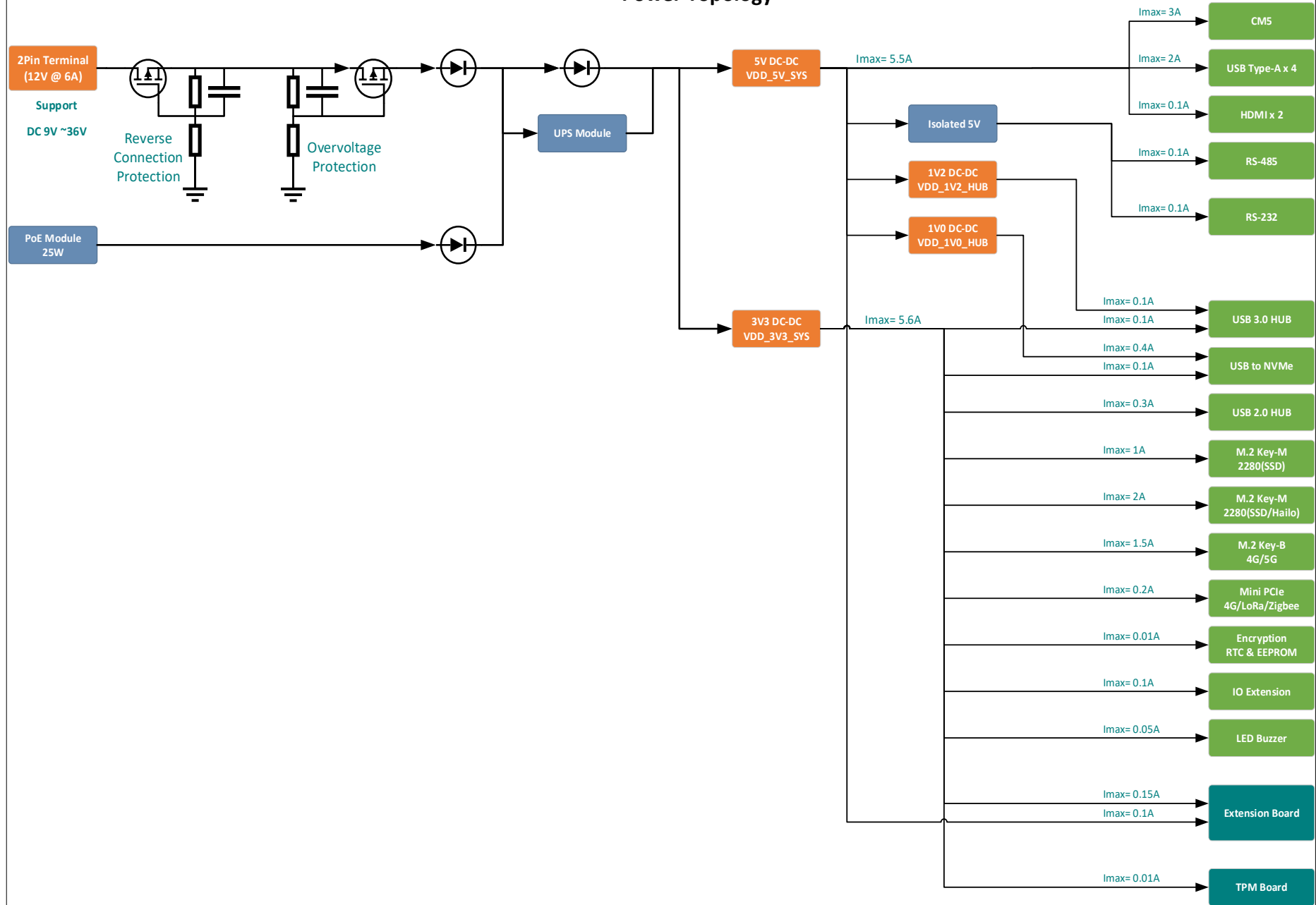


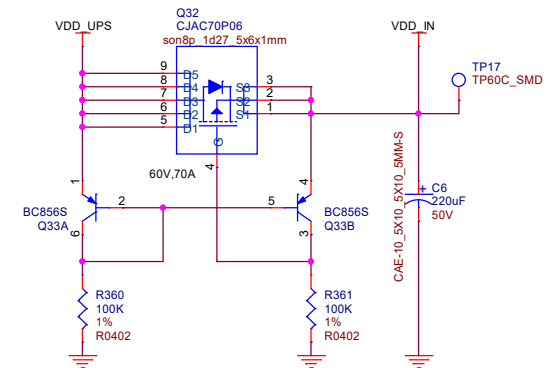
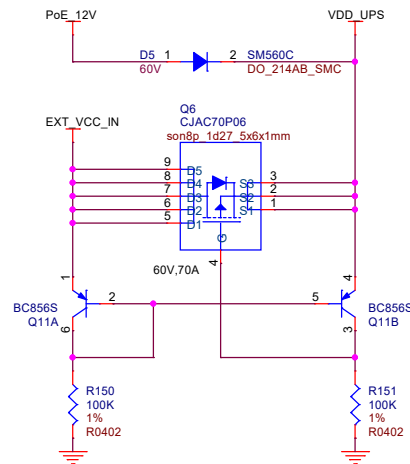
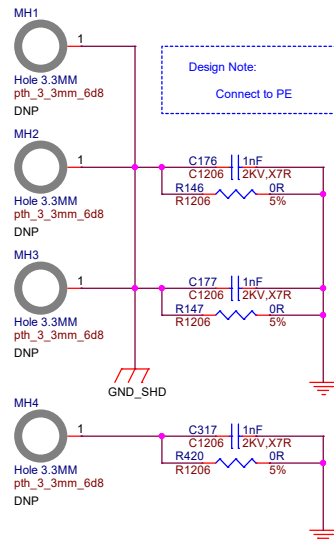
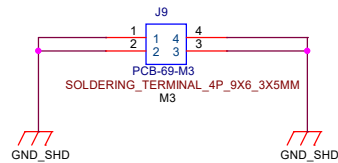
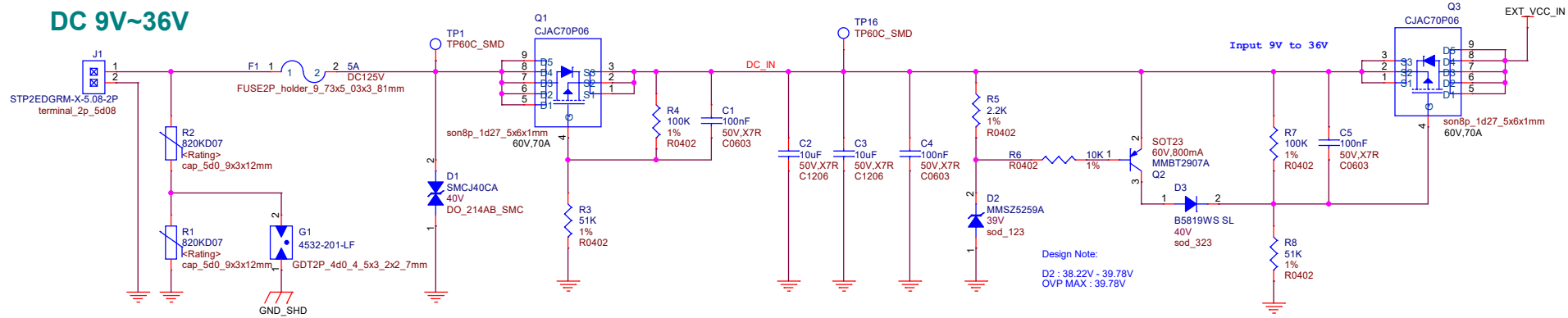
PAGE LIST	
PAGE	PAGE NAME
01	Revision History
02	Block Diagram
03	Power Block Diagram
04	Power IN
05	DC-DC
06	CM5
07	USB3.0 HUB
08	USB2.0 HUB+100M ETH
09	USB C Debug
10	USB3.0 to PCIe Power
11	USB3.0 to PCIe
12	M.2 Key-M x 2
13	M.2 Key-B
14	mini PCIe
15	HDMI x 2
16	RJ45 x 2
17	USB3.0 TYPE-A x 2 A
18	USB3.0 + USB2.0 TYPE A
19	I2C0 Device
20	RS232 1 & RS485 1
21	RS485 2 & Extension Board
22	DI x 4 & DO x 4
23	Terminal & LED

REVISION HISTORY			
VER #	DATE	DESCRIPTION OF CHANGES	AUTHOR
v1.0	2025.7.17	First release	Linus.Liao
			Linus.Liao
			Linus.Liao

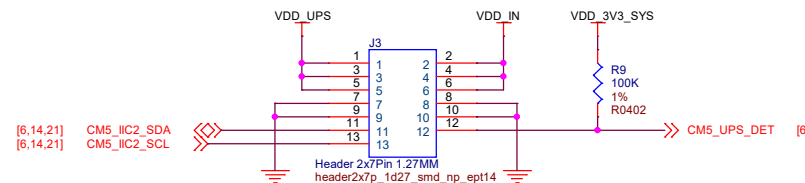
Power Topology

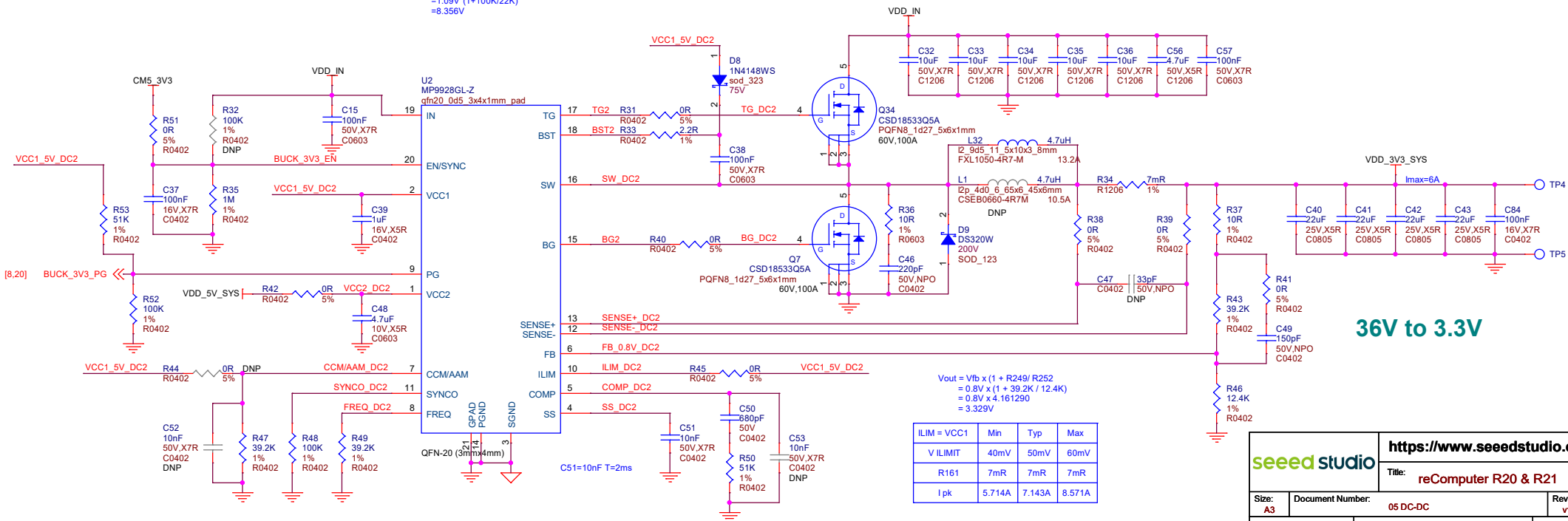
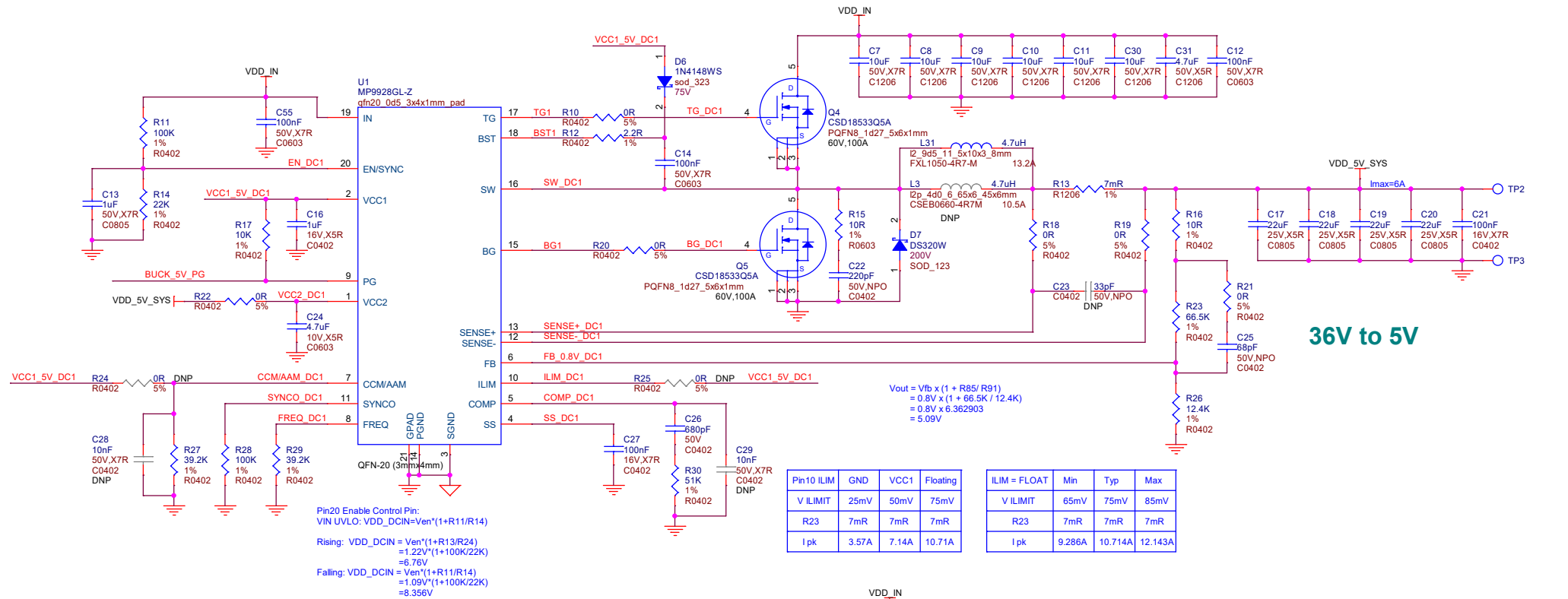


