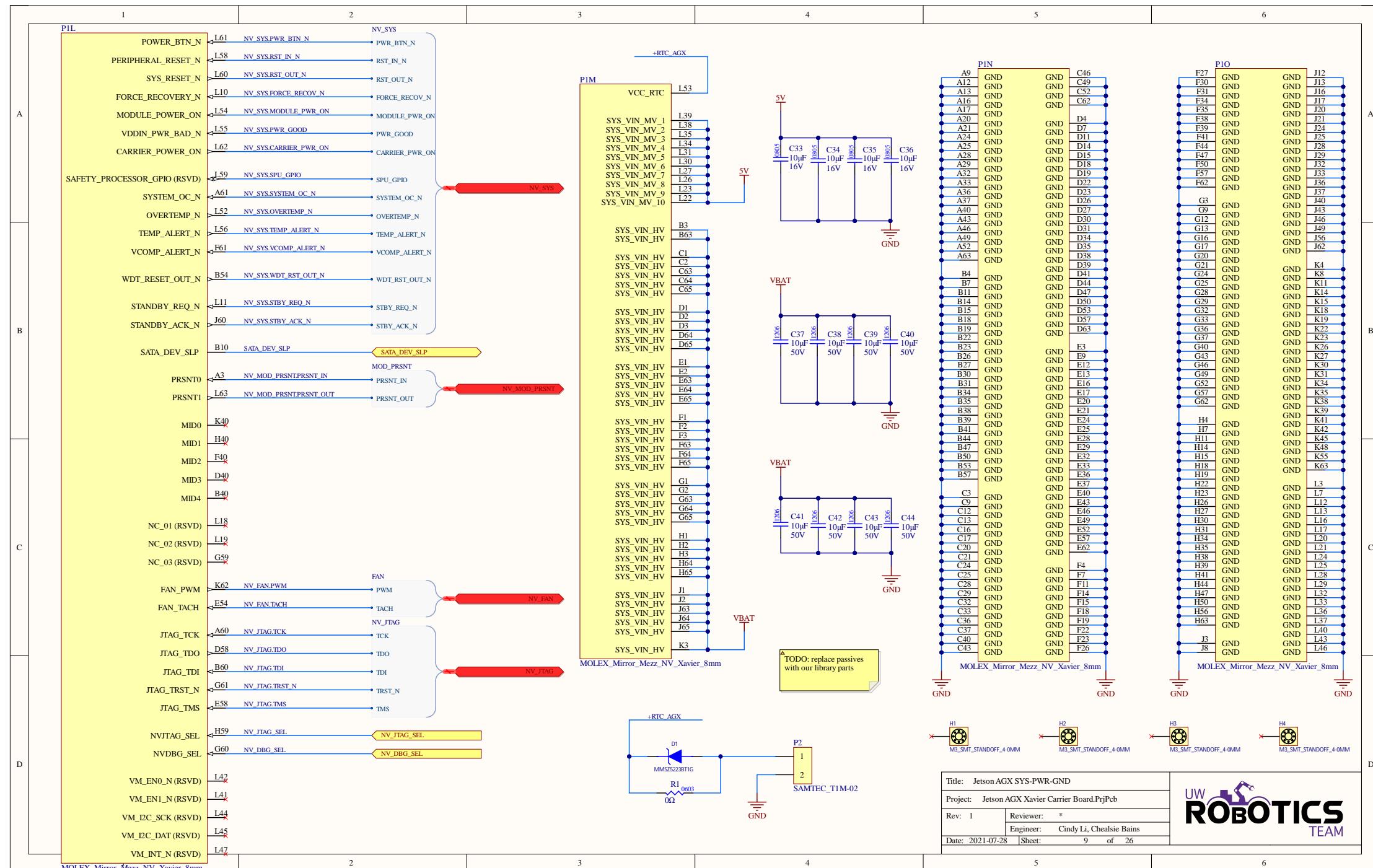
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MOLEX_Mirror_Mezz_NV_Xavier_8mm

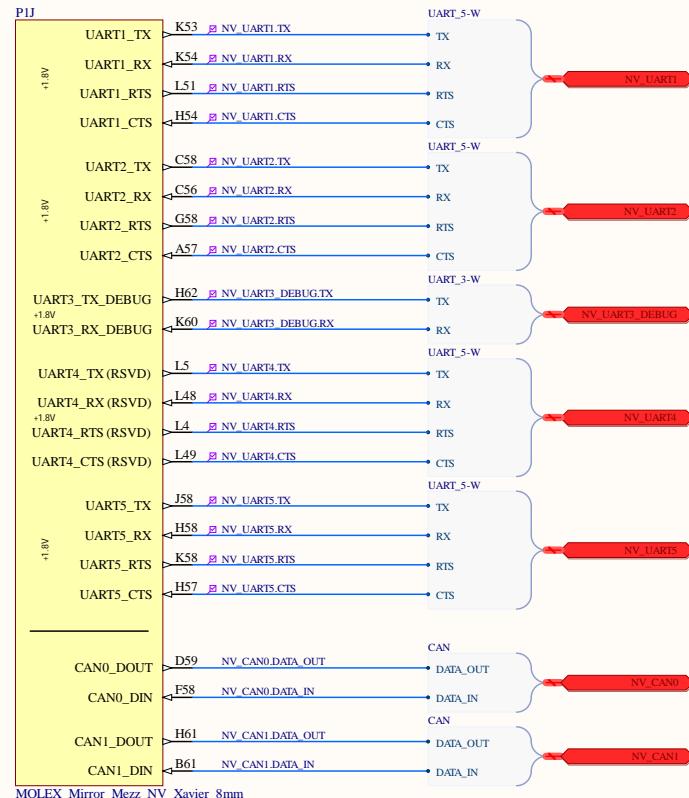
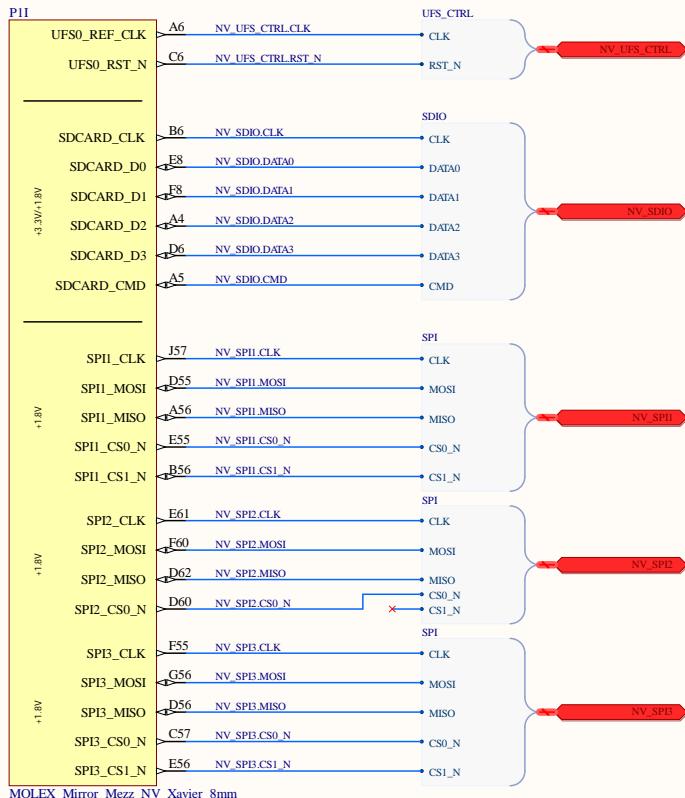
MOLEX_Mirror_Mezz_NV_Xavier_8mm

