

A

A

B

B

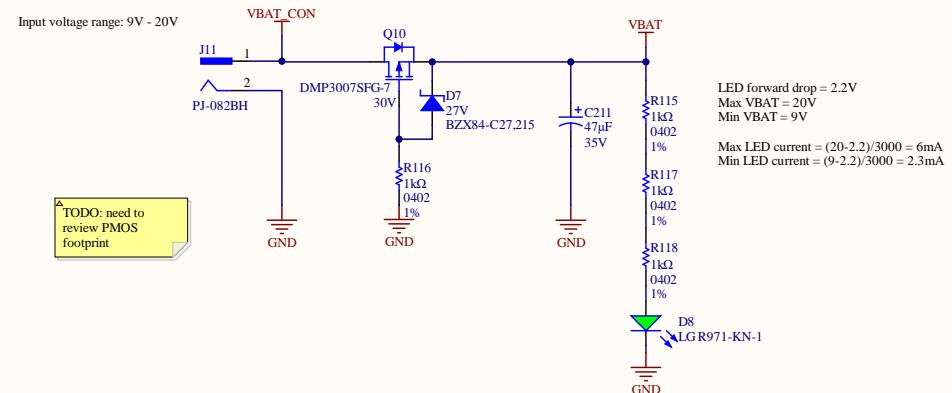
C

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: 2021-07-27	Sheet: 1 of 26

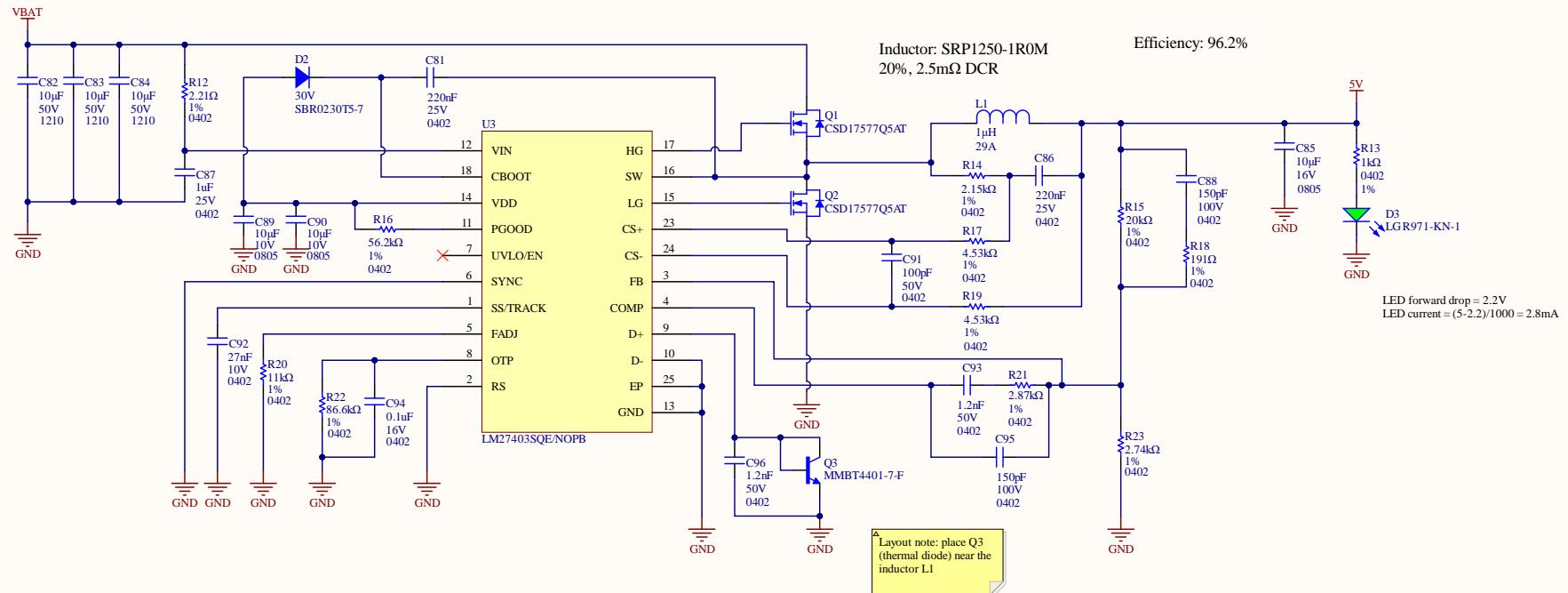


A

A

## 5V Buck Converter @ 16A

Input voltage range: 9V - 20V



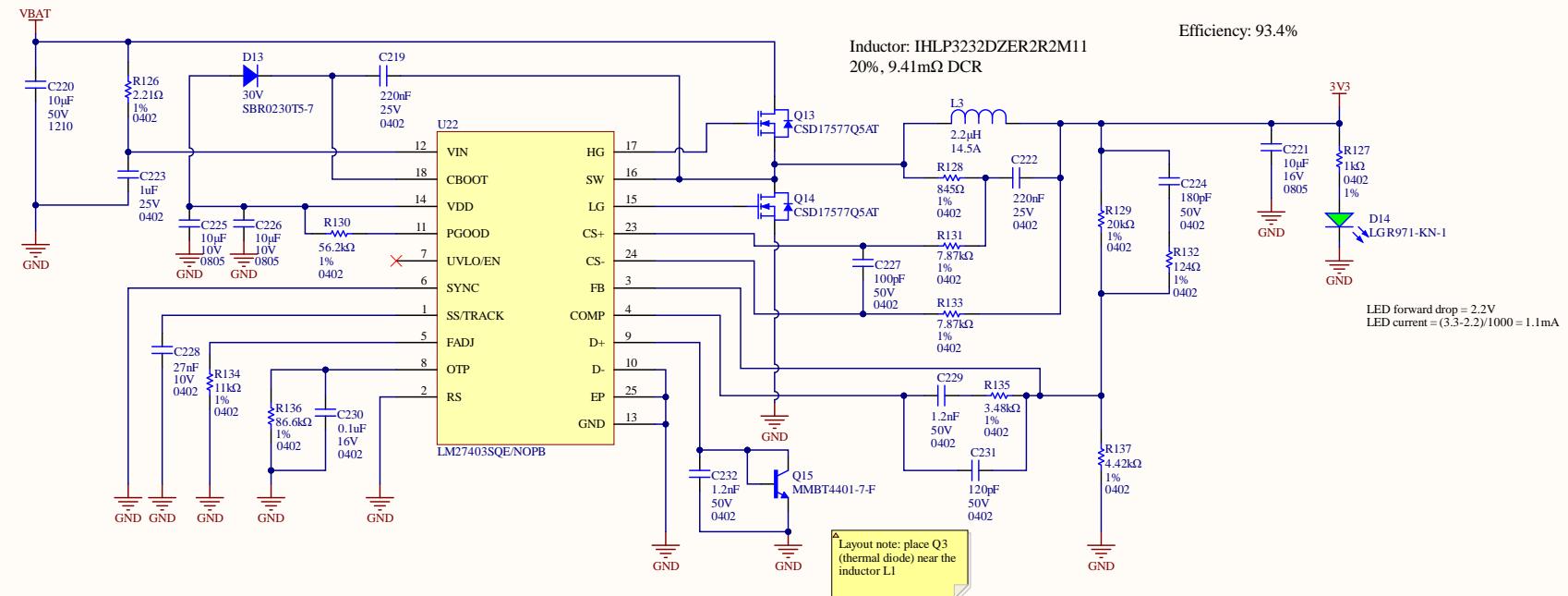
Webbench reference design: <https://webbench.ti.com/appinfo/webbench/scripts/SDP.cgi?ID=E23207869D5F0DD4>

Title: 5V Power	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	Date: 2021-07-27
Sheet: 2	of 26



### 3.3V Buck Converter @ 6A

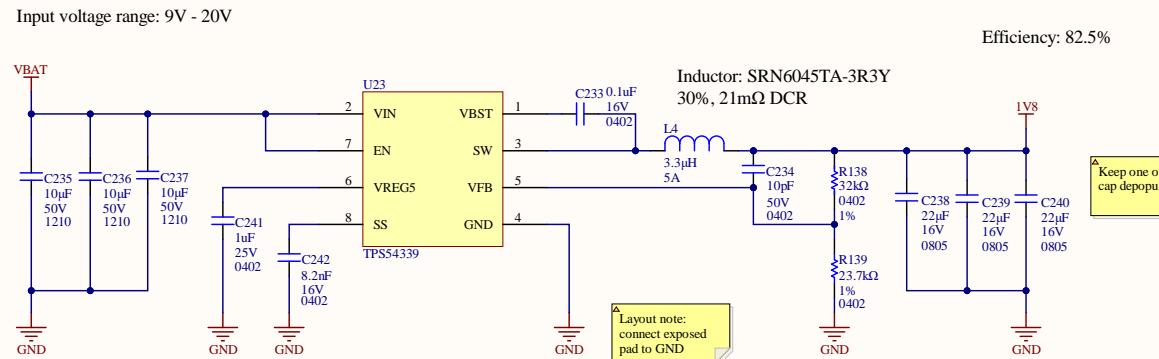
Input voltage range: 9V - 20V



Title: 3.3V Power	
Project: Jetson AGX Xavier Carrier Board.PjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	
Date: 2021-07-27	Sheet: 3 of 26



