

A

A

B

B

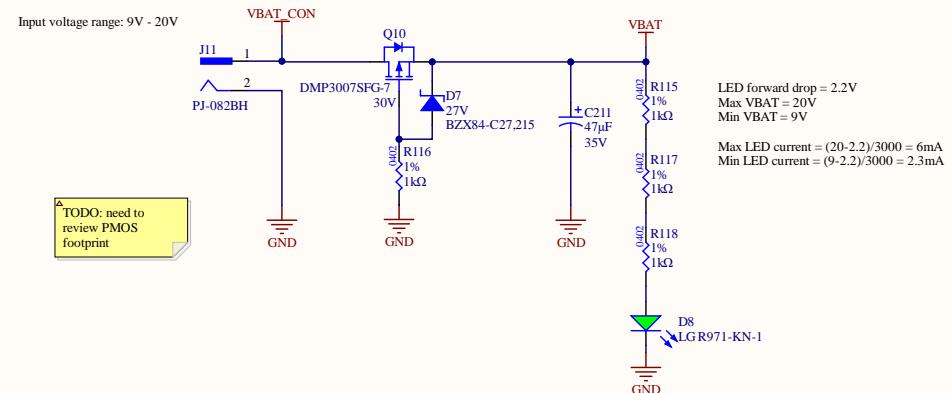
C

C

D

D

Power Jack Reverse Polarity Protection

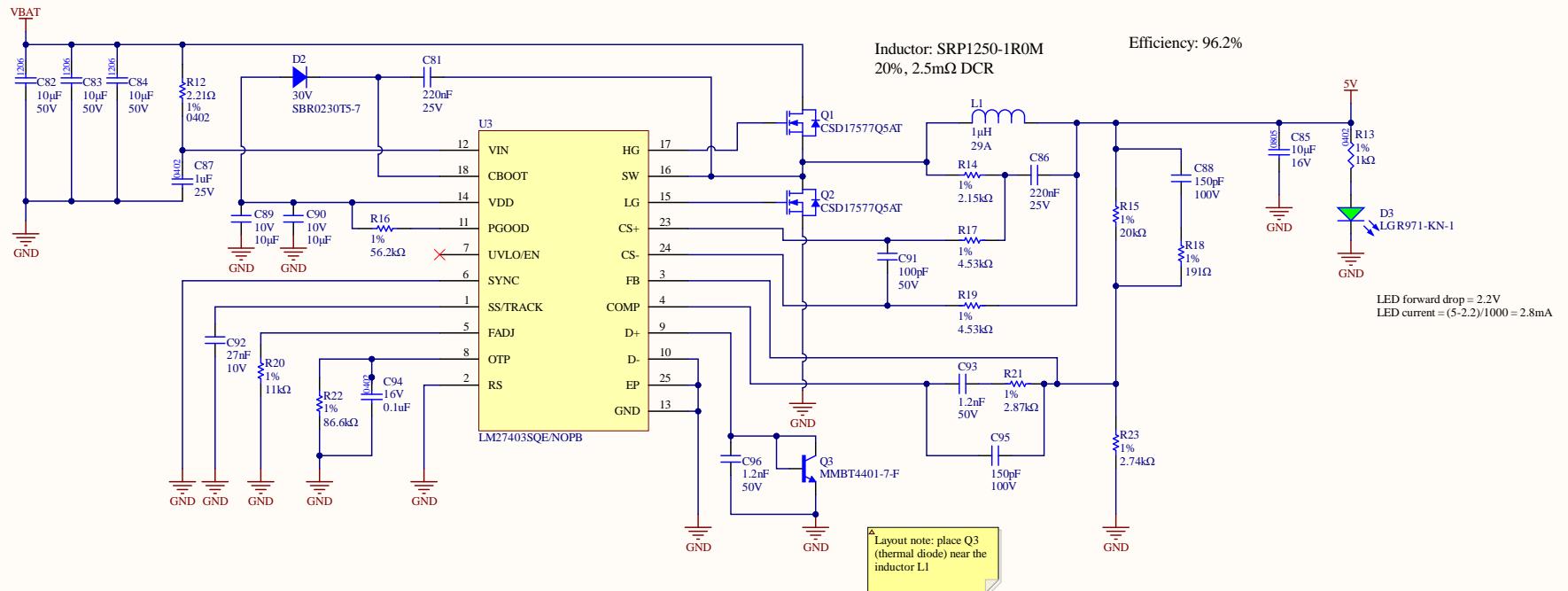


Title: Power Connector	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	
Date: 2021-07-28	Sheet: 1 of 26



5V Buck Converter @ 16A

Input voltage range: 9V - 20V



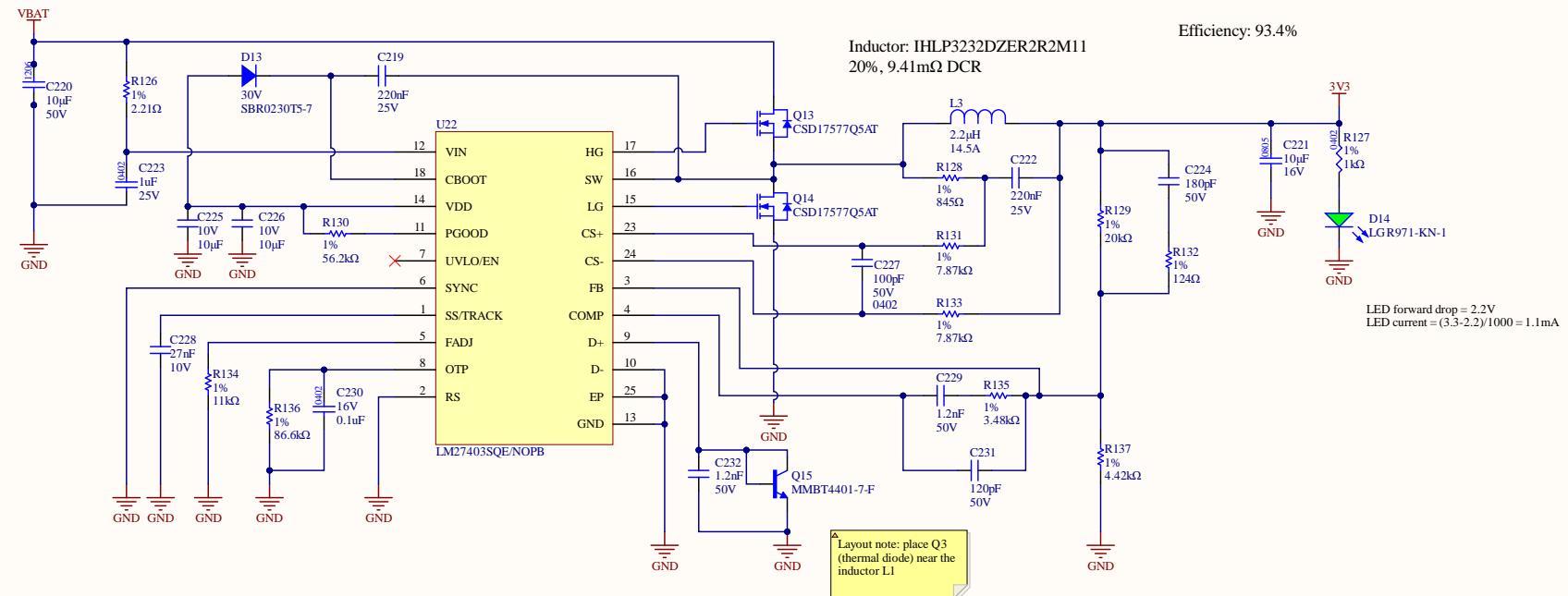
Webbench reference design: <https://webbench.ti.com/appinfo/webbench/scripts/SDP.cgi?ID=E23207869D5F0DD4>

Title: 5V Power	
Project: Jetson AGX Xavier Carrier Board.PjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	Date: 2021-07-28
Sheet: 2	of 26



3.3V Buck Converter @ 6A

Input voltage range: 9V - 20V



Webench reference design: <https://webench.ti.com/appinfo/webench/scripts/SDP.cgi?ID=97FD766931642B43>

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

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E

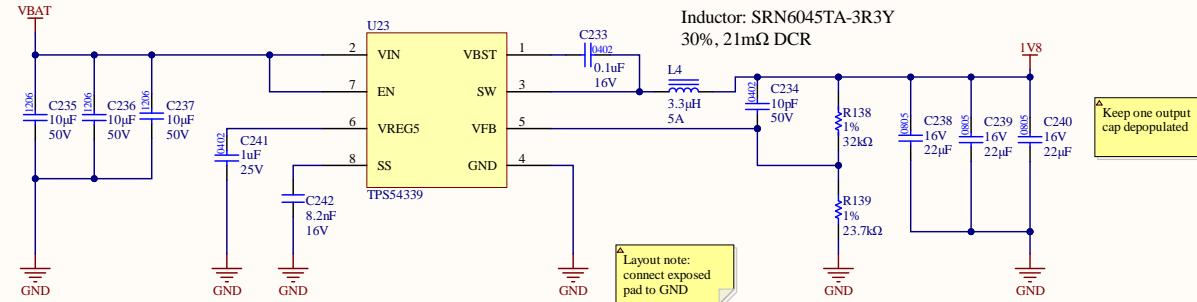
C

C

1.8V Buck Converter @ 2A

Input voltage range: 9V - 20V

Efficiency: 82.5%



Webench reference design: <https://webench.ti.com/appinfo/webench/scripts/SDP.cgi?ID=57C269DE61431294>