Title: Jetson AGX NVHS	
Project:	Jetson AGX Xavier Carrier Board.PnjPcb
Rev: 1	Reviewer: *
Engineer:	Cindy Li, Chealsie Bains
Date: 2021-07-28	Sheet: 8 of 26





1 2 3 4 5 6

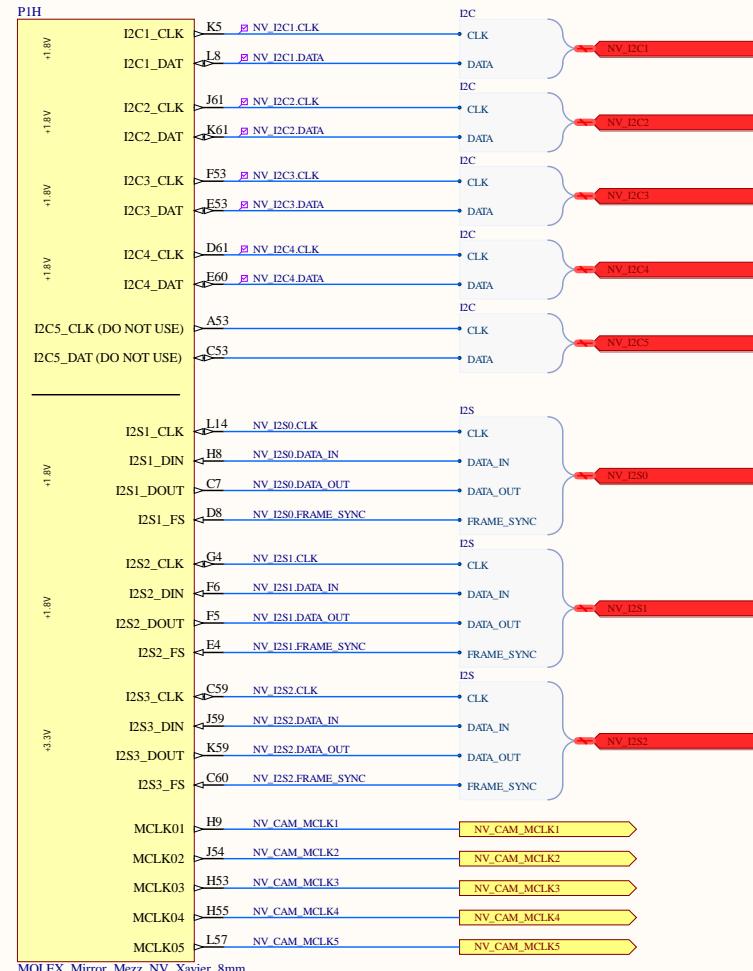
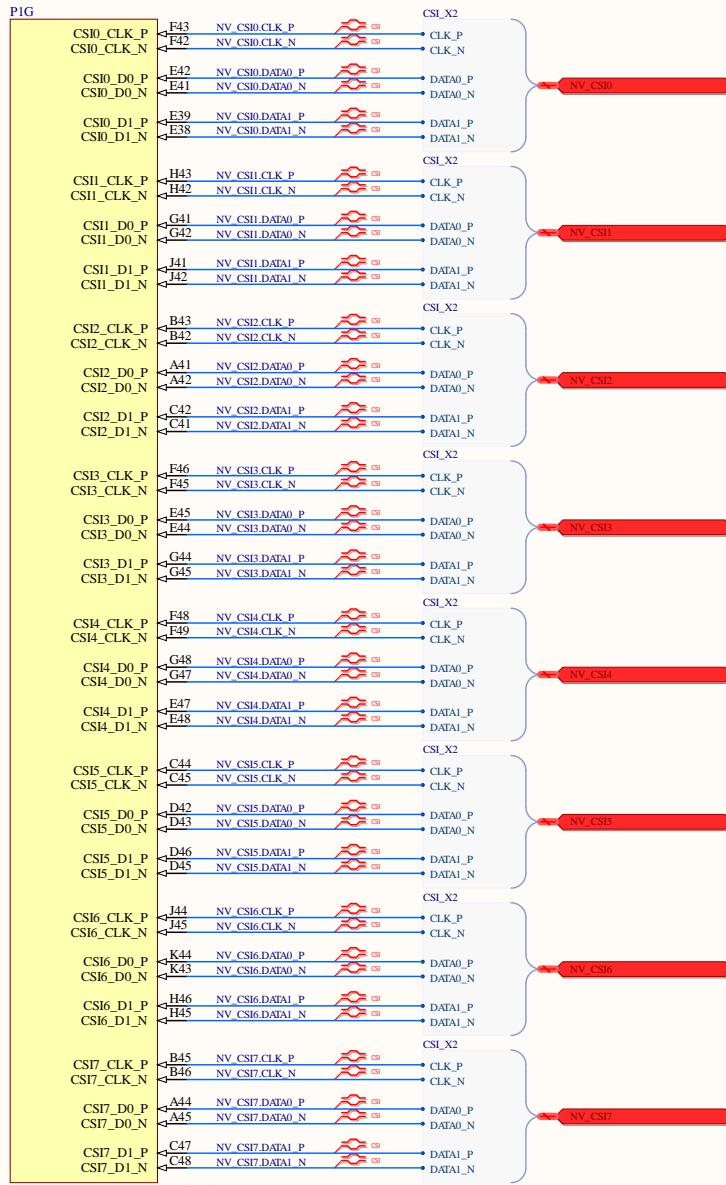


Title: Jetson AGX SDIO-SPI-UART-CAN-GPIO	
Project: Jetson AGX Xavier Carrier Board.PrbPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li, Chealsie Bains	
Date: 2021-07-28	Sheet: 10 of 26