## 1.8V Buck Converter @ 2A



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

Title: 1.8V Power	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	

Date: 2021-07-27   Sheet: 4 of 26



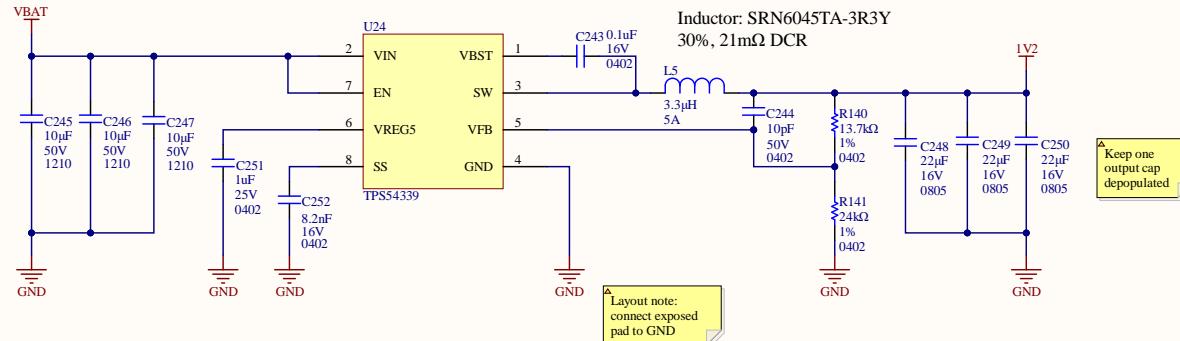
A

A

## 1.2V Buck Converter @ 2A

Input voltage range: 9V - 20V

Efficiency: 77.5%

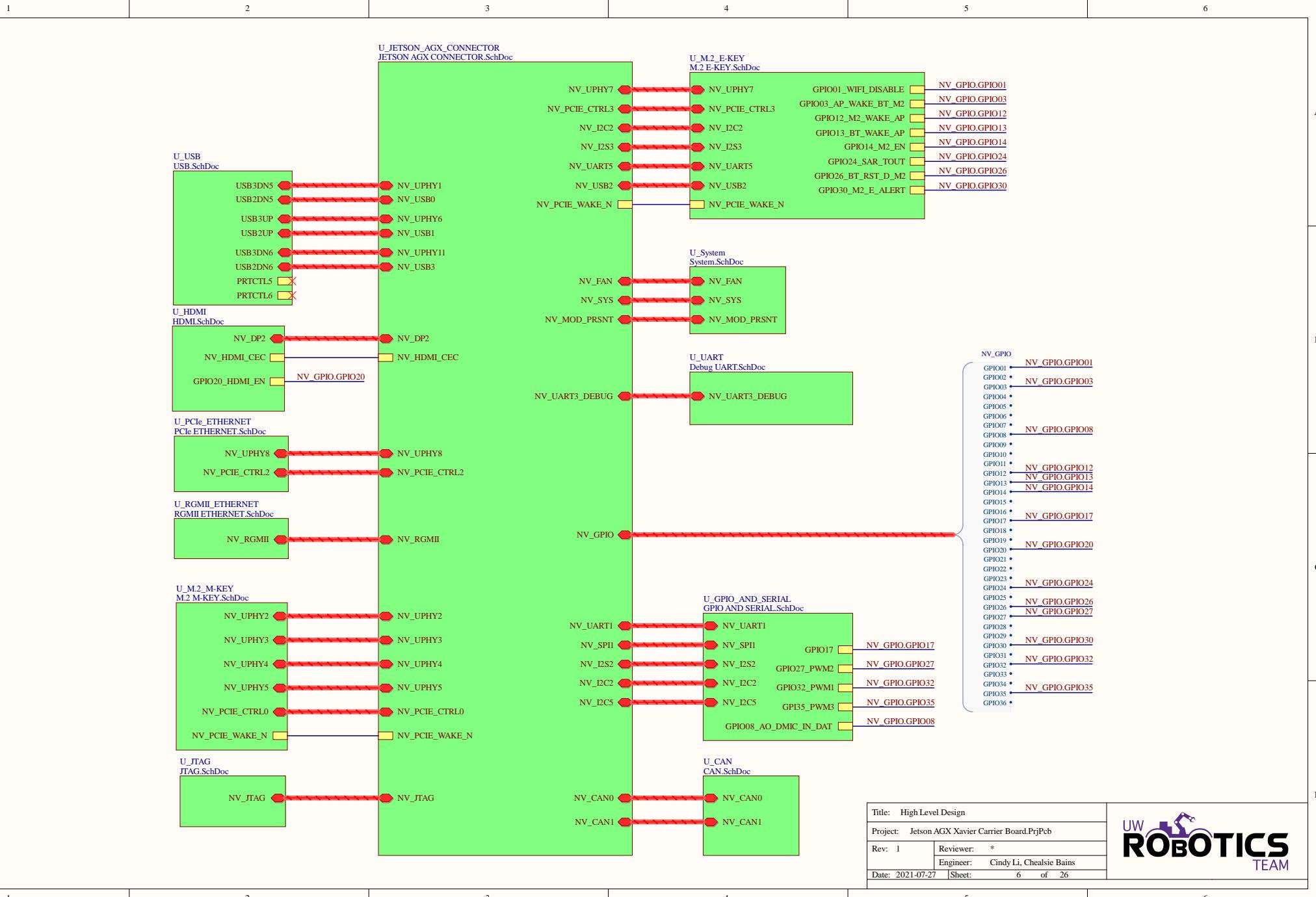


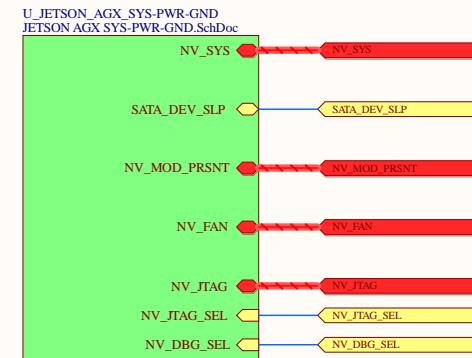
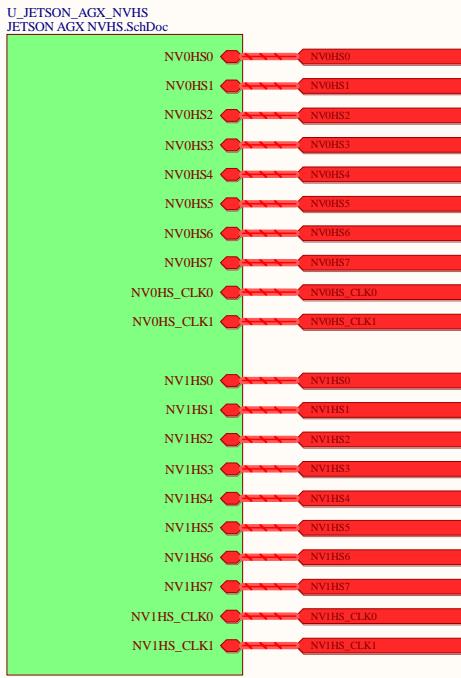
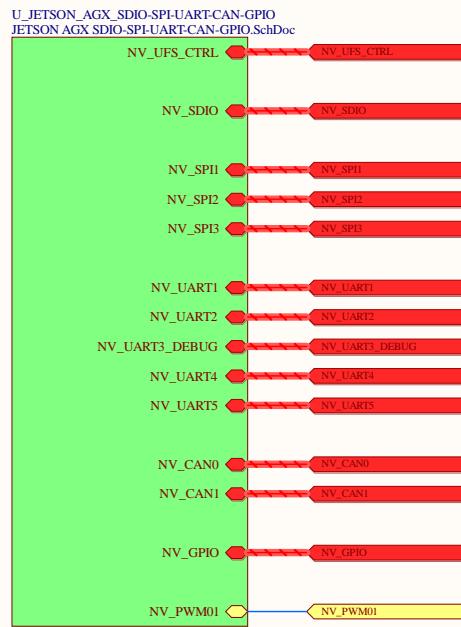
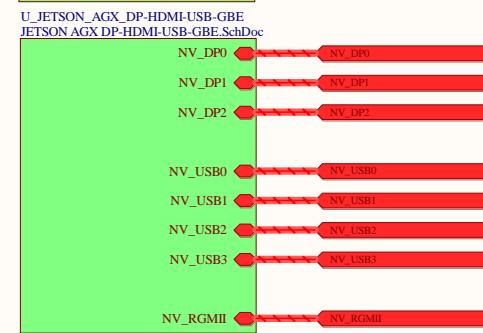
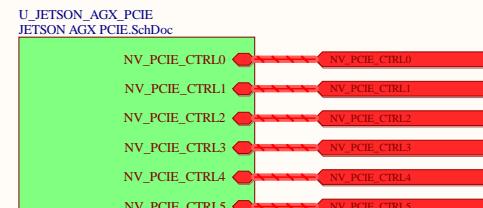
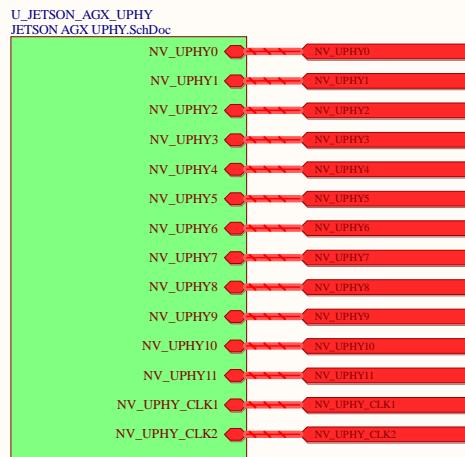
Webench reference design: <https://webench.ti.com/appinfo/webench/scripts/SDP.cgi?ID=348A2FAA81A09D71>

Title: 1.2VPower	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	

Date: 2021-07-27 Sheet: 5 of 26







Title:	Jetson AGX Connector		
Project:	Jetson AGX Xavier Carrier Board.PrtPcb		
Rev:	1	Reviewer:	*
		Engineer:	Cindy Li, Chealsie Bain
Date:	2021-07-27	Sheet:	7 of 26

