

ConnectCore for i.MX8X SBC Express

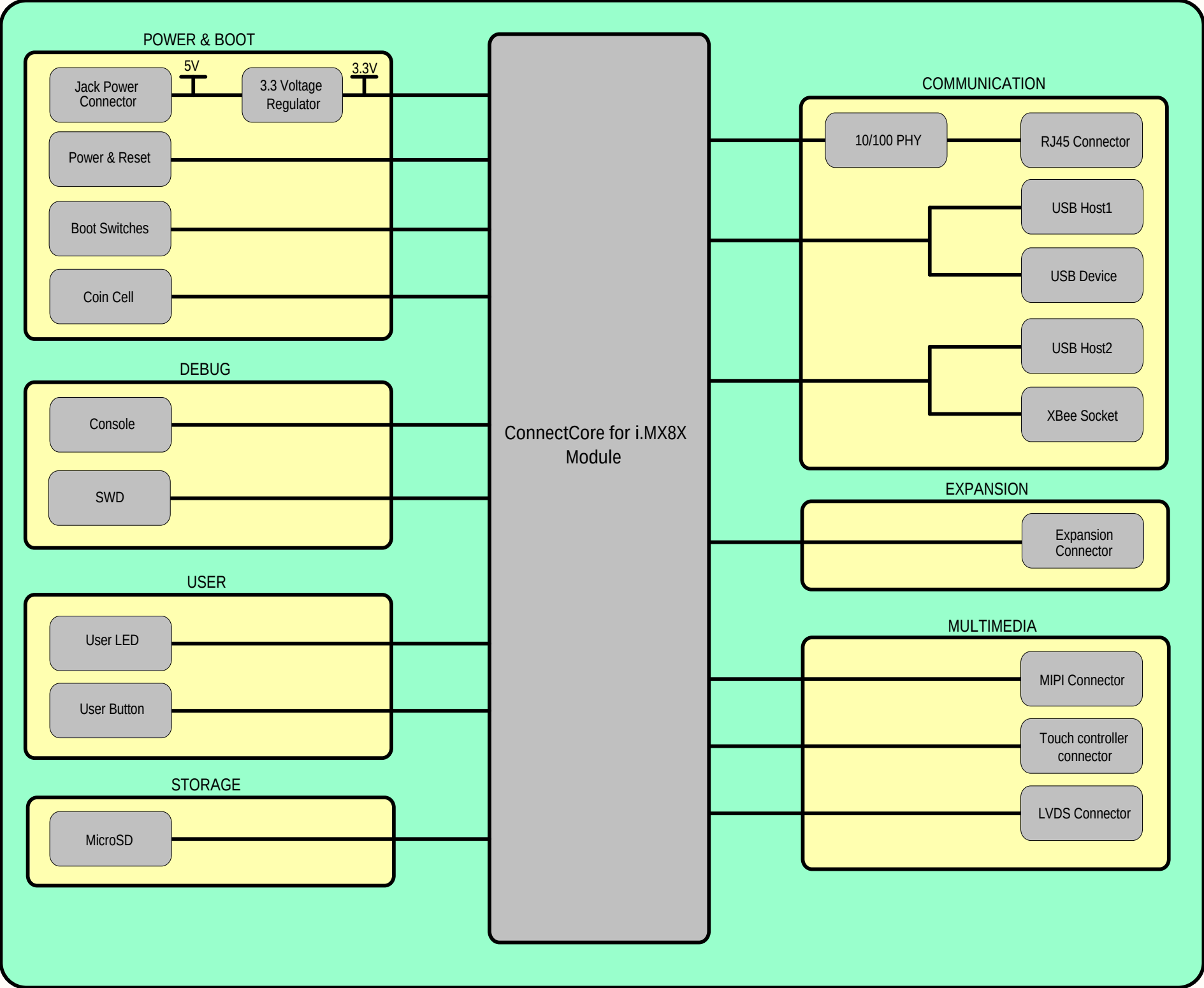
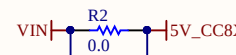