Title:	1.8V Power
Project: Jetson AGX Xavier Carrier Board.PrjPcb	
Rev: 1	Reviewer: *
	Engineer: Cindy Li
Date: 2021-07-28	Sheet: 4 of 26



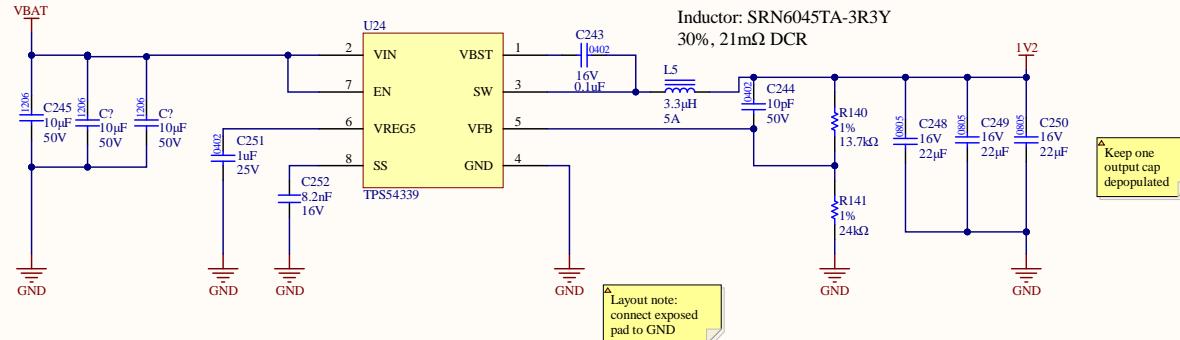
A

A

1.2V Buck Converter @ 2A

Input voltage range: 9V - 20V

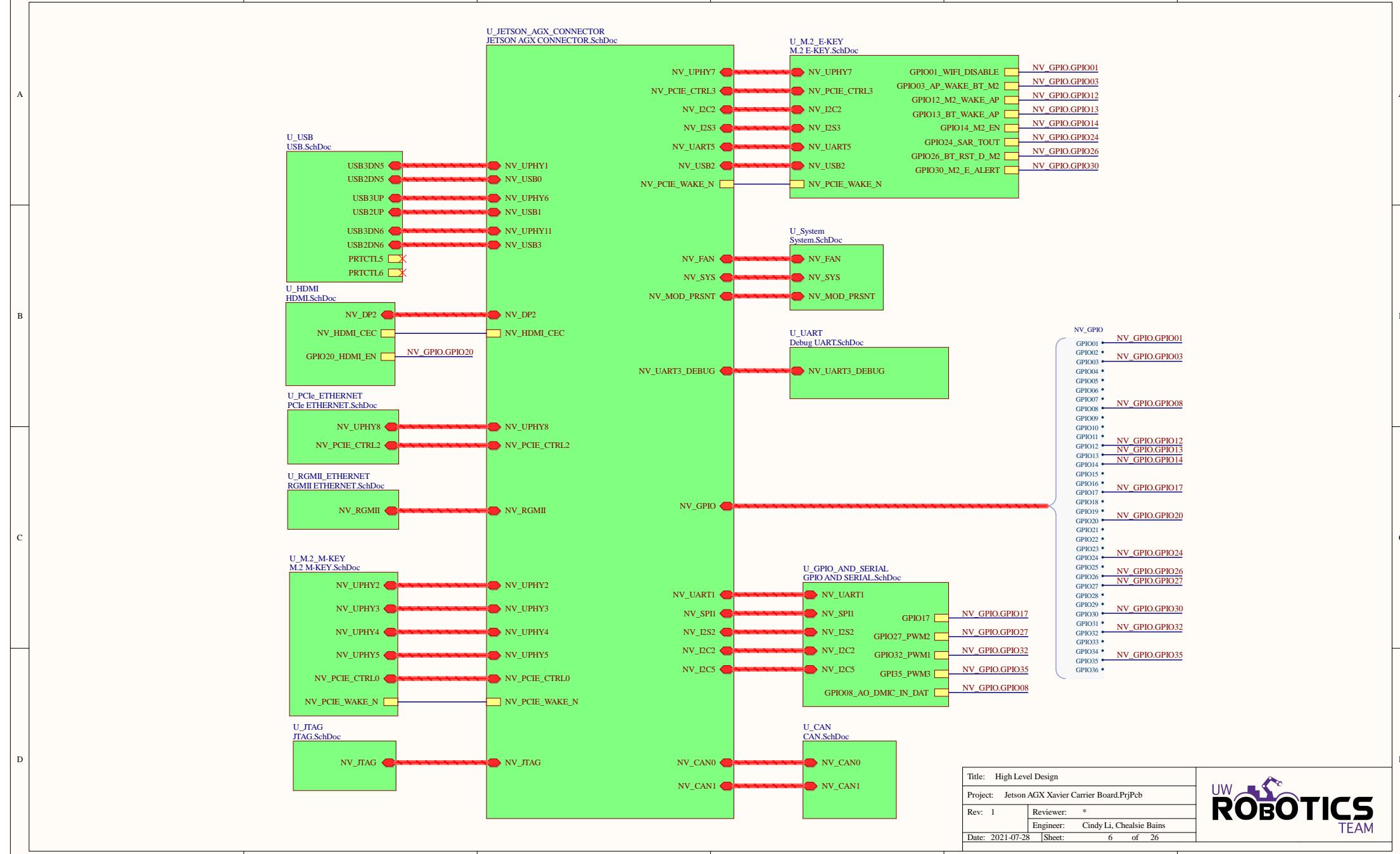
Efficiency: 77.5%



Webench reference design: <https://webench.ti.com/appinfo/webench/scripts/SDP.cgi?ID=348A2FAA81A09D71>