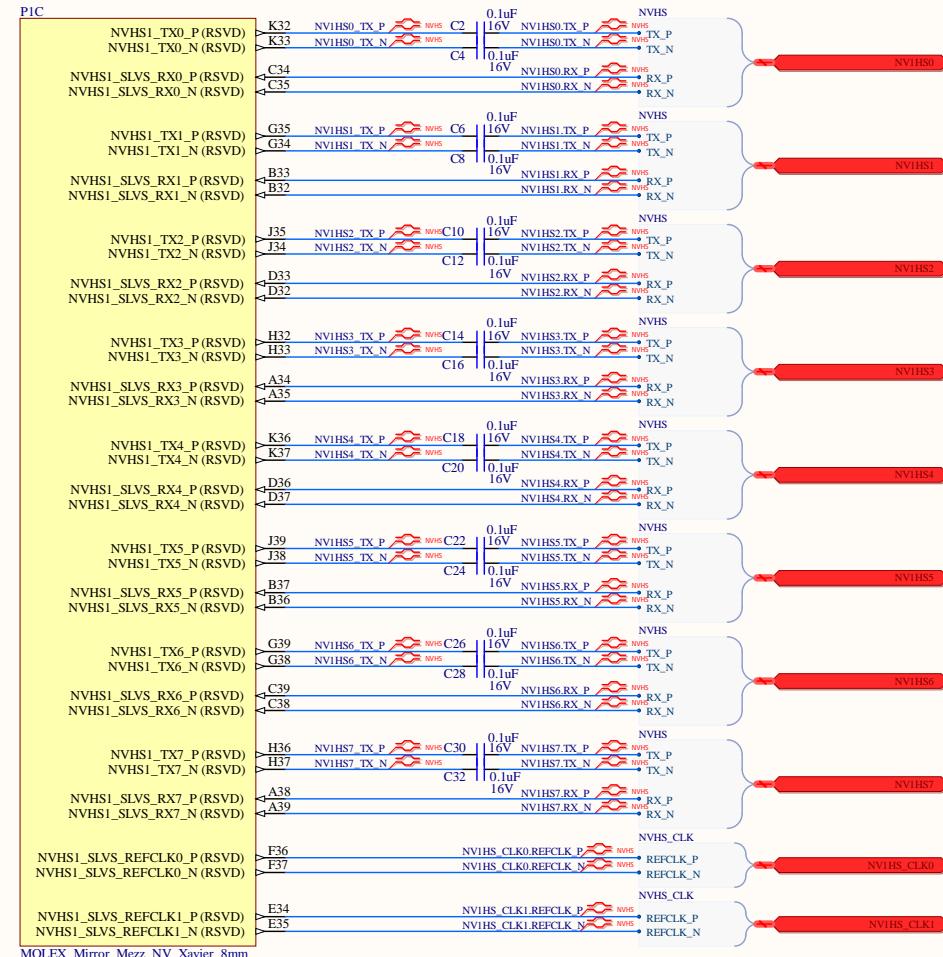


A



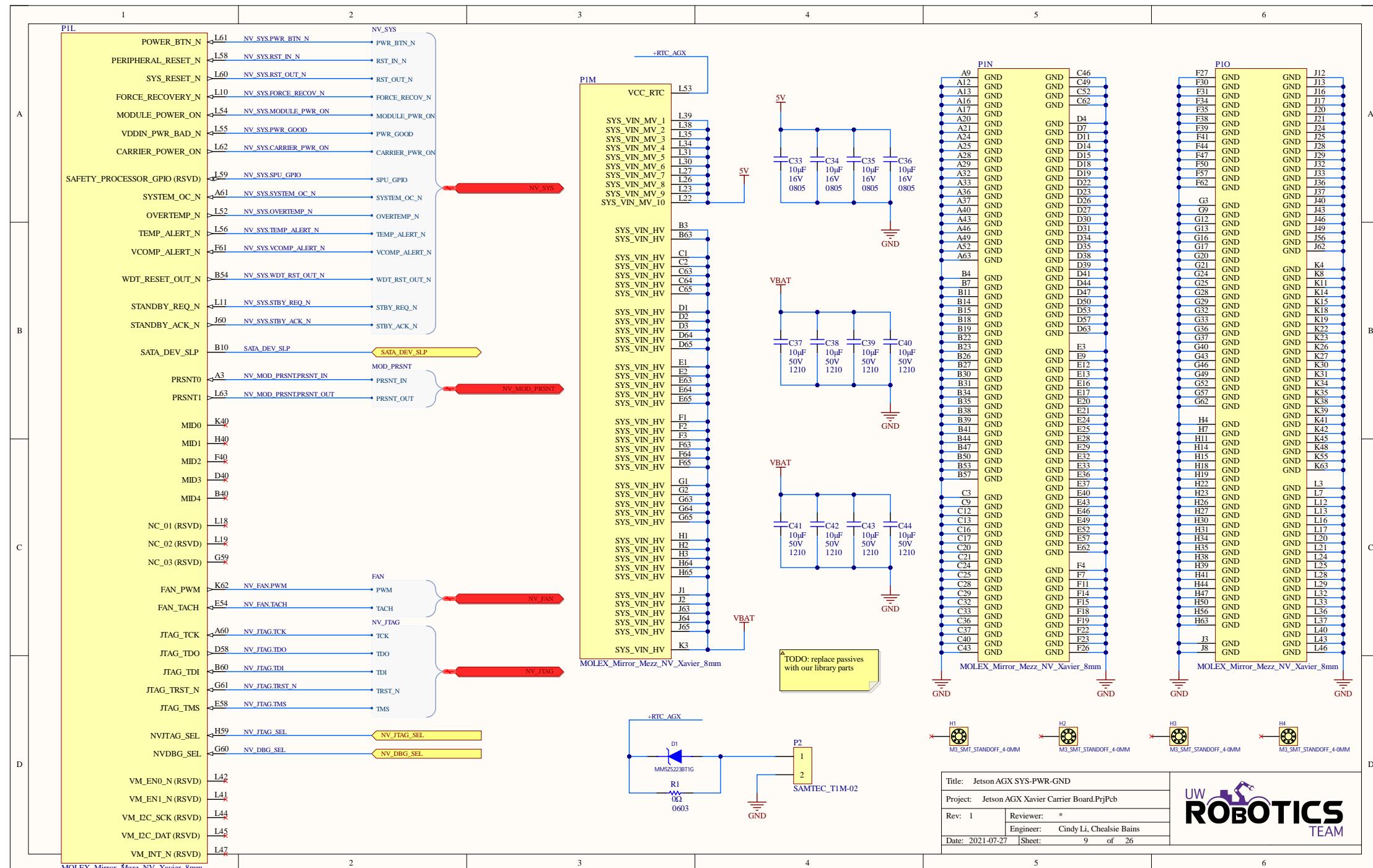
MOLEX\_Mirror\_Mezz\_NV\_Xavier\_8mm

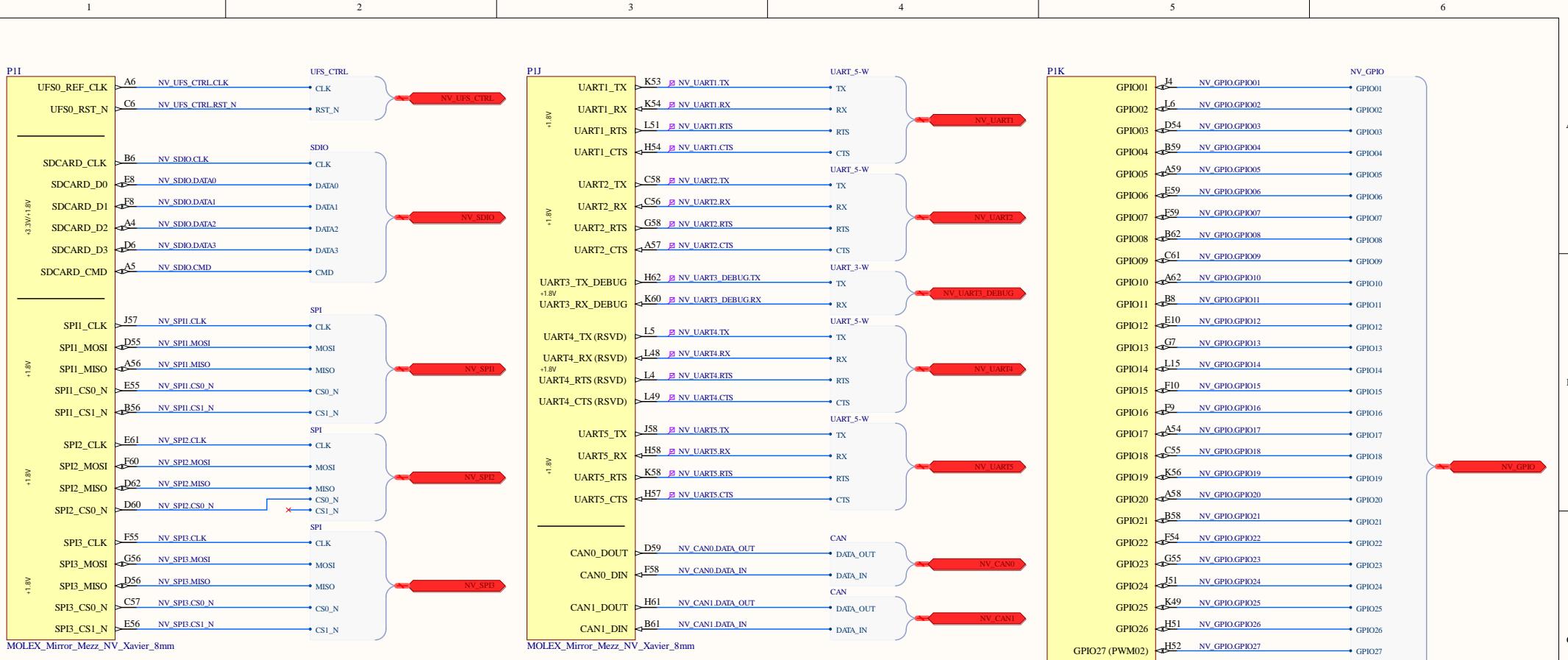
D



Title: Jetson AGX NVHS	
Project:	Jetson AGX Xavier Carrier Board.PnjPcb
Rev: 1	Reviewer: *
Engineer:	Cindy Li, Chealsie Bains
Date: 2021-07-27	Sheet: 8 of 26