Power In
DC 9V~36V

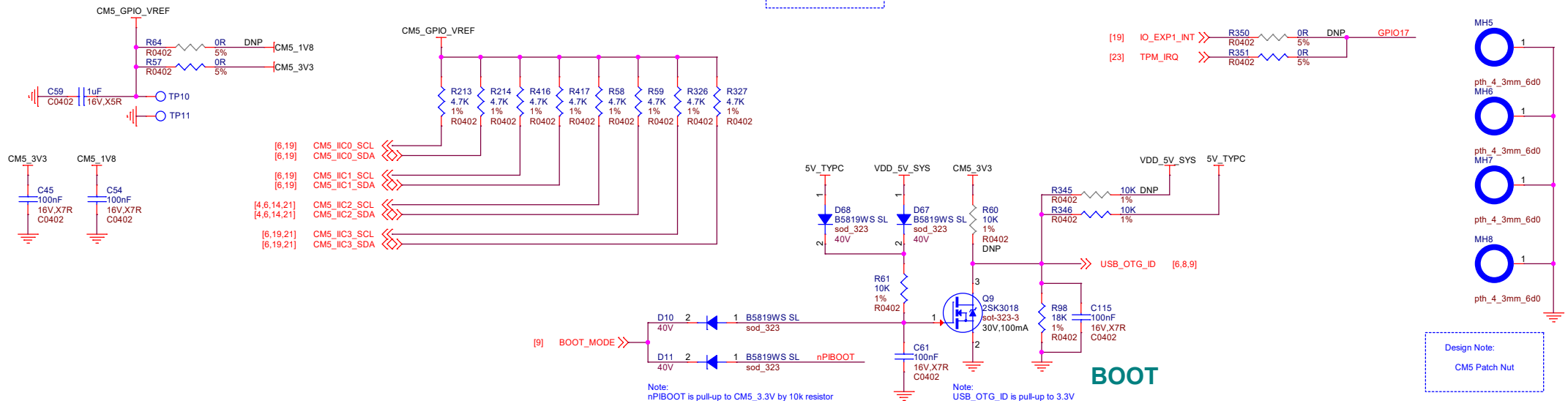
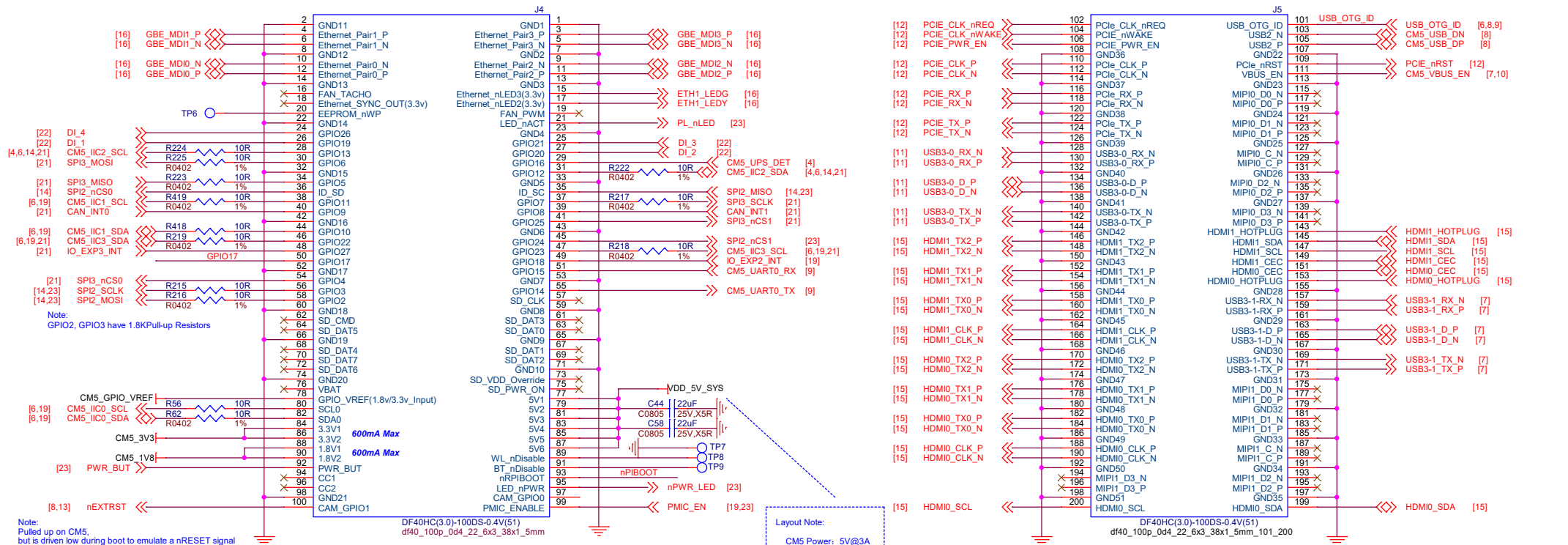


UPS Connector



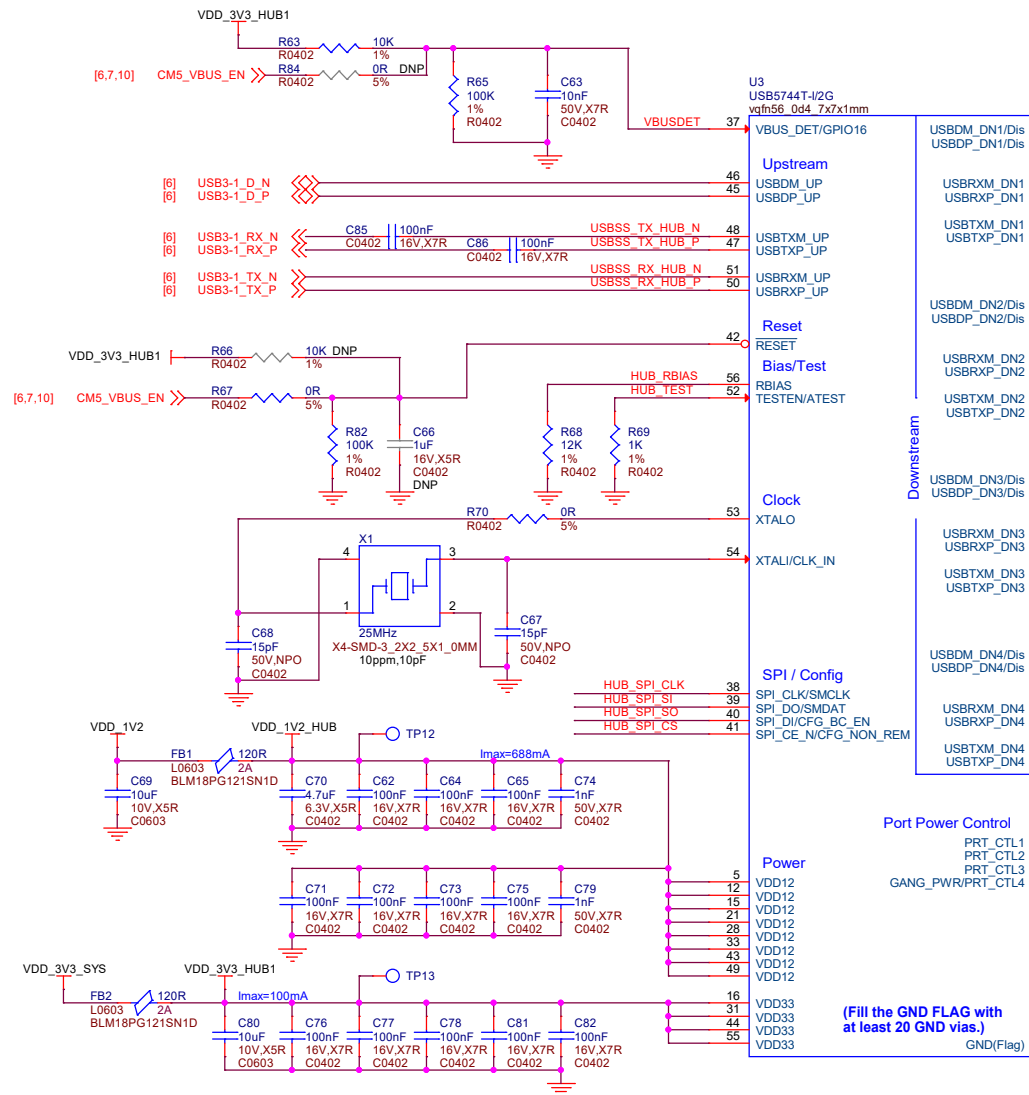


CM5 200PIN Connector

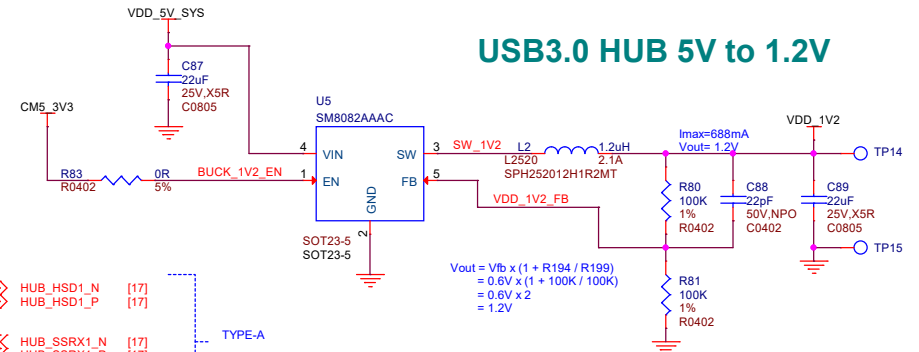


BOOT_MODE	USB_OTG_ID	nPIBOOT	Function
1 / Floating	0 (default)	1 (default)	USB HUB : Enable TYPE C : N/A
0	1	0	USB HUB : Disable TYPE C : Download