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





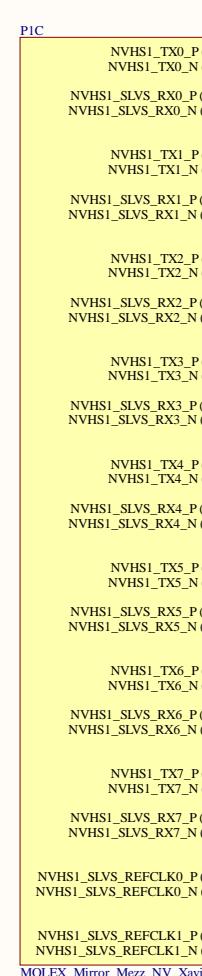


A



MOLEX_Mirror_Mezz_NV_Xavier_8mm

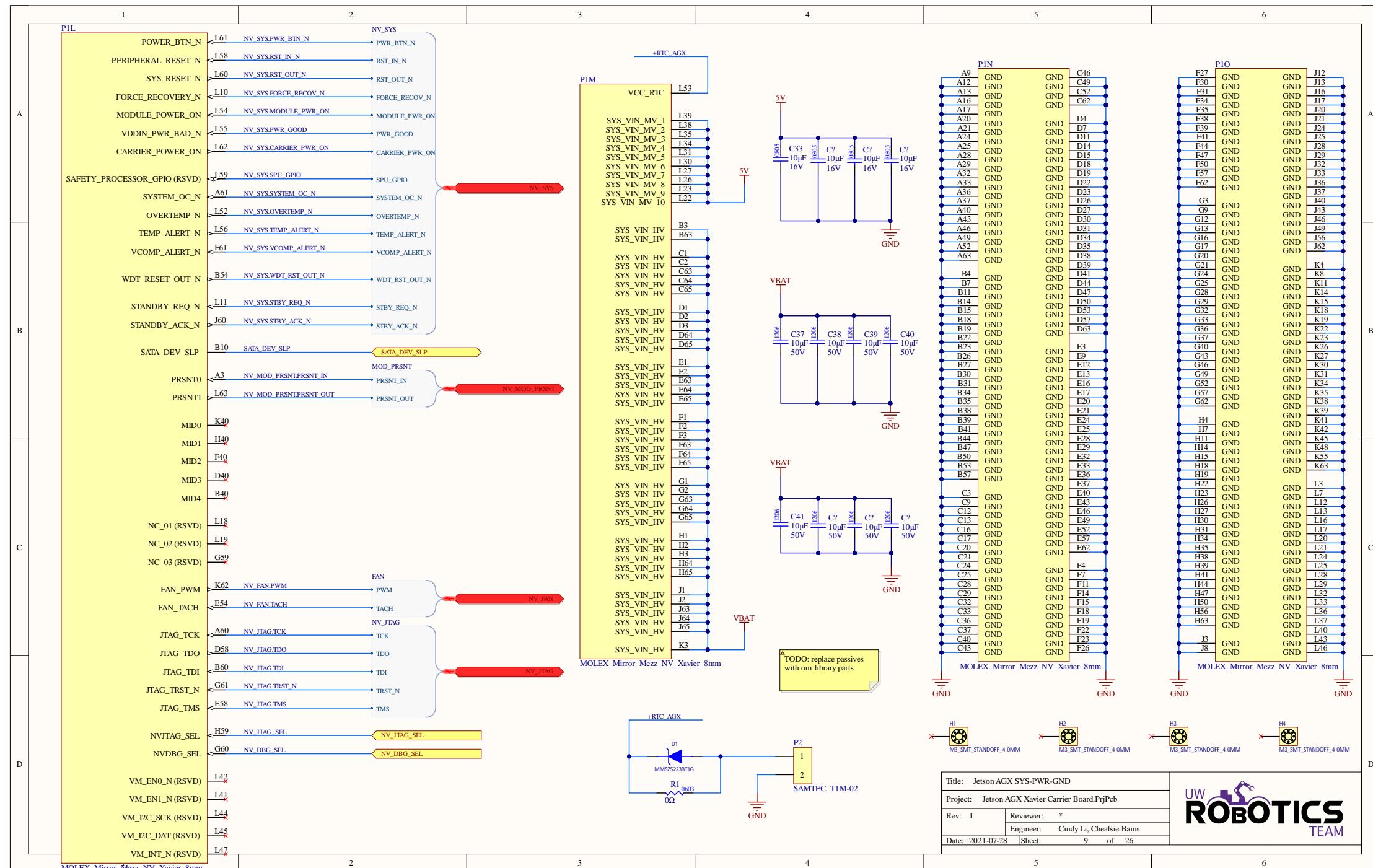
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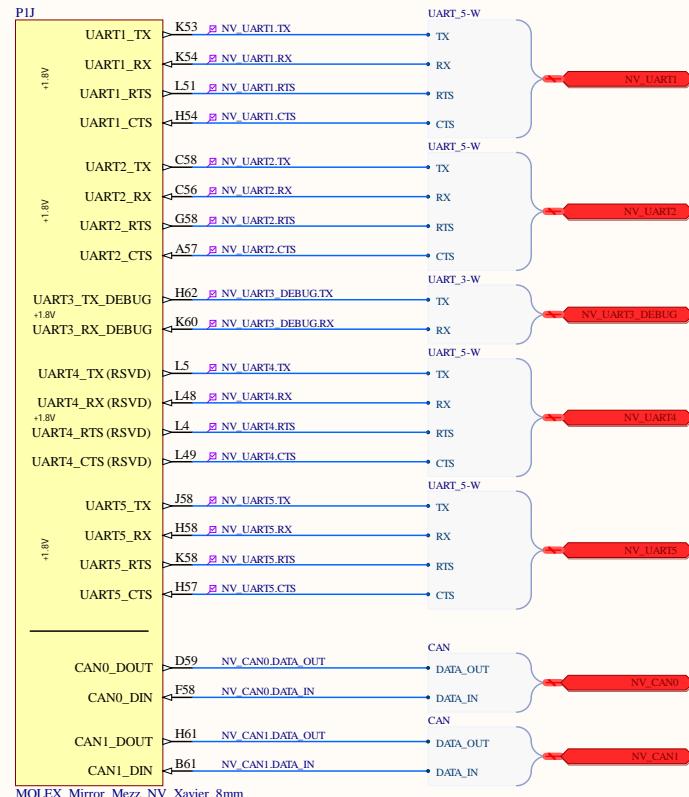