1 2 3 4 5 6

1 2 3 4 5 6

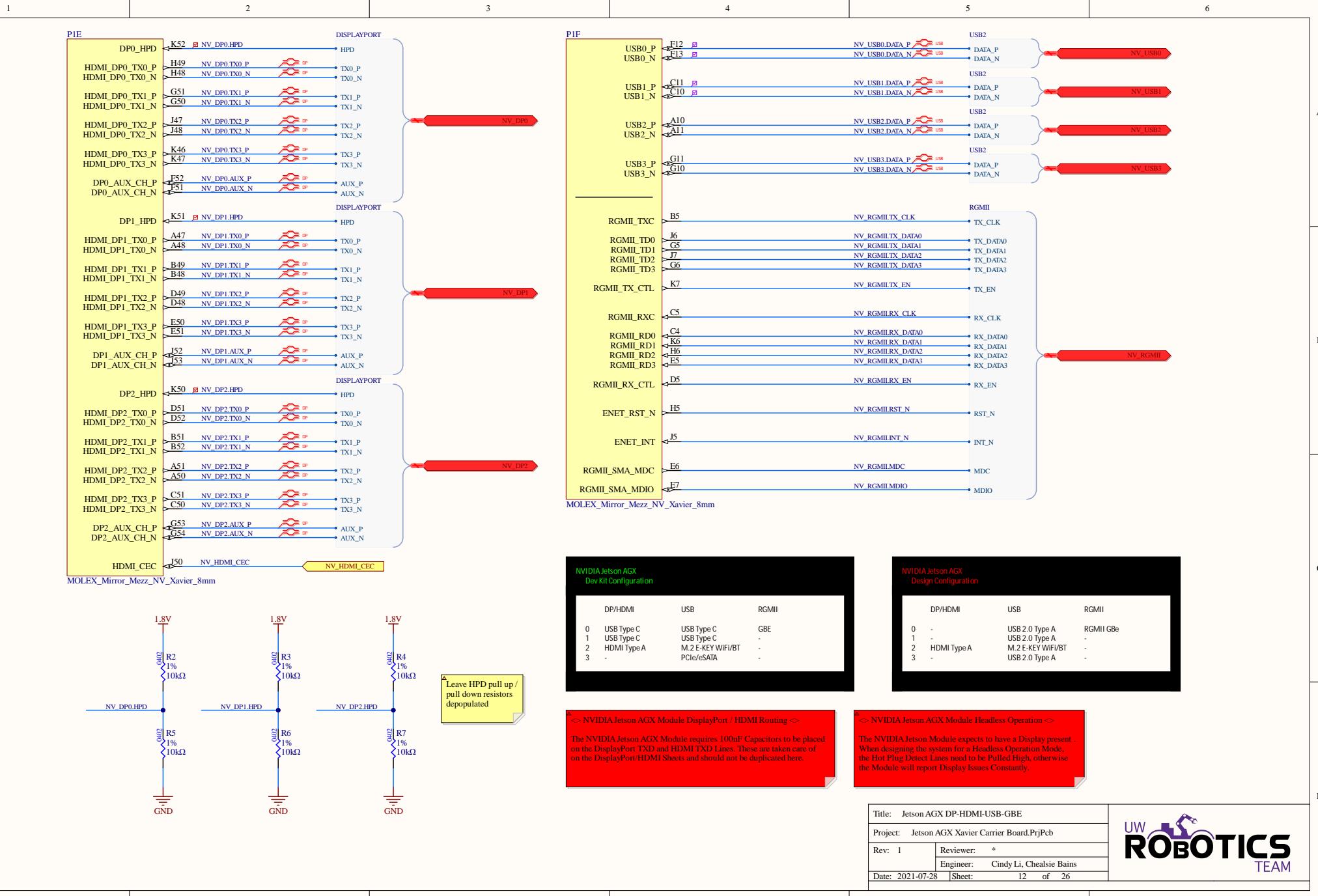


NVIDIA Jetson AGX Dev Kit Configuration		
CSI	I2C	I2S
0 CAM Expansion	-	-
1 CAM Expansion	ID EEPROM / Debug	-
2 CAM Expansion	PCIe x16 / M.2 E-Key	40 Pin Expansion
3 CAM Expansion	-	M.2 E-Key WiFi/BT
4 CAM Expansion	-	CAM Expansion
5 CAM Expansion	-	M.2 M-Key NVMe
6 CAM Expansion	-	40 Pin Expansion
7 CAM Expansion	-	-

NVIDIA Jetson AGX Design Configuration		
CSI	I2C	I2S
0 -	-	-
1 -	-	-
2 -	M.2 E-Key + GPIO	GPIO
3 -	-	M.2 E-Key WiFi/BT
4 -	-	M.2 M-Key NVMe
5 -	-	GPIO
6 -	-	-
7 -	-	-

Title: Jetson AGX CSI-I2C-I2S	
Project:	Jetson AGX Xavier Carrier Board.PjPcb
Rev: 1	Reviewer: *
Engineer:	Cindy Li, Chealsie Bains
Date: 2021-07-28	Sheet: 11 of 26





A

A

B

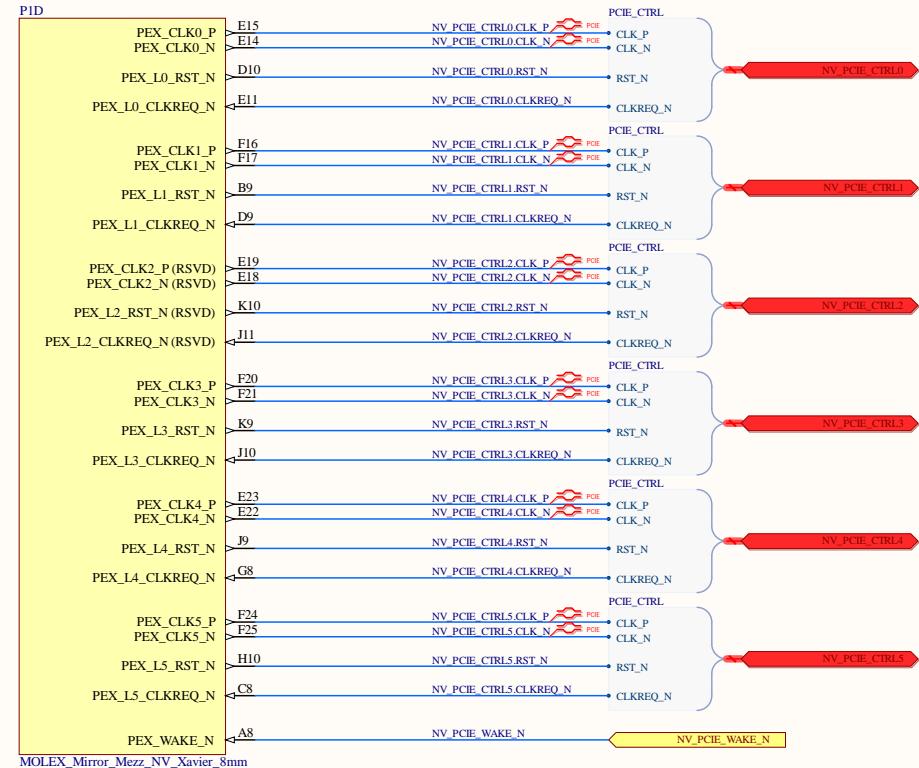
B

C

C

D

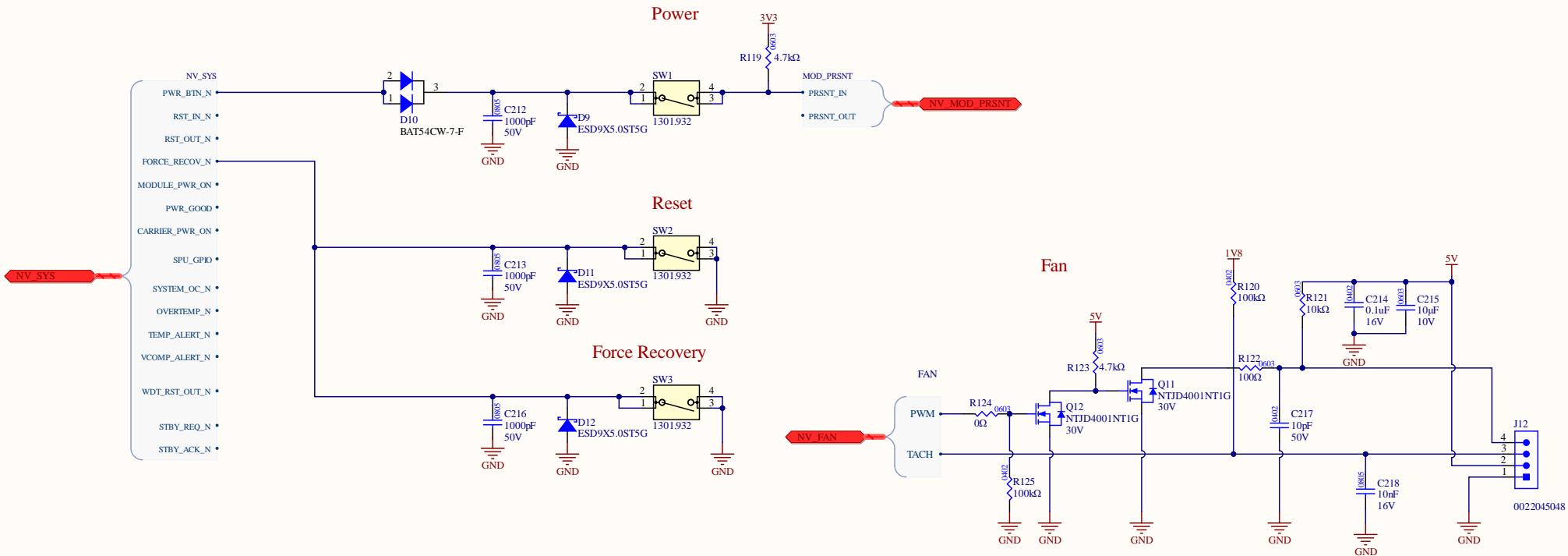
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Title: Jetson AGX PCIe	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li, Chealsie Bains	
Date: 2021-07-28	Sheet: 13 of 26







