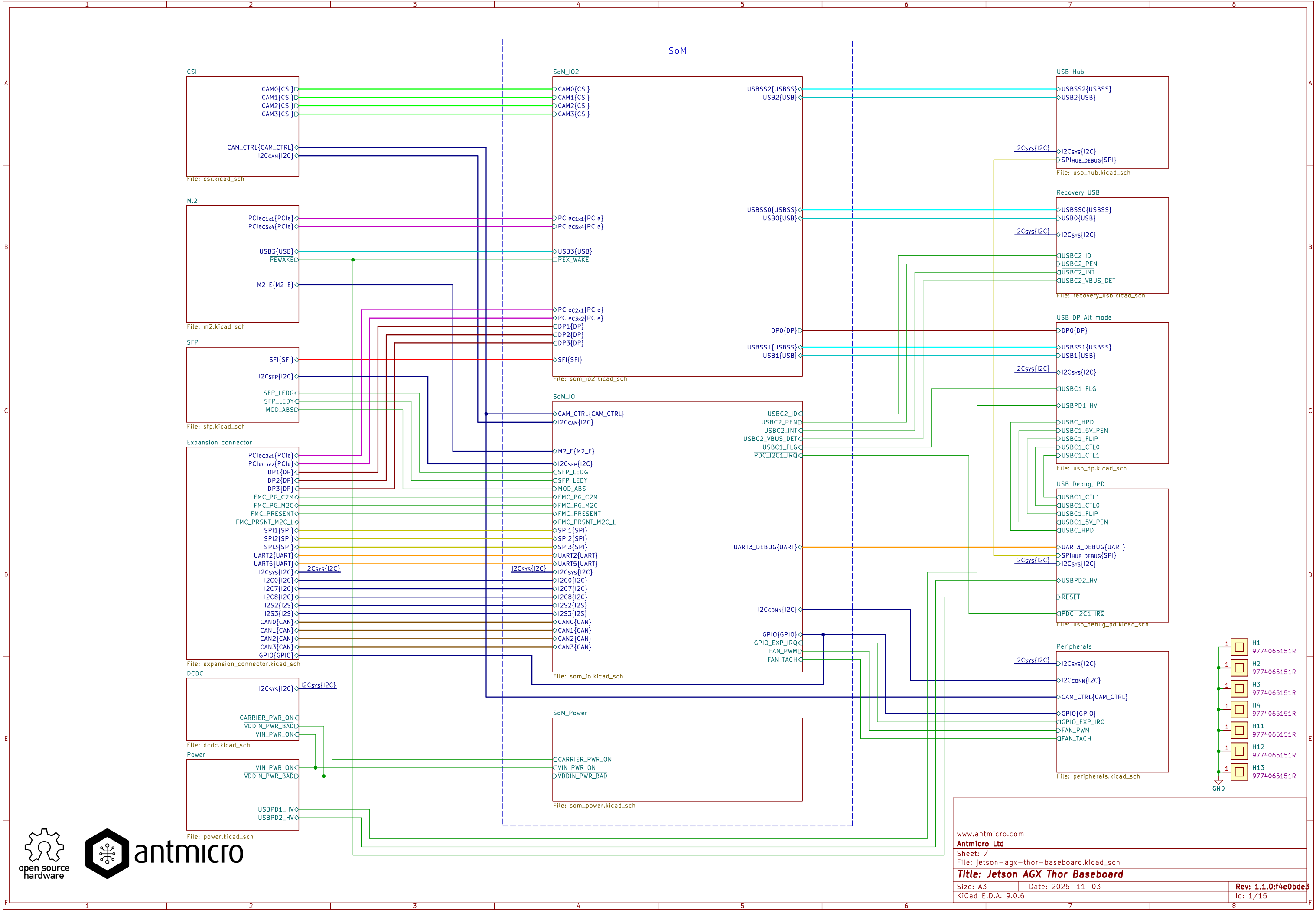
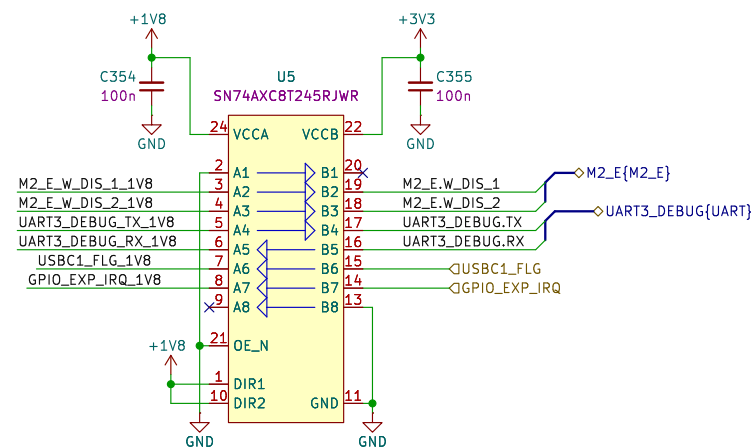
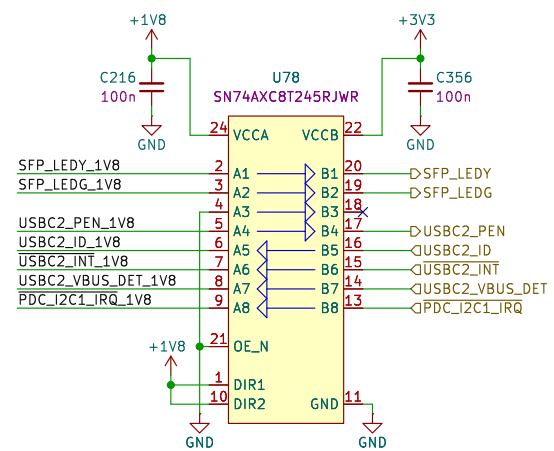
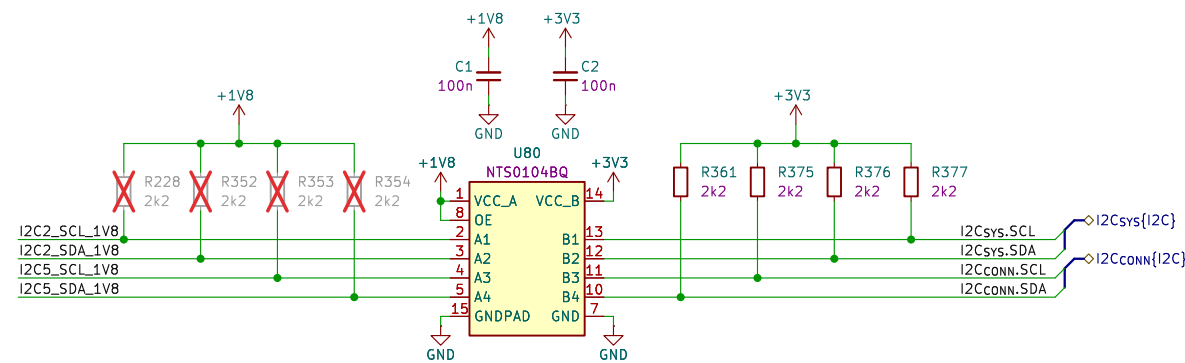
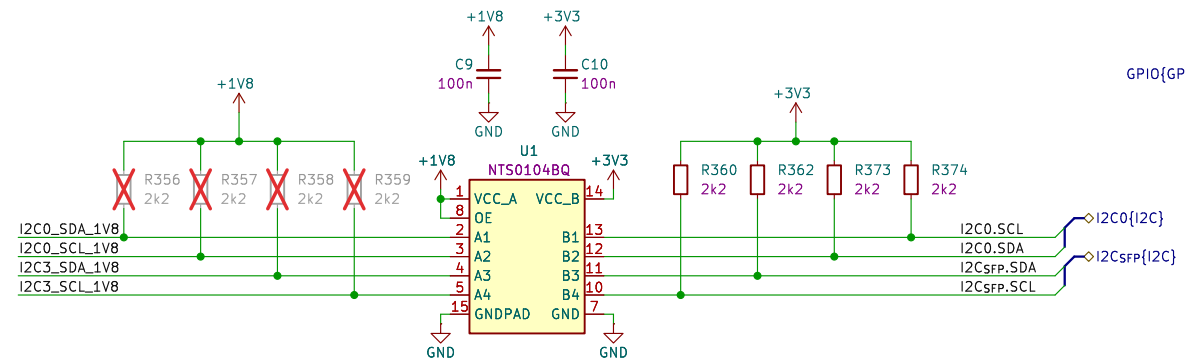






Pinout diagram for the SOM module. The diagram shows connections for various signals, including GPIOs, CO[12C], CSrp[12C], and other functions. The pin numbers are listed in the center, and the functions are listed on the left and right sides.

Do not use as GPIO (strap pins on SOM):

- GPIO42
- GPIO38
- GPIO37
- GPIO17

Pinout Table:

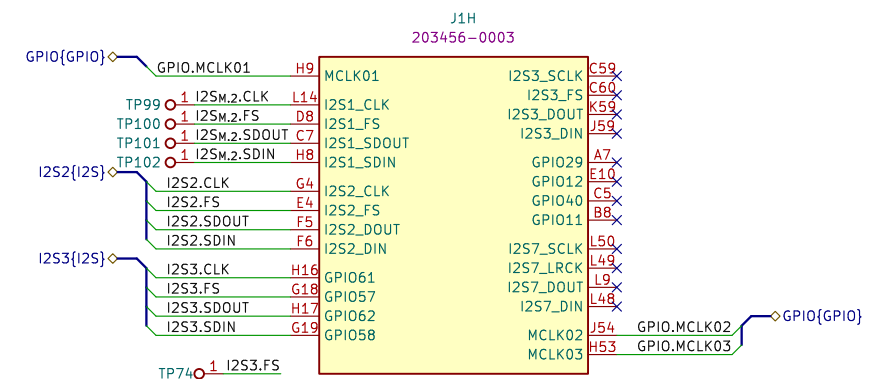
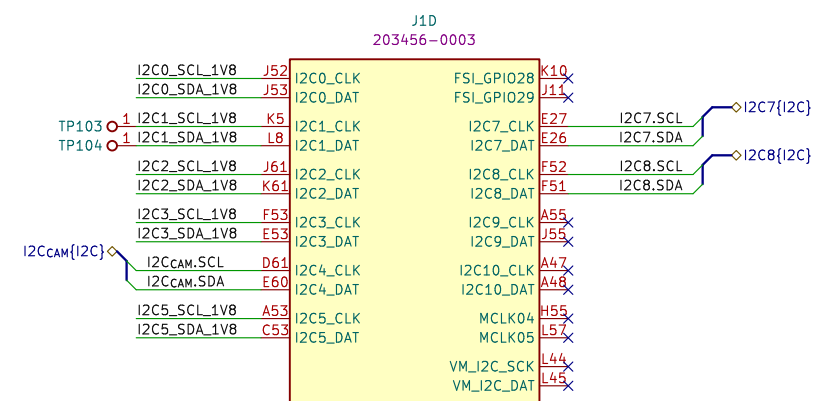
Function	Pin Number	Function	Pin Number
FMC_PG_M2C	J4	GPIO01	GPIO37
FMC_PG_C2M	B59	GPIO04	GPIO38
GPIO[GPIO]	A59	GPIO05	GPIO42
GPIO.USER_LED0	B62	GPIO08	GPIO43
GPIO.USER_LED1	C61	GPIO09	GPIO44
GPIO.USER_BTN0	G7	GPIO10	E5
GPIO.USER_BTN1	L15	GPIO13	B54
USBC1_FLG_1V8	F10	GPIO14	A54
USBC2_ID_1V8	F9	GPIO15	A4
USBC2_PEN_1V8	A67	GPIO16	D5
M2_E_W_DIS_1_1V8	C39	GPIO17	G6
M2_E_W_DIS_2_1V8	A58	GPIO19	GMOD_ABS
FMC_PRESENT	B58	GPIO20	GPIO.18
FMC_PRSNT_M2C_L	H52	GPIO18	GPIO.20
USBC2_INT_1V8	C38	GPIO21	GPIO.21
SFP_LEDY_1V8	A18	GPIO22	GPIO.27
SFP_LEDG_1V8	F56	GPIO32	J6
		GPIO34	USBC2_VBUS_DET_1V8
		GPIO36	J7
			PDC_I2C1_IRQ_1V8
			J19