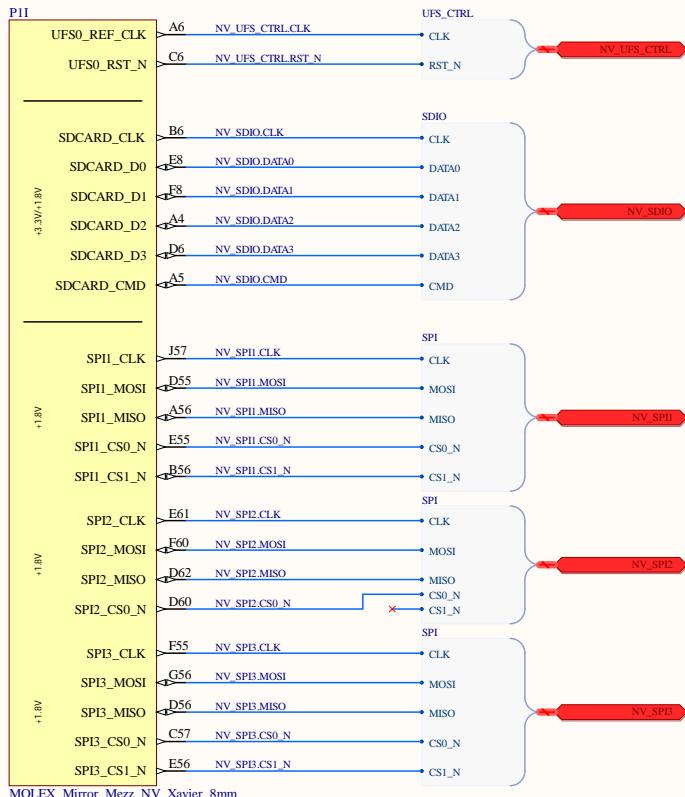
Title: Jetson AGX NVHS	
Project:	Jetson AGX Xavier Carrier Board.PnjPcb
Rev: 1	Reviewer: *
Engineer:	Cindy Li, Chealsie Bains

Date: 2021-07-28 Sheet: 8 of 26





1 2 3 4 5 6

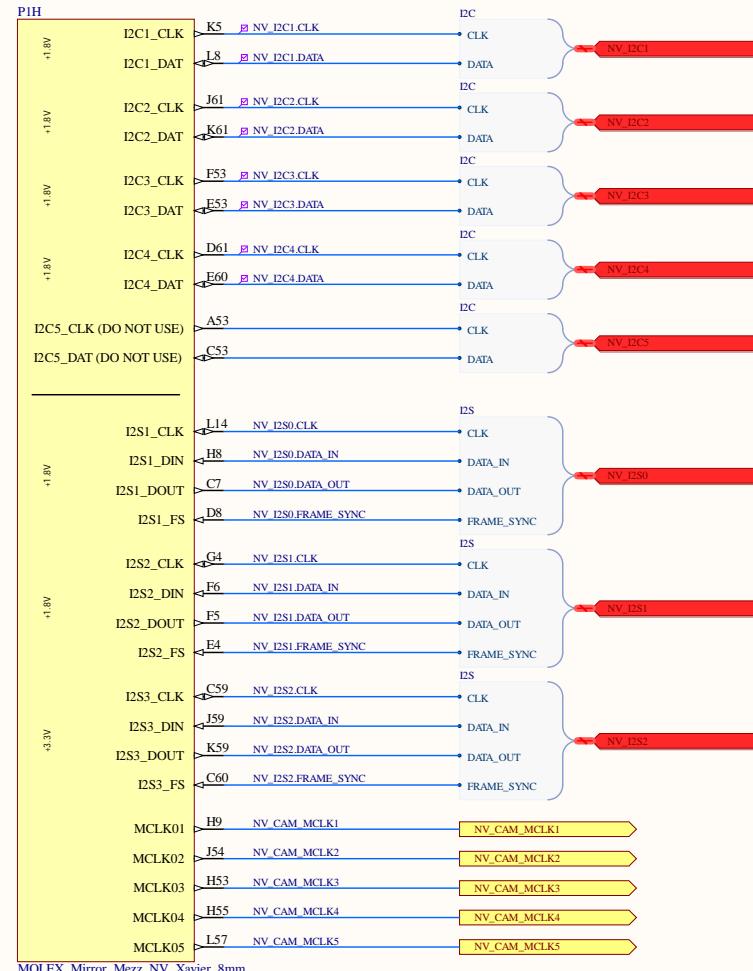
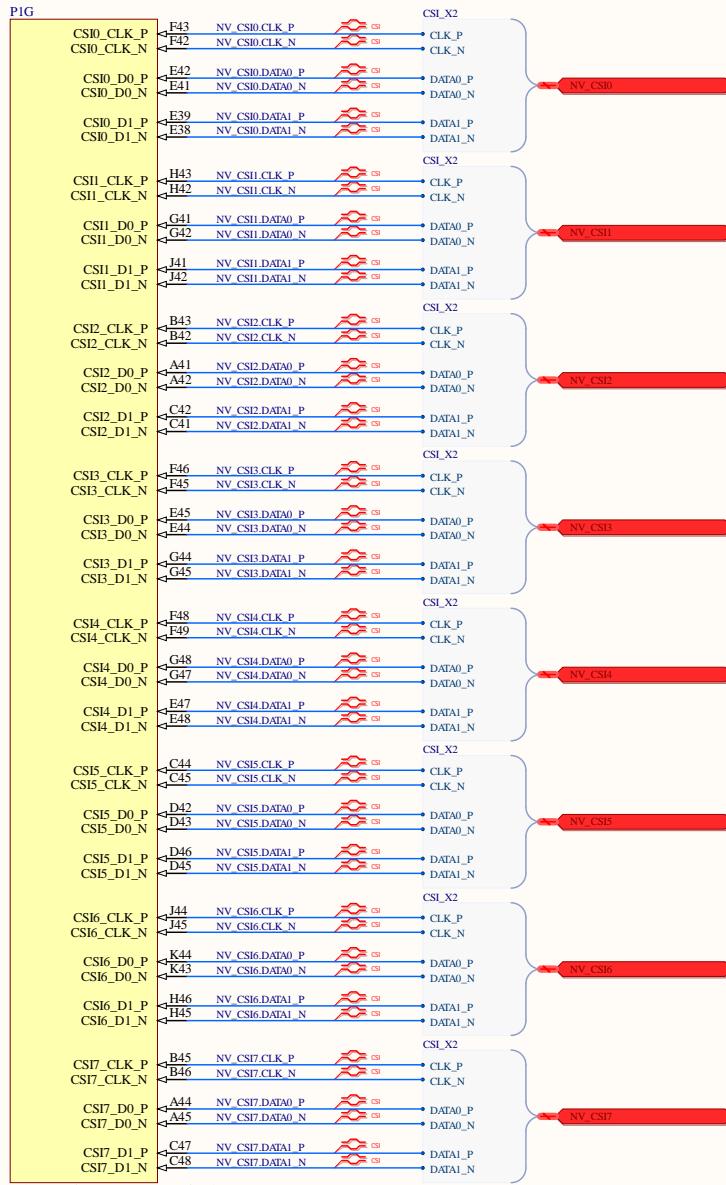