Title: System	
Project: Jetson AGX Xavier Carrier Board.PjPcb	
Rev: 1	Reviewer: *
Engineer: Chealsie Bains	Date: 2021-07-28
Sheet: 15	of 26

A

A

B

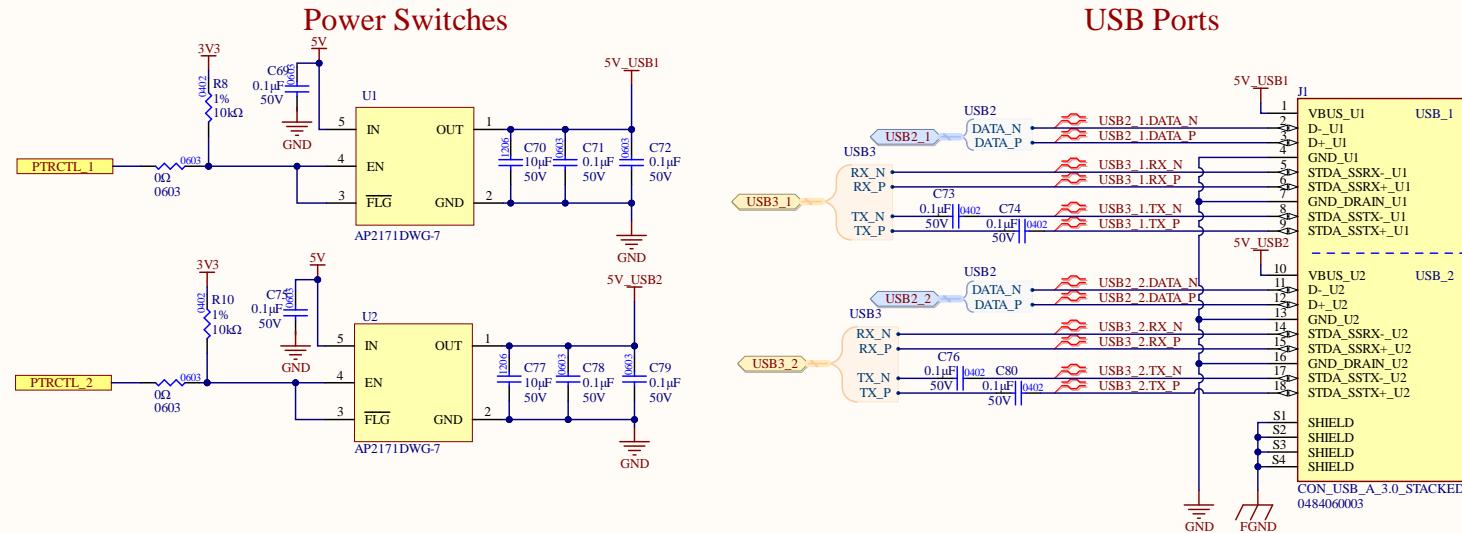
B

C

C

D

D



Title: USB Port

Project: Jetson AGX Xavier Carrier Board.PnjPcb

Rev: 1

Reviewer: *

Engineer: Cindy Li

Date: 2021-07-28

Sheet: 16 of 26



1

2

3

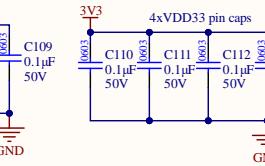
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5

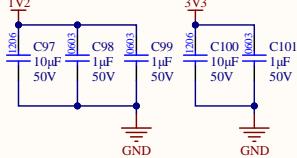
6

A

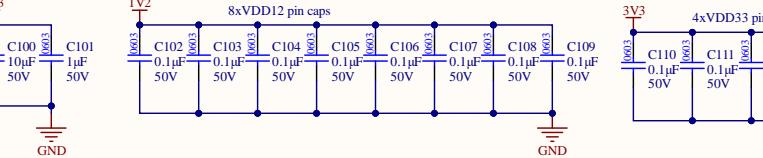
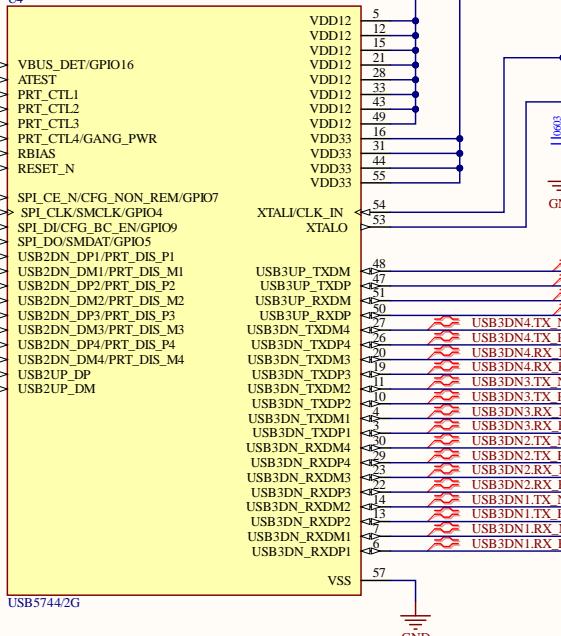
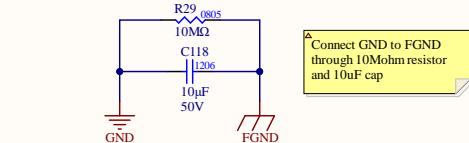
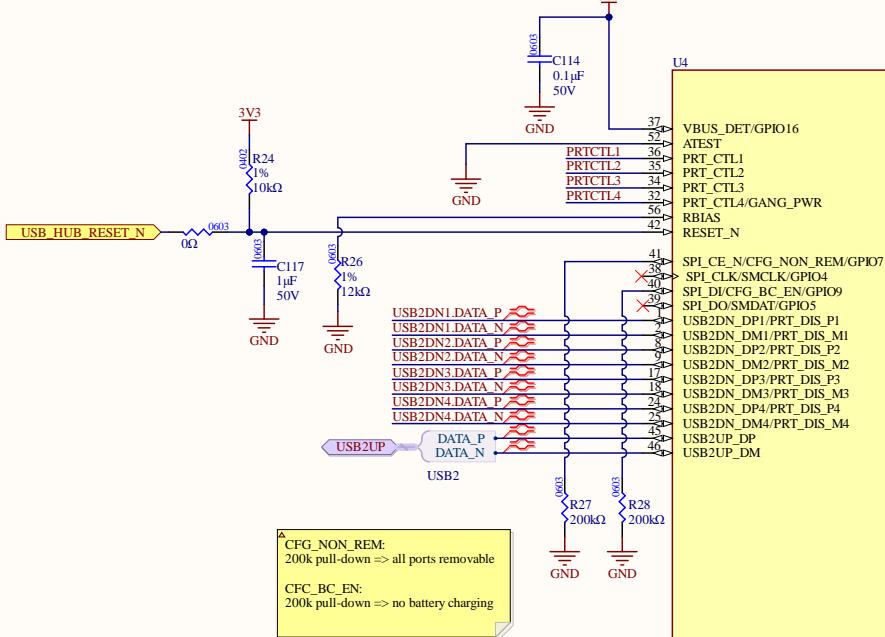
Decoupling Capacitors