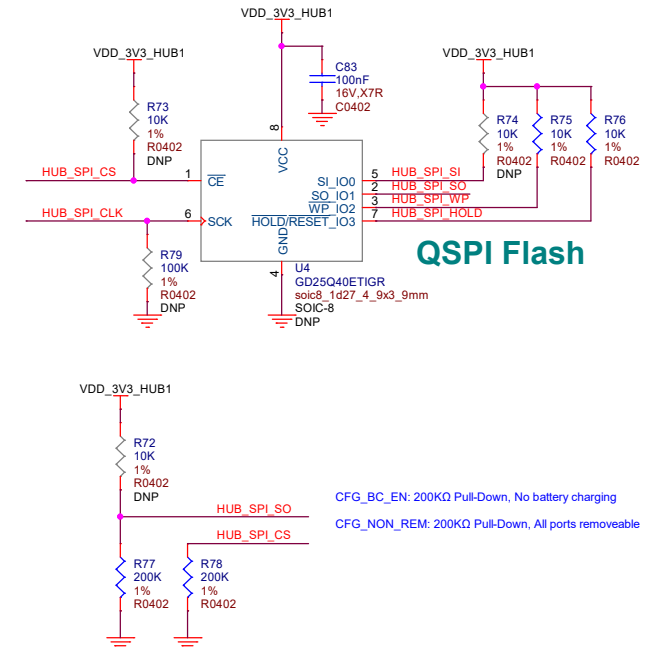
USB3.2 Gen1 HUB x4 PORTS



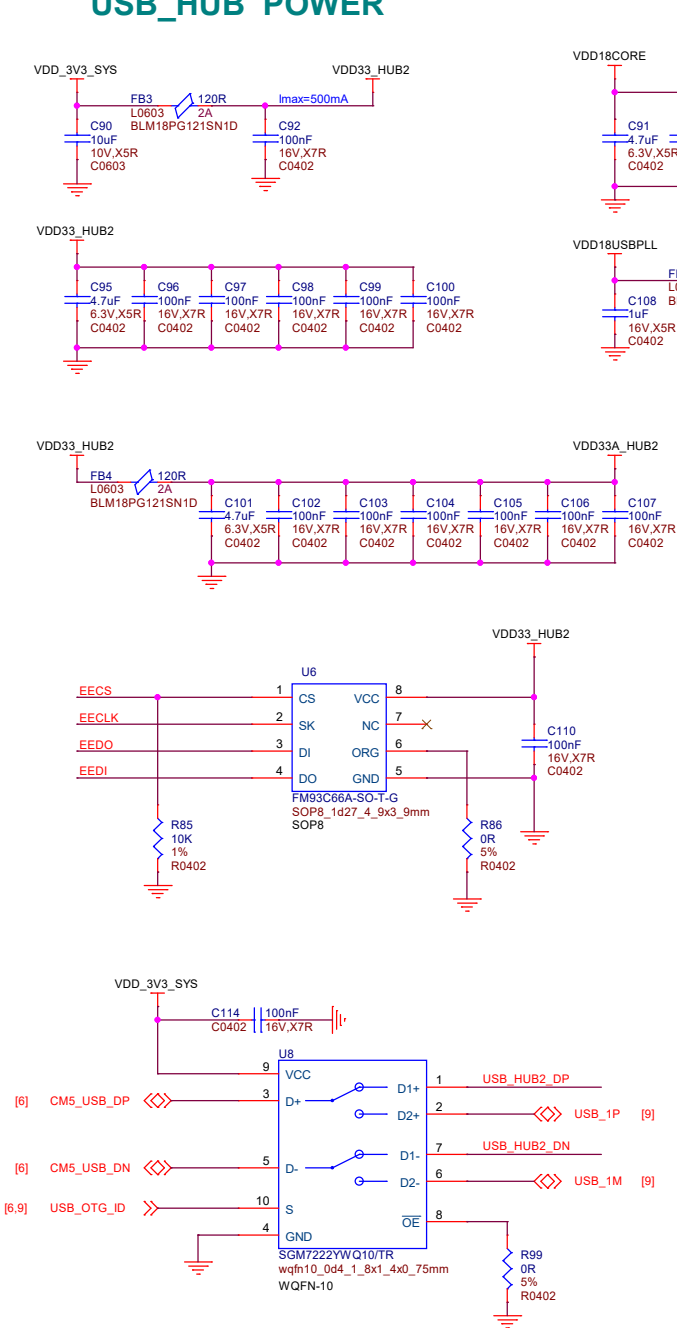
USB3.0 HUB 5V to 1.2V



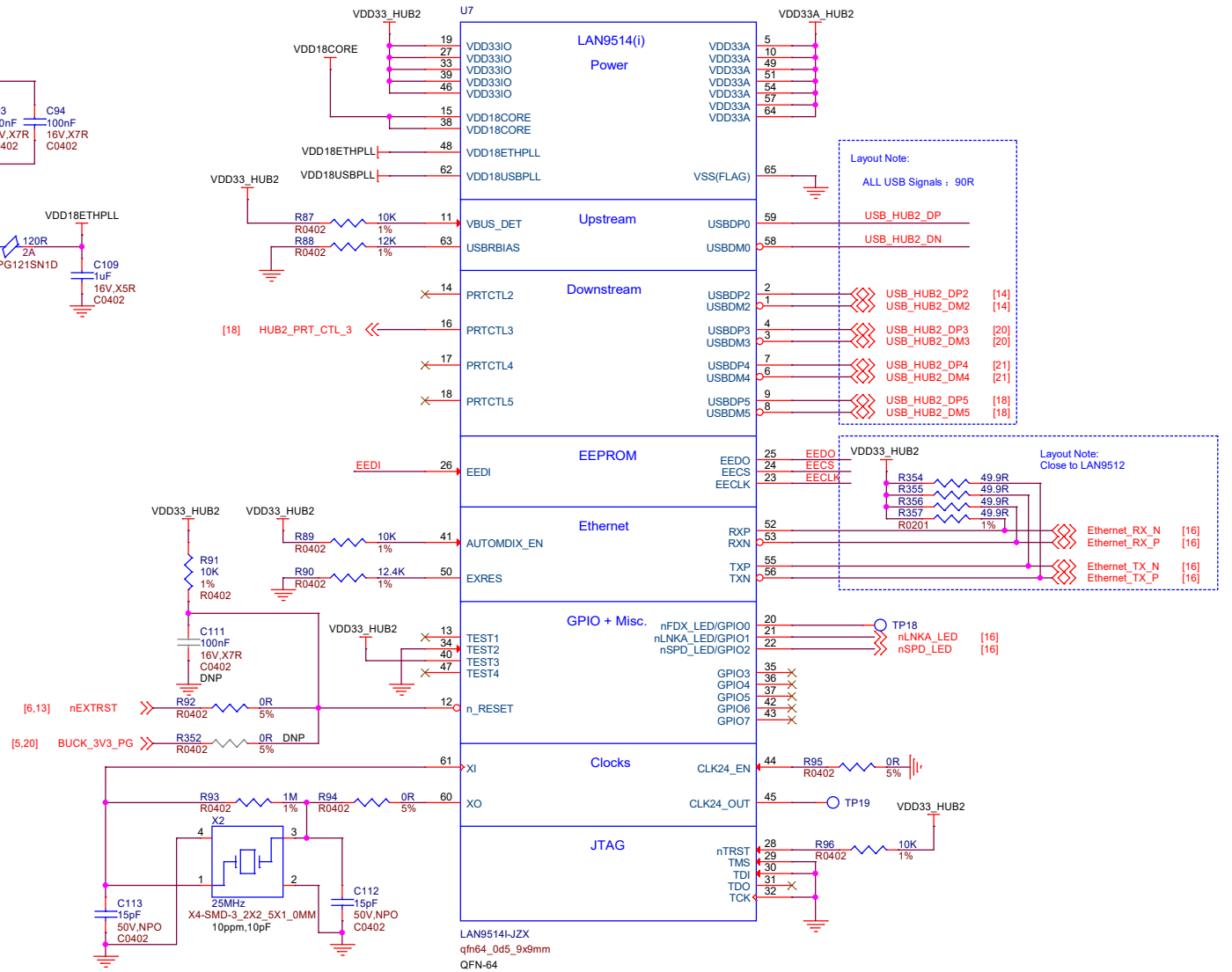
Note: VDD12 should come up before VDD33(VDD33 should rise after or at the same rate as VDD12)
SOFT-START TIME: 1ms



USB_HUB POWER

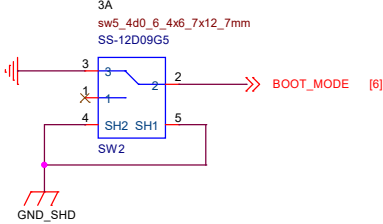
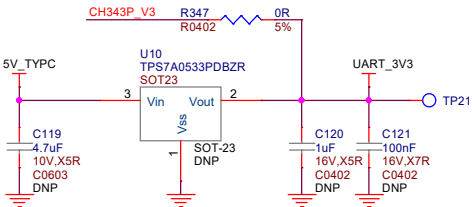
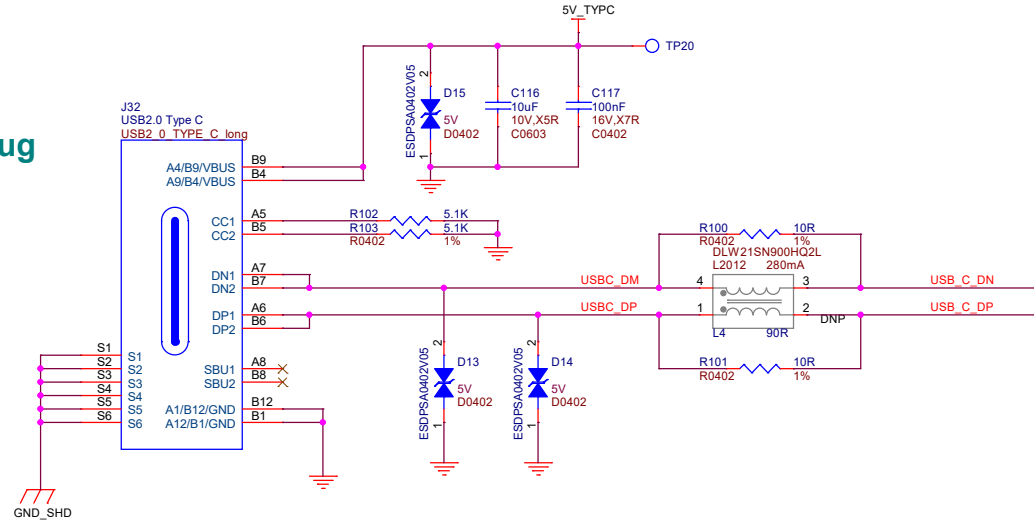


USB_OTG ID	Function
0 (default)	USB 2.0 HUB
1	TYPE-C

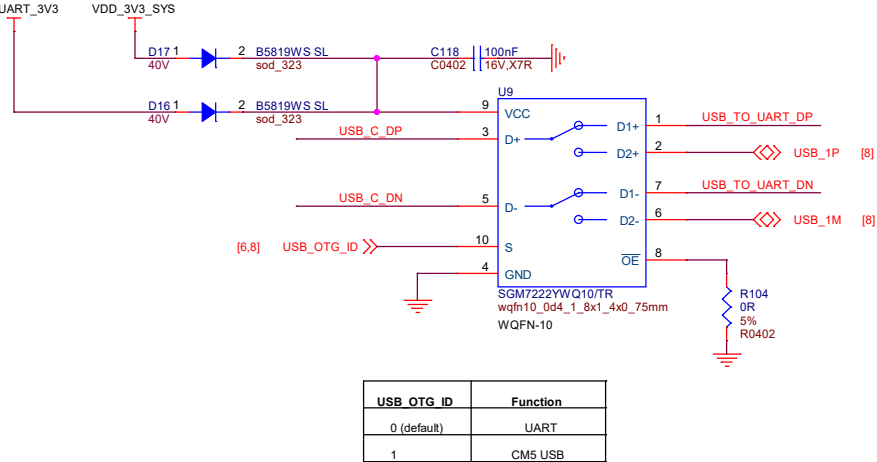


USB2.0_HUB1 & 100M Ethernet

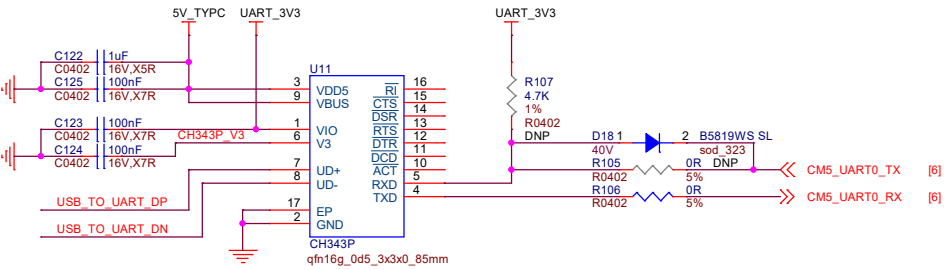
TYPE C Debug

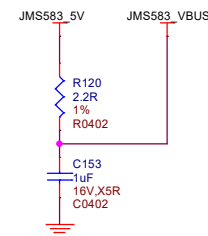
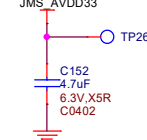
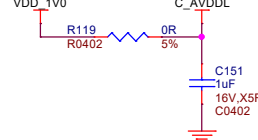
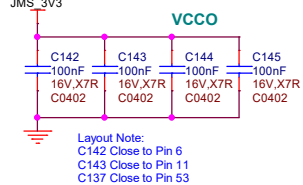
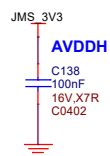
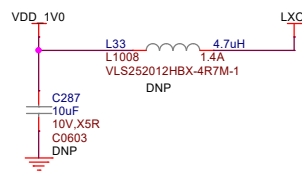
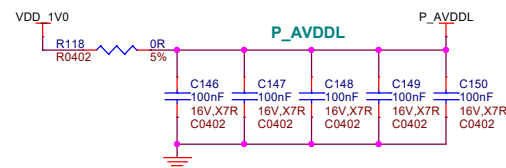
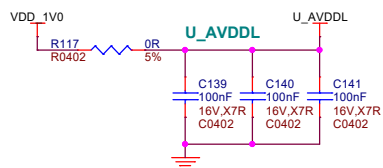
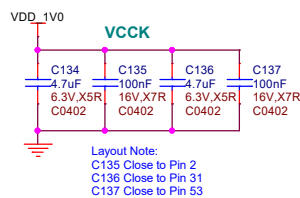
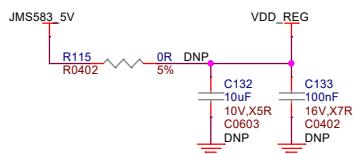
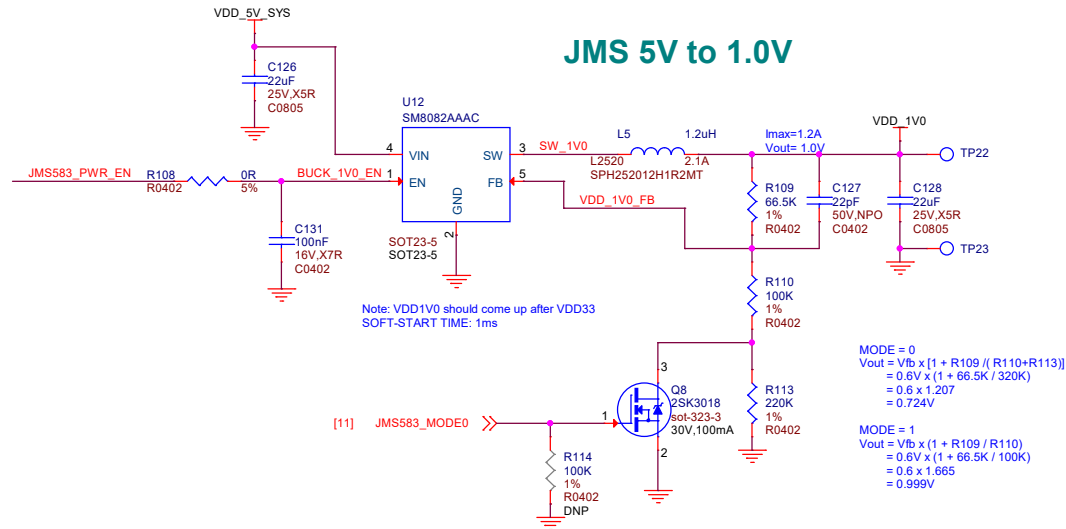
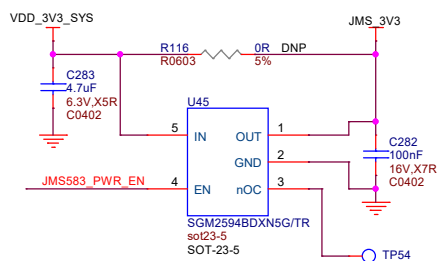
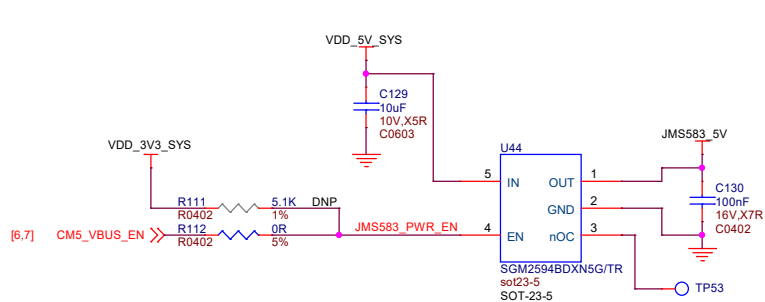