NOTE:
Do not use as GPIO
(strap pins on SOM):
GPIO42
GPIO38
GPIO37
GPIO17

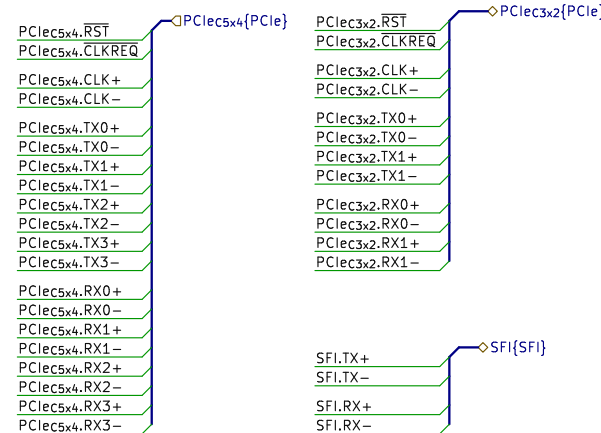
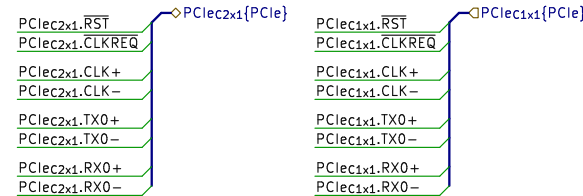
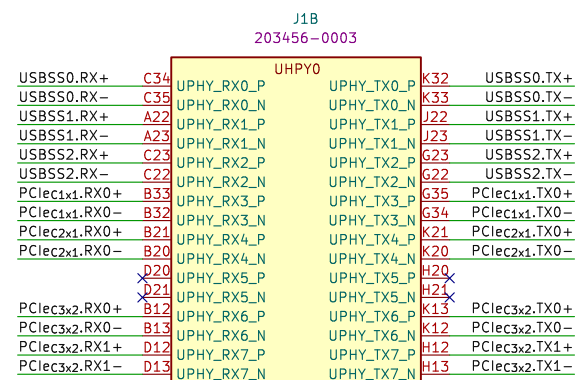
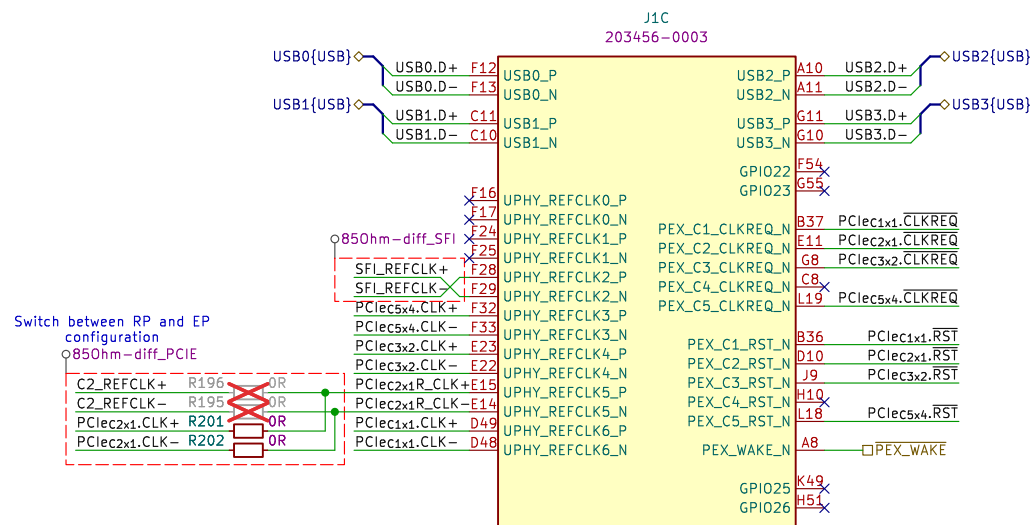
Pin connection diagram for the 203456-0003 module. The diagram shows connections for SPI1, SPI2, SPI3, UART1, UART2, UART3, UART4, UART5, CAN0, CAN1, CAN2, CAN3, FAN_TACH, and FAN_PWM. It includes a table of pin numbers and their functions, with some pins marked as 'Open-Drain 1.8V'.

Pin	Function	Pin	Function
SPI1{SPI}	SPI1_CS0 F55	SPI1_CS0_N	
	SPI1_CS1 B56	SPI1_CS1_N	
	SPI1_SCK J57	SPI1_CLK	
	SPI1_MISO A56	SPI1_MISO	
	SPI1_MOSI D55	SPI1_MOSI	
SPI2{SPI}	SPI2_CS0 D60	SPI2_CS0_N	
	SPI2_SCK F61	SPI2_CLK	
	SPI2_MISO D62	SPI2_MISO	
	SPI2_MOSI F60	SPI2_MOSI	
SPI3{SPI}	SPI3_CS0 C57	SPI3_CS0_N	
	SPI3_CS1 E56	SPI3_CS1_N	
	SPI3_SCK F55	SPI3_CLK	
	SPI3_MISO D56	SPI3_MISO	
	SPI3_MOSI G56	SPI3_MOSI	
	F51 FSI_GPIO18		
	F50 FSI_GPIO19		
	K56 GPIO19		
	C54 GPIO033		
	D54 GPIO03		
	J51 GPIO24		
	K52 GPIO70		
	J51 GPIO69		
	F6 SGMII0_MDC		
	F7 SGMII0_MDIO		
	F8 FSI_GPIO31		
	A4 FSI_GPIO32		
	D6 FSI_GPIO33		
	B6 FSI_GPIO30		
	A5 FSI_GPIO34		
	E8 FSI_GPIO35		
	F34 FSI_GPIO15		
	F37 FSI_GPIO12		
	F36 FSI_GPIO13		
	F35 FSI_GPIO14		
		UART1_RTS L51	UART1_RTS 1 TP105
		H54 UART1_CTS 1	TP106
		K53 UART1_TX 1	TP107
		K54 UART1_RX 1	TP108
		G58 UART2_RTS	UART2{UART}
		A57 UART2_CTS	
		C58 UART2_TX	
		C56 UART2_RX	
		H62 UART3_DEBUG_TX_1V8	
		K60 UART3_DEBUG_RX_1V8	
		L4	
		L6	
		L5	
		H6	
		K58 UART5_RTS	UART5{UART}
		H57 UART5_CTS	
		J58 UART5_TX	
		H58 UART5_RX	
		K57	
		PWM01	
		FAN_TACH F54	QFAN_TACH
		FAN_PWM K62	QFAN_PWM

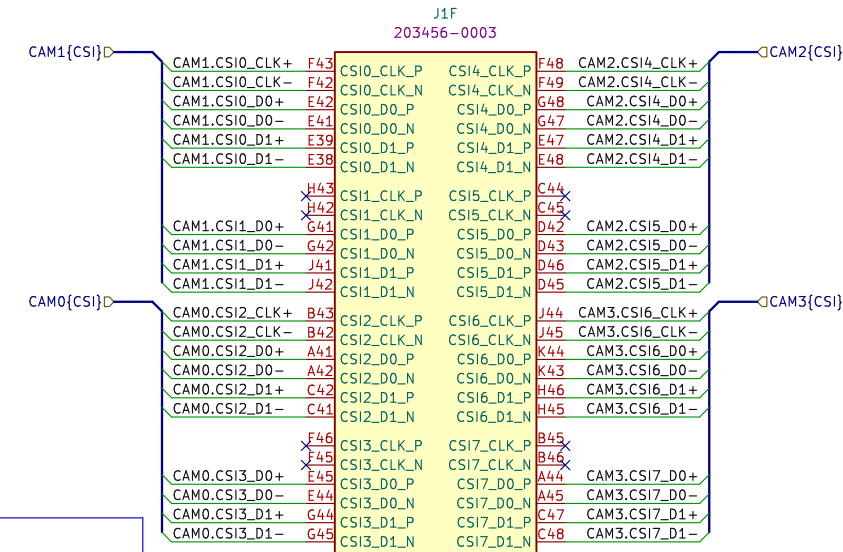
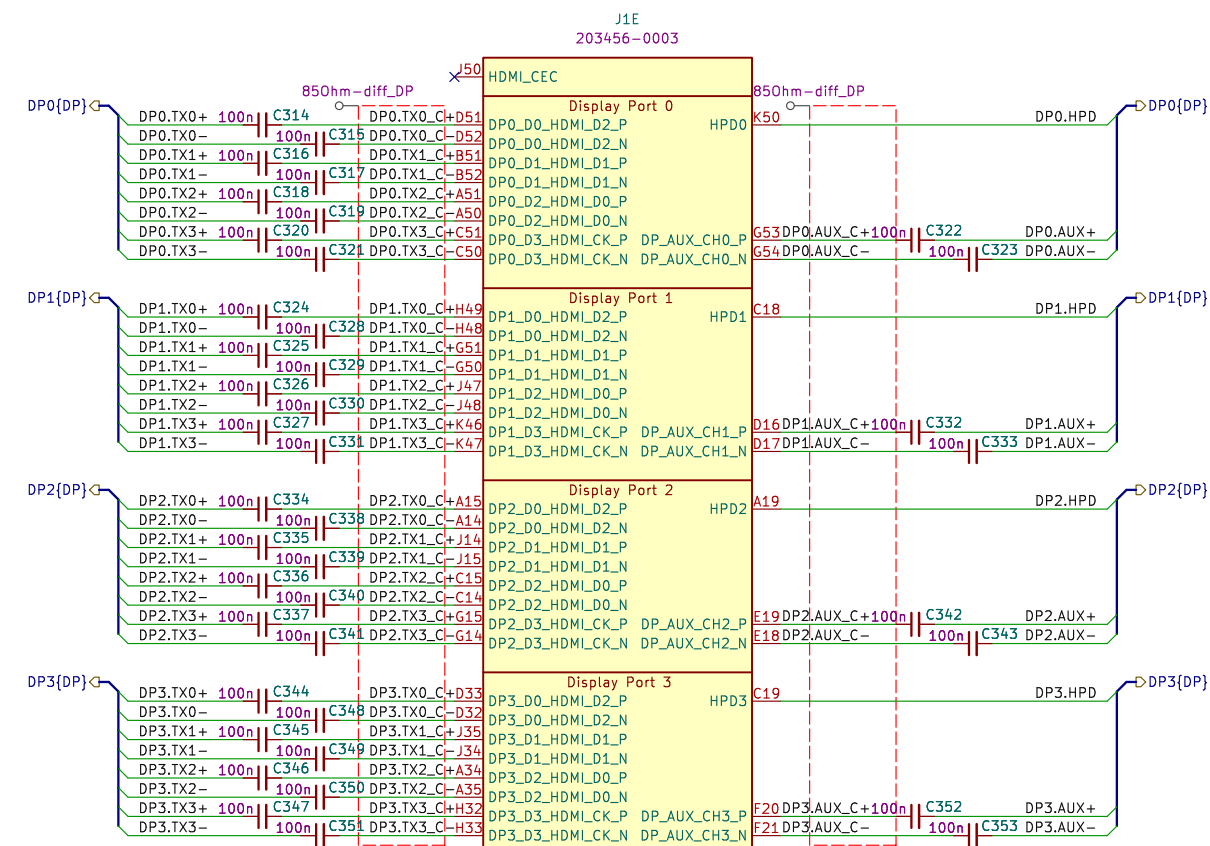
- All UART are CMOS – 1.8V
- All CAN pins are CMOS – 3V3
- All I2C are Open-Drain 1.8V