Title: Jetson AGX SDIO-SPI-UART-CAN-GPIO	
Project: Jetson AGX Xavier Carrier Board.PrdPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li, Chealsie Bains	
Date: 2021-07-28	Sheet: 10 of 26



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	PoE x16 / M.2 E-Key	40 Pin Expansion
3 CAM Expansion	CAM Expansion	M.2 E-Key WiFi/BT
4 CAM Expansion	M.2 M.2 NVMe	-
5 CAM Expansion	-	40 Pin Expansion
6 CAM 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.2 NVMe	-
5 -	-	GPIO
6 -	-	-
7 -	-	-

Title: Jetson AGX CSI-I2C-I2S

Project: Jetson AGX Xavier Carrier Board.PjPcb

Rev: 1

Reviewer:

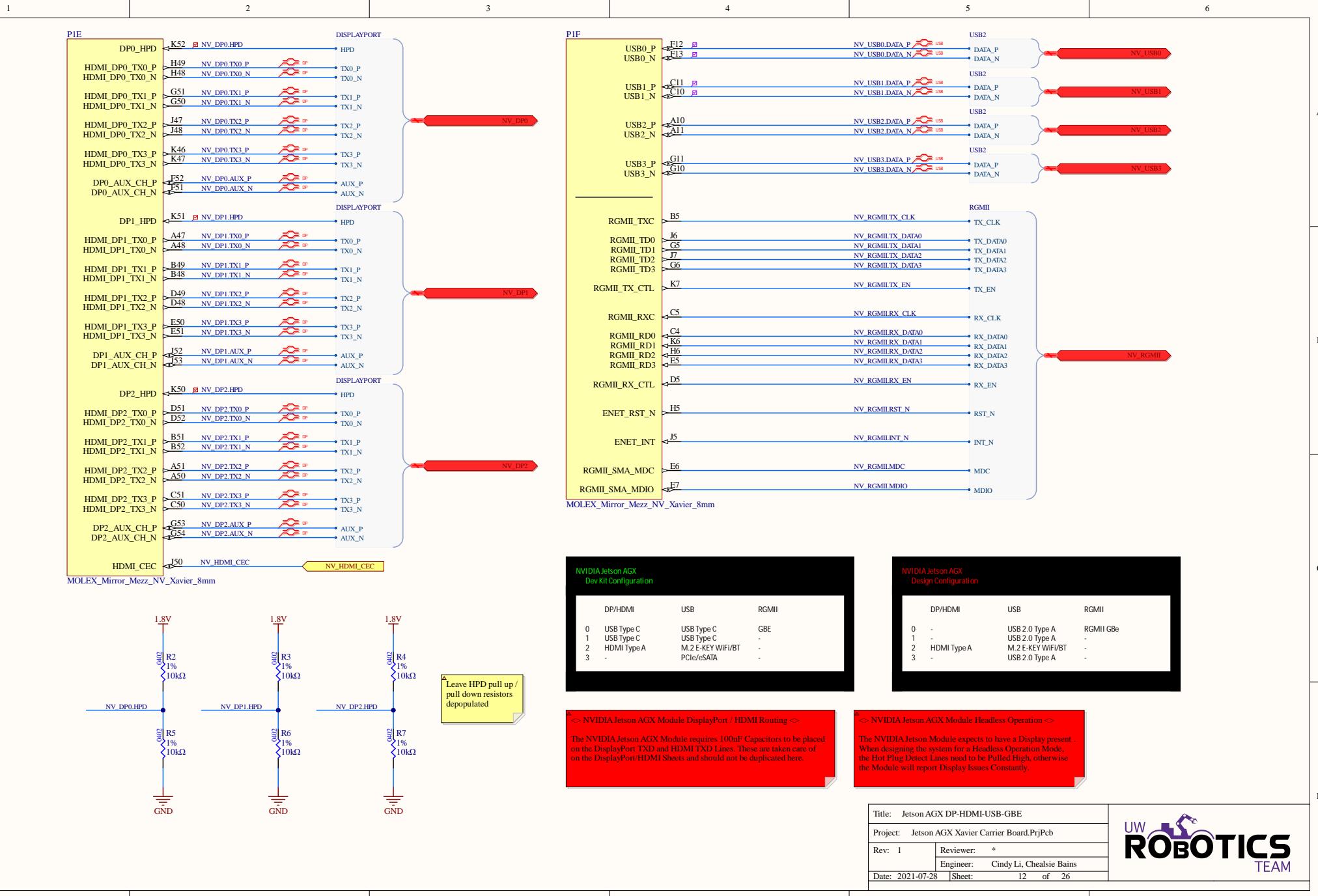
* Cindy Li, Chealsie Bains

Date: 2021-07-28

Sheet: 11 of 26



1 2 3 4 5 6



A

A

B

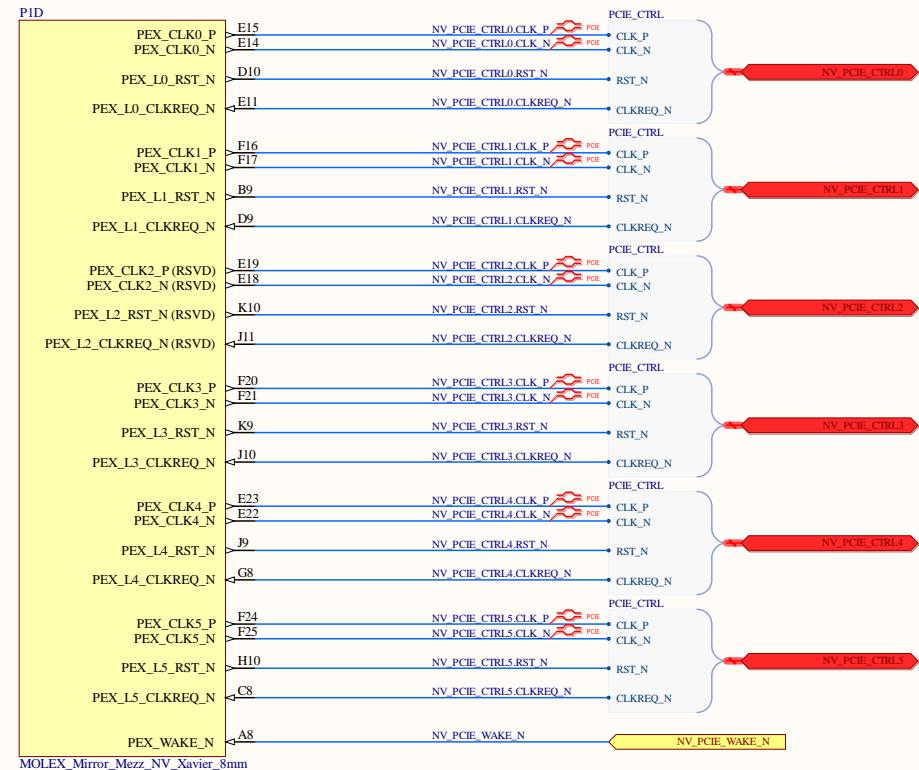
B

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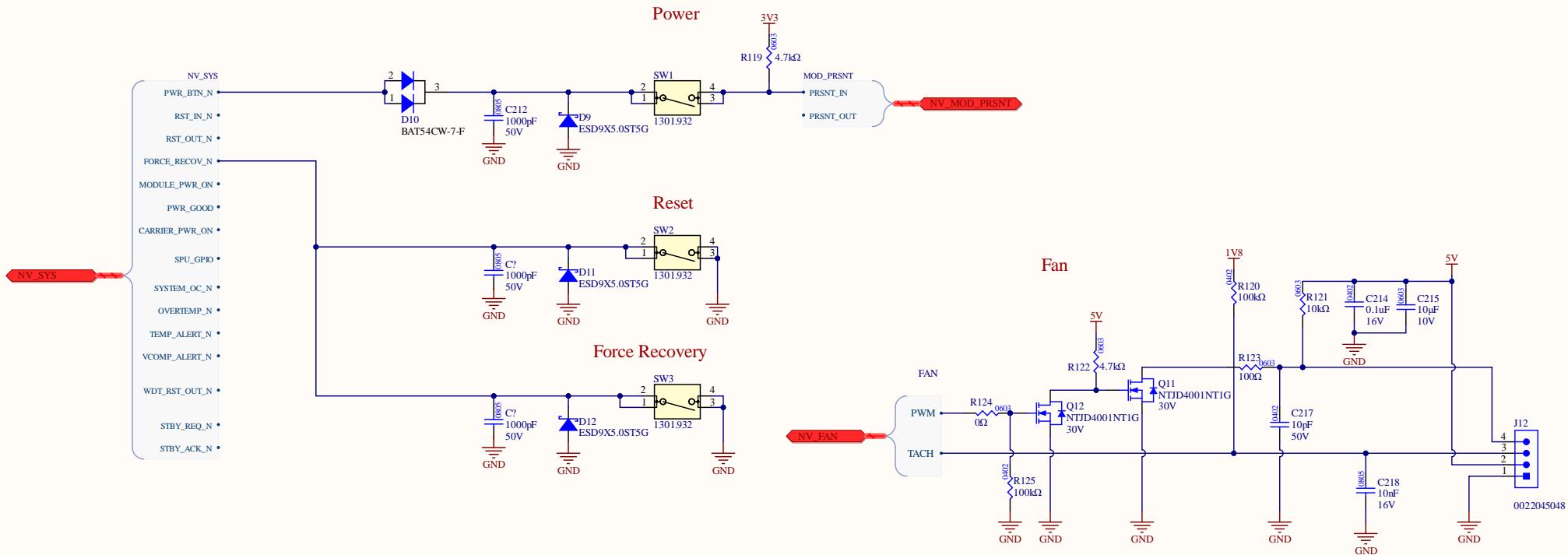
D



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

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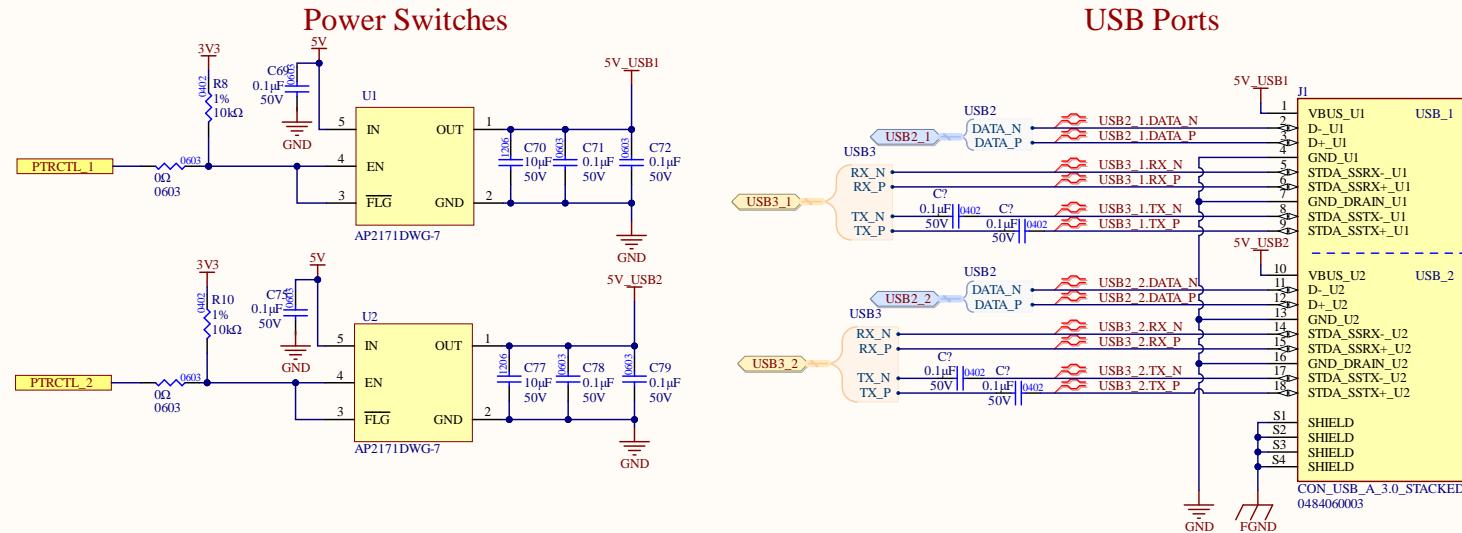
B