USB 2.0 physical toggle switch

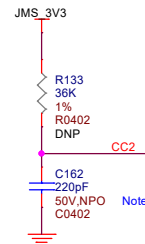
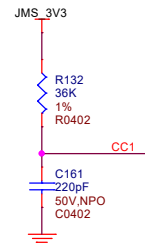
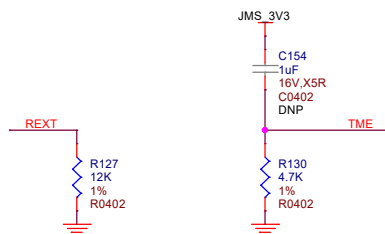
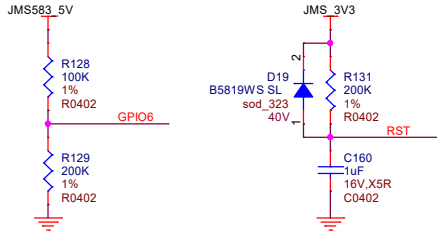
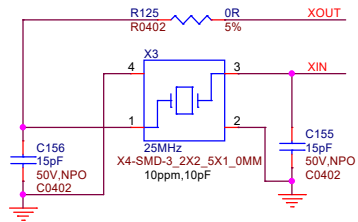
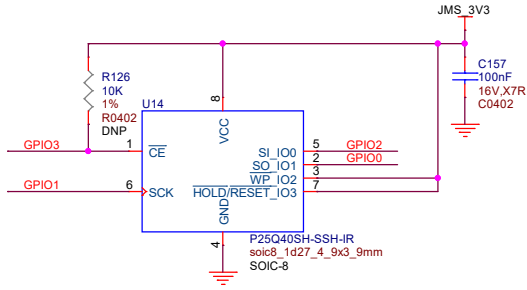


USB_OTG_ID	Function
0 (default)	UART
1	CM5 USB

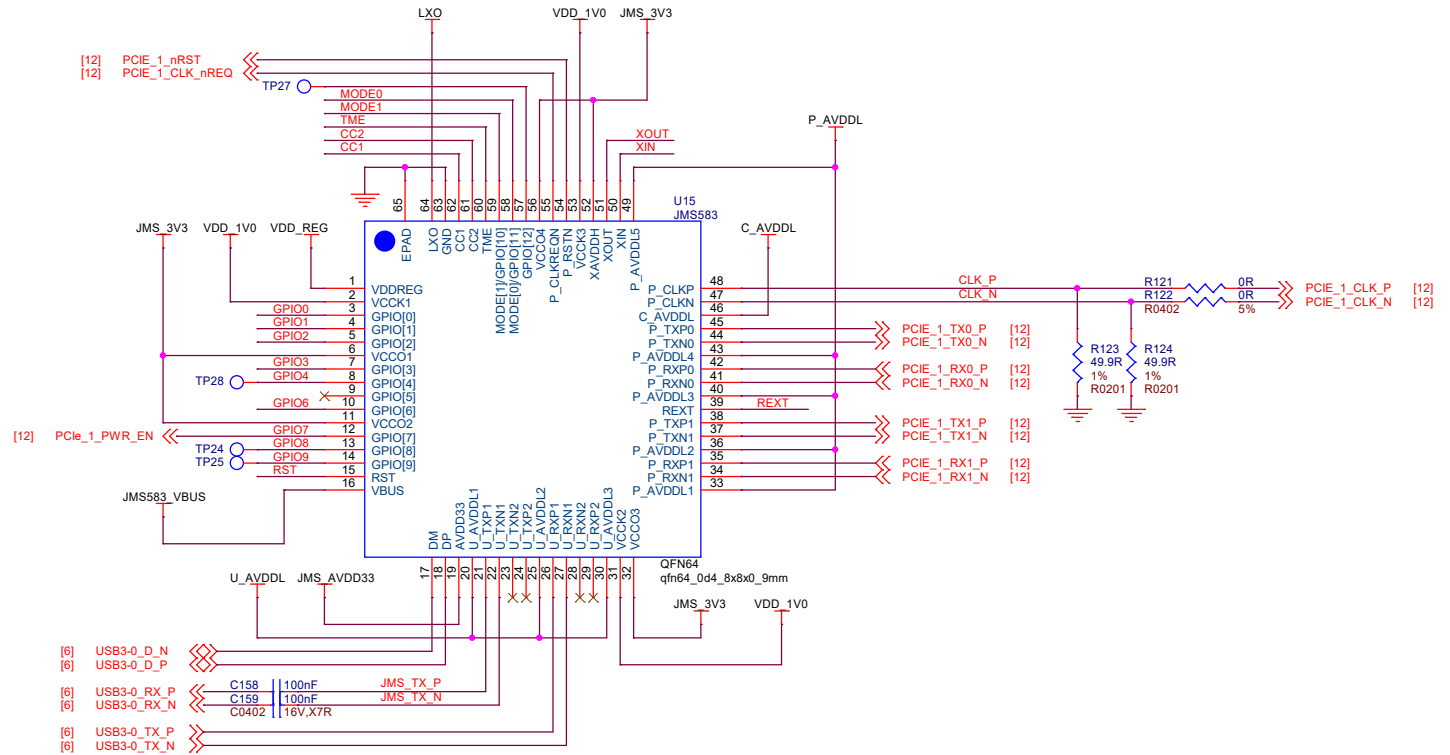




JMS583

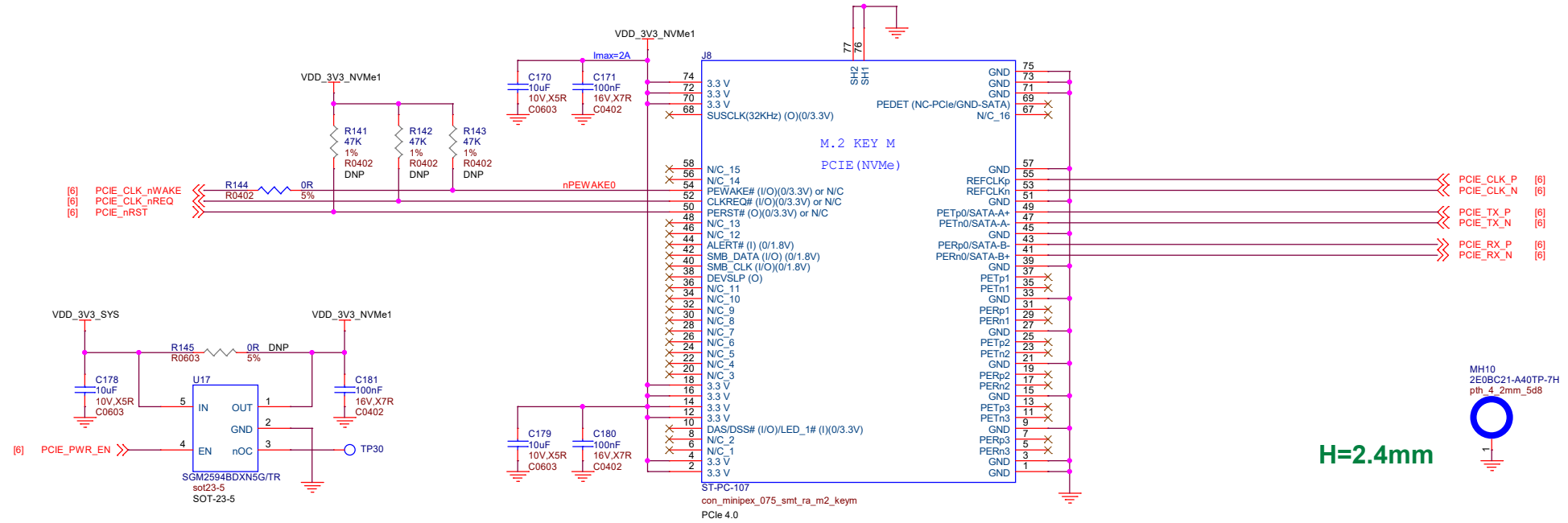


Note: Configure to use only USB channel 1

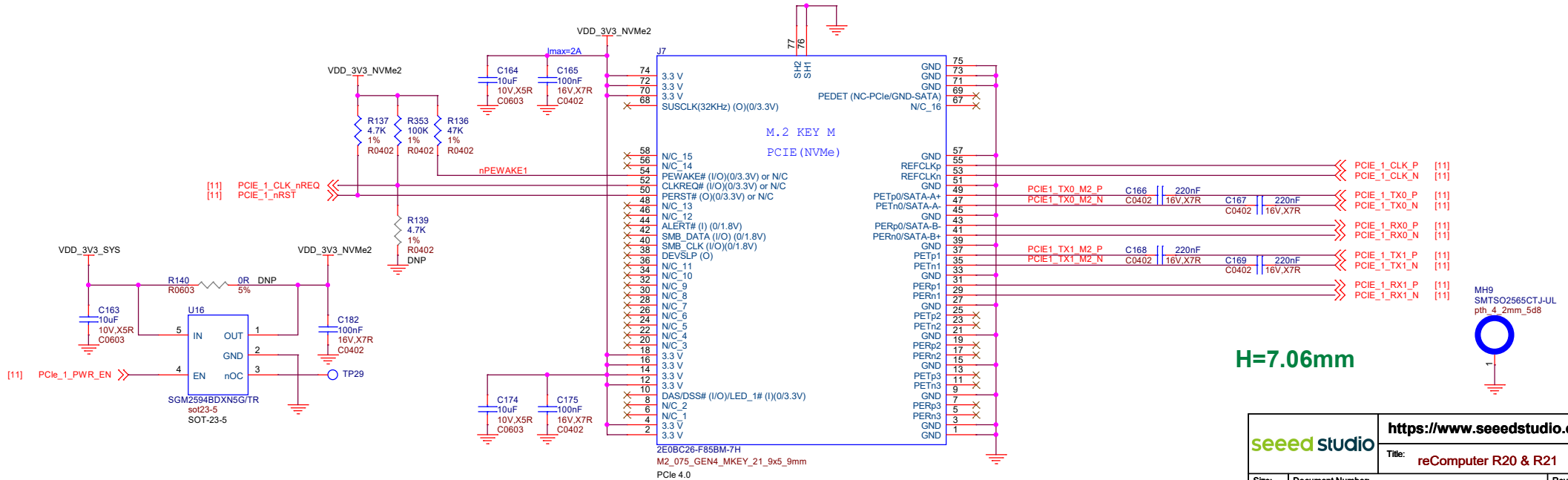


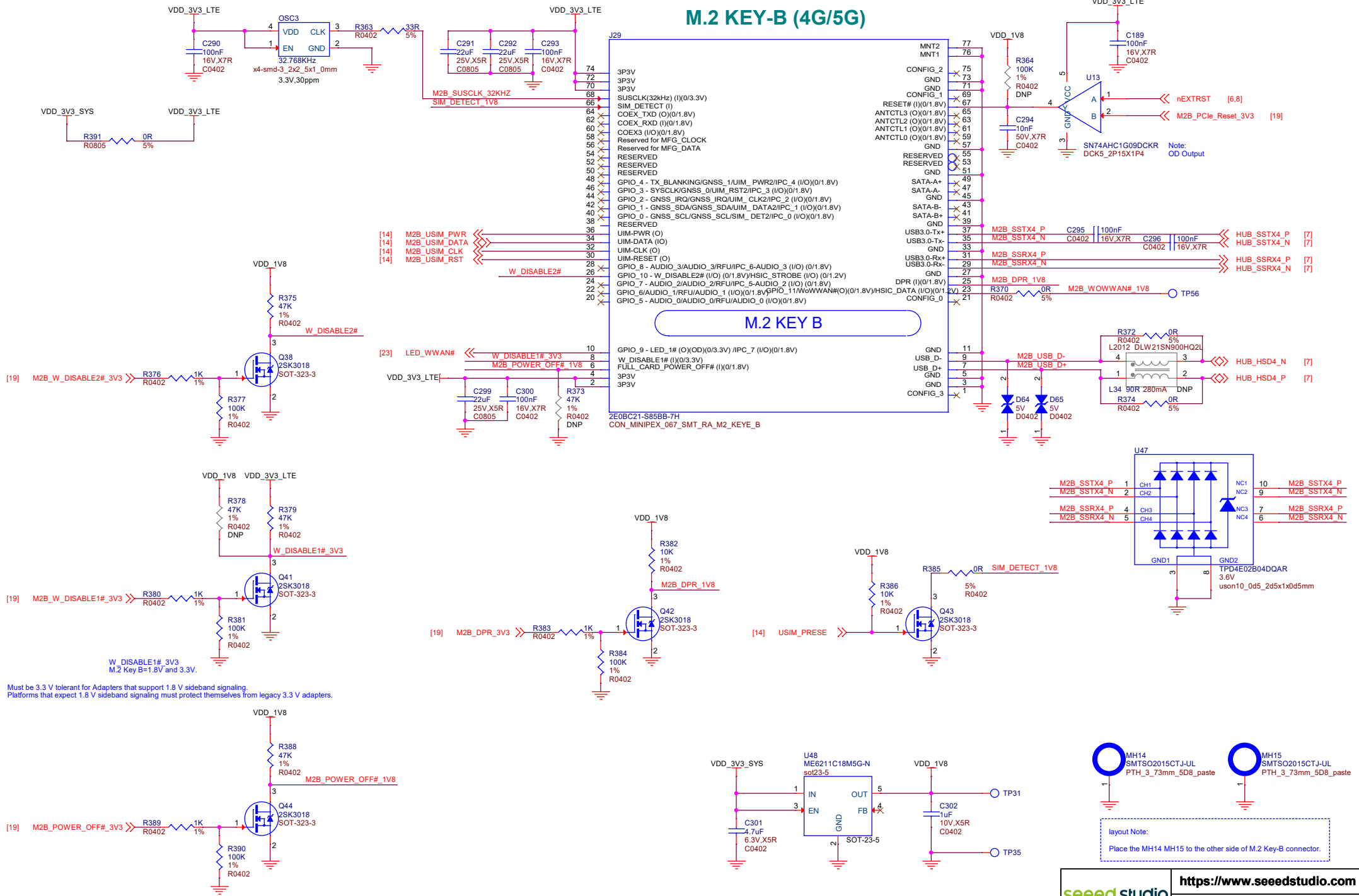
MODE 0	MODE 1	Function
1	0/NC	NVMe
1	1	CFE Card