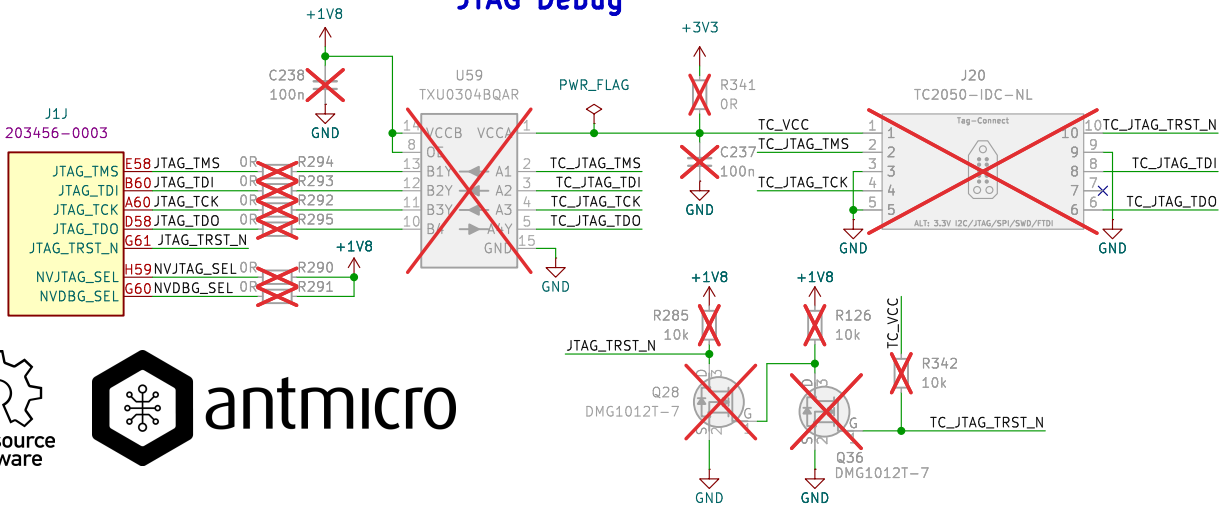
PCIe and USB3.0 SOM connections



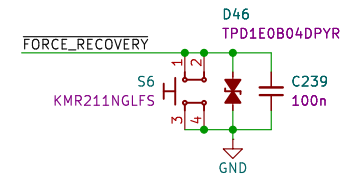
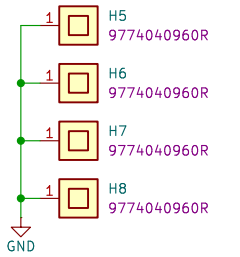
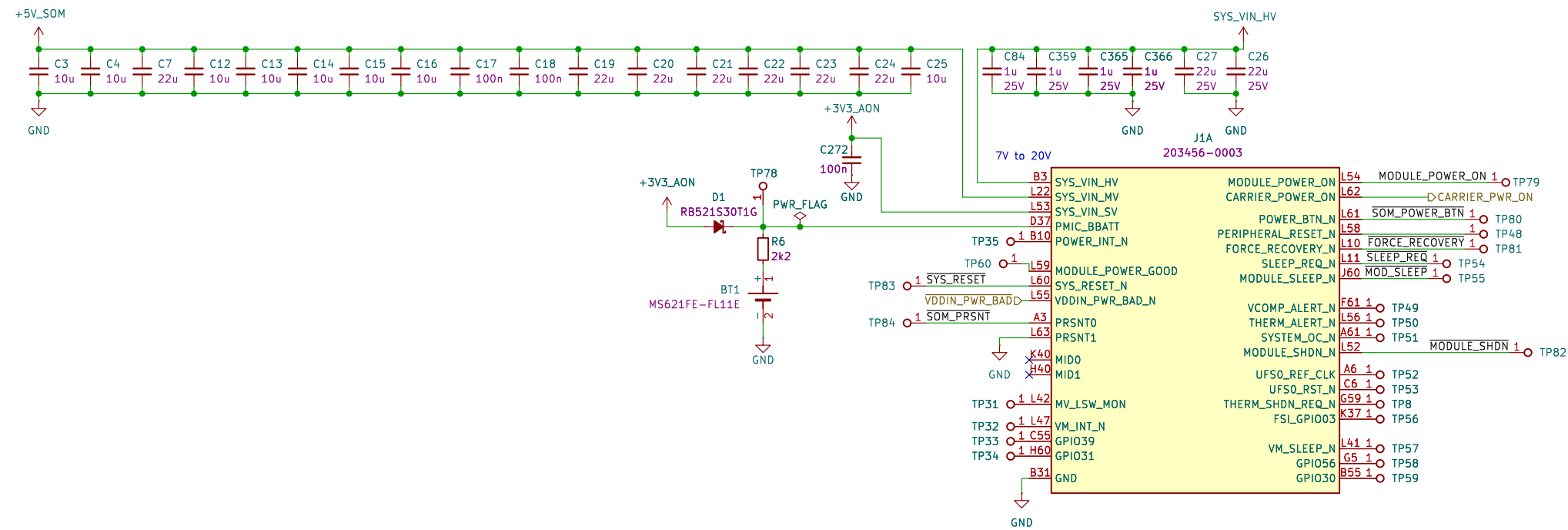
DP and CSI SOM connections