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Title: USB Port

Project: Jetson AGX Xavier Carrier Board.PjPcb

Rev: 1

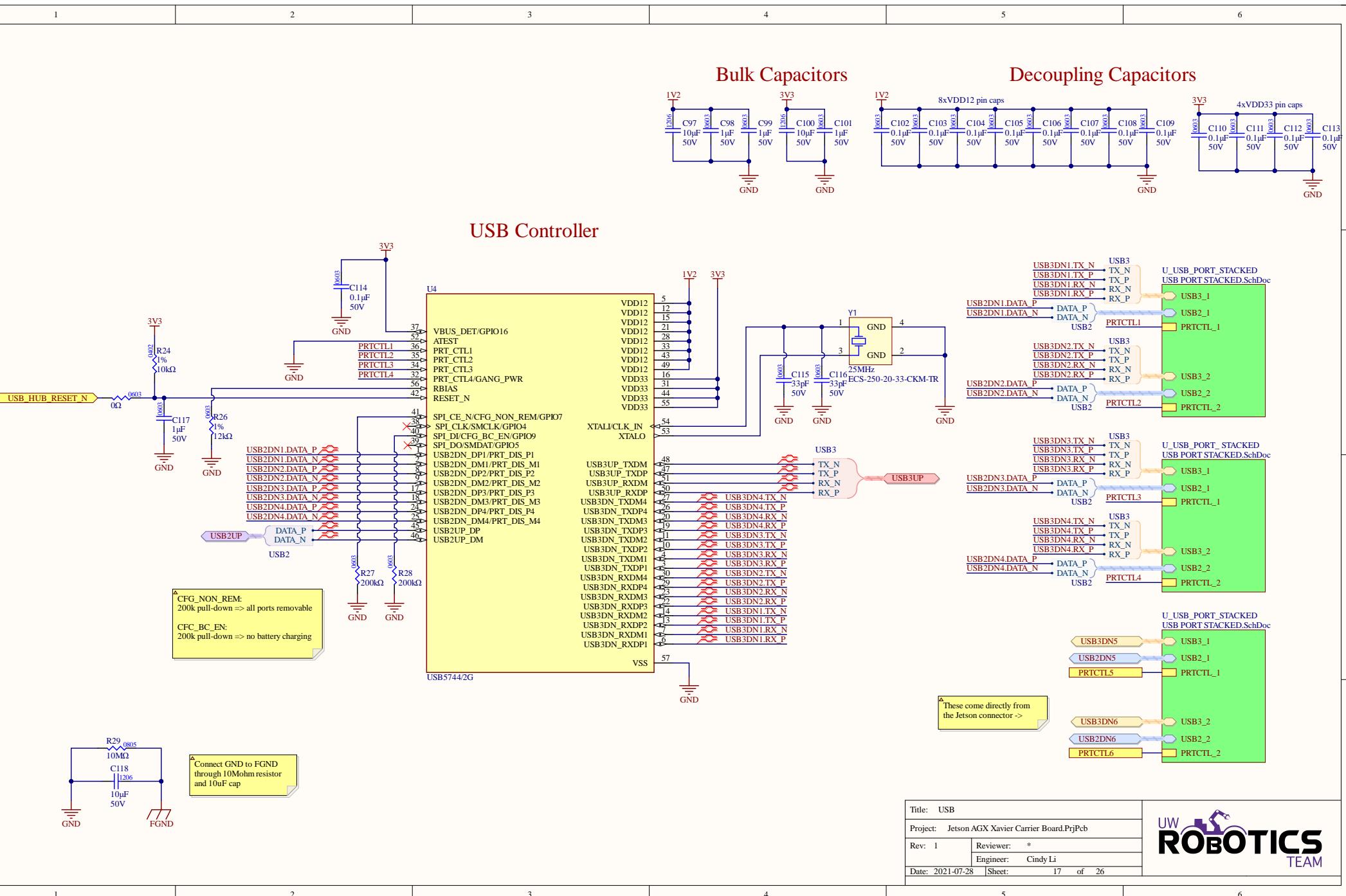
Reviewer: *

Engineer: Cindy Li

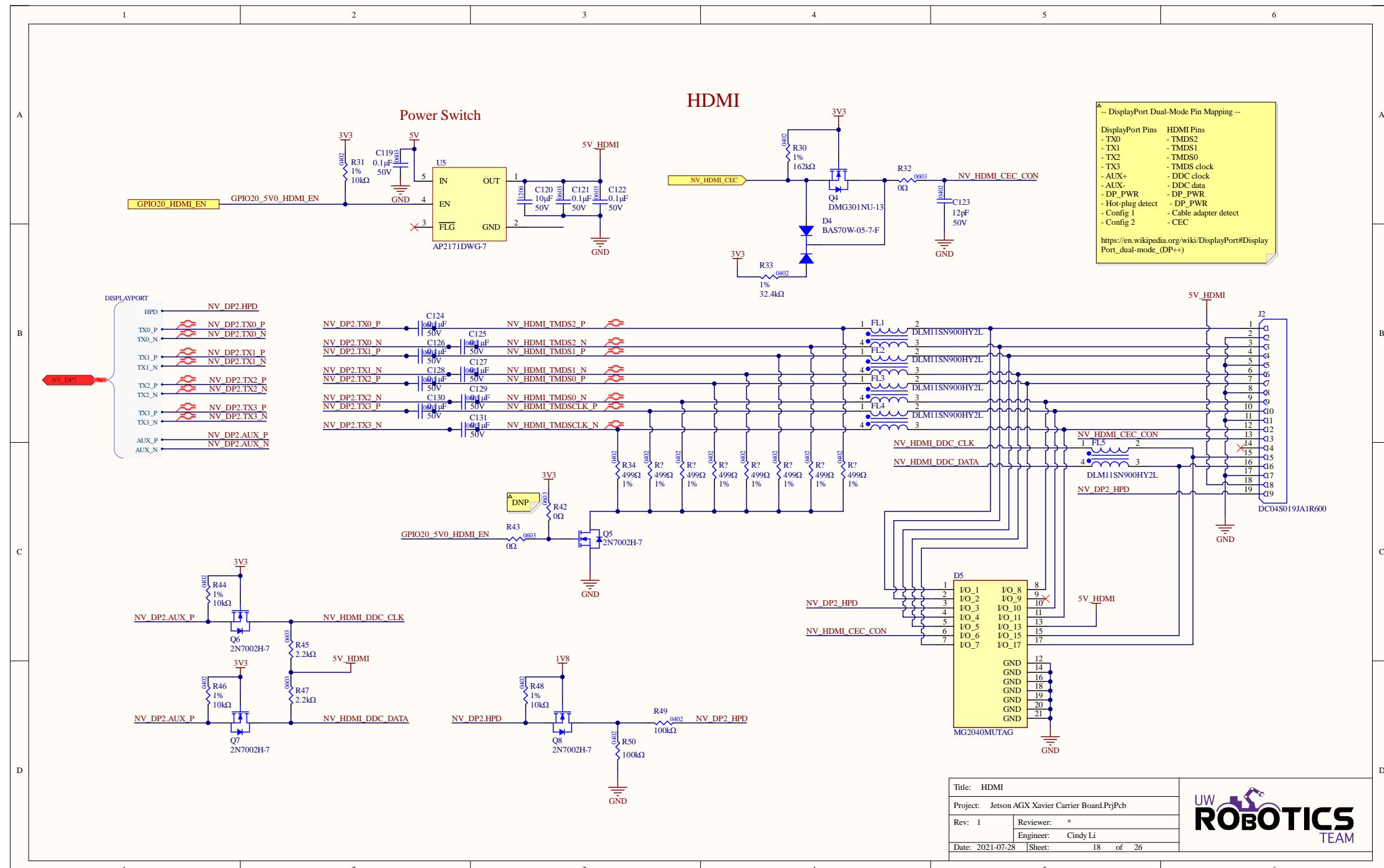
Date: 2021-07-28

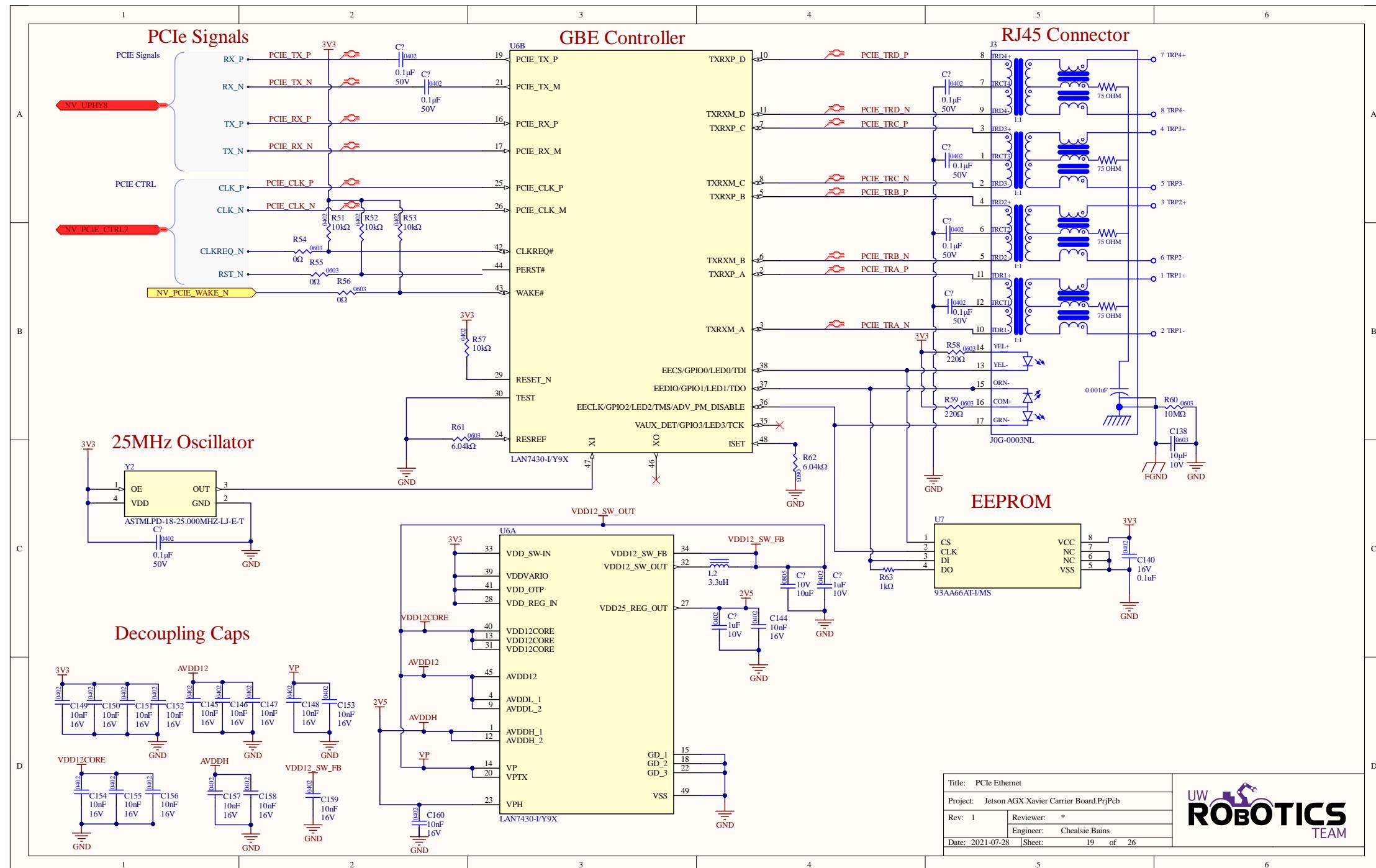
Sheet: 16 of 26

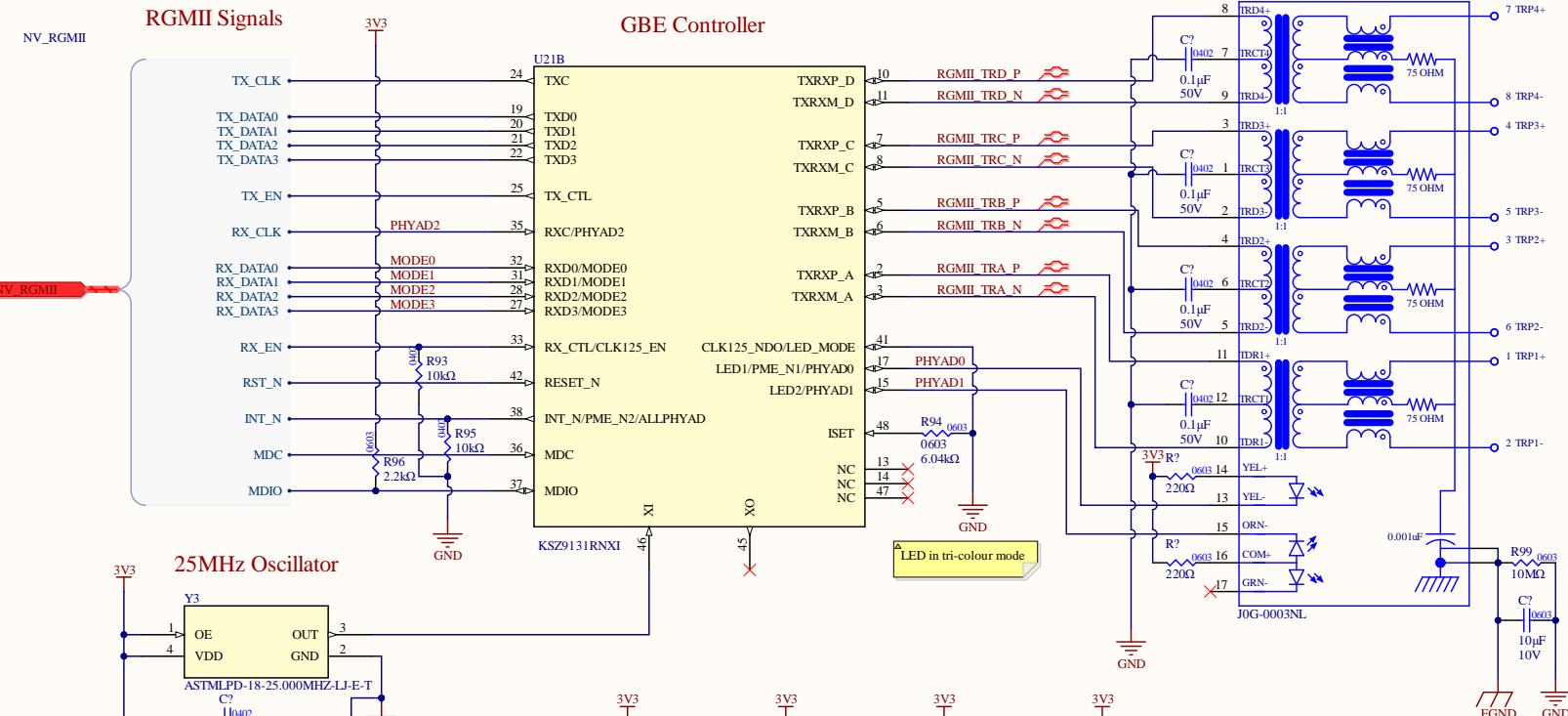




Title: USB
Project: Jetson AGX Xavier Carrier Board.PrtPcb
Rev: 1 Reviewer: *
Engineer: Cindy Li