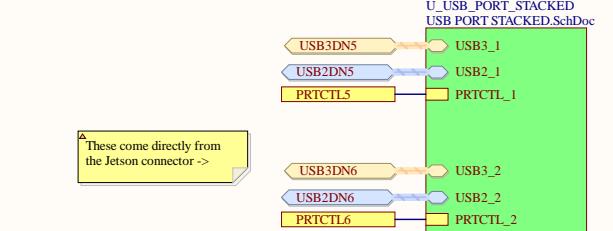
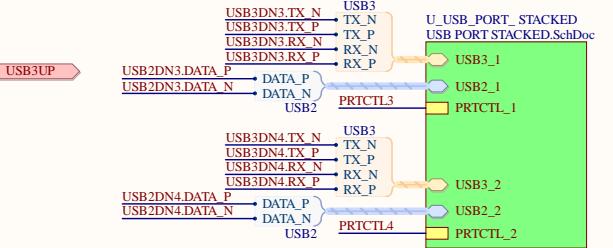
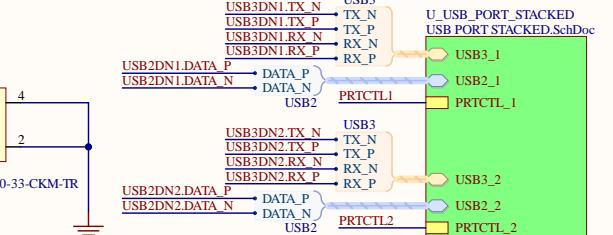
Bulk Capacitors



USB Controller

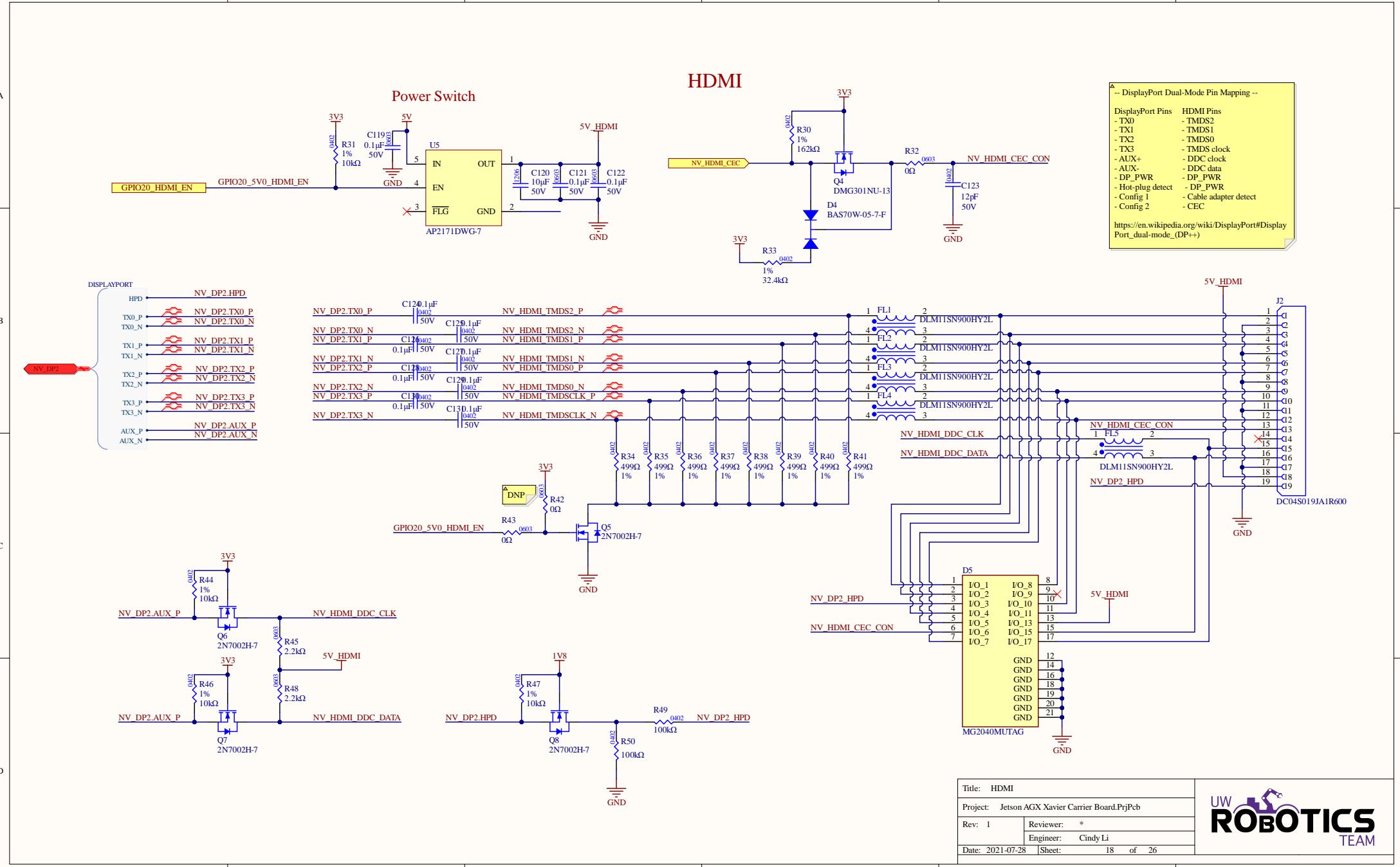


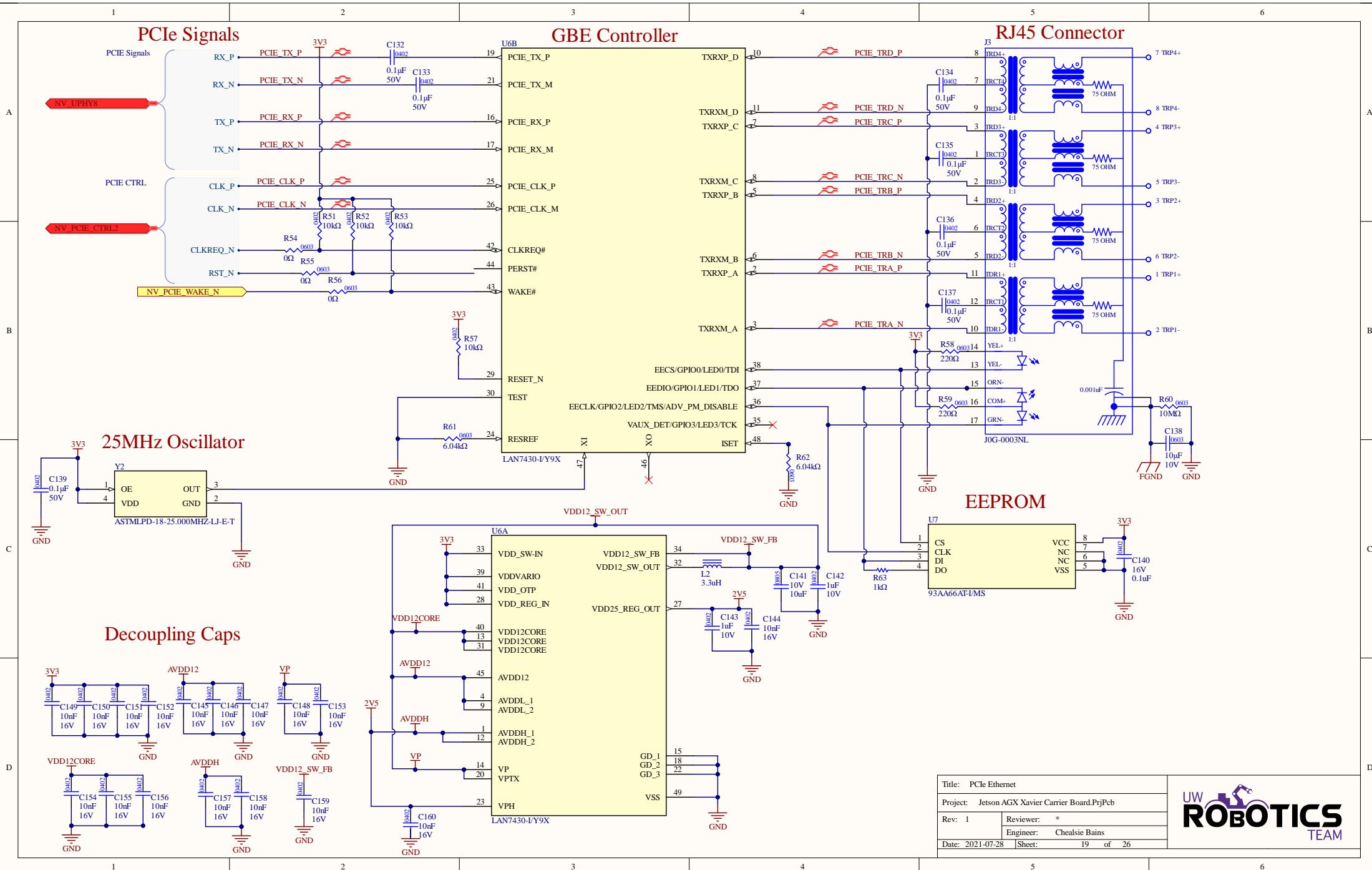
U_USB_PORT_STACKED USB PORT STACKED.SchDoc