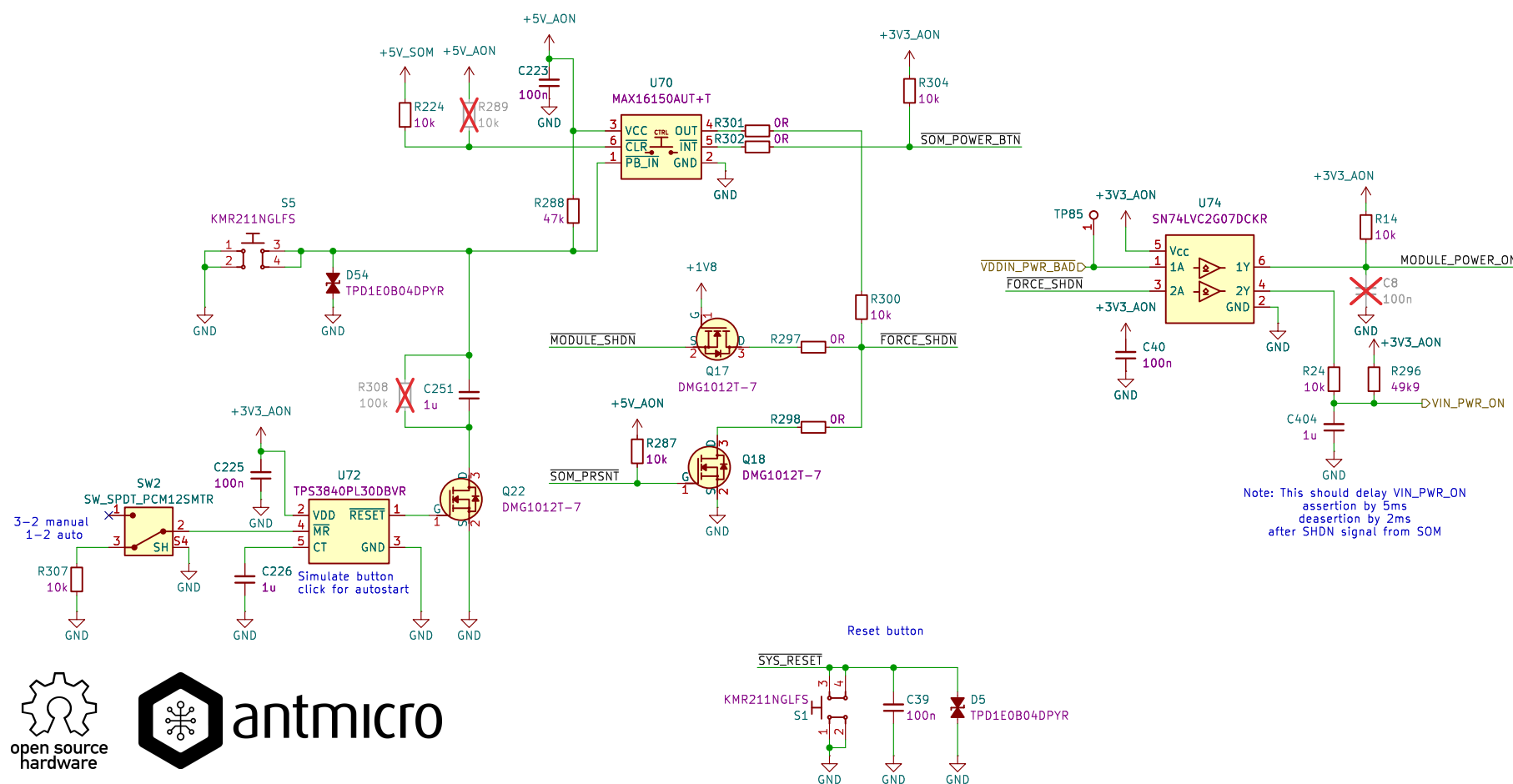
JTAG Debug



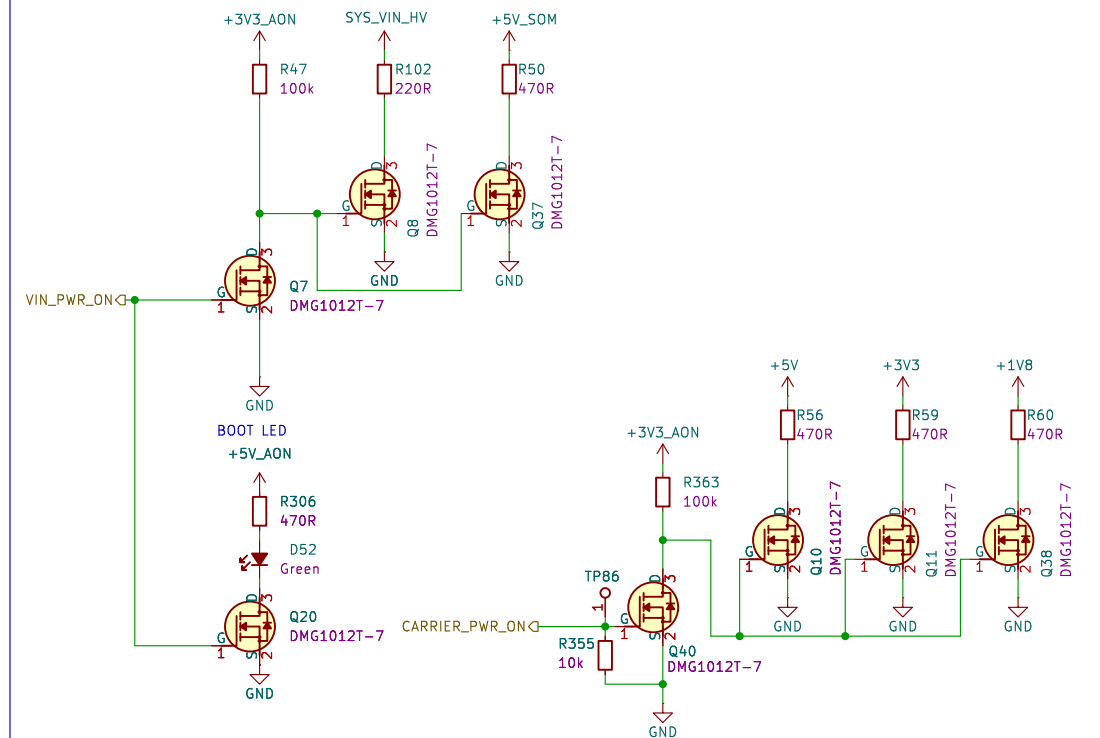
SoM Power



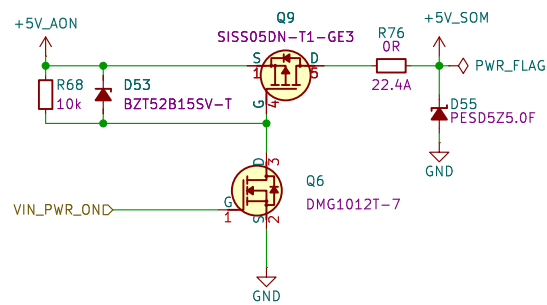
Power-up and reset



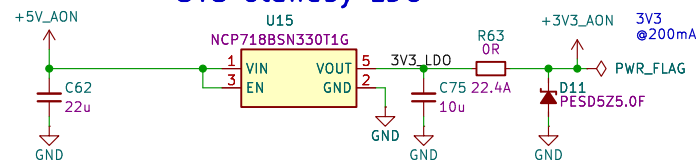
Discharge circuit



SoM Medium voltage power switch

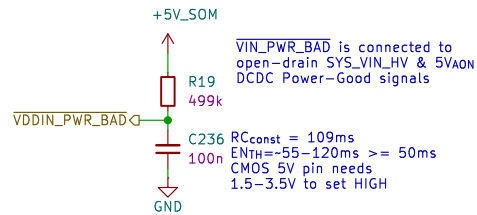


3V3 standby LDO

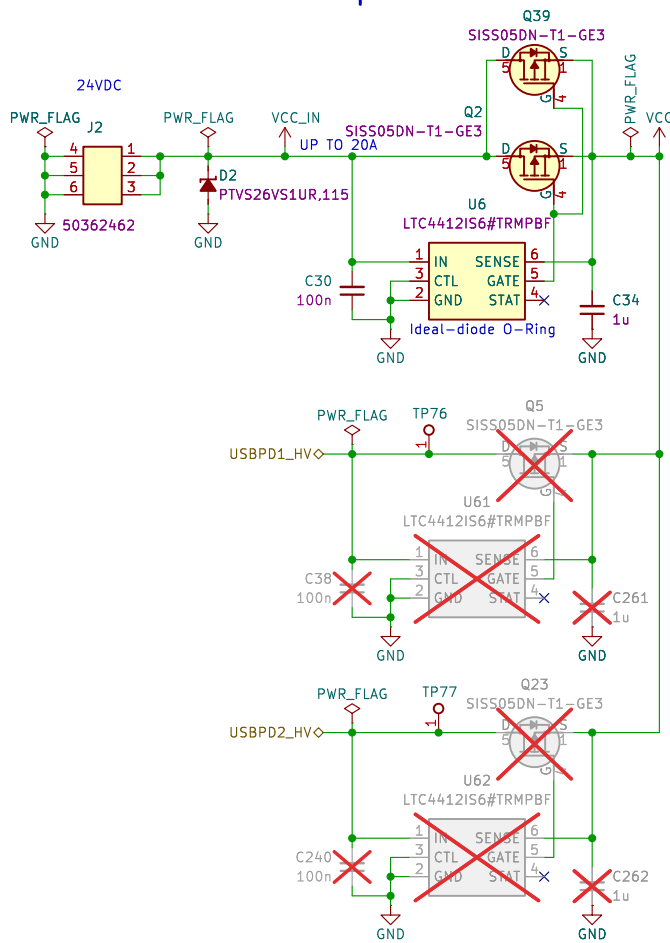


Power sequencing

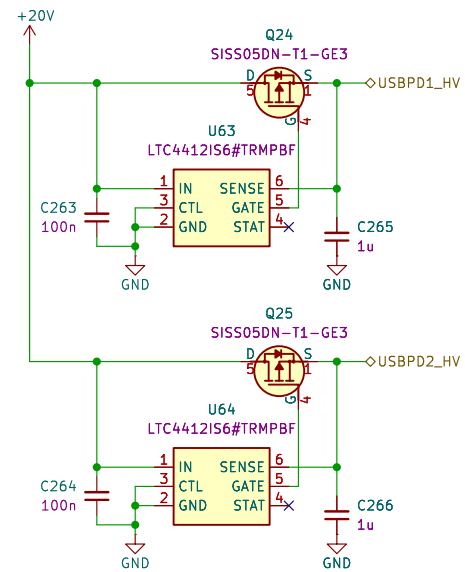
Sequence	Power rail	EN_signal	Delay
1	VCC(24V)	-	0
2	+5V_AON	VCC pull-up	0
3	+3V3_AON	5V_AON	0
4	+5V_SOM	VIN_PWR_ON	>=20ms
	SYS_VIN_HV	VIN_PWR_ON	>=20ms
5	MODULE_POWER_ON	+5V_SOM & PG(SYS_VIN_HV)	>=50ms
6	+3V3	CARIER_POWER_ON	
	+1V8	CARIER_POWER_ON	
	+12V	CARIER_POWER_ON	
	+5V	CARIER_POWER_ON	