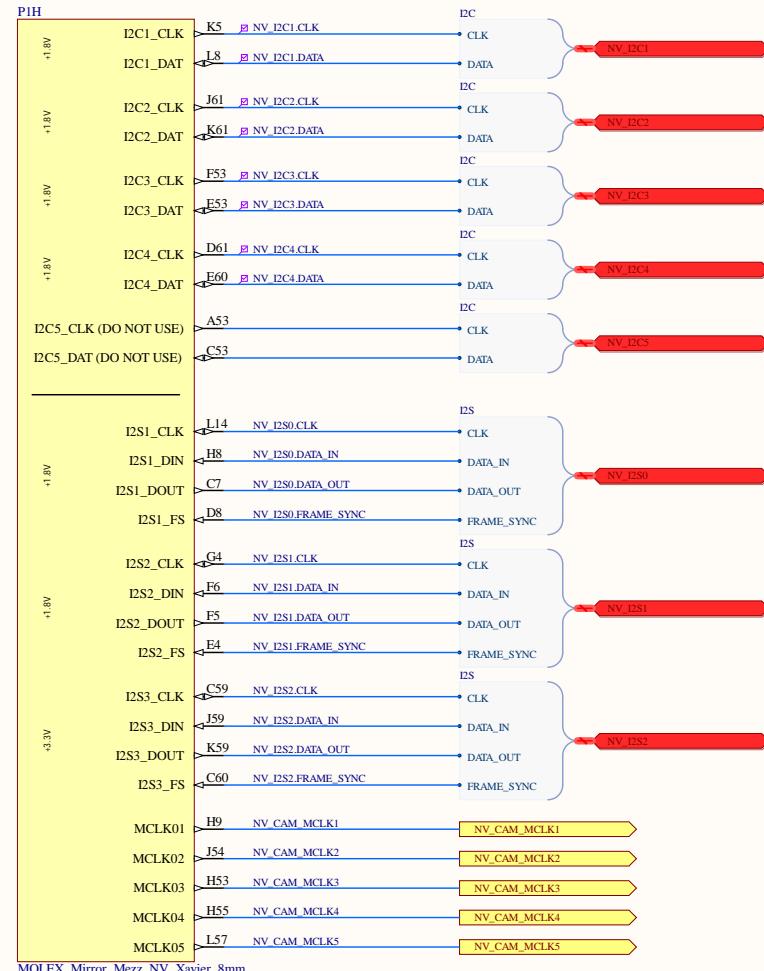
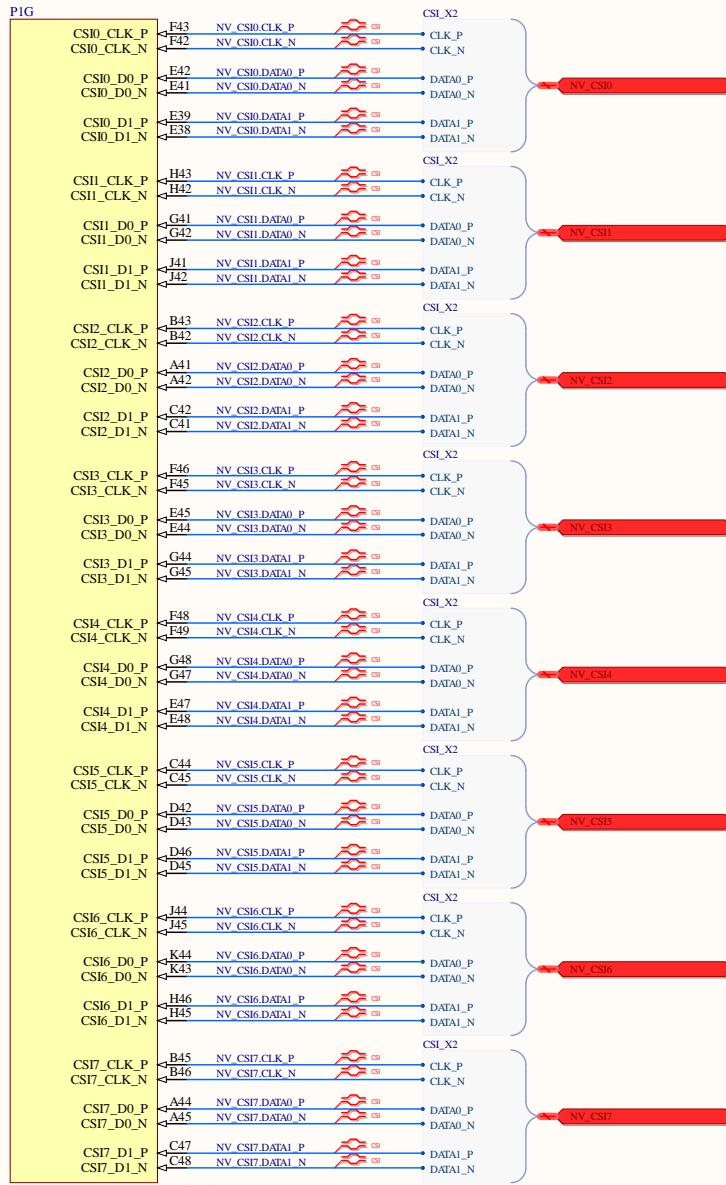




Title: Jetson AGX SDIO-SPI-UART-CAN-GPIO	
Project: Jetson AGX Xavier Carrier Board.PrtPcb	
Rev: 1	Reviewer: *
	Engineer: Cindy Li, Chealsie
Date: 2021-07-27	Sheet: 10 of



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 M.2 NVMe	M.2 E-Key WiFi/BT
4 -	-	-
5 -	-	GPIO
6 -	-	-
7 -	-	-