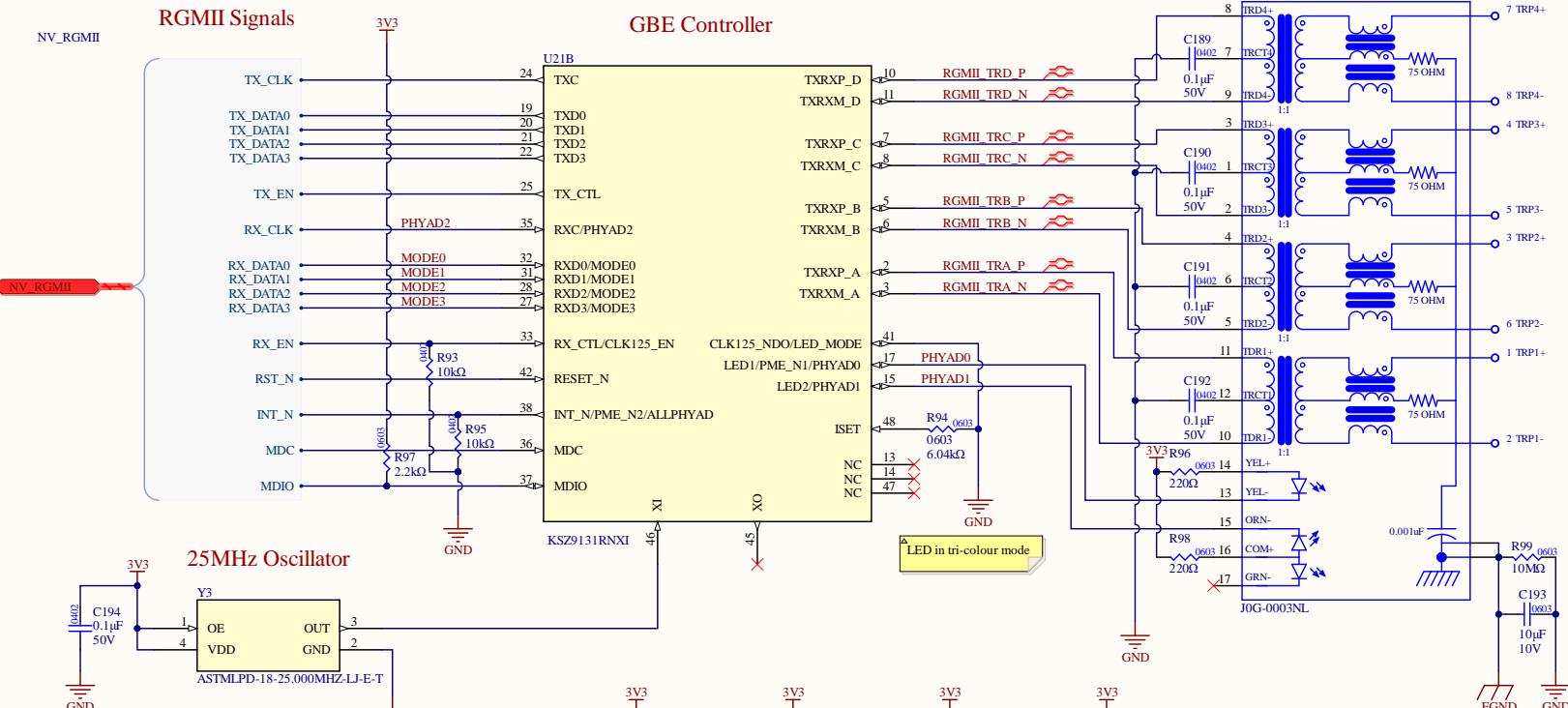


Title: USB	
Project: Jetson AGX Xavier Carrier Board.PjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	
Date: 2021-07-28	Sheet: 17 of 26