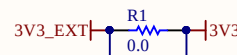
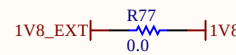
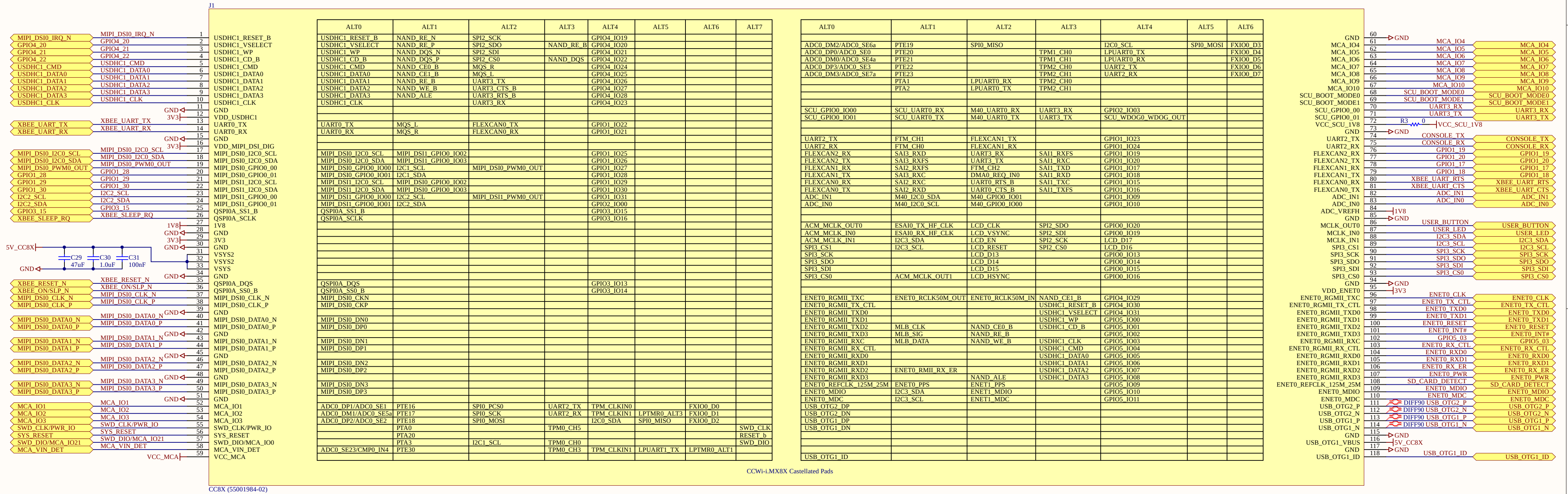