Title: Jetson AGX CSI-I2C-I2S

Project: Jetson AGX Xavier Carrier Board.PjPcb

Rev: 1

Reviewer: \*

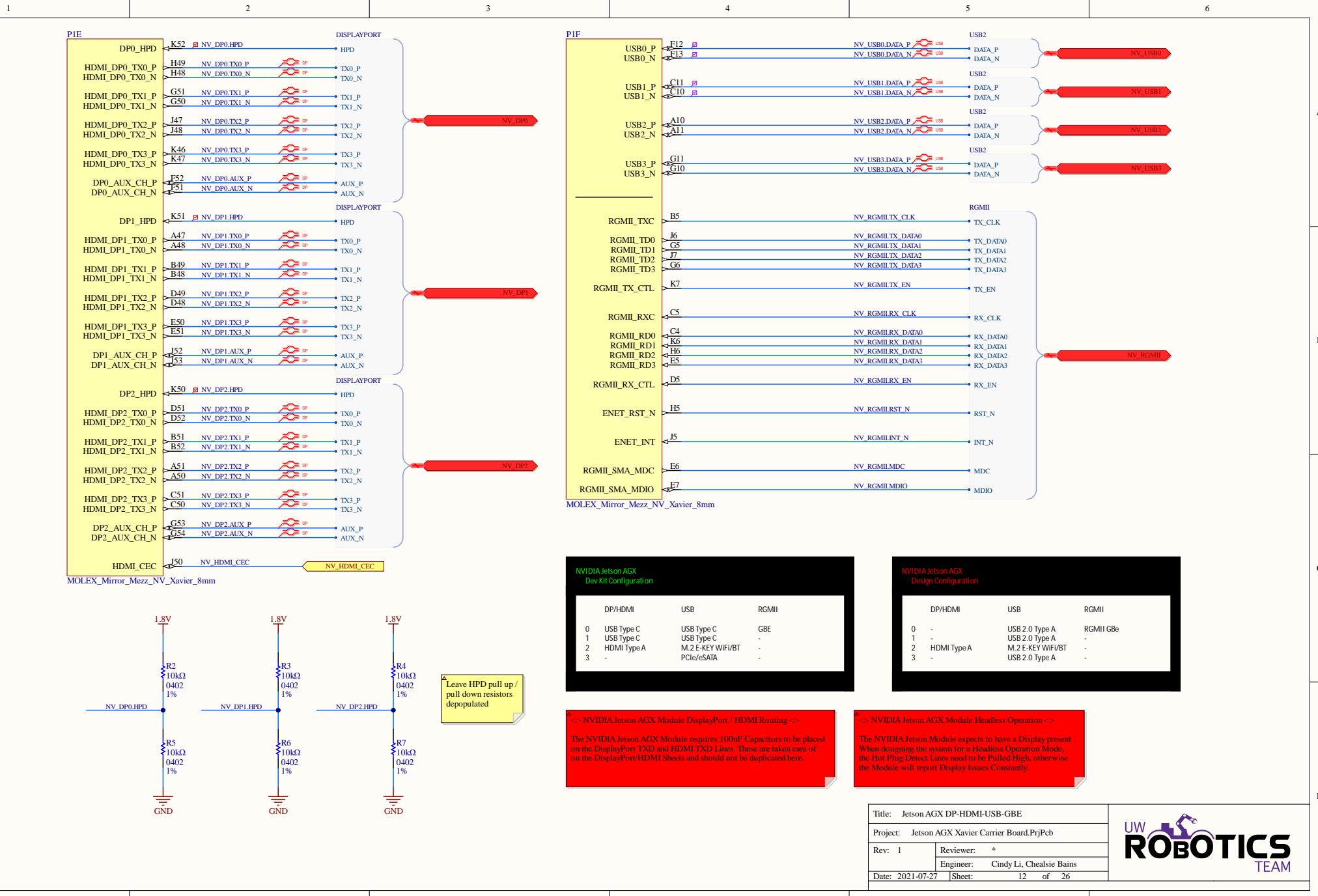
Engineer: Cindy Li, Chealsie Bains

Date: 2021-07-27

Sheet: 11 of 26



1 2 3 4 5 6



A

A

B

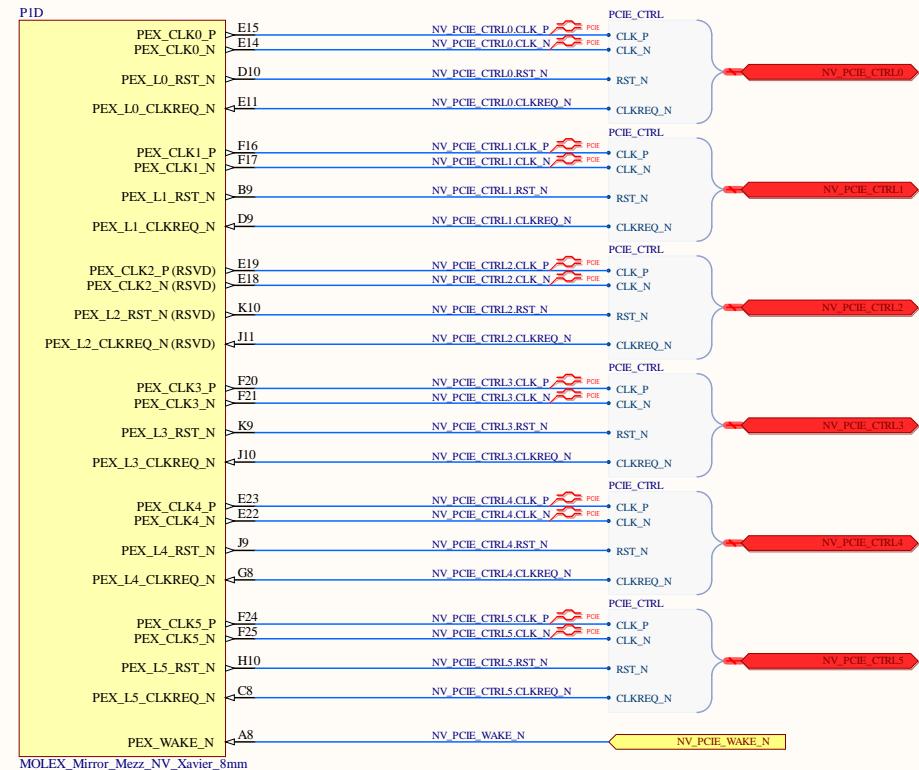
B

C

C

D

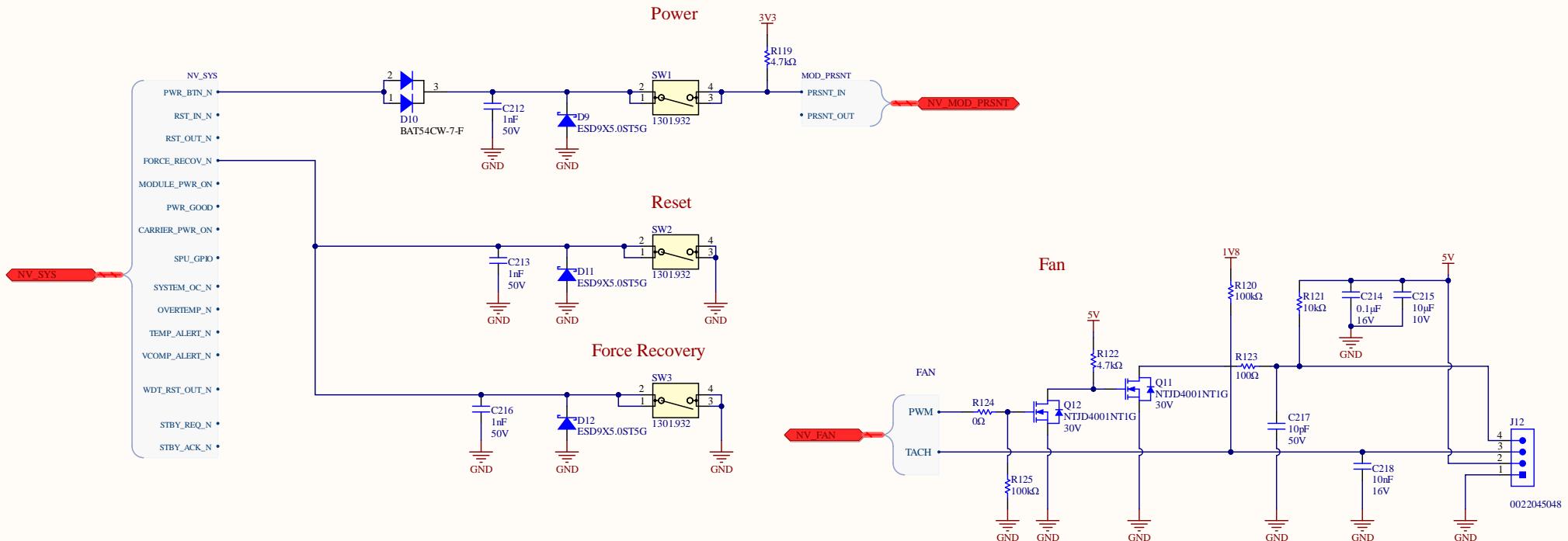
D



Title: Jetson AGX PCIe	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li, Chealsie Bains	
Date: 2021-07-27	Sheet: 13 of 26







Title: System	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Chealsie Bains	Date: 2021-07-27
Sheet: 15	of 26

A

A

B

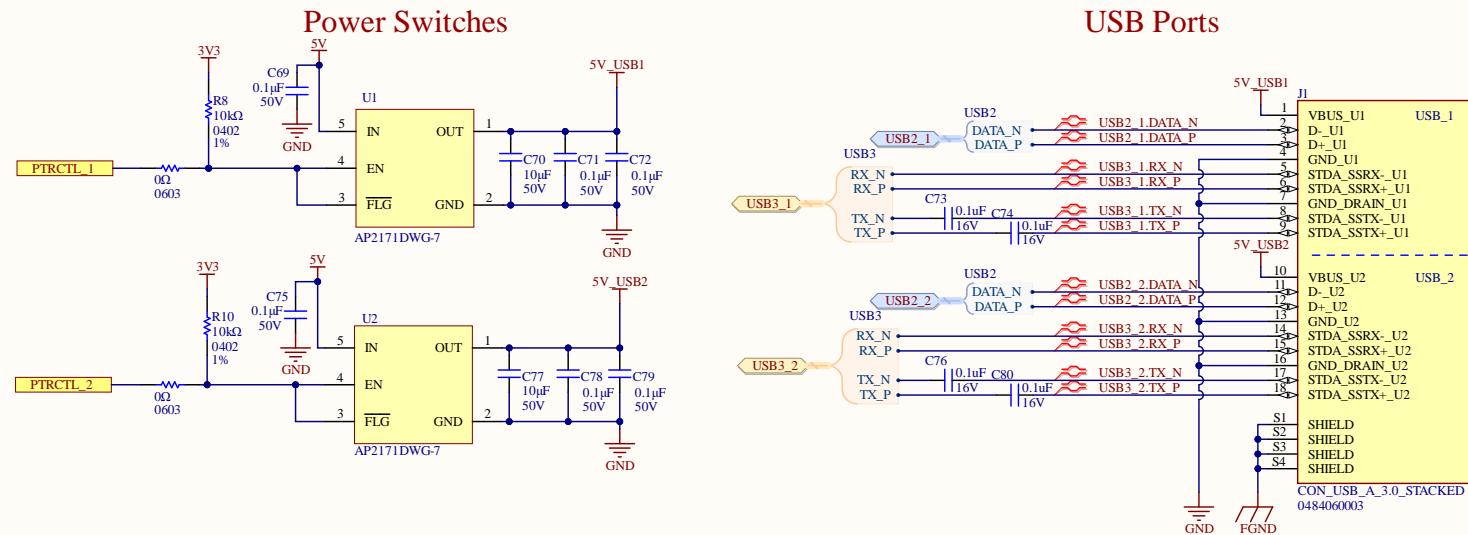
B

C

C

D

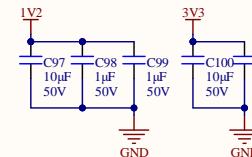
D



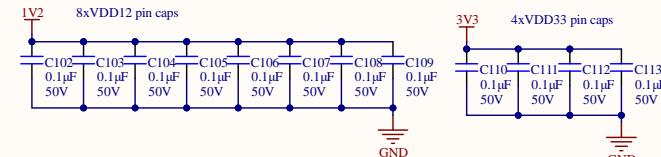
Title:	USB Port
Project:	Jetson AGX Xavier Carrier Board.PnjPcb
Rev:	1
Reviewer:	*
Engineer:	Cindy Li
Date:	2021-07-27
Sheet:	16 of 26

1 2 3 4 5 6

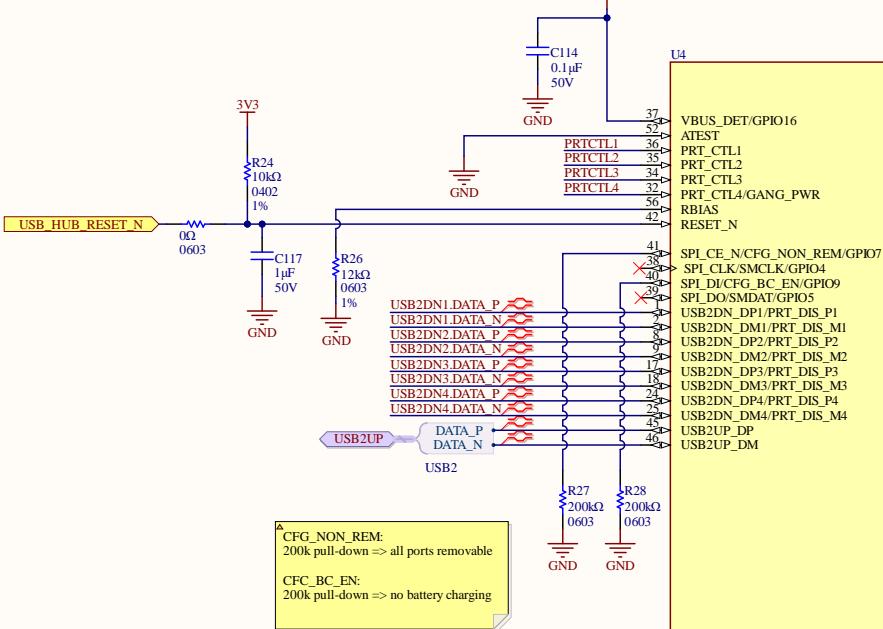
## Bulk Capacitors



## Decoupling Capacitors

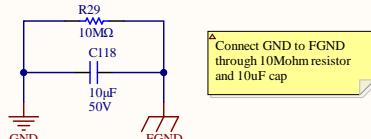


## USB Controller



U4  
VBUS\_DET/GPIO16  
PRTCTL1  
PRT\_CTL1  
PRTCTL2  
PRT\_CTL2  
PRTCTL3  
PRT\_CTL3  
PRTCTL4  
PRT\_CTL4  
RBIAS  
RESET\_N  
SPL\_CE\_N/CFG\_NON\_Rem/GPIO7  
SPL\_CLK\_SMCLK\_GPIO4  
SPL\_DICFG\_BC\_EN GPIO9  
SPL\_DOSMMDAT\_GPIO5  
USB2DN1\_DATA\_P  
USB2DN1\_DATA\_N  
USB2DN2\_DATA\_P  
USB2DN2\_DATA\_N  
USB2DN3\_DATA\_P  
USB2DN3\_DATA\_N  
USB2DN4\_DATA\_P  
USB2DN4\_DATA\_N  
XTALI/CLK\_IN  
XTALO  
USB3UP\_TXDM  
USB3UP\_RXDP  
USB3UP\_RXDM  
USB3DN\_TXDM4  
USB3DN\_RXDM4  
USB3DN\_RXDP4  
USB3DN\_RXDM3  
USB3DN\_RXDP3  
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USB3DN\_RXDP2  
USB3DN\_RXDM1  
USB3DN\_RXDP1  
VSS