RJ45 Ethernet Connector

A

A

B

B

C

C

D

D

1

2

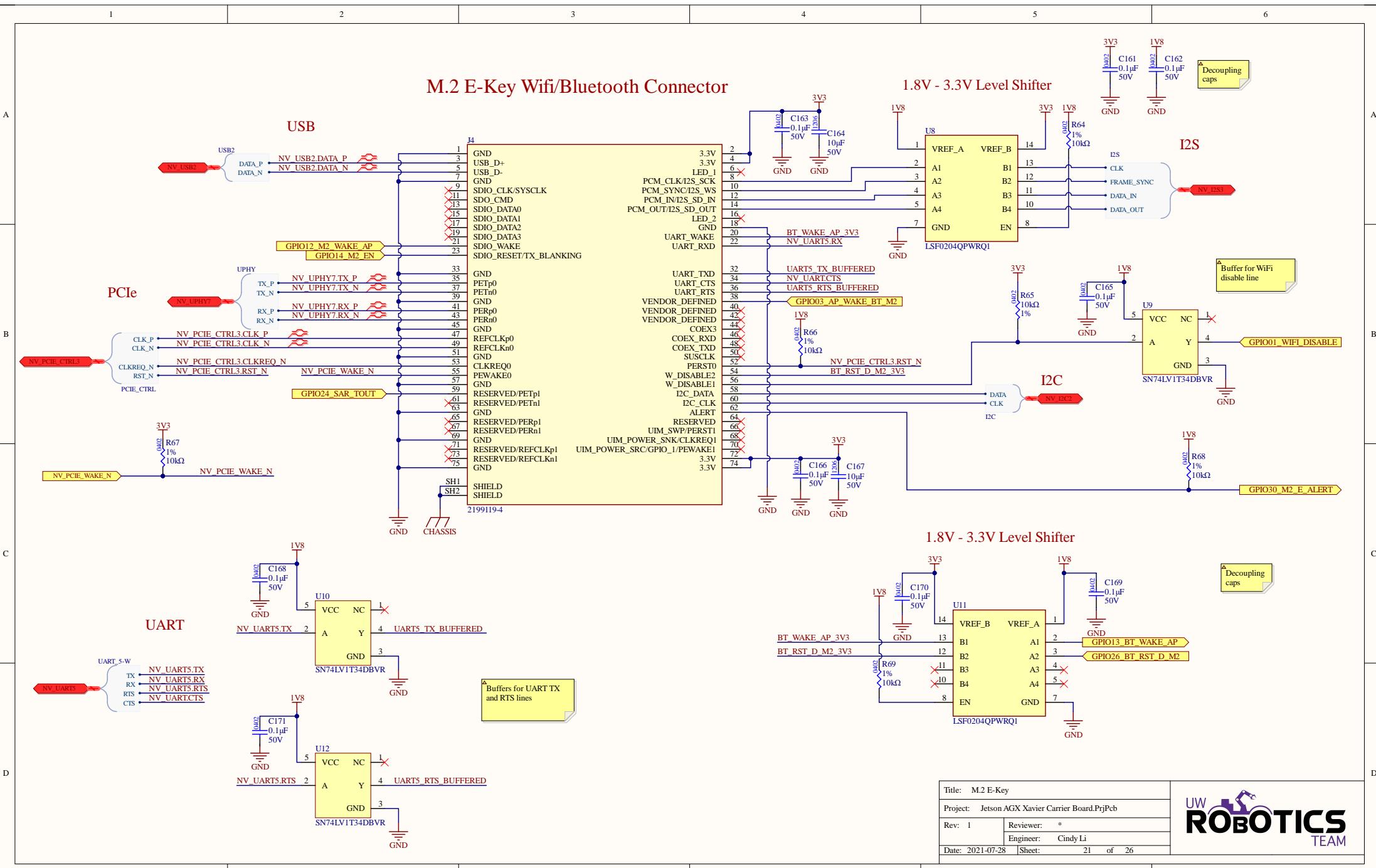
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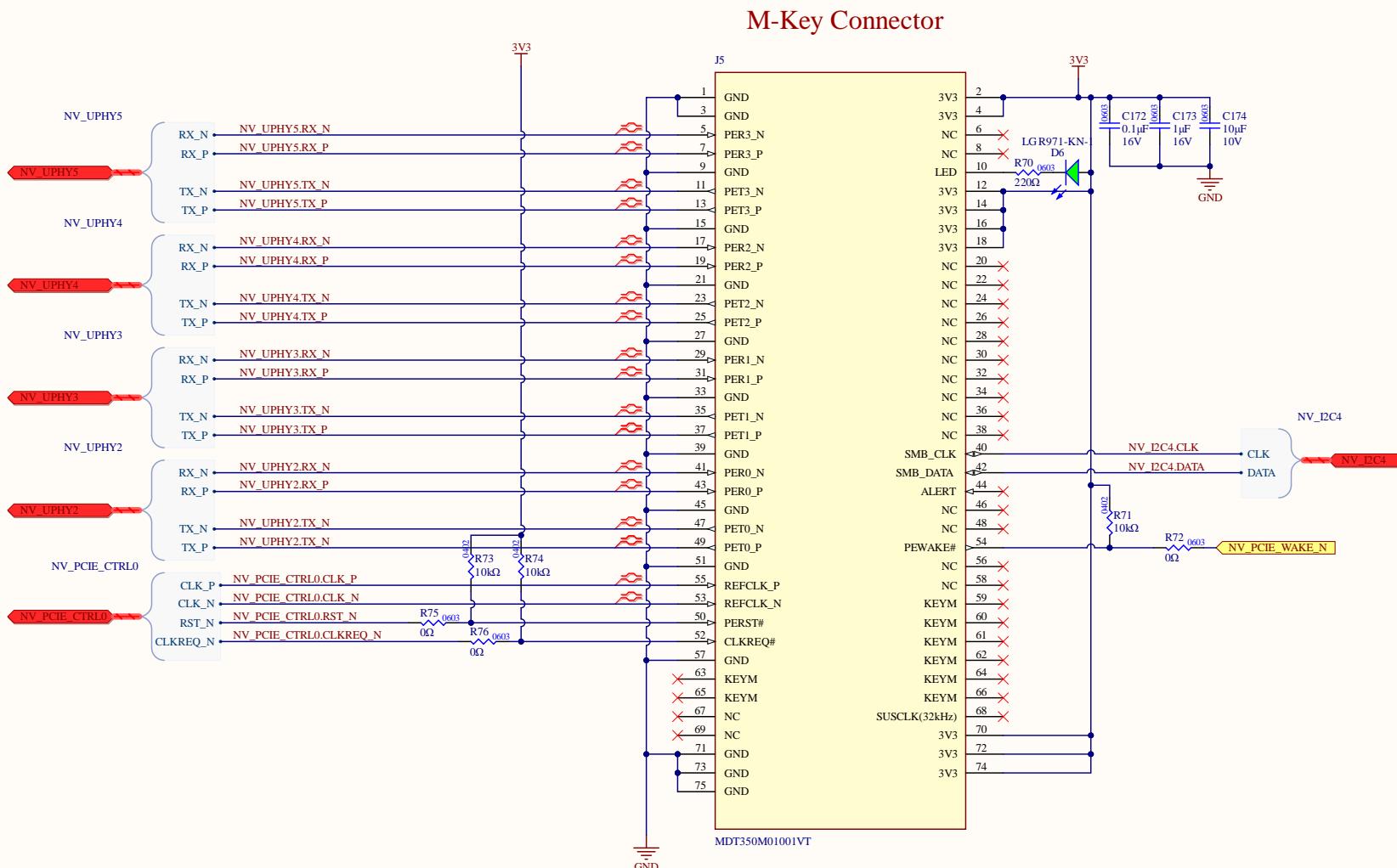
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5

6

Title: RGMII Ethernet	
Project: Jetson AGX Xavier Carrier Board.PjPcb	
Rev: 1	Reviewer: *
Engineer: Chealsie Bains	Date: 2021-07-28





Title: M.2 M-Key	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Chealsie Bains	Date: 2021-07-28
Sheet: 22	of 26