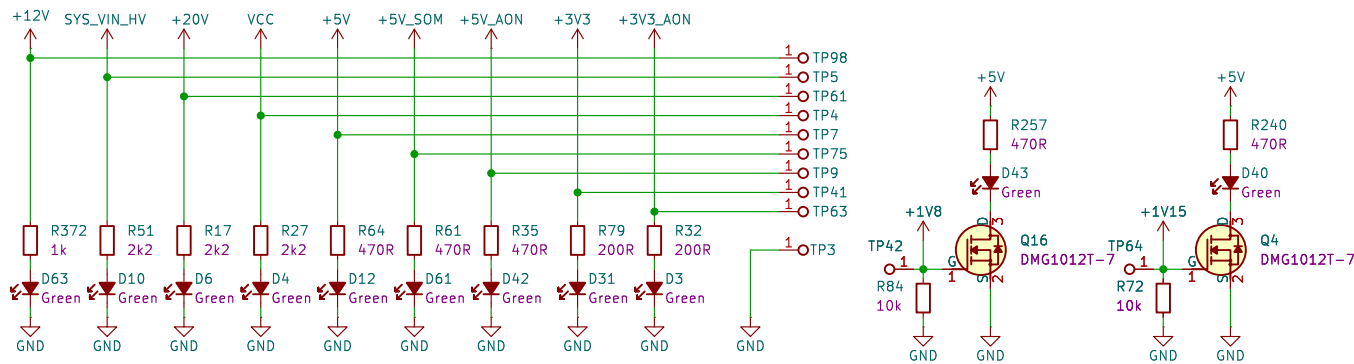
Input selector



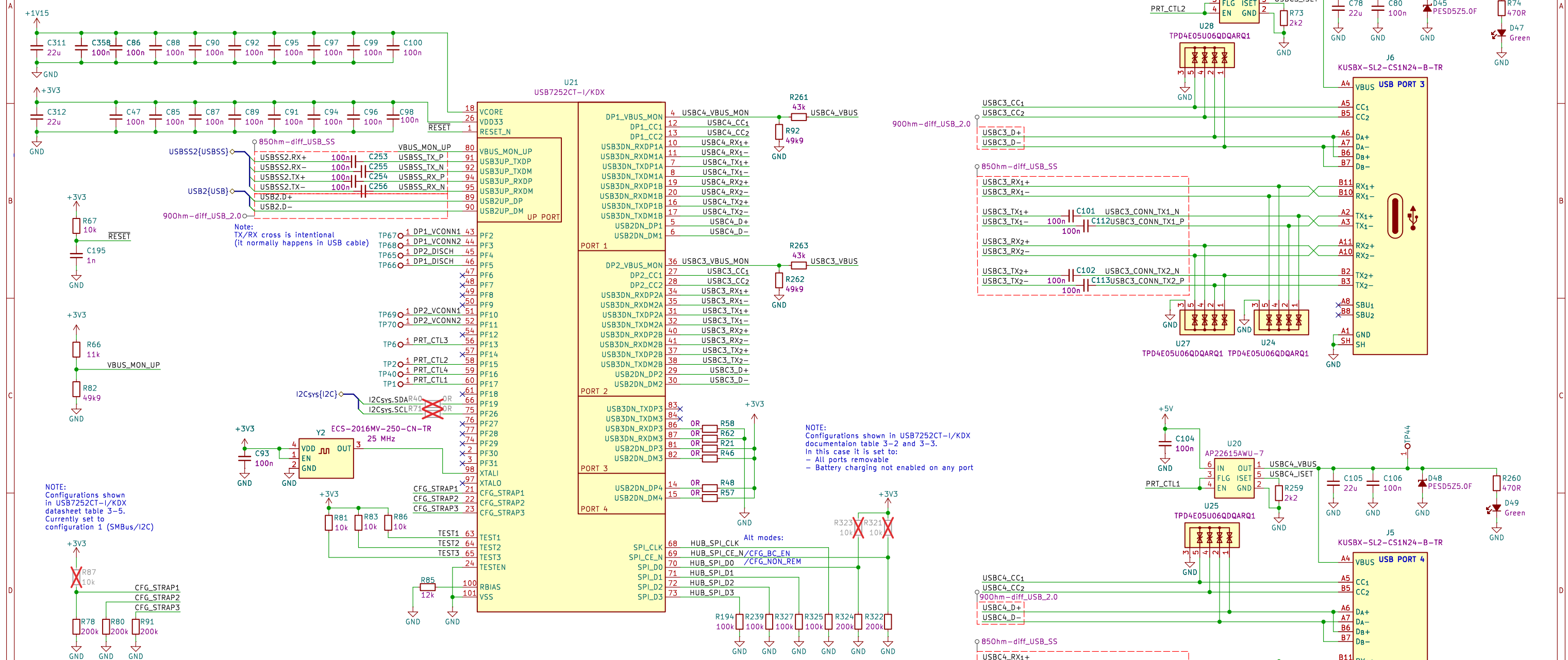
USB PD Power Ideal Diodes



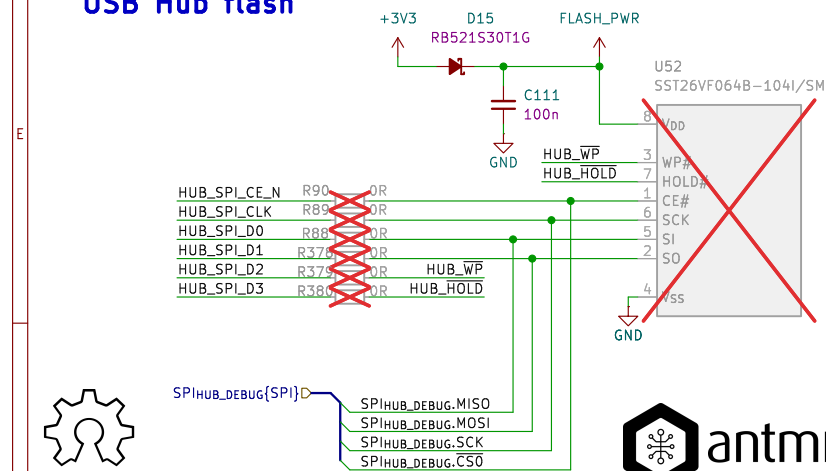
Power LEDs and testpoints



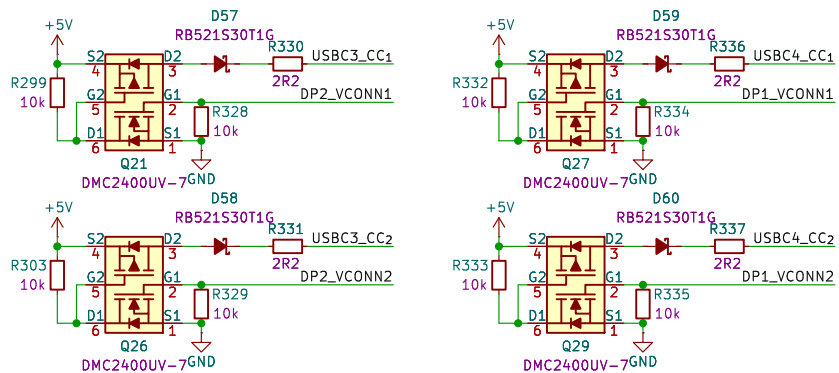
USB hub



USB Hub flash



VCONN Switches



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Sheet: /USB Hub/

File: usb_hub.kicad_sch

Title: Jetson AGX Thor Baseboard

Size: A3

Date: 2025-11-03

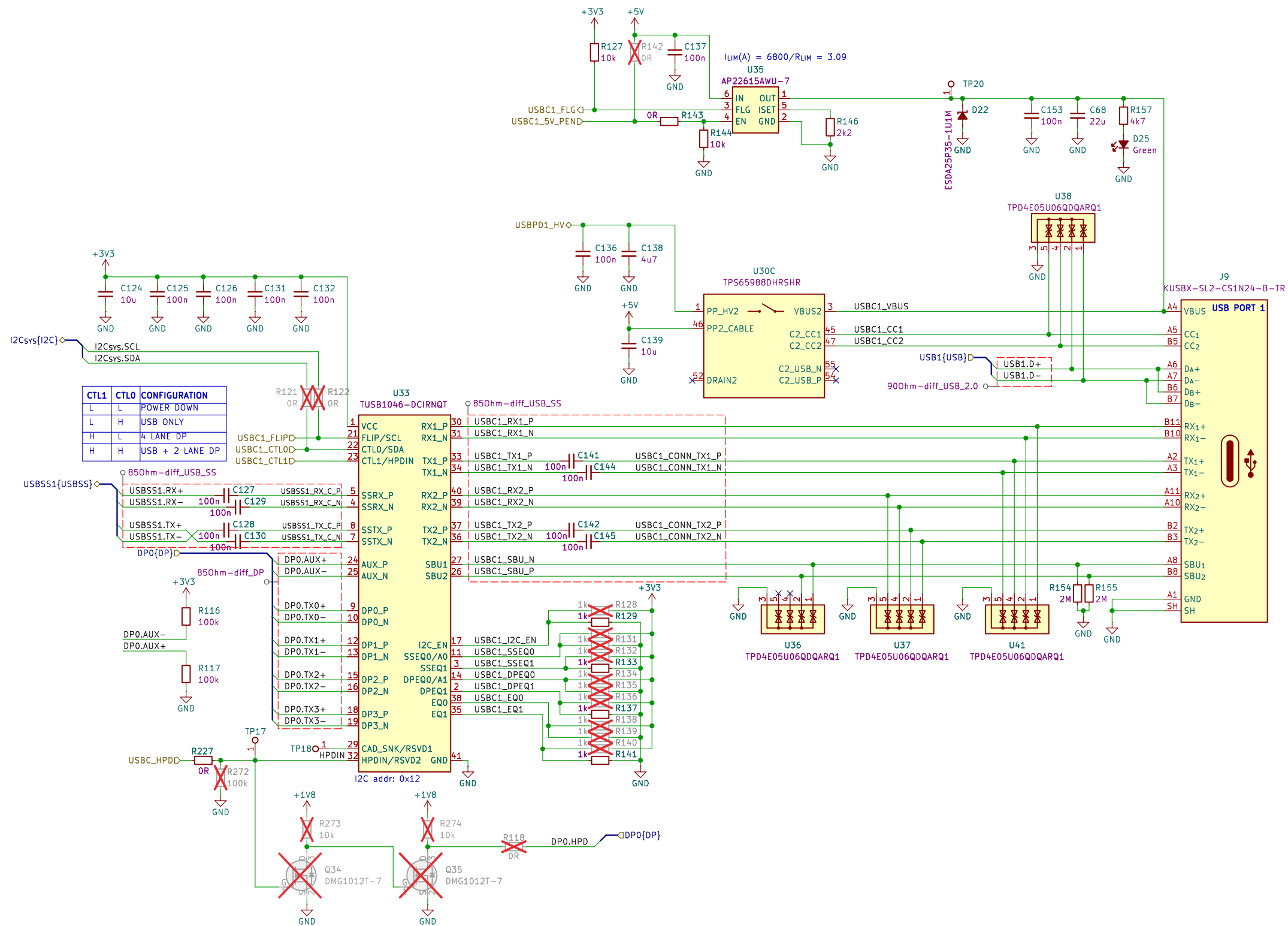
Rev: 1.1.0:f4e0bde3

KiCad E.D.A. 9.0.6

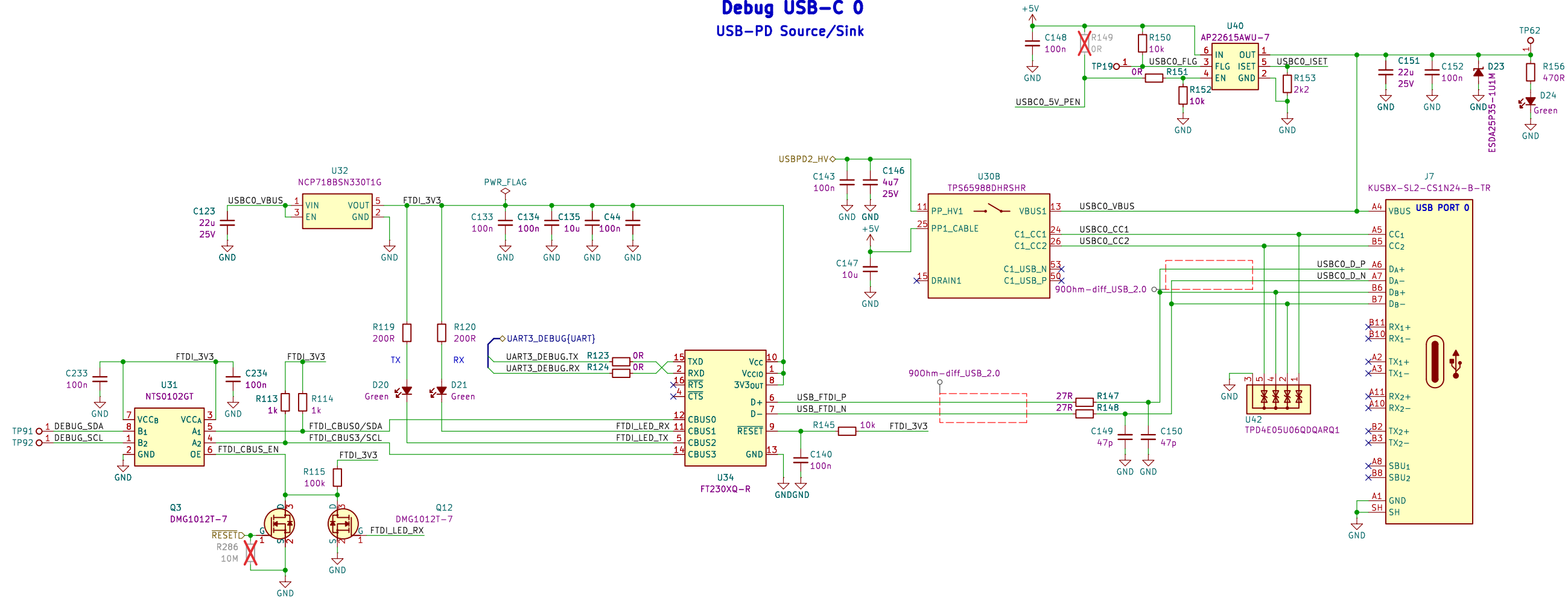
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[illegible]