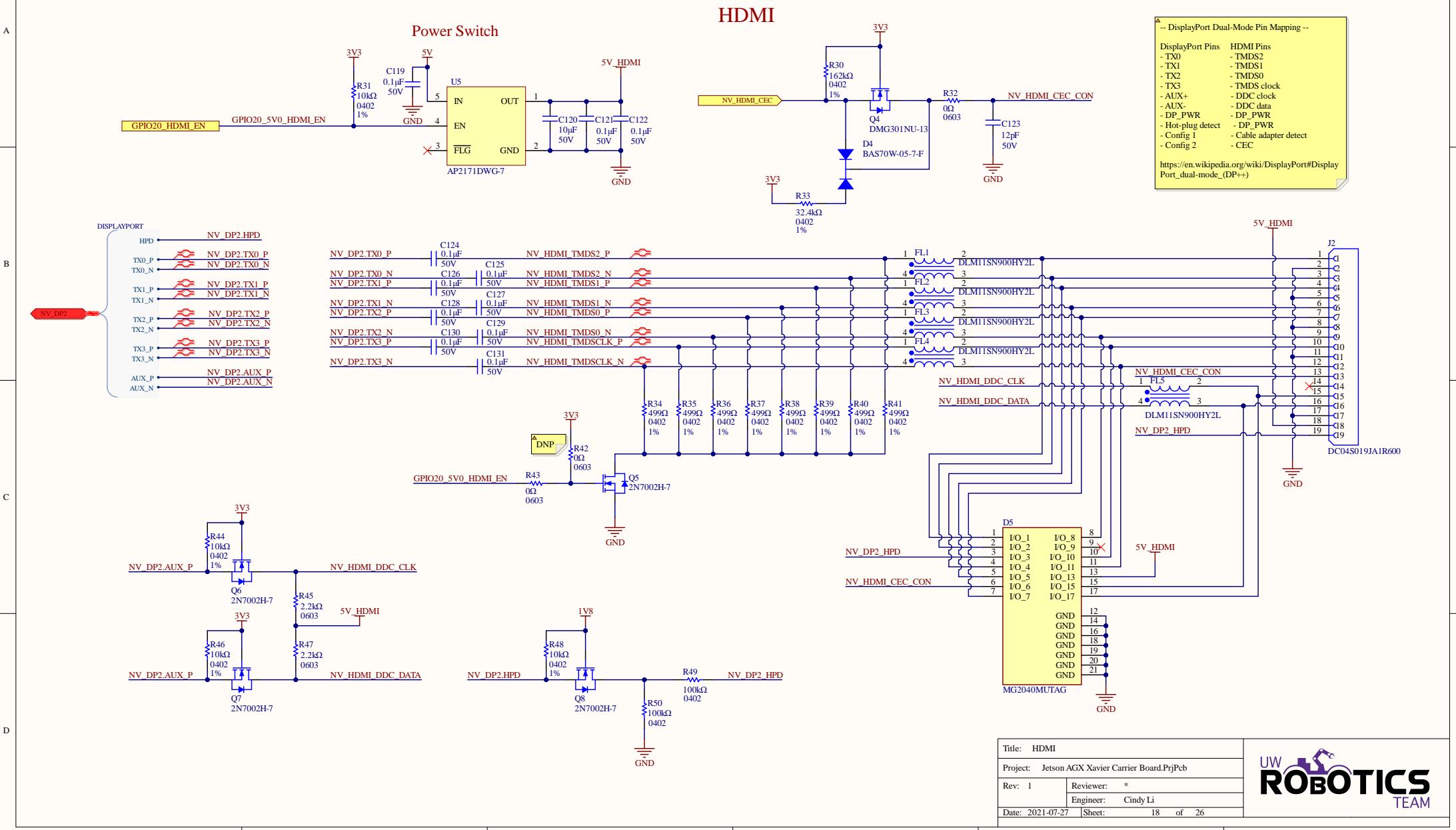
USB5744/2G

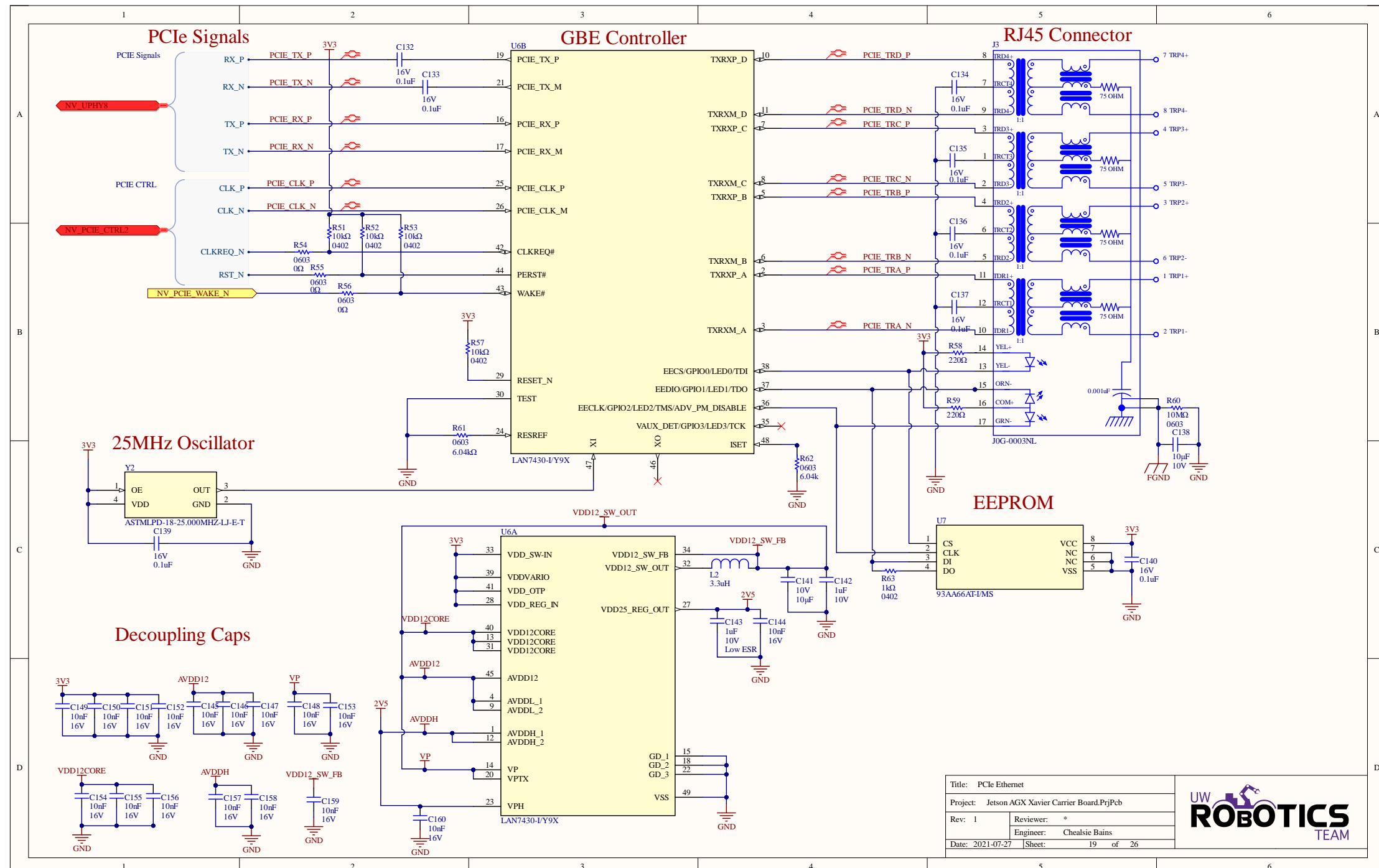


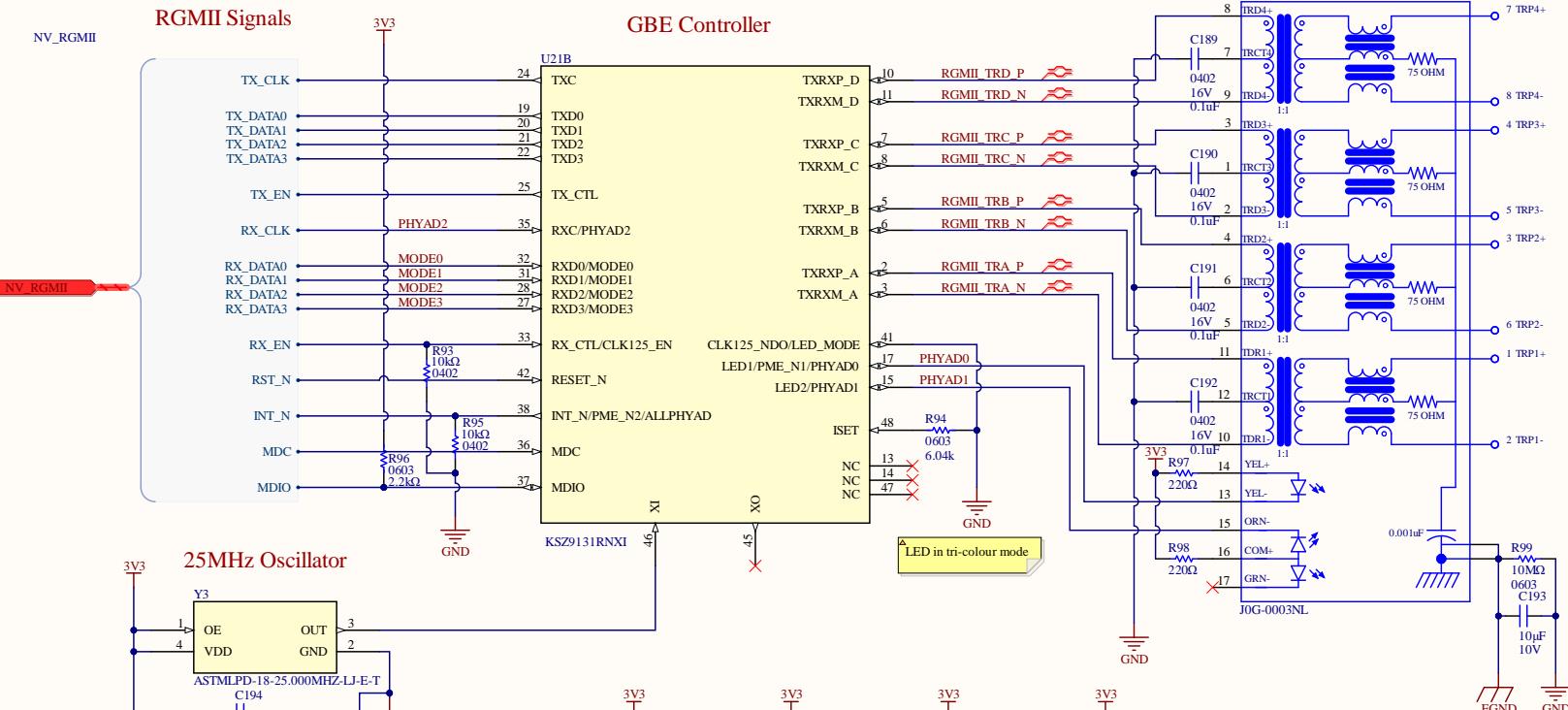
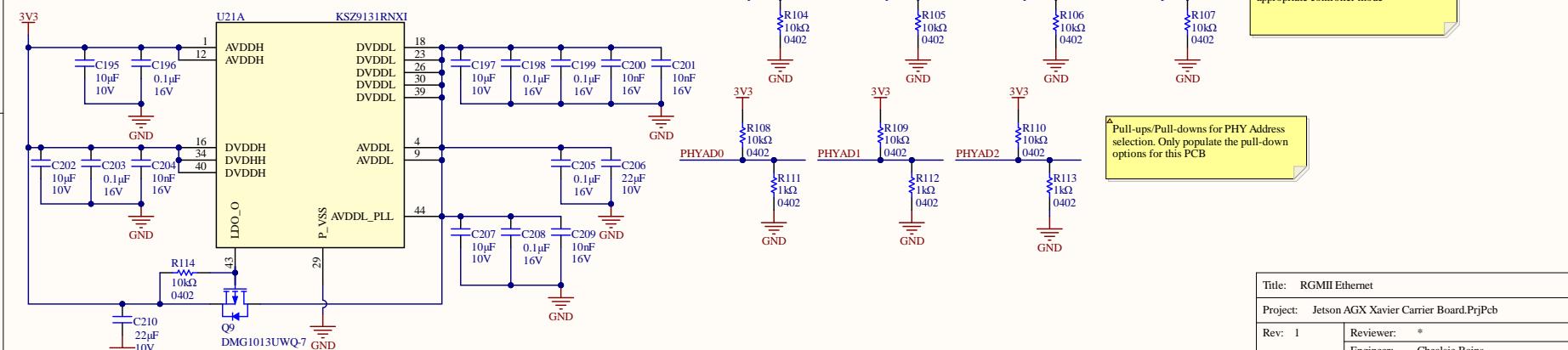
Title: USB	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	Reviewer: *
Rev: 1	Engineer: Cindy Li
Date: 2021-07-27	Sheet: 17 of 26