M.2 KEY-M 2280

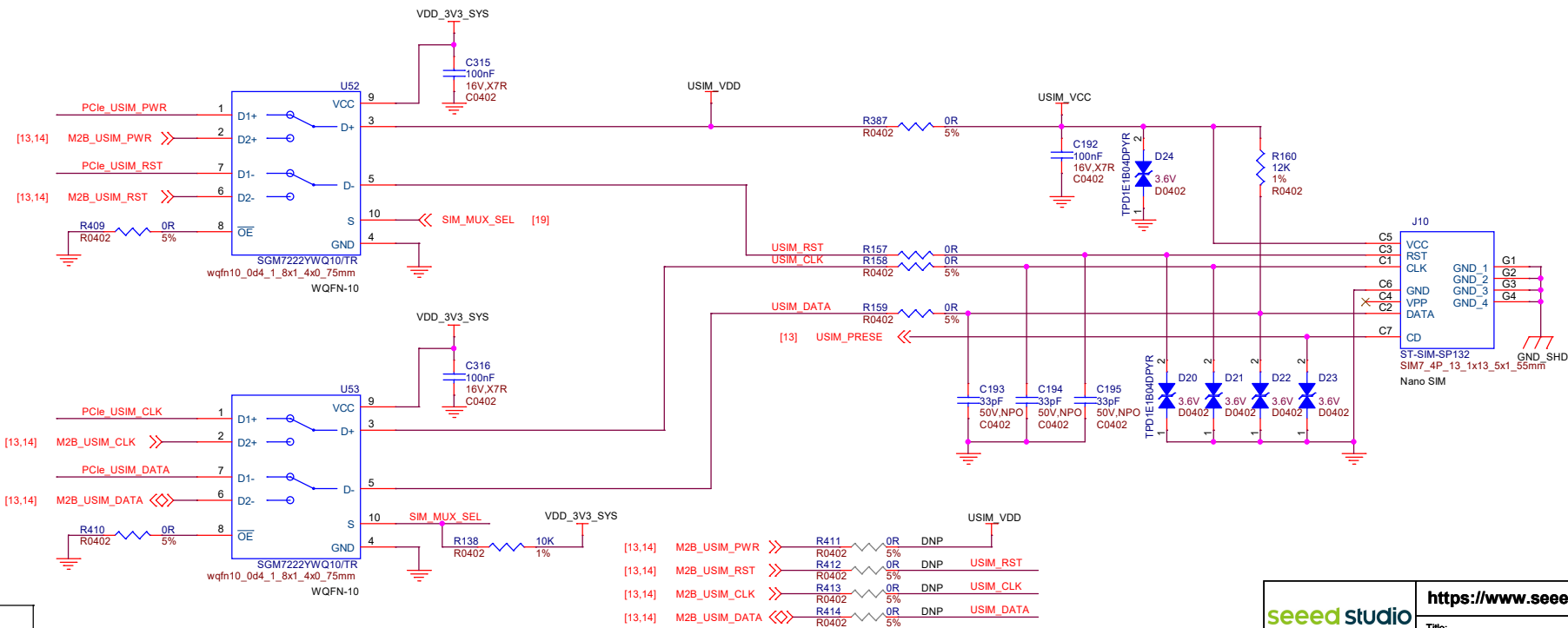
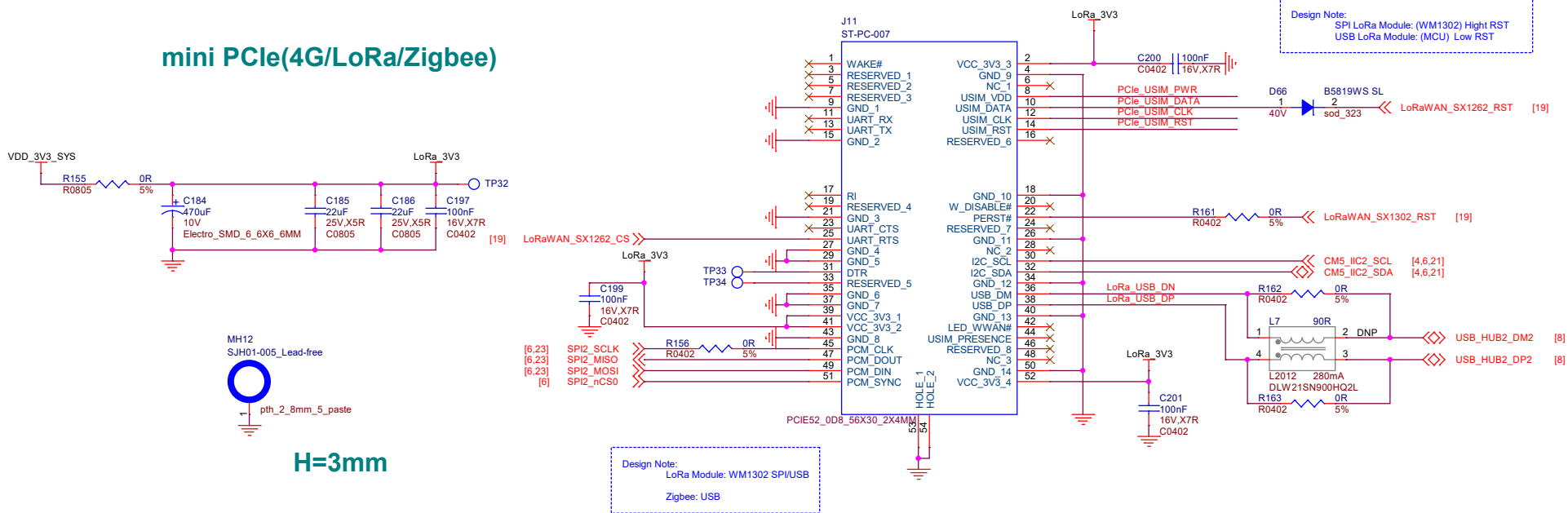


M.2 KEY-M 2280



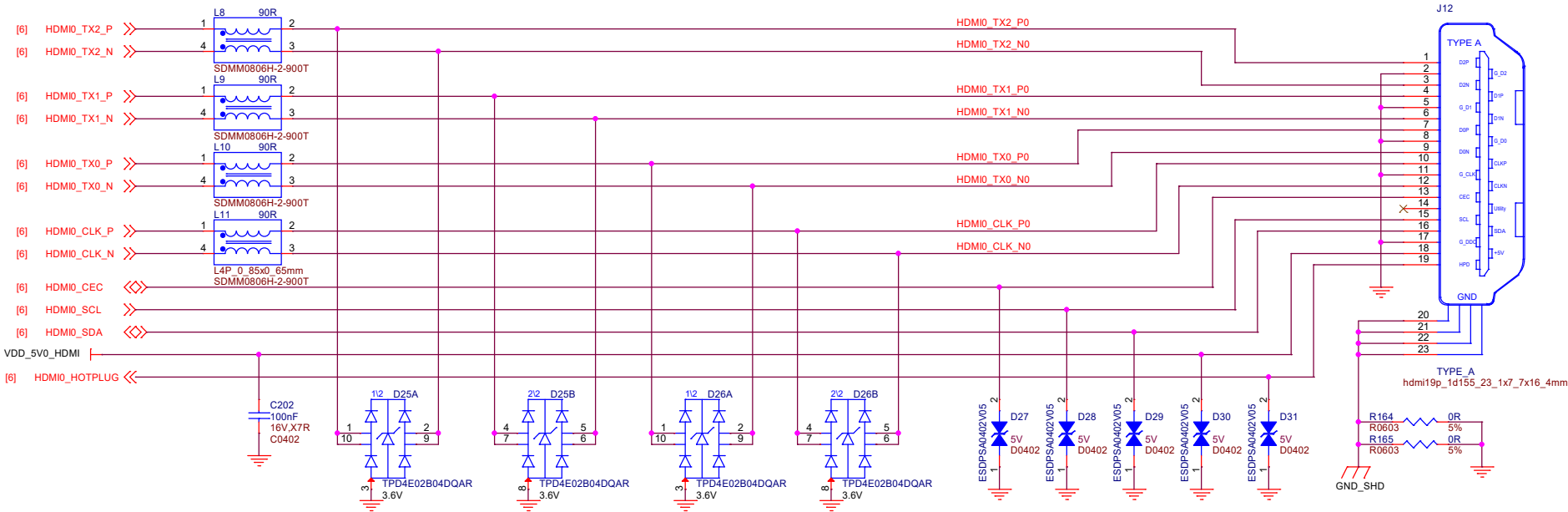


mini PCIe(4G/Lora/Zigbee)

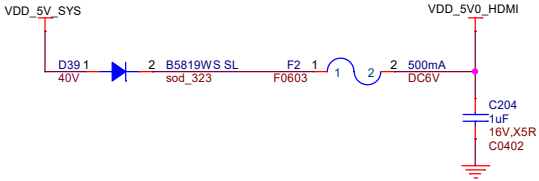
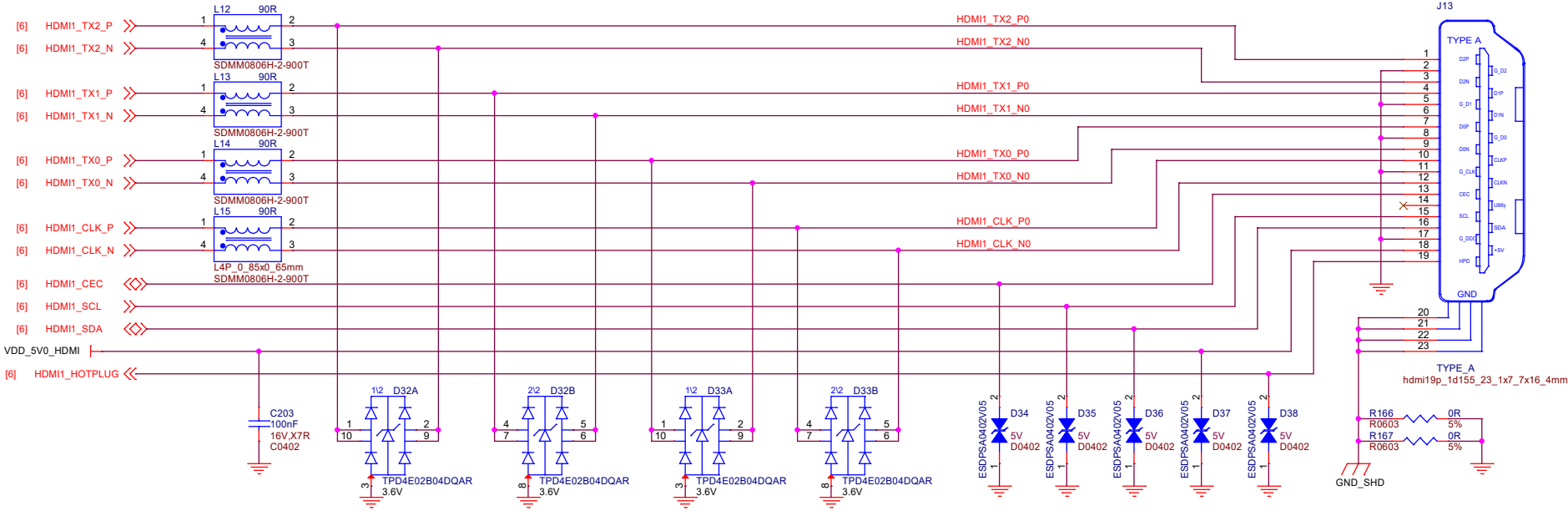


USB OTG ID	Port
0	mini PCIe
1(default)	M.2 Key-B

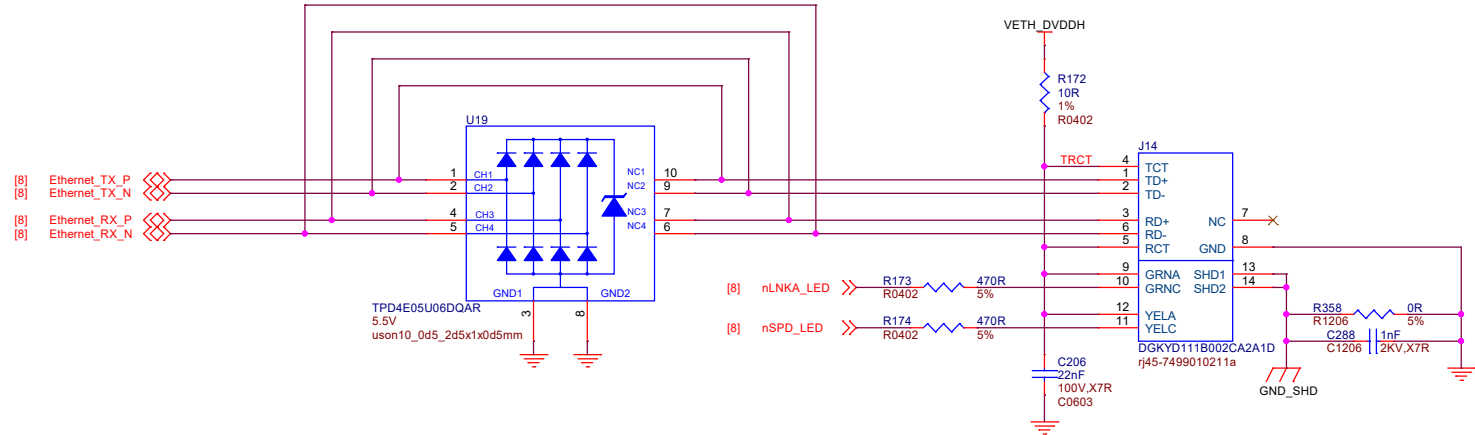
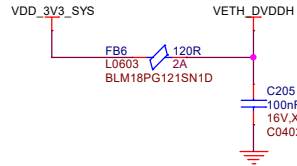
HDMI 0