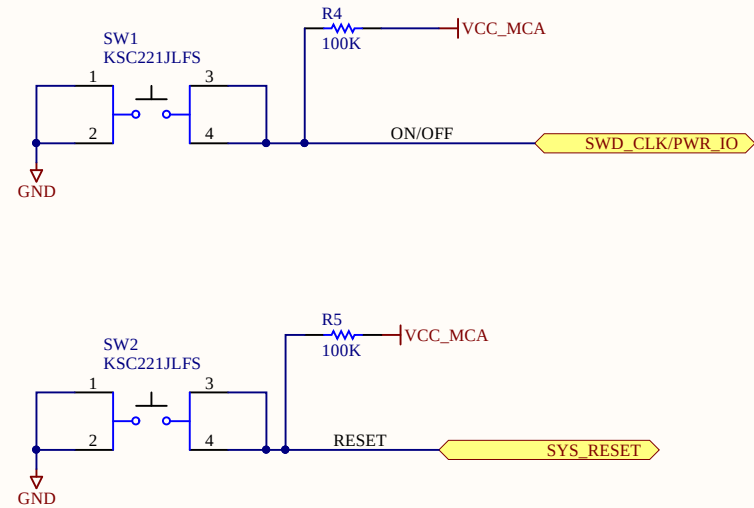
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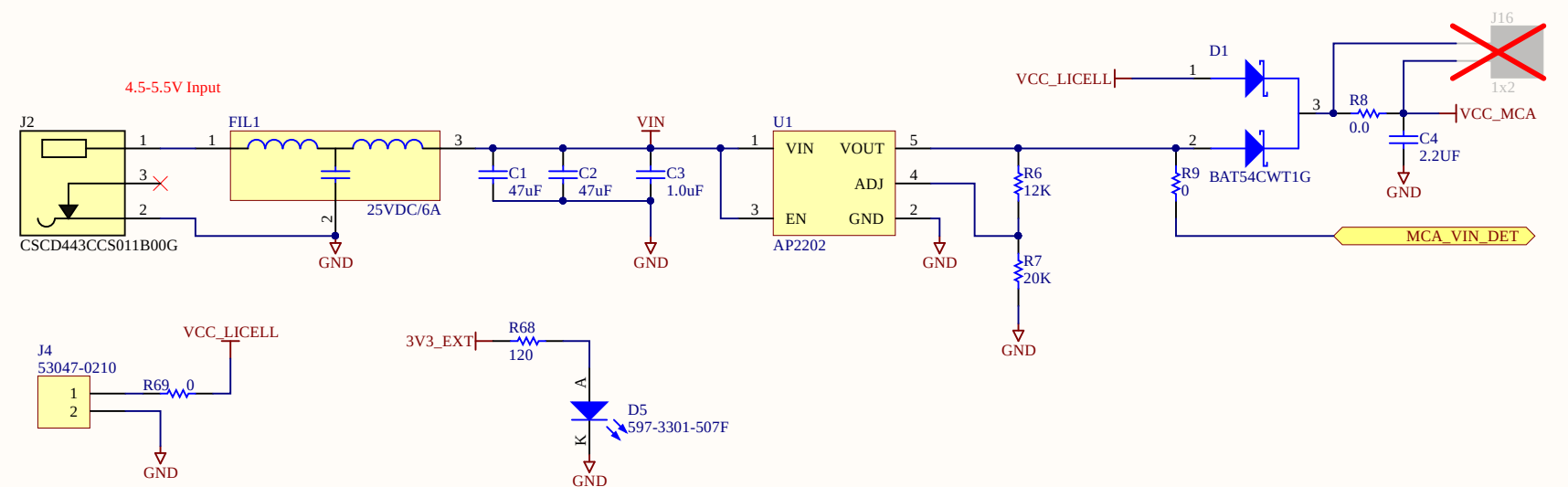
ConnectCore for i.MX8X Module



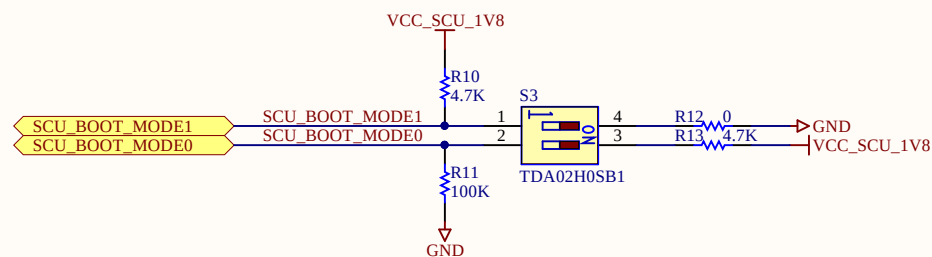
Power and Reset



Supply Input

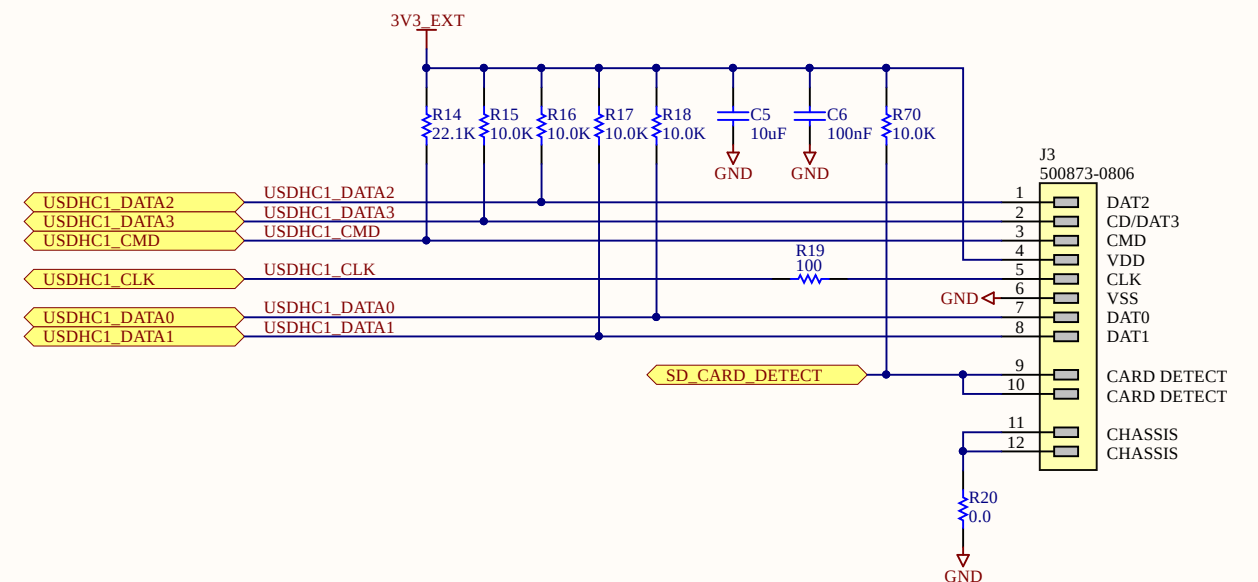


Boot Selection

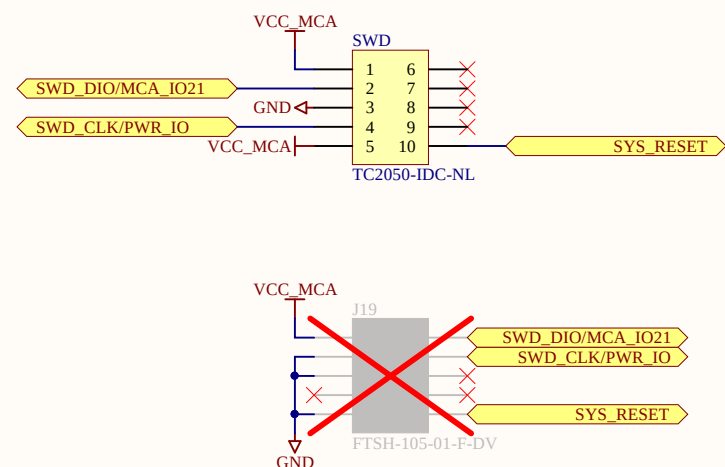


SW1.2	SW1.1	Description
Open	Open	Boot from eMMC0
Open	Close	Boot from Fuses
Close	Open	Boot from microSD
Close	Close	Serial downloader

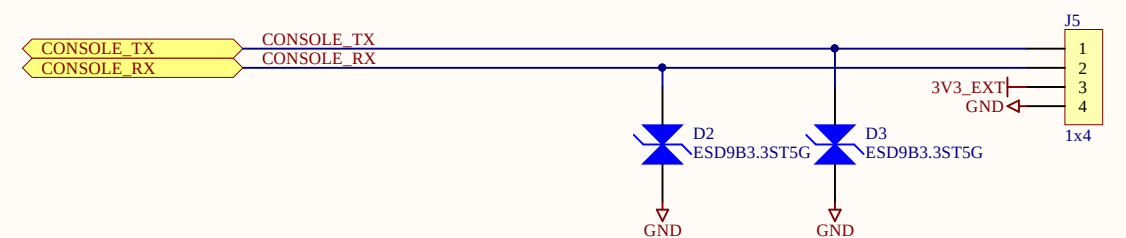
microSD



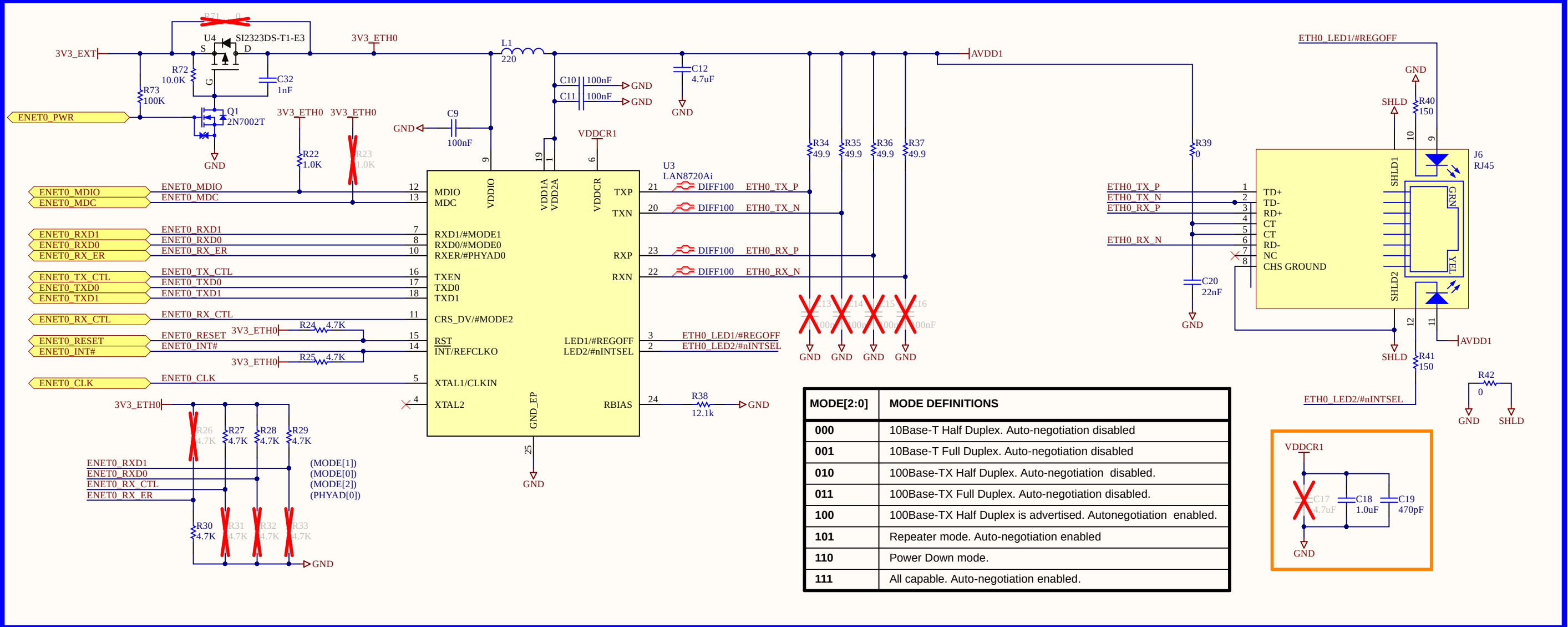
SWD MCA



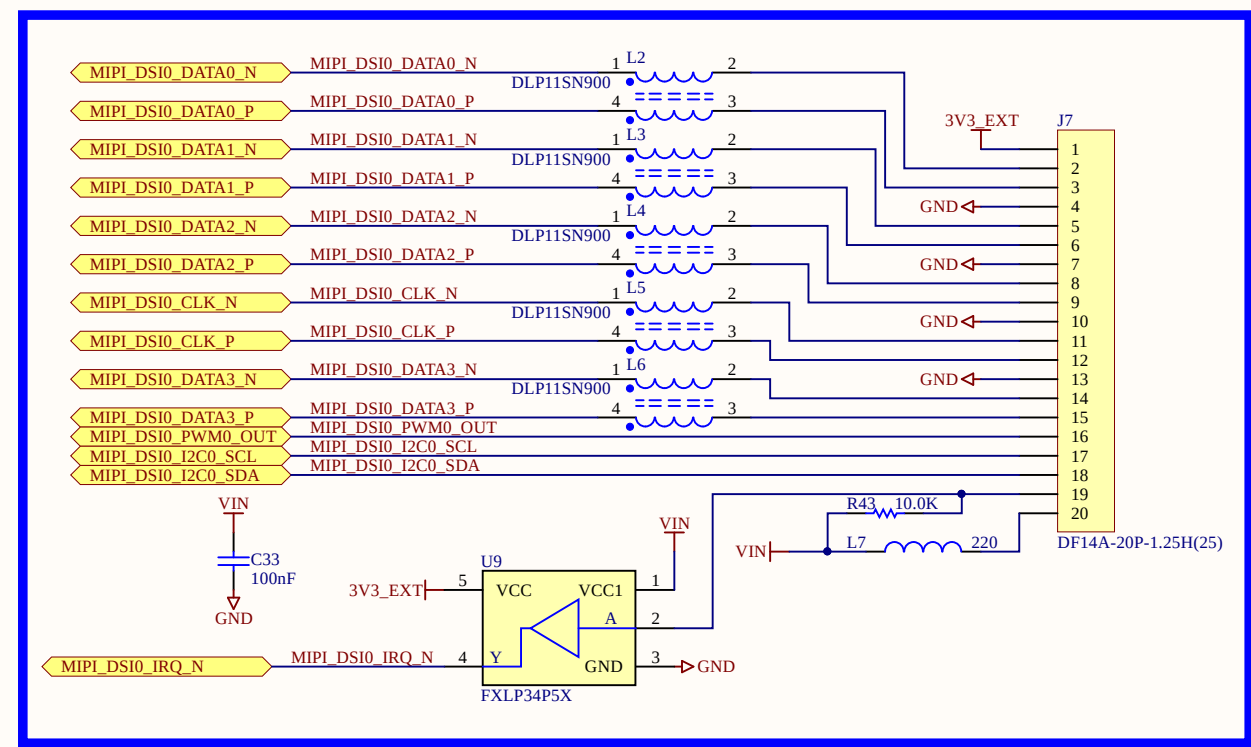
Console TTL



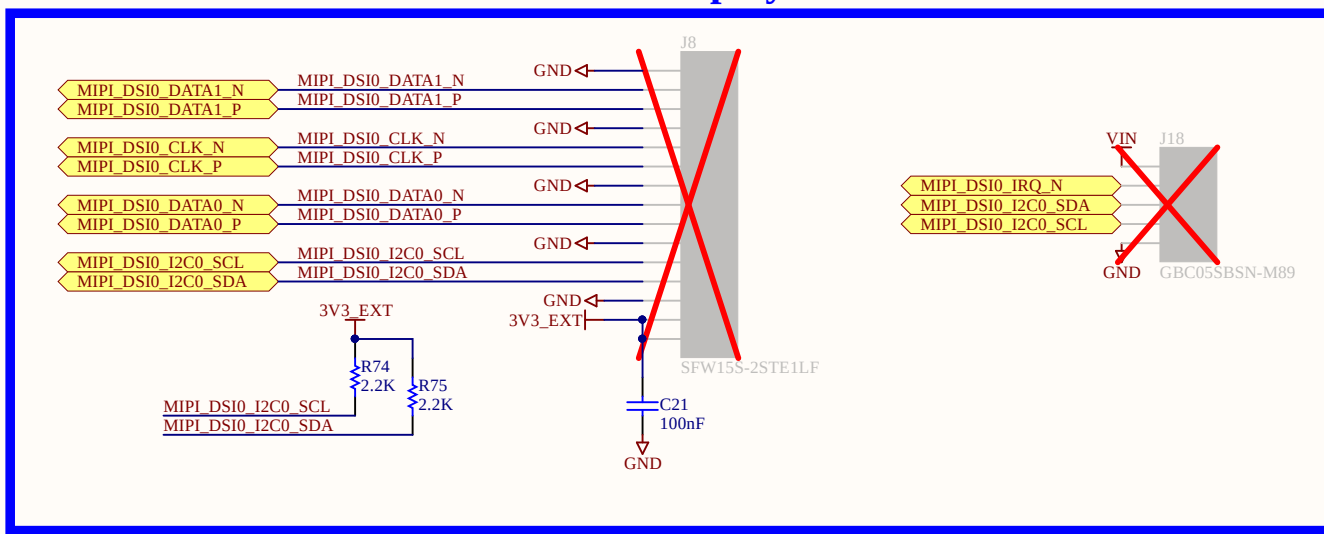
10/100M Ethernet