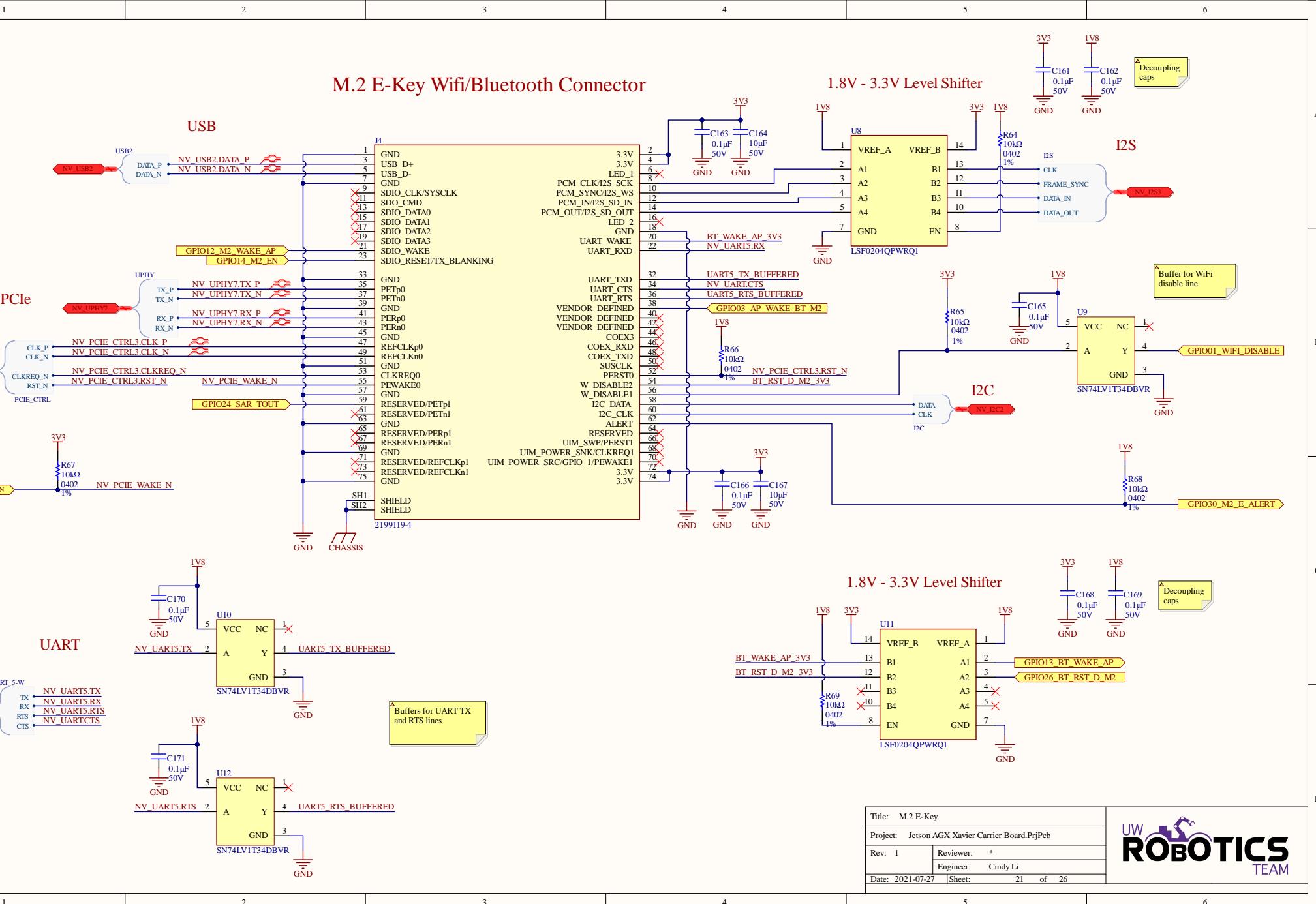
1 2 3 4 5 6



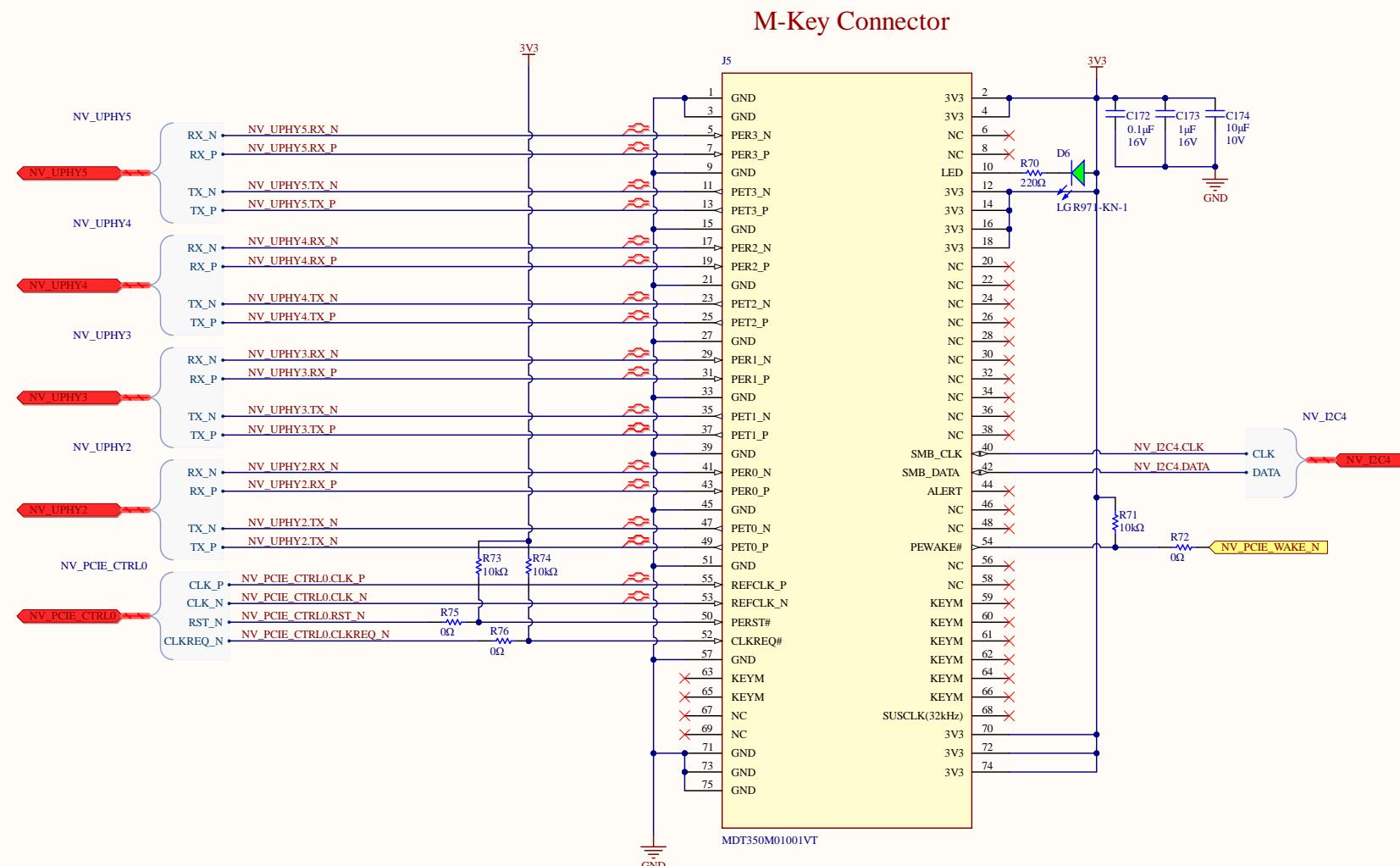


**RJ45 Ethernet Connector****GBE Power**

Title: RGMII Ethernet	
Project: Jetson AGX Xavier Carrier Board.PjPcb	
Rev: 1	Reviewer: *
Engineer: Chealsie Bains	
Date: 2021-07-27	Sheet: 20 of 26