A

A

B

B

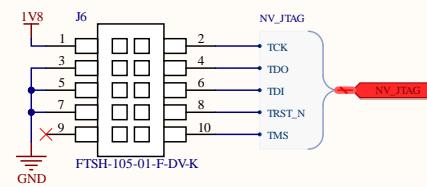
C

C

D

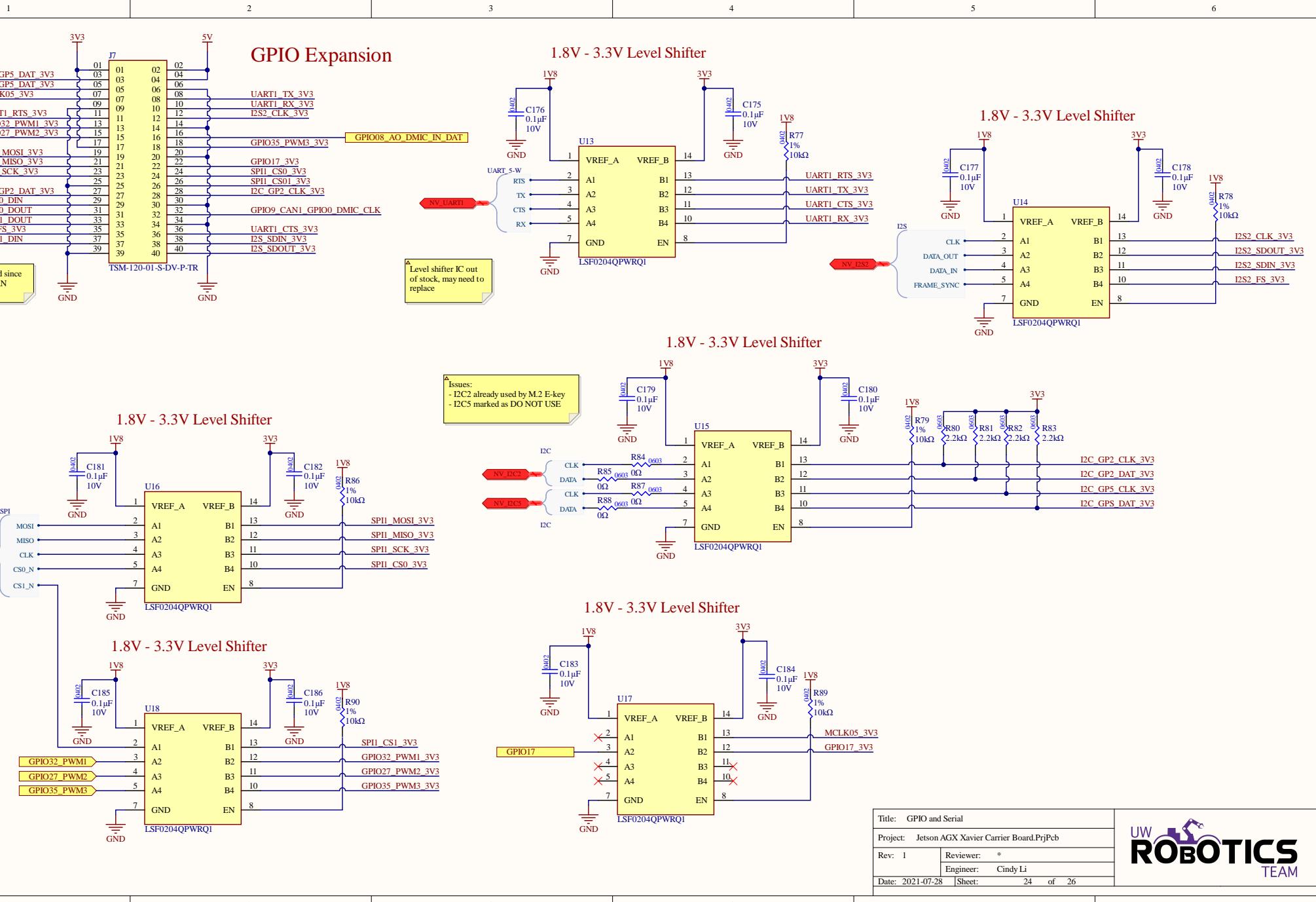
D

JTAG

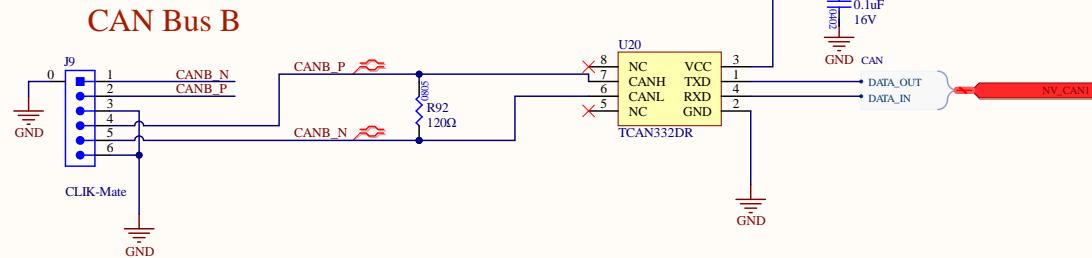
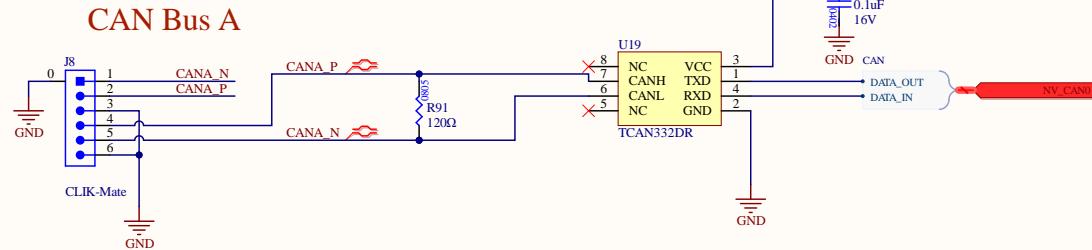


Title: JTAG	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
	Engineer: Cindy Li
Date: 2021-07-28	Sheet: 23 of 26





CAN Transceivers

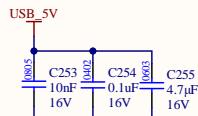


Title: CAN	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	
Date: 2021-07-28	Sheet: 25 of 26



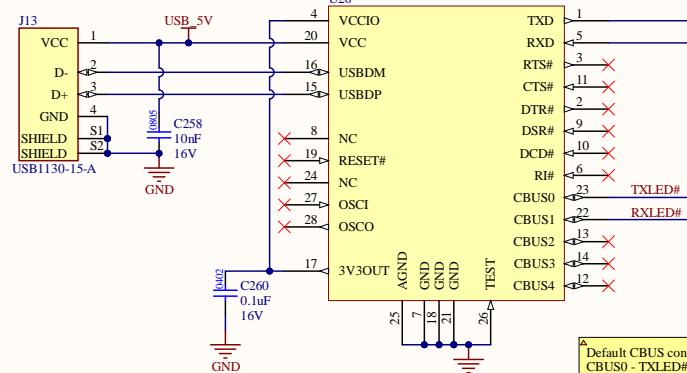
A

A



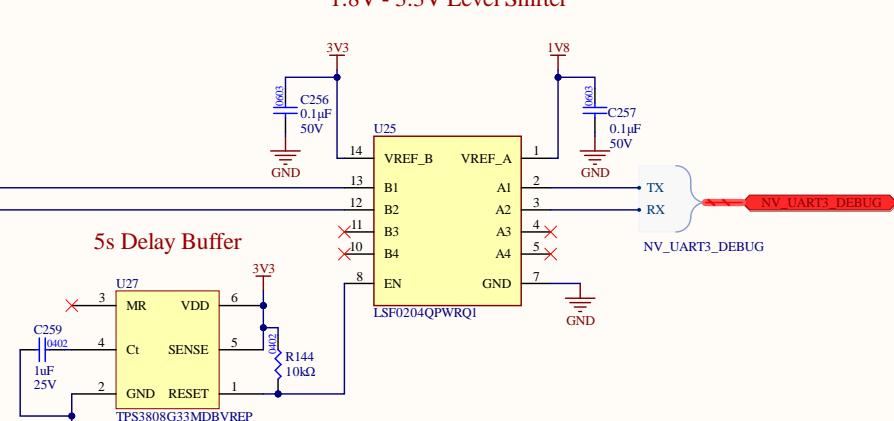
UART to USB

USB-A 2.0 Connector



Default CBUS configurations:
CBUS0 - TXLED#
CBUS1 - RXLED#
CBUS2 - TXDEN
CBUS3 - PWREN#
CBUS4 - SLEEP#

1.8V - 3.3V Level Shifter



Title: Debug UART

Project: Jetson AGX Xavier Carrier Board.PjPcb

Rev: 1 Reviewer: *

Engineer: Chealsie Bains

Date: 2021-07-28 Sheet: 26 of 26



Board Stack Report