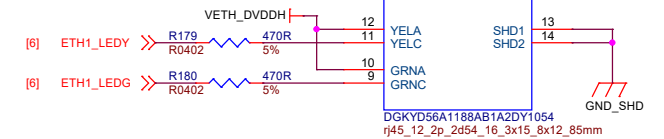
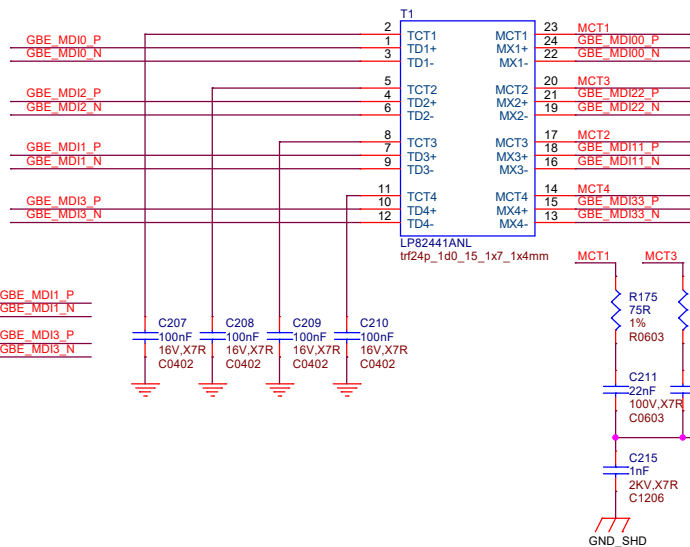
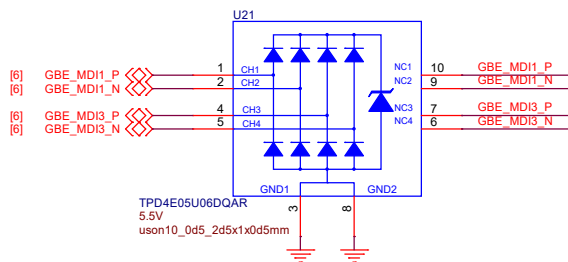
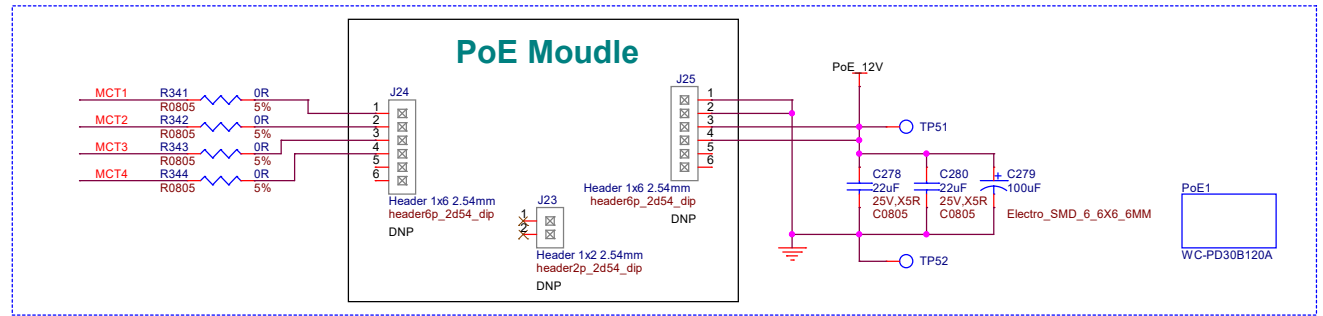
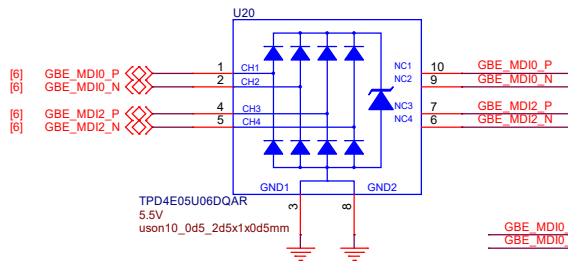
HDMI 1



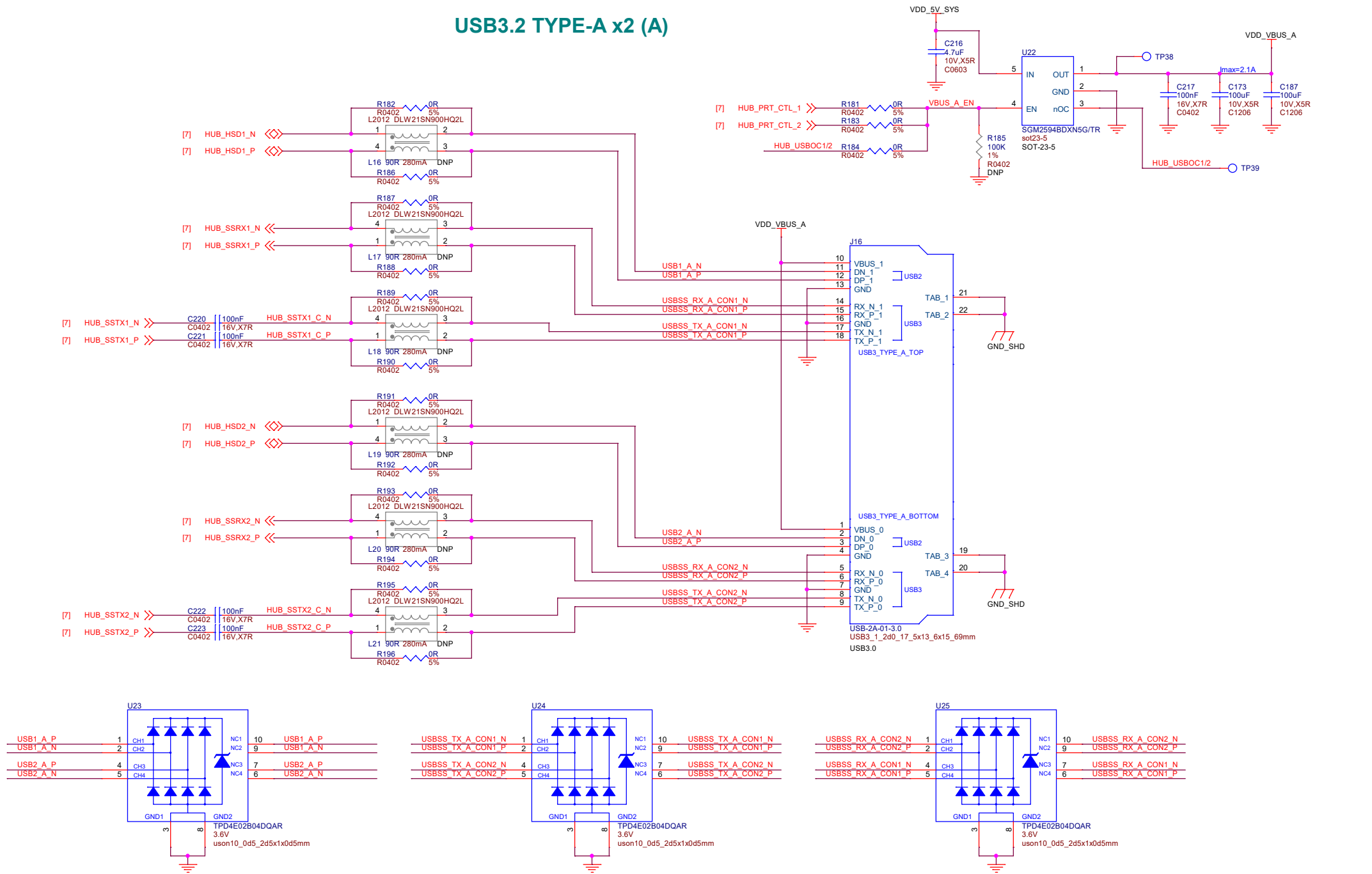
100M ETH

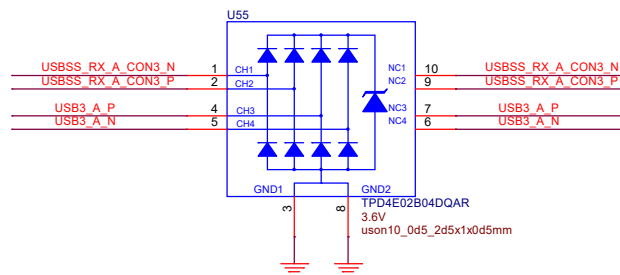
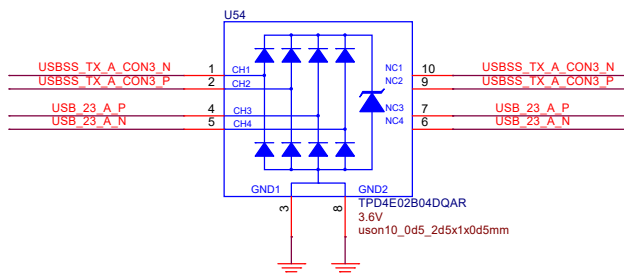
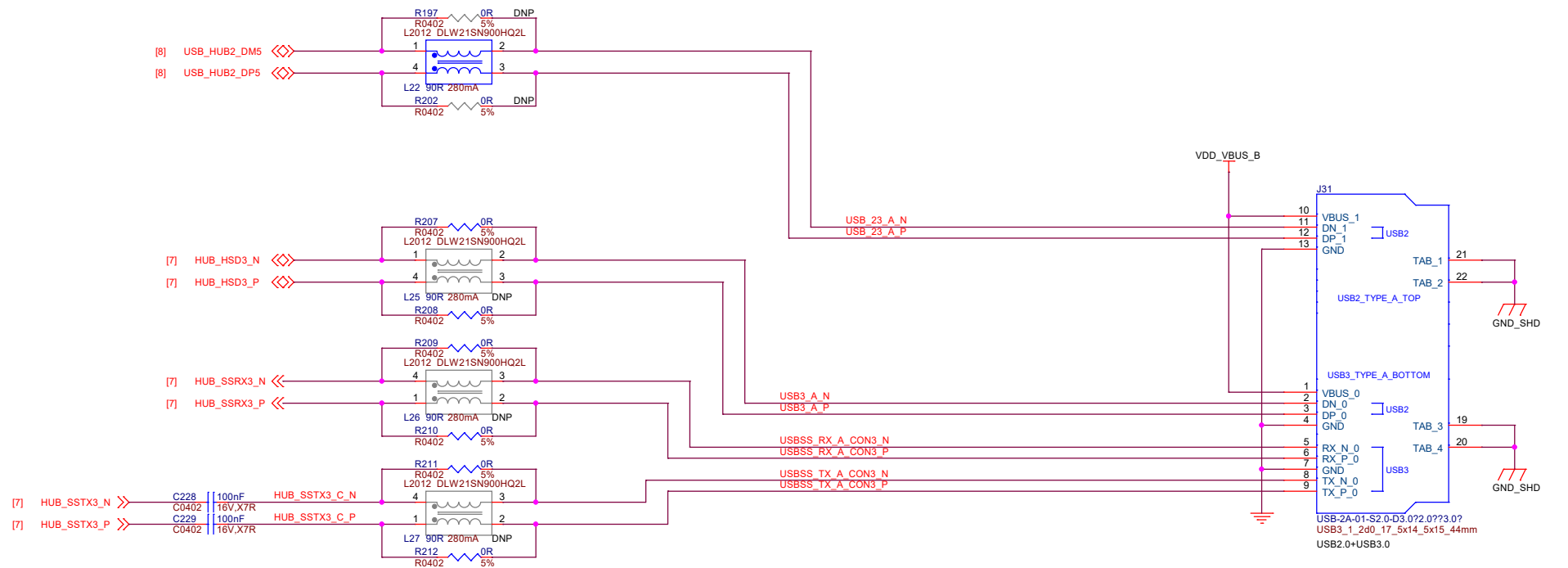


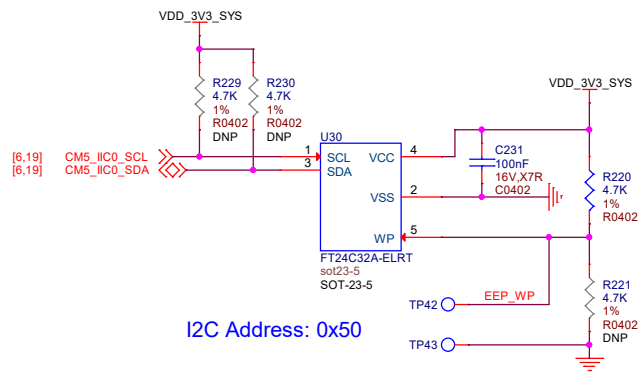
1000M ETH



USB3.2 TYPE-A x2 (A)

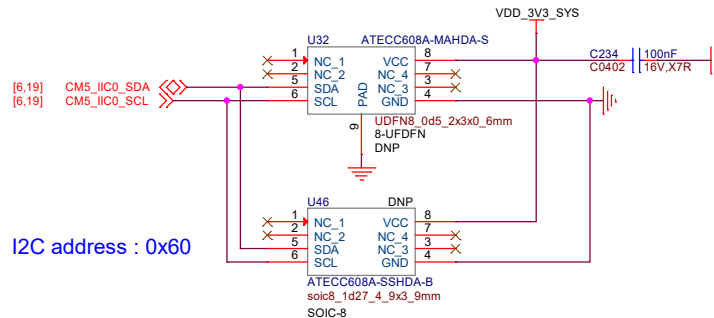


[illegible]