Date: 2021-07-28 Sheet: 17 of





RJ45 Ethernet Connector

A

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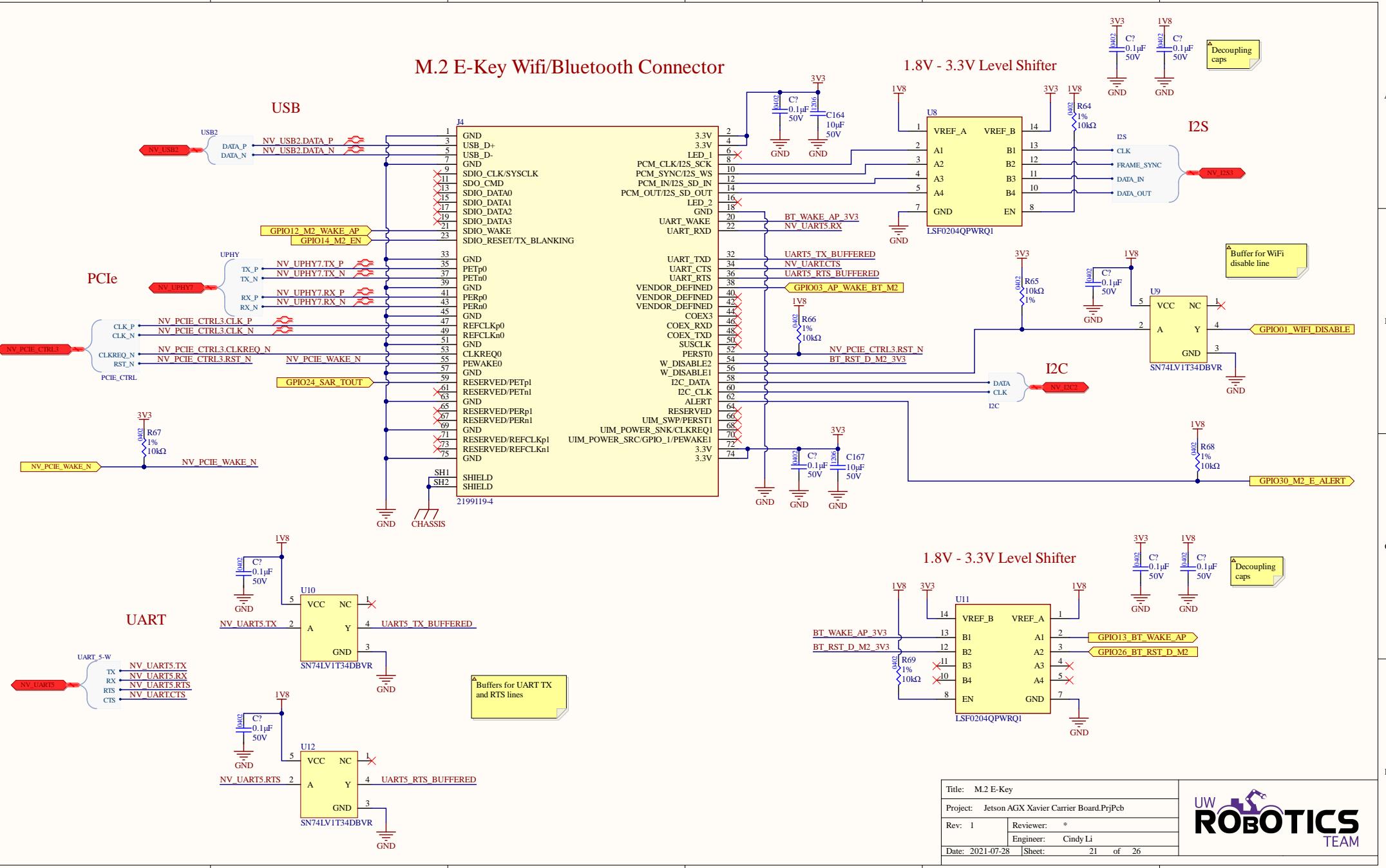
5

6

Title: RGMII Ethernet	
Project: Jetson AGX Xavier Carrier Board.PjPcb	
Rev: 1	Reviewer: *
Engineer: Chealsie Bains	
Date: 2021-07-28	Sheet: 20 of 26



M.2 E-Key Wifi/Bluetooth Connector



Title: M.2 E-Key	
Project: Jetson AGX Xavier Carrier Board.PjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	Date: 2021-07-28