Title: M.2 E-Key	
Project: Jetson AGX Xavier Carrier Board.PjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	Date: 2021-07-27



Title: M.2 M-Key	
Project: Jetson AGX Xavier Carrier Board.PjPcb	
Rev: 1	Reviewer: *
Engineer: Chealsie Bains	
Date: 2021-07-27	Sheet: 22 of 26

A

A

B

B

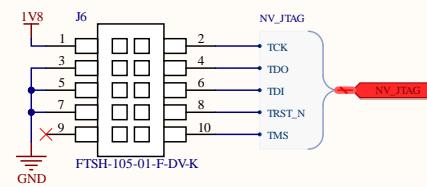
C

C

D

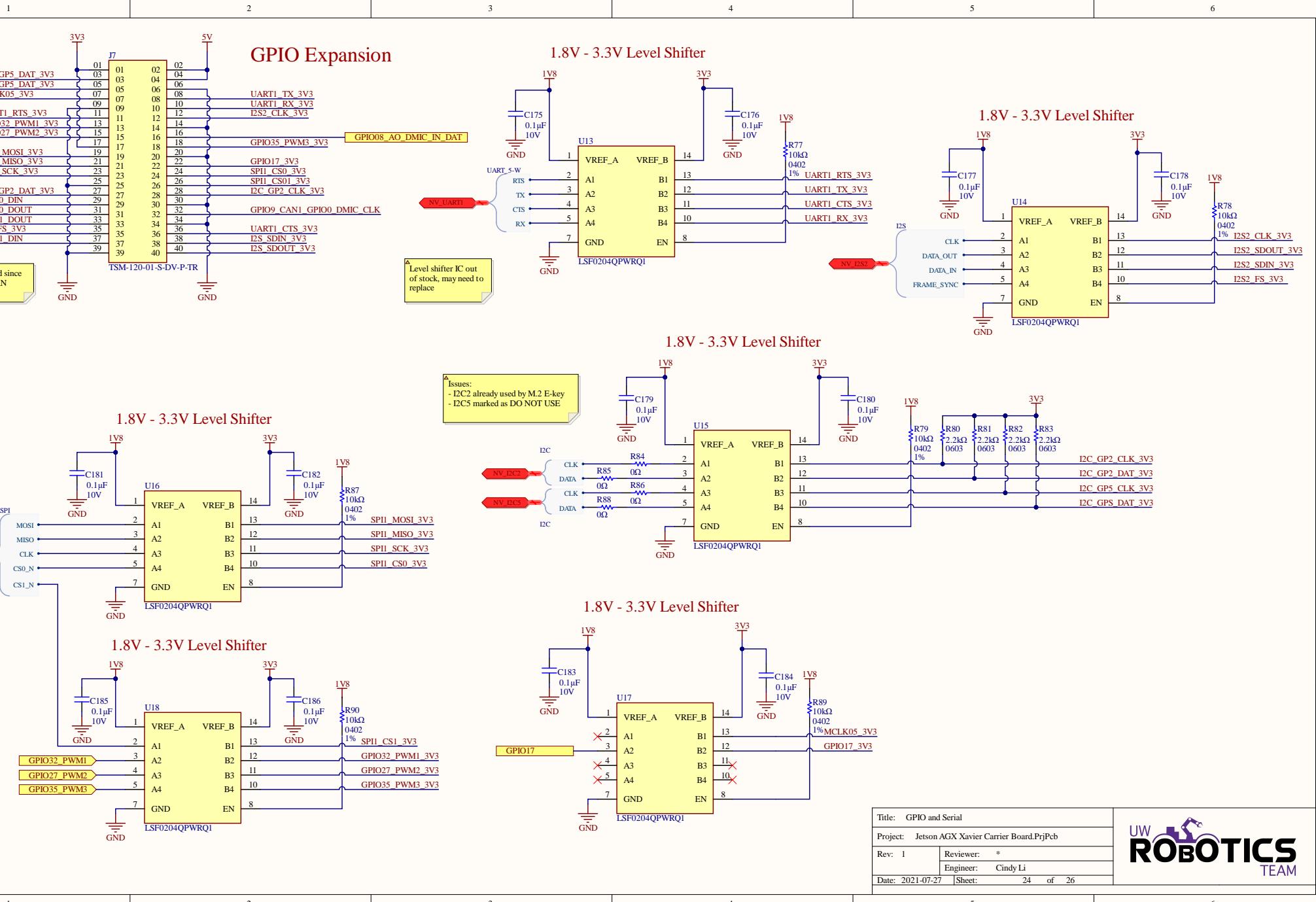
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## JTAG

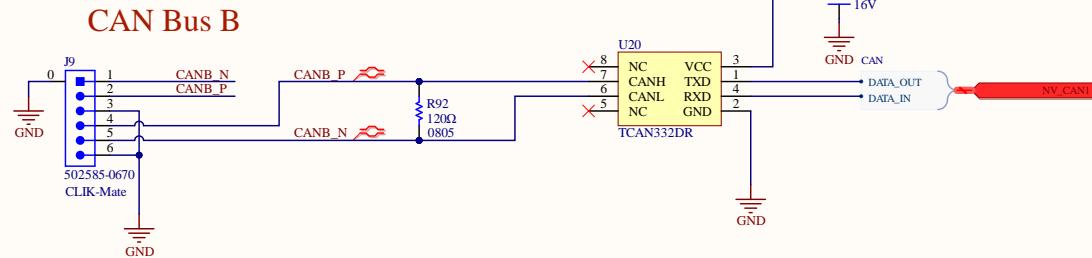
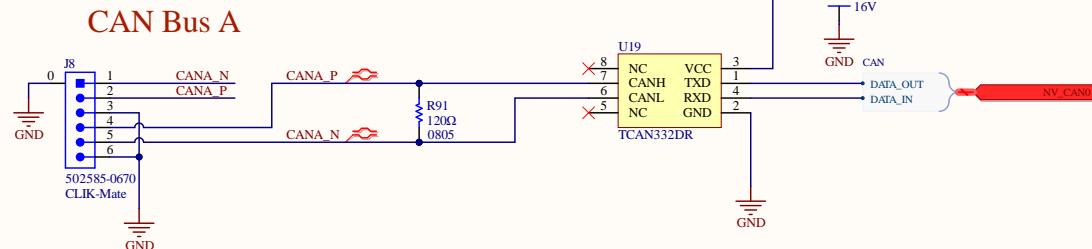


Title: JTAG	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
	Engineer: Cindy Li
Date: 2021-07-27	Sheet: 23 of 26





# CAN Transceivers

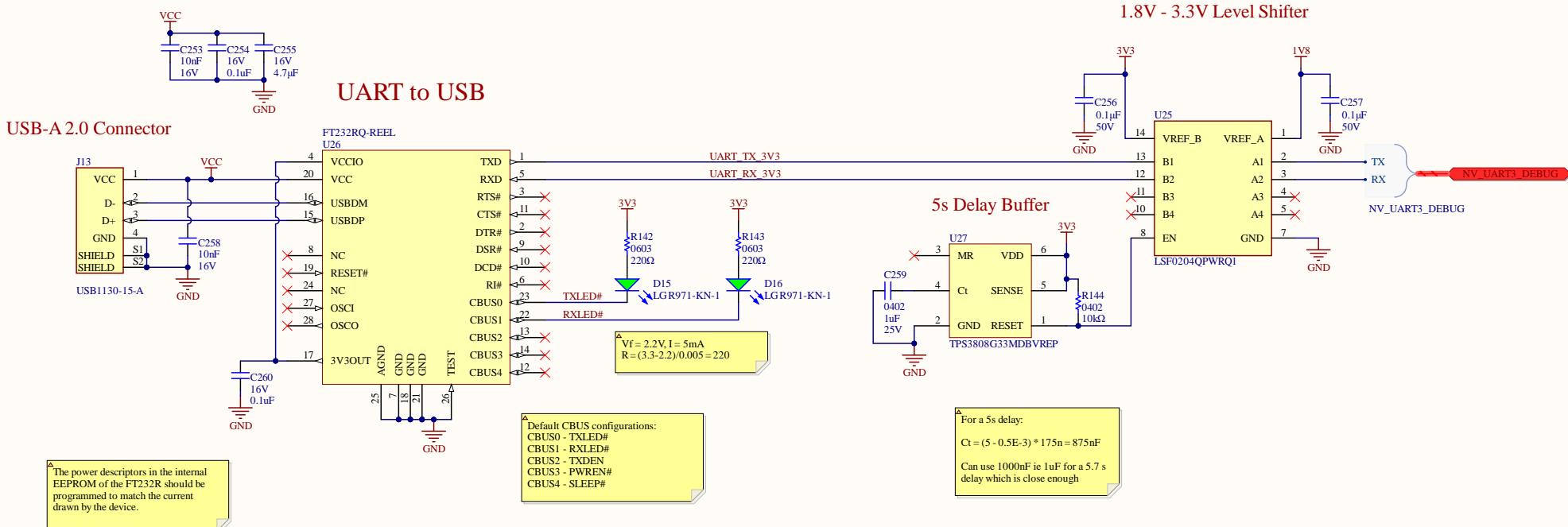


Title: CAN	
Project: Jetson AGX Xavier Carrier Board.PnjPcb	
Rev: 1	Reviewer: *
Engineer: Cindy Li	
Date: 2021-07-27	Sheet: 25 of 26



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# Board Stack Report