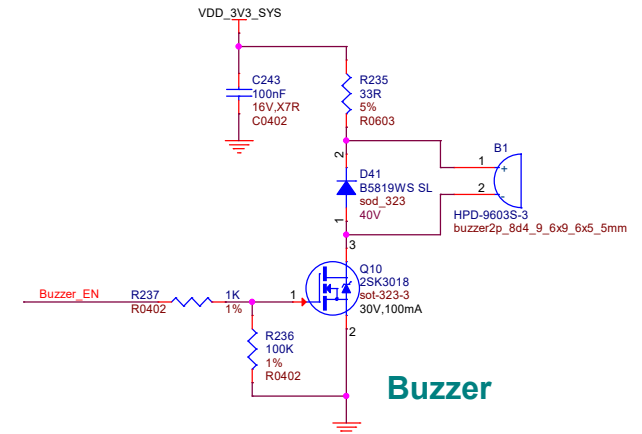
I2C Address: 0x50

EEPROM

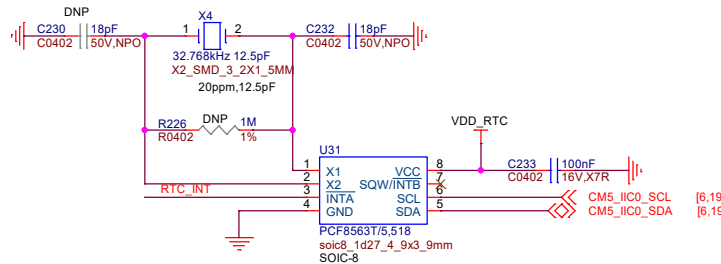
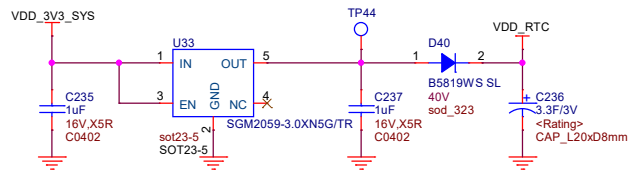


I2C address : 0x60

Encryption

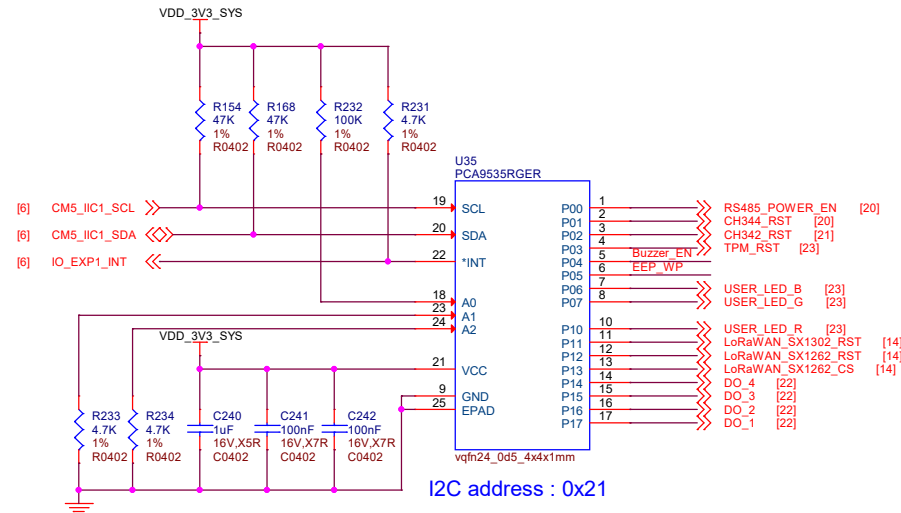
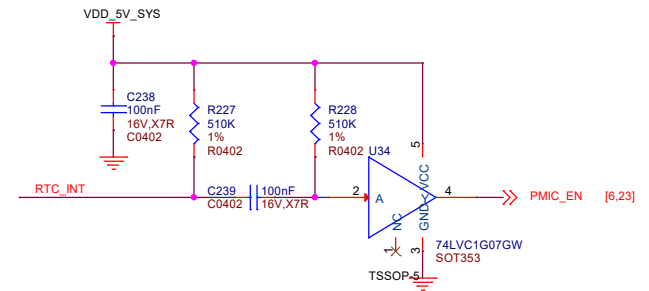


Buzzer



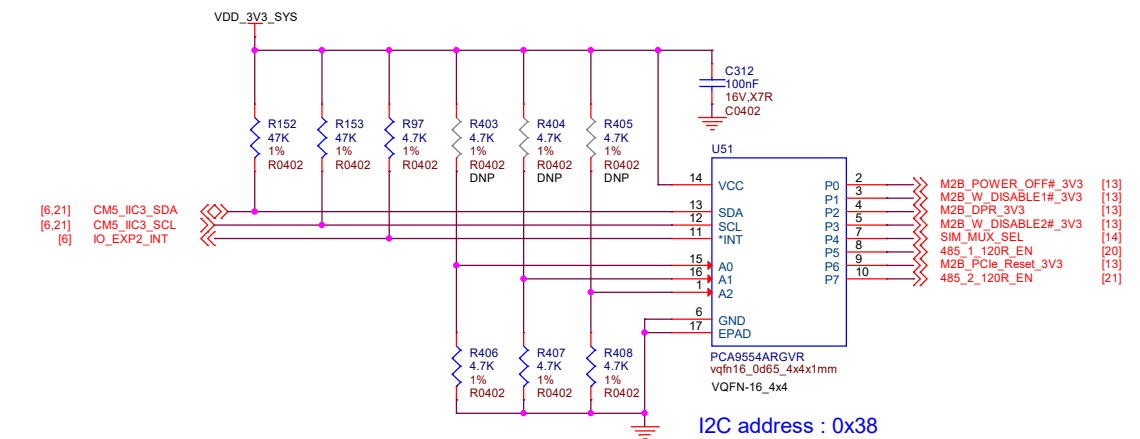
RTC & Watchdog

I2C address : 0x51



I2C address : 0x21

IO Extension

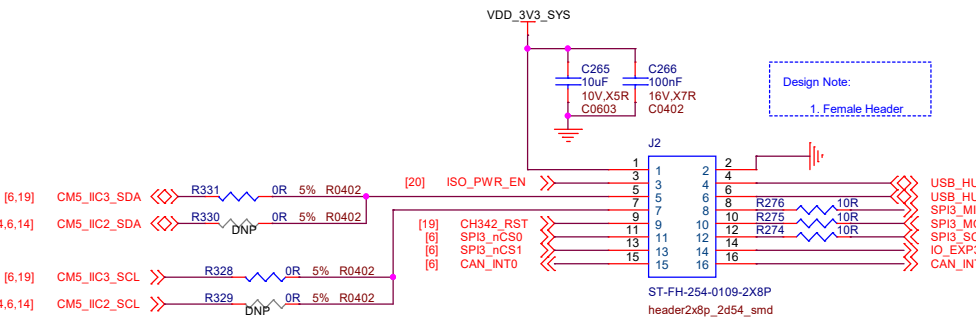
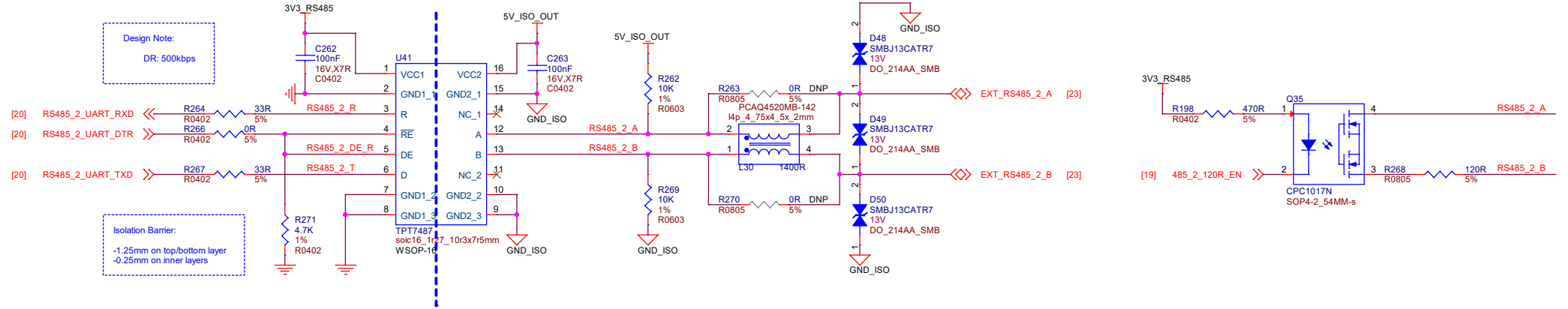


I2C address : 0x38

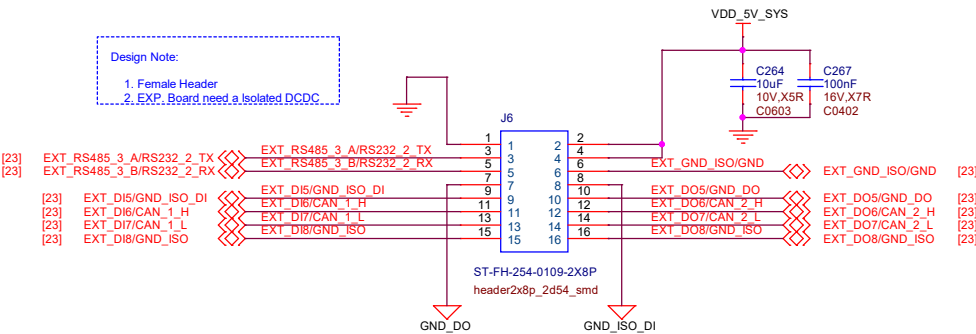
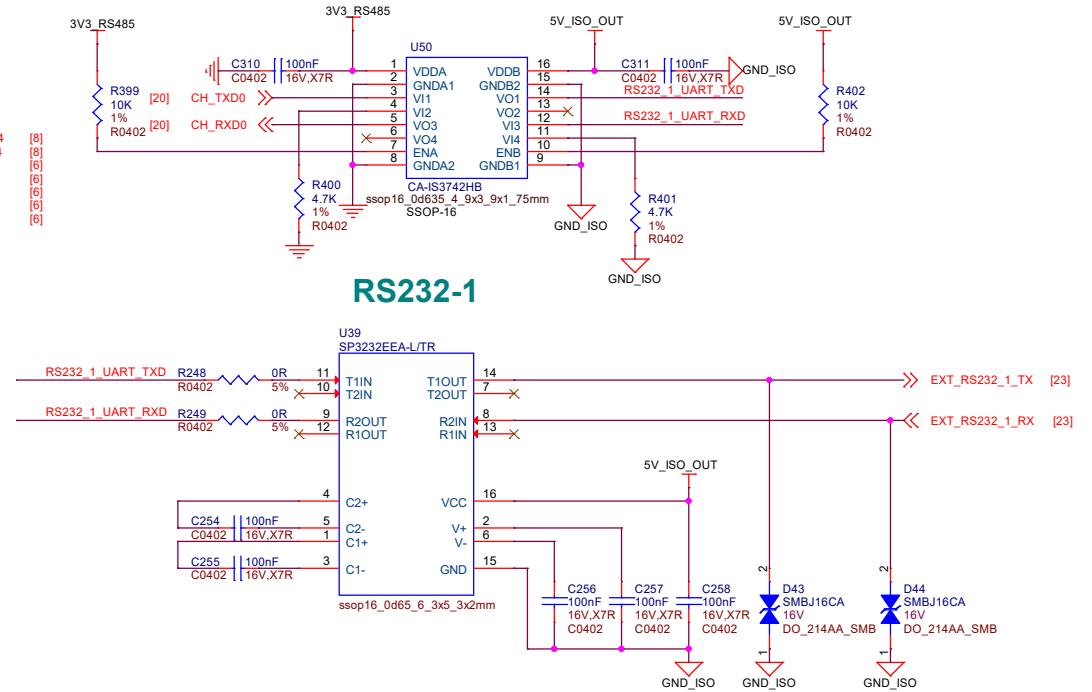
IO Extension

seeed studio		https://www.seeedstudio.com	
Title:		reComputer R20 & R21	
Size: A3	Document Number:	19 I2C Device	Rev: v1.0
Draw By: Linus.Liao	Date: Friday, August 22, 2025	Sheet: 19 of 23	