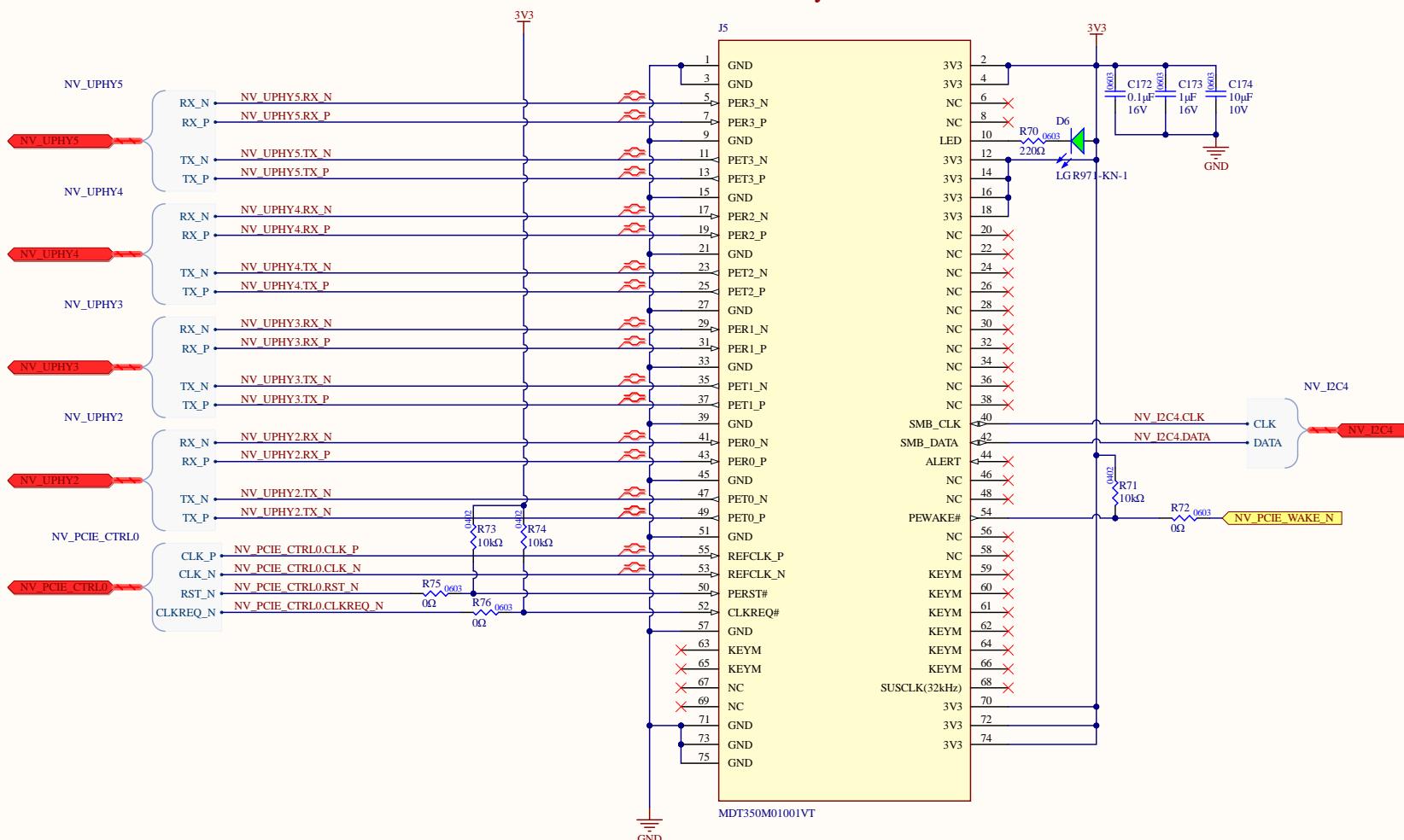
A

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D

M-Key Connector



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



A

A

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B

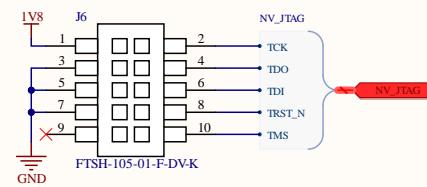
C

C

D

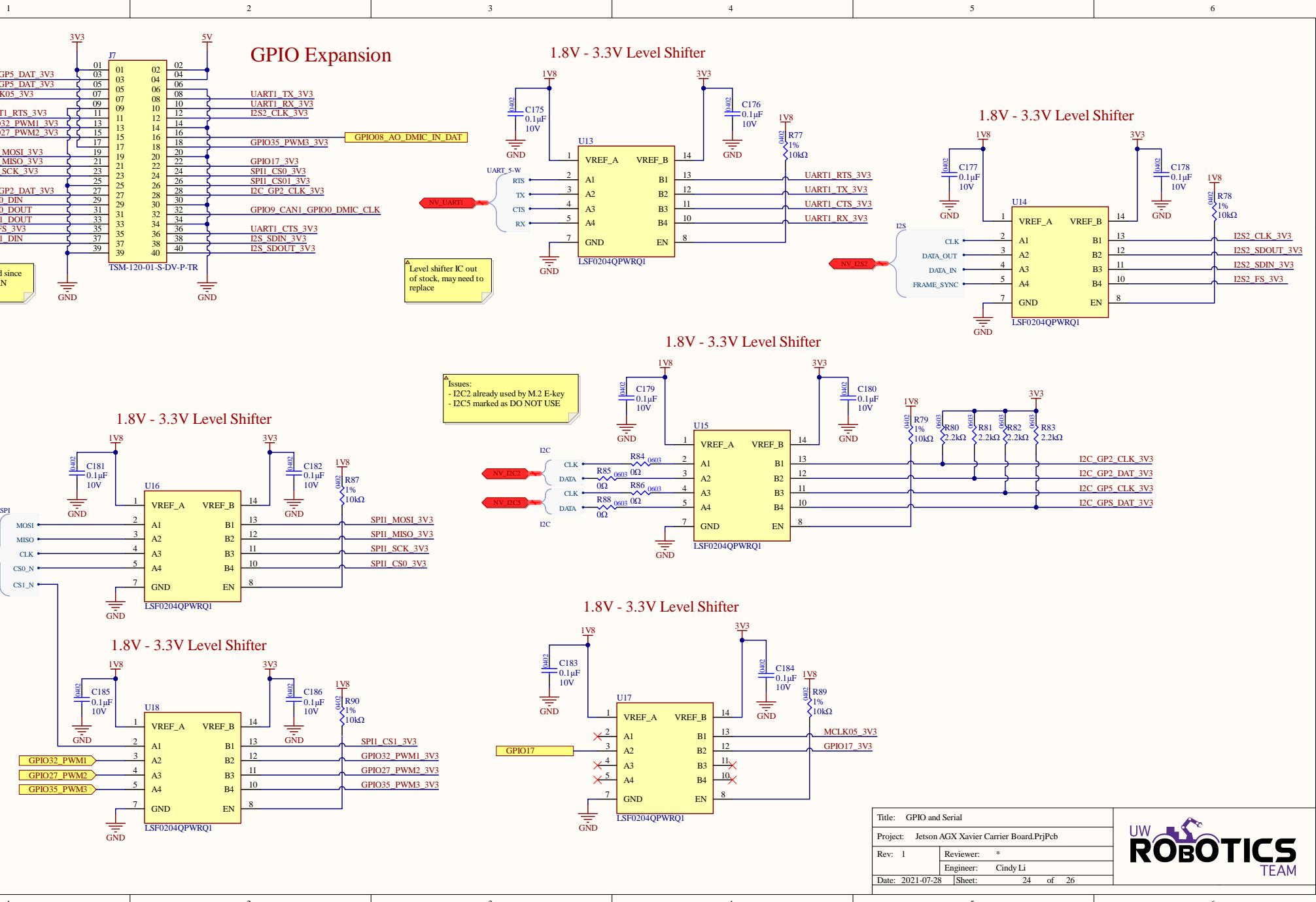
D

JTAG

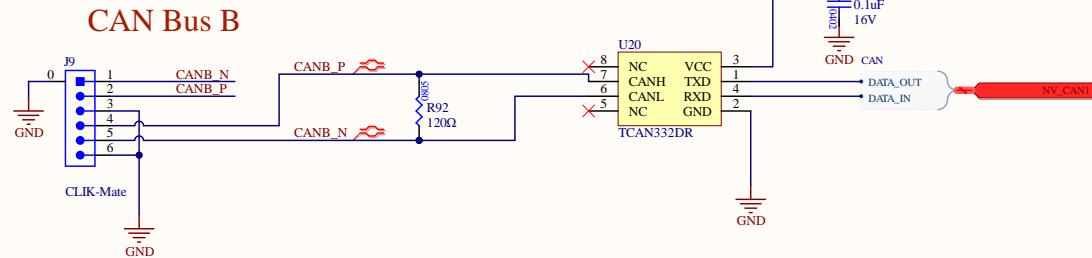
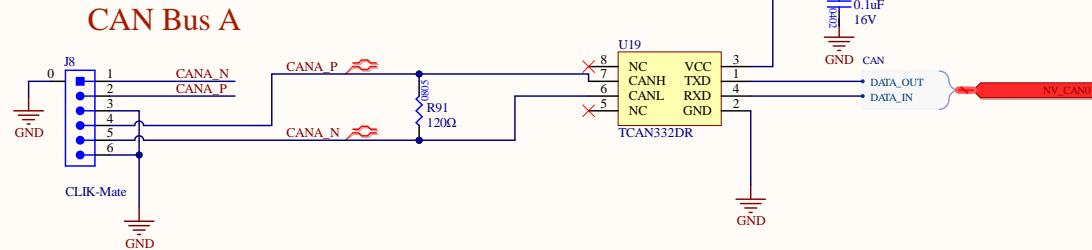


Title: JTAG	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
	Engineer: Cindy Li
Date: 2021-07-28	Sheet: 23 of 26





CAN Transceivers

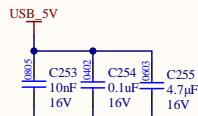


Title: CAN	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	
Date: 2021-07-28	Sheet: 25 of 26



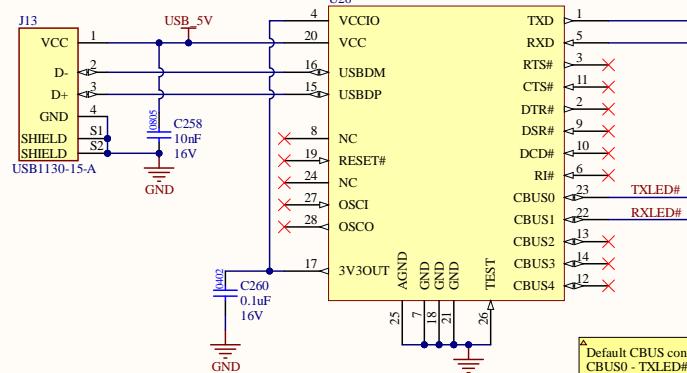
A

A



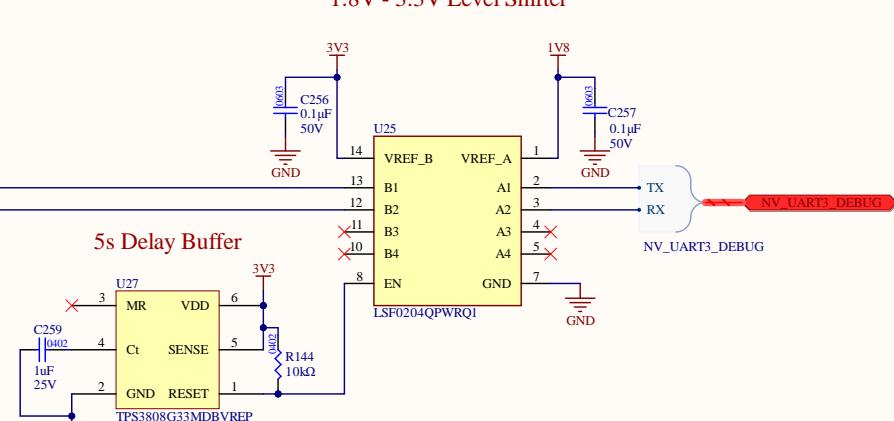
UART to USB

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