USB Display port alt mode

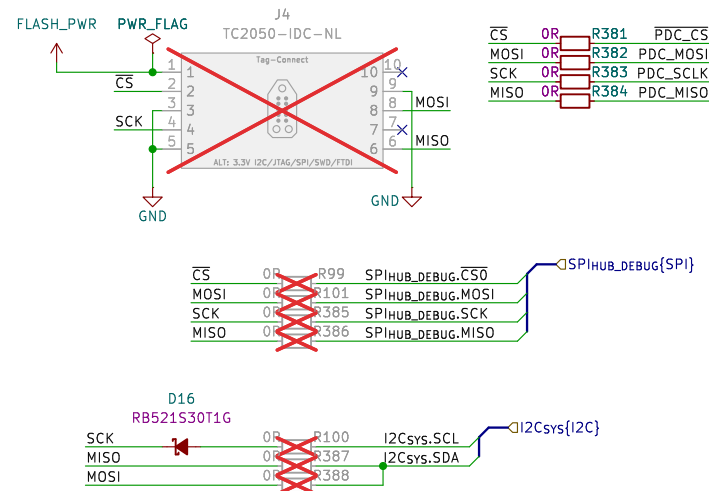


Debug USB-C 0 USB-PD Source/Sink

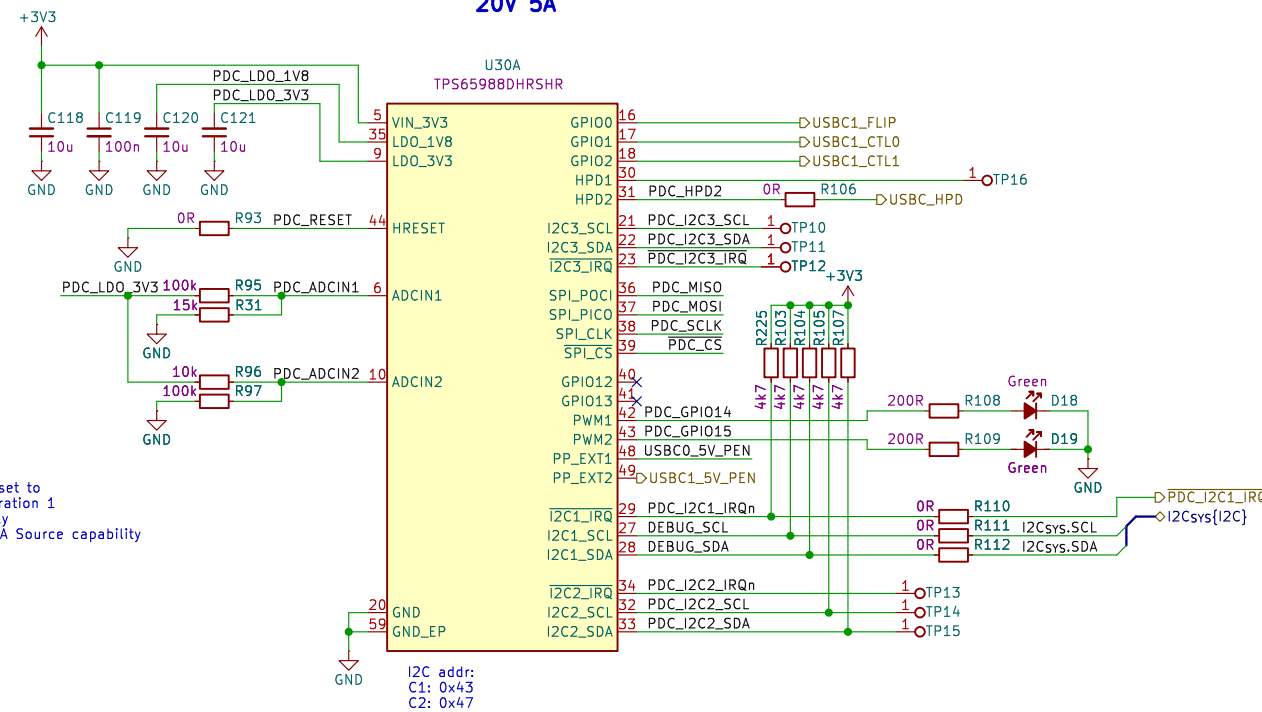


Debug connector

pinout compatible with
www.github.com/antmicro/ftdi-toolkit



USB PD controller 20V 5A



NOTE:
Device set to
configuration 1
DFP only
5V at 3A Source capability

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Sheet: /USB Debug, PD/

File: usb_debug_pd.kicad_sch

Title: Jetson AGX Thor Baseboard

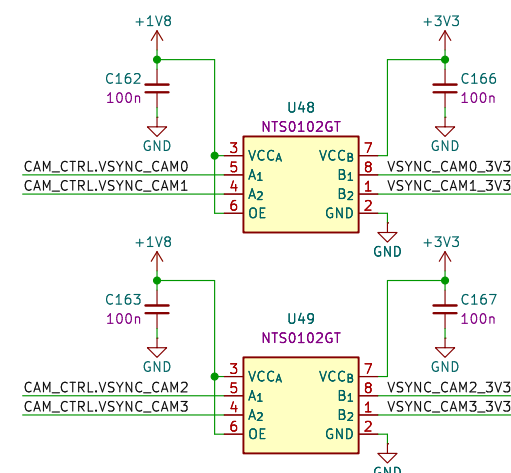
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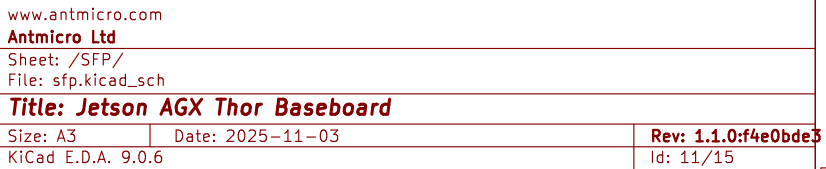
Date: 2025-11-03

Rev: 1.1.0:f4e0bde3

KiCad E.D.A. 9.0.6

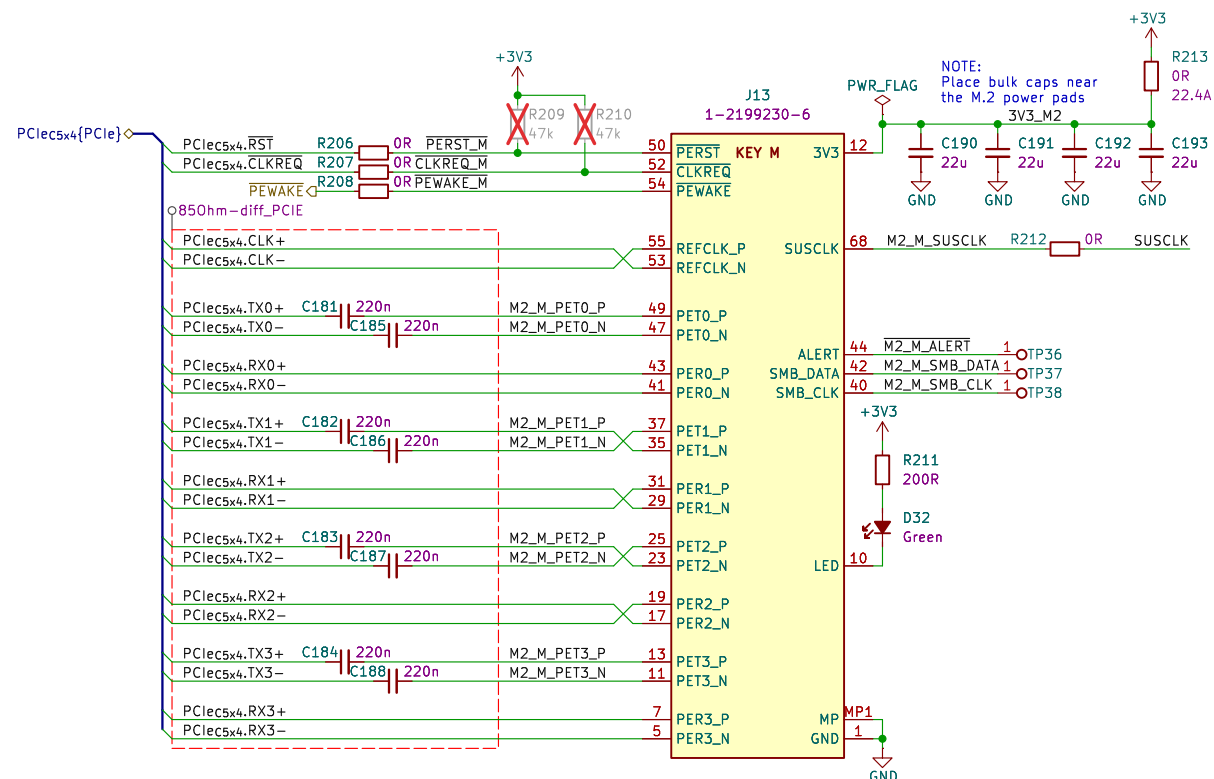
Id: 9/15





M.2 key M

PCIe x4

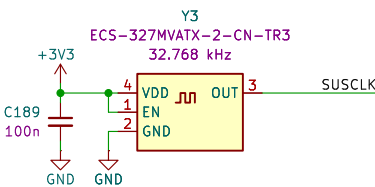


NOTE:
Nvidia Jetson AGX Thor
supports polarity inversion

A1
Mech_M2_2280_H2.5mm

H9
Spacer_Drill3.7mm_H2.5mm_9774025151R

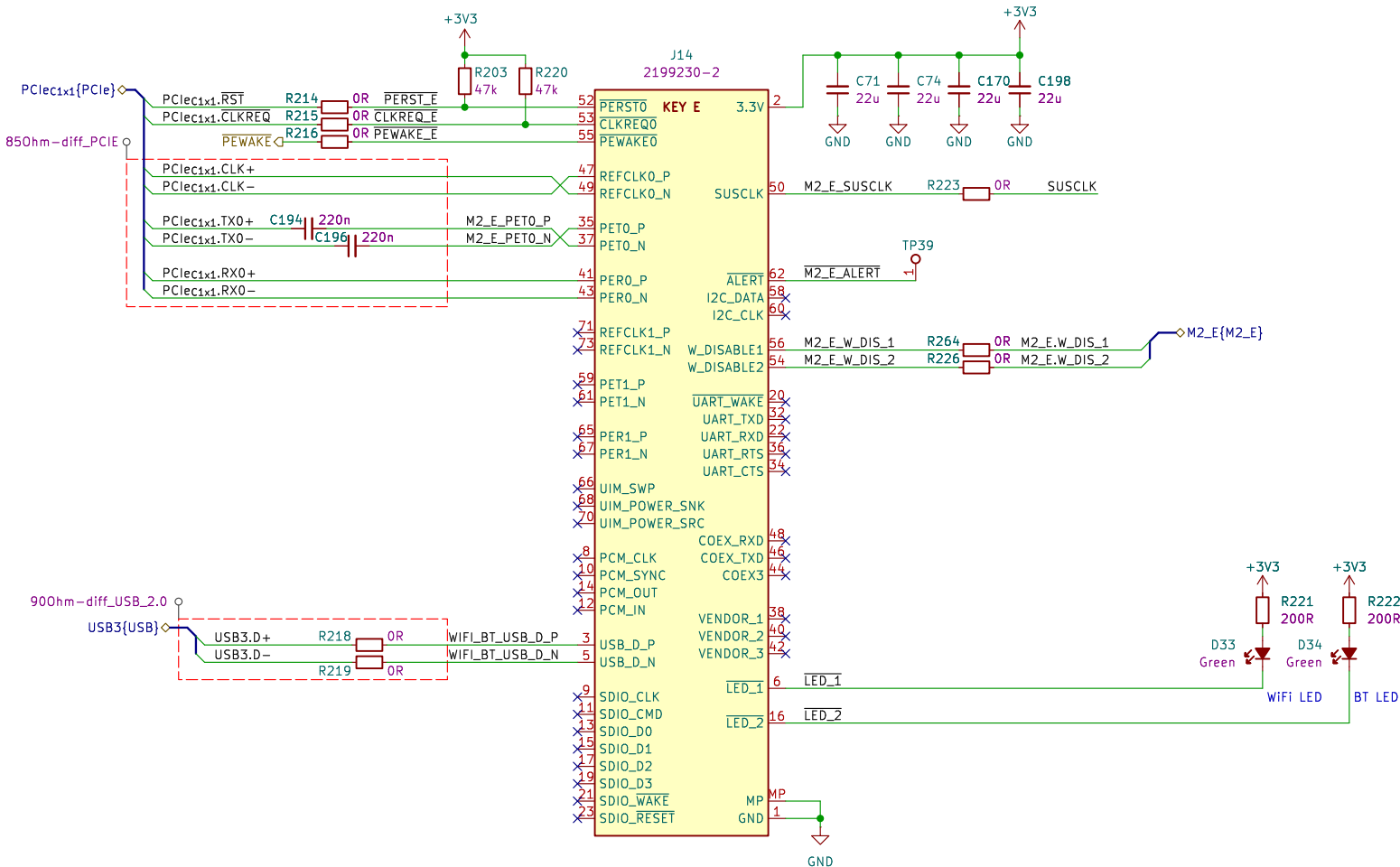
SUSCLK SOURCE



antmicro

M.2 key E

2x PCIe x1, USB 2.0, I2C, UART and PCM



A2
Mech_M2_2242_H2.5mm

H10
Spacer_Drill3.7mm_H2.5mm_9774025151R

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Sheet: /M.2/

File: m2.kicad_sch

Title: Jetson AGX Thor Baseboard

Size: A3

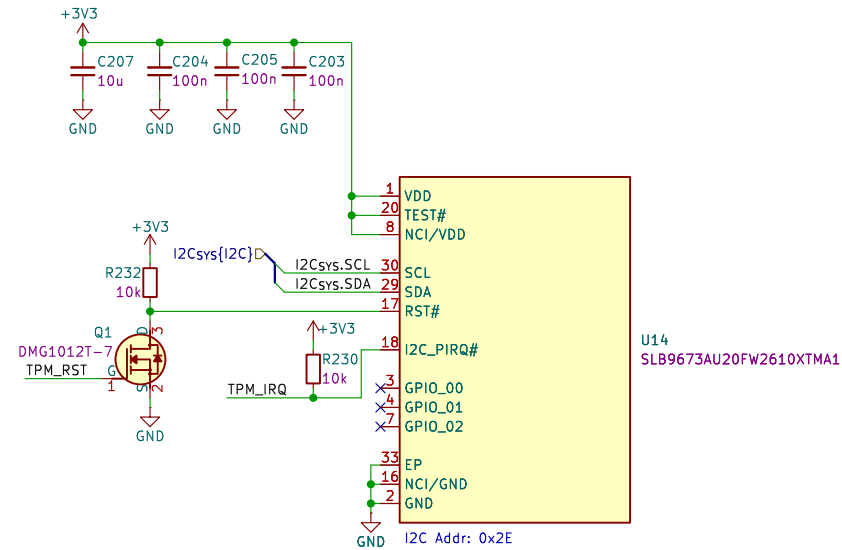
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Rev: 1.1.0:f4e0bde3

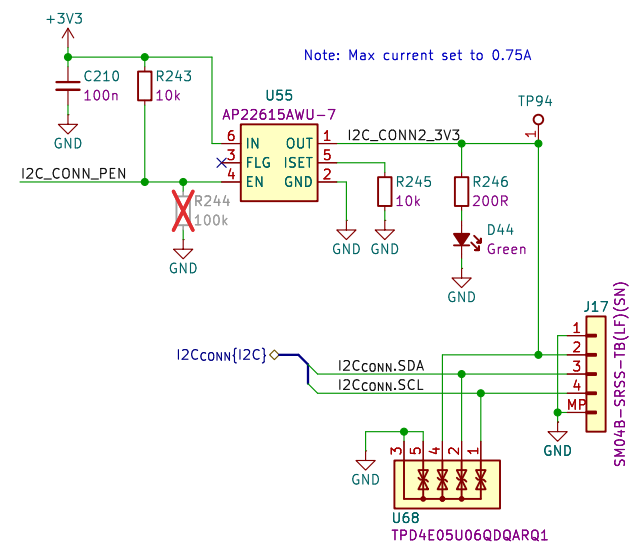
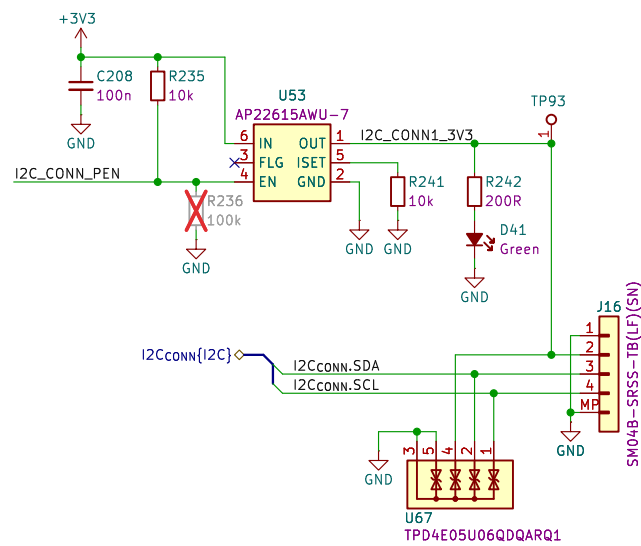
KiCad E.D.A. 9.0.6

Id: 12/15

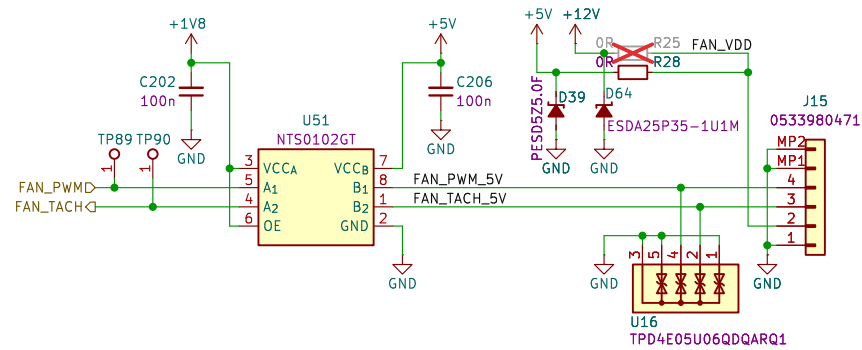
TPM



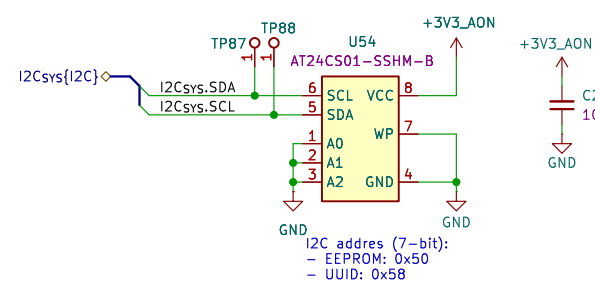
I2C connectors



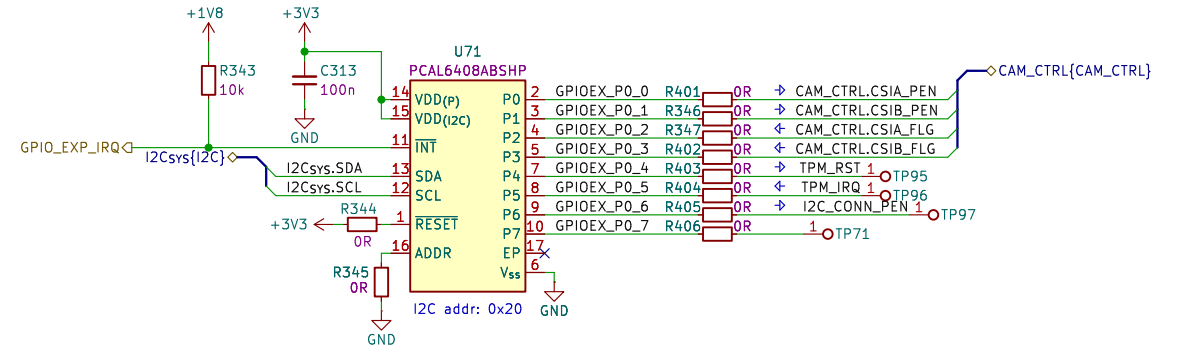
Fan connector



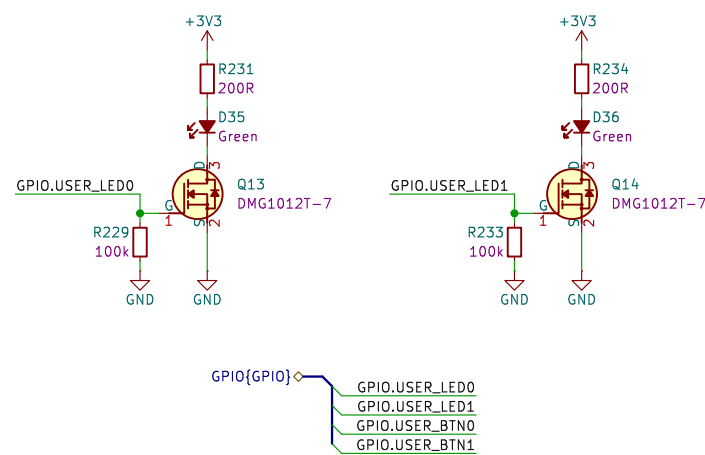
ID EEPROM



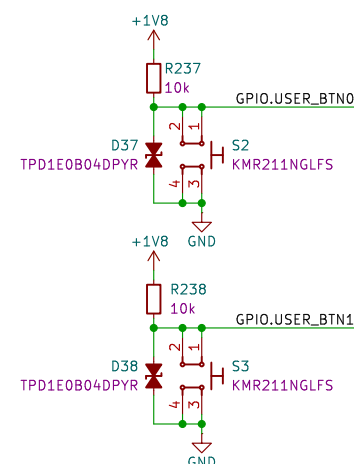
GPIO Expander



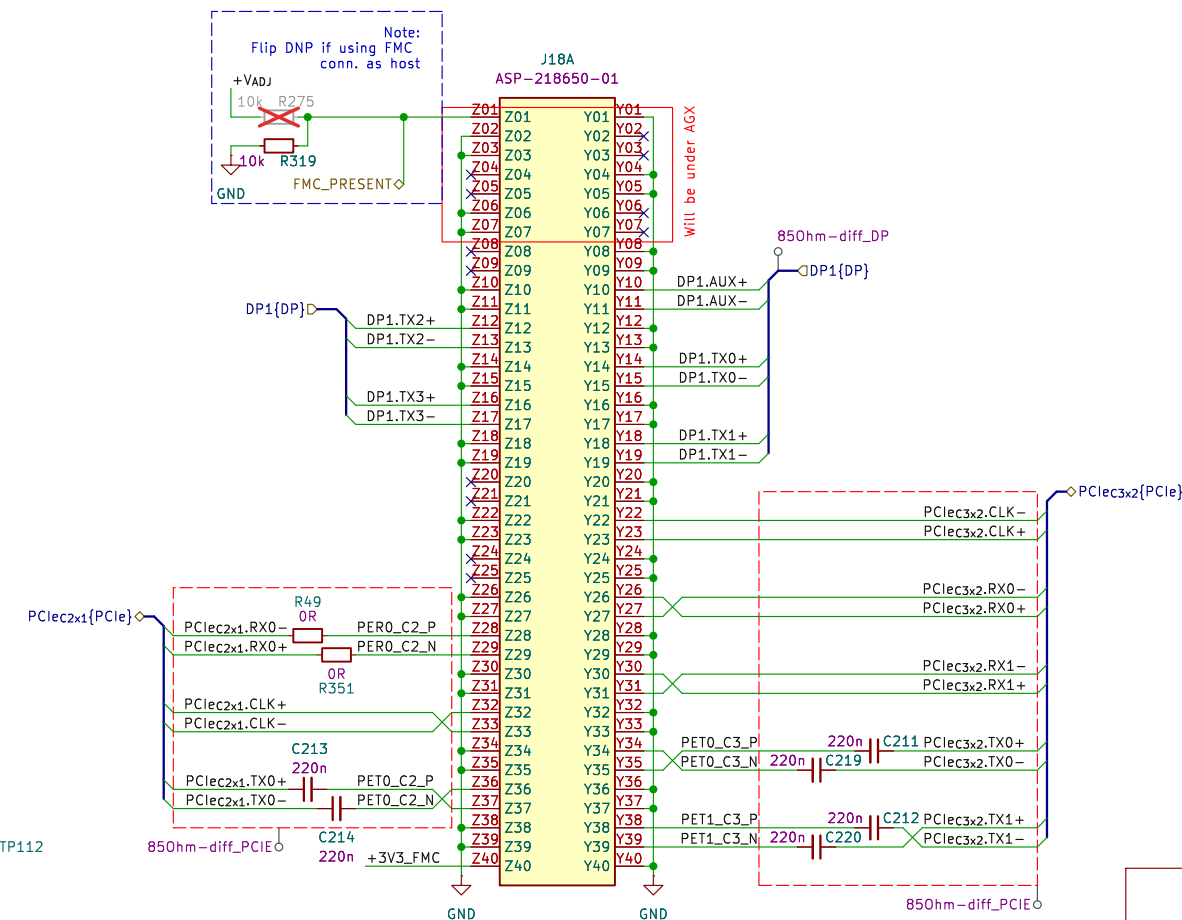
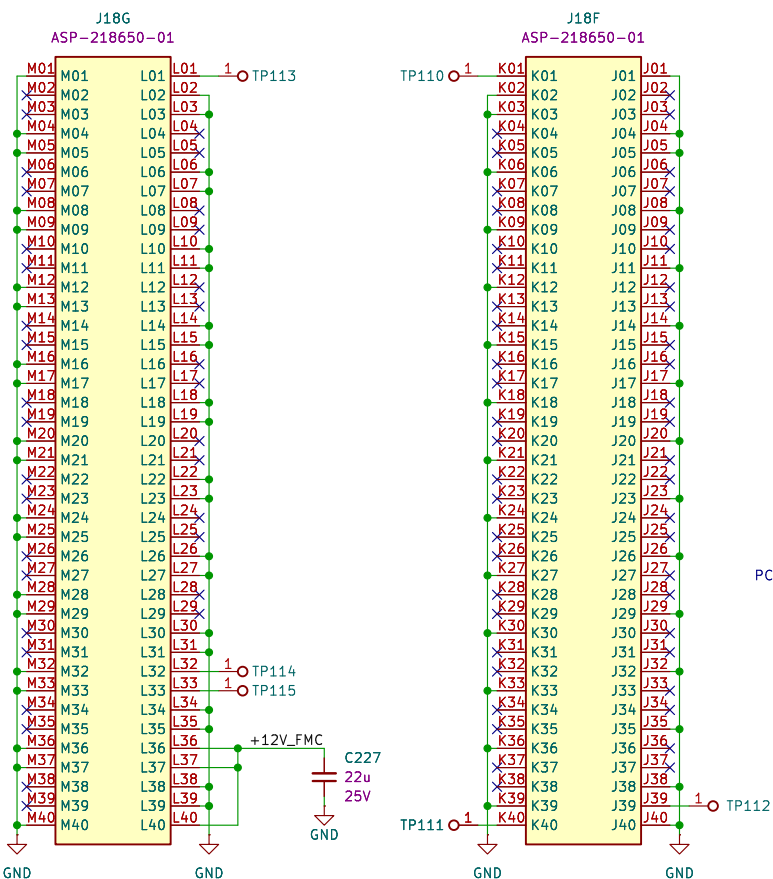
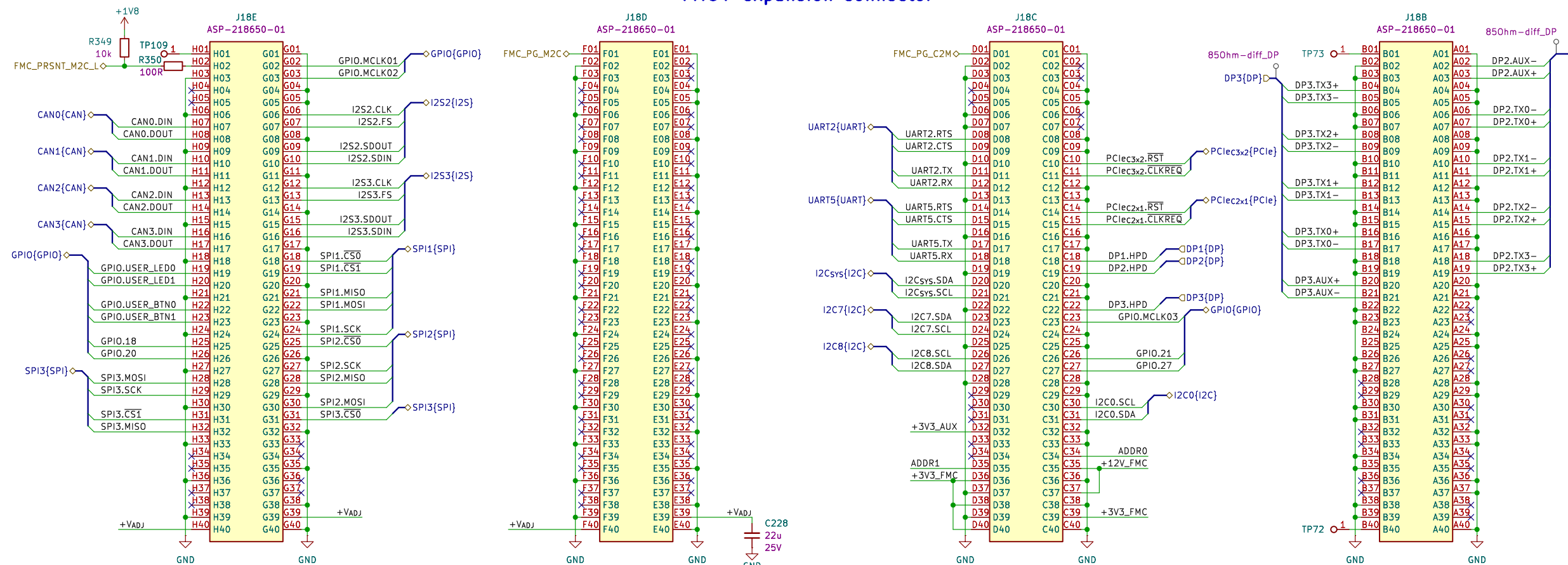
User LEDs



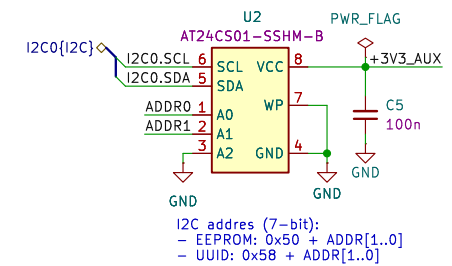
User Buttons



FMC+ expansion connector



FMC Module ID



Power connector