RS485-2

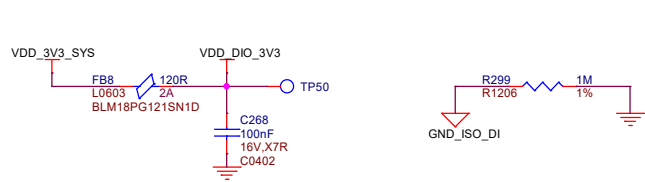


RS232-1



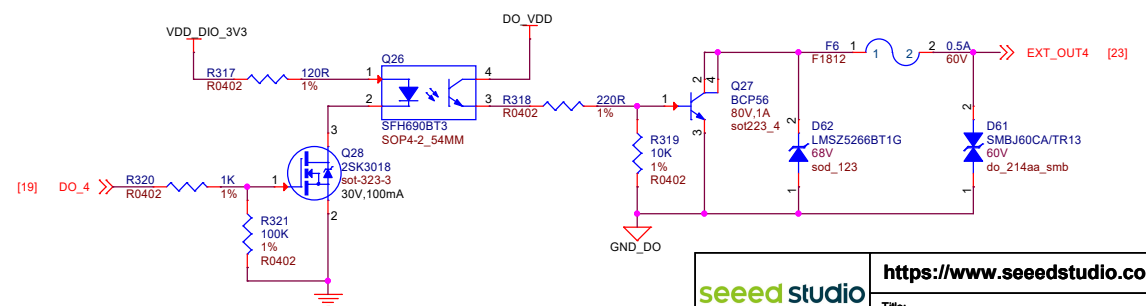
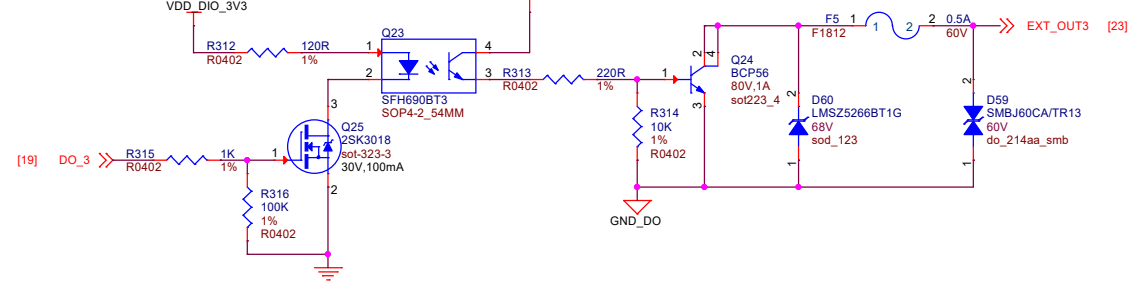
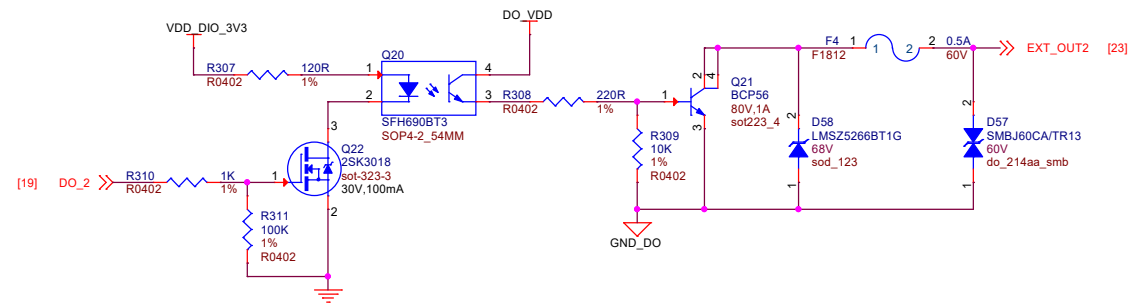
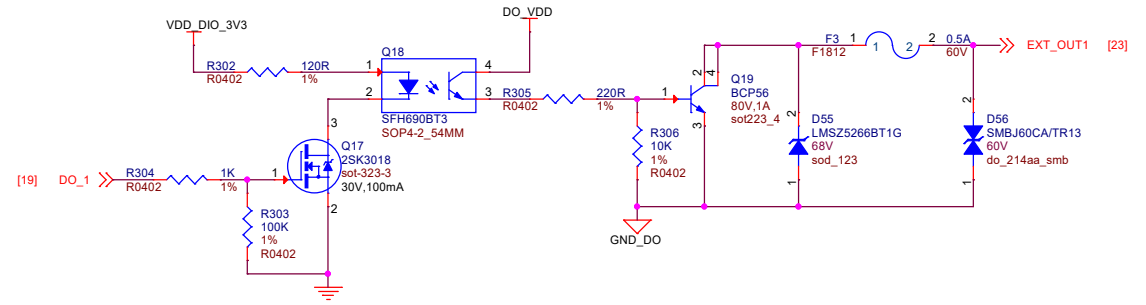
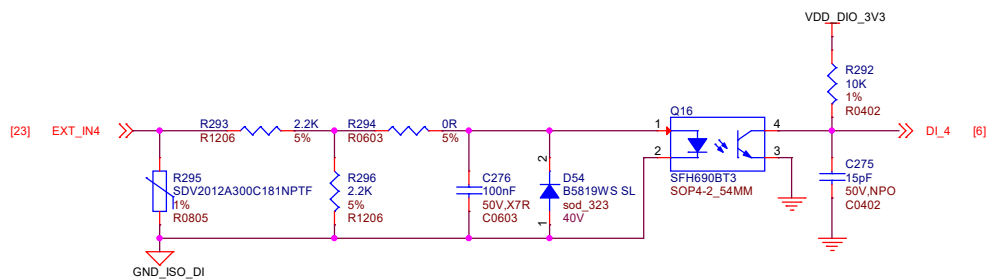
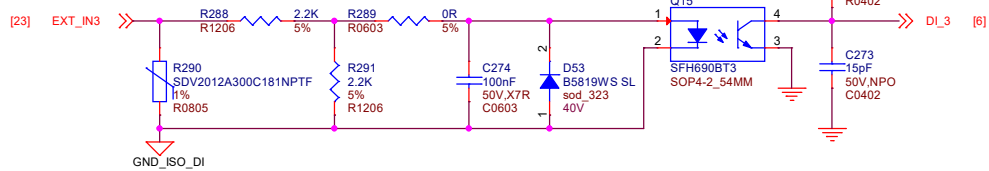
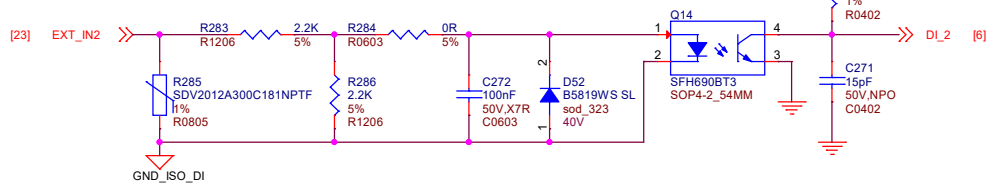
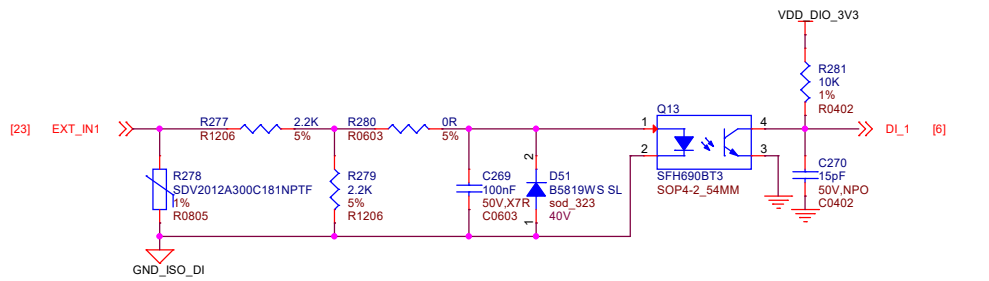
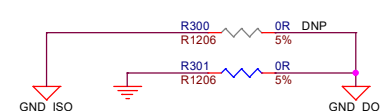
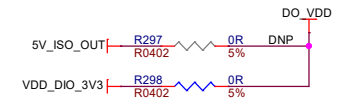
R20:
1 x RS485-3P
4 x DI-4P
4 x DO-4P

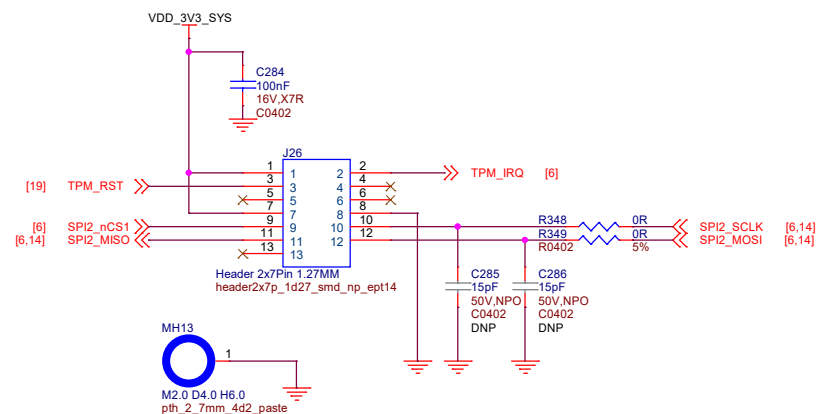
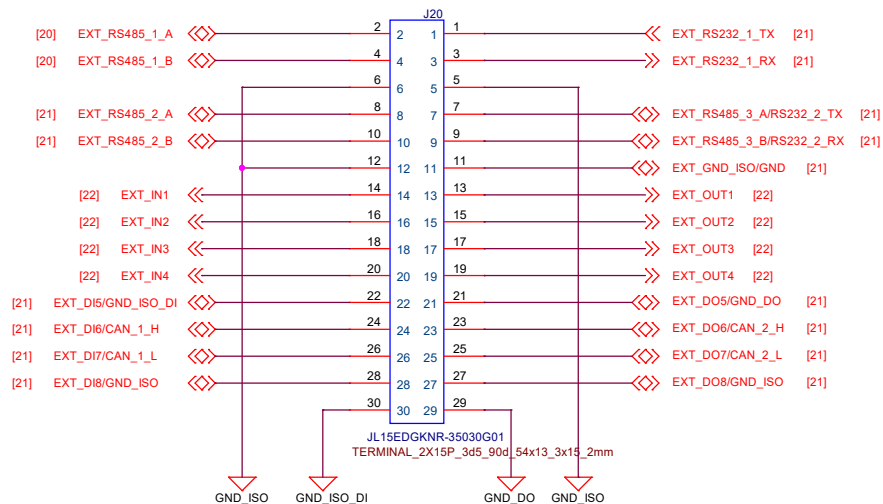
R21:
1 x RS232-3P
2 x CAN-6P



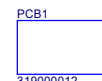
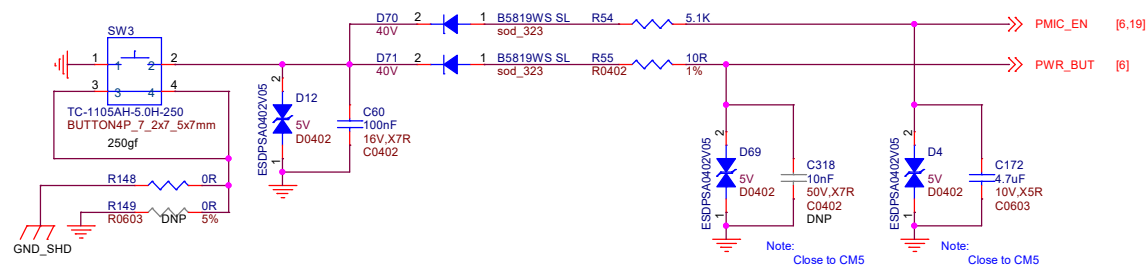
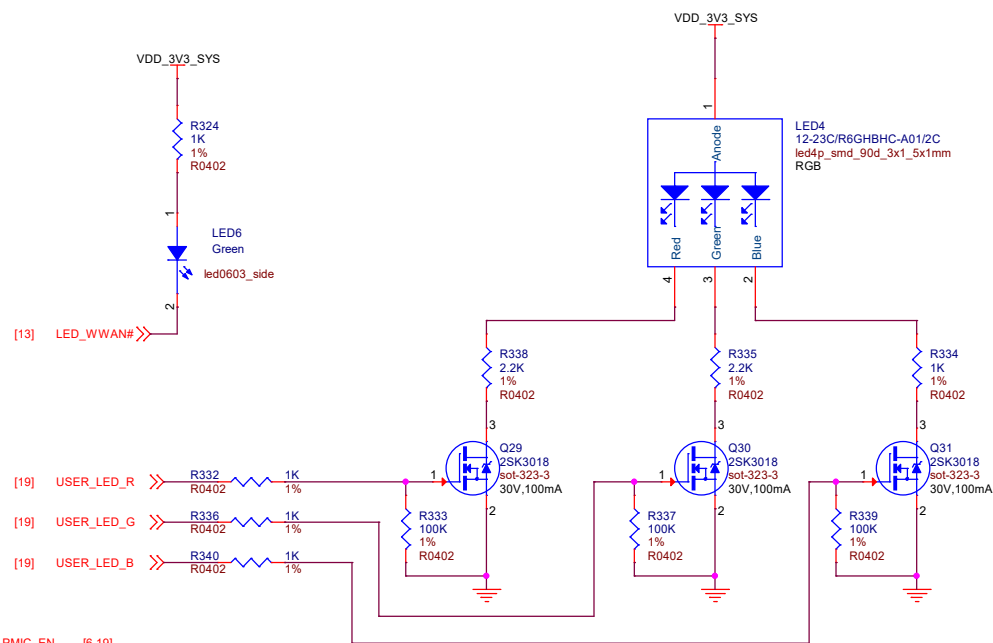
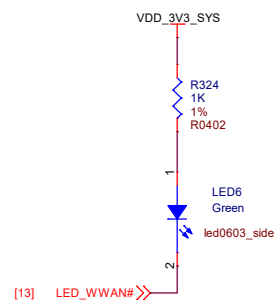
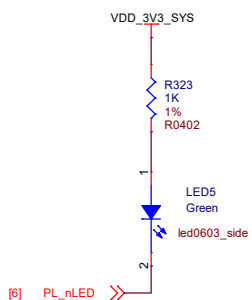
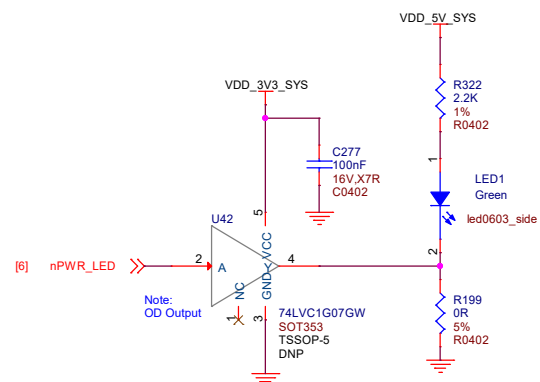
Design Note:

DI:	DI_1: CM5 GPIO19	DO:	DO_1: IO_EXP P11
	DI_2: CM5 GPIO20		DO_2: IO_EXP P12
	DI_3: CM5 GPIO21		DO_3: IO_EXP P13
	DI_4: CM5 GPIO26		DO_4: IO_EXP P14





TPM Module



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Draw By: Linus.Liao	Date: Friday, August 22, 2025	Sheet: 23 of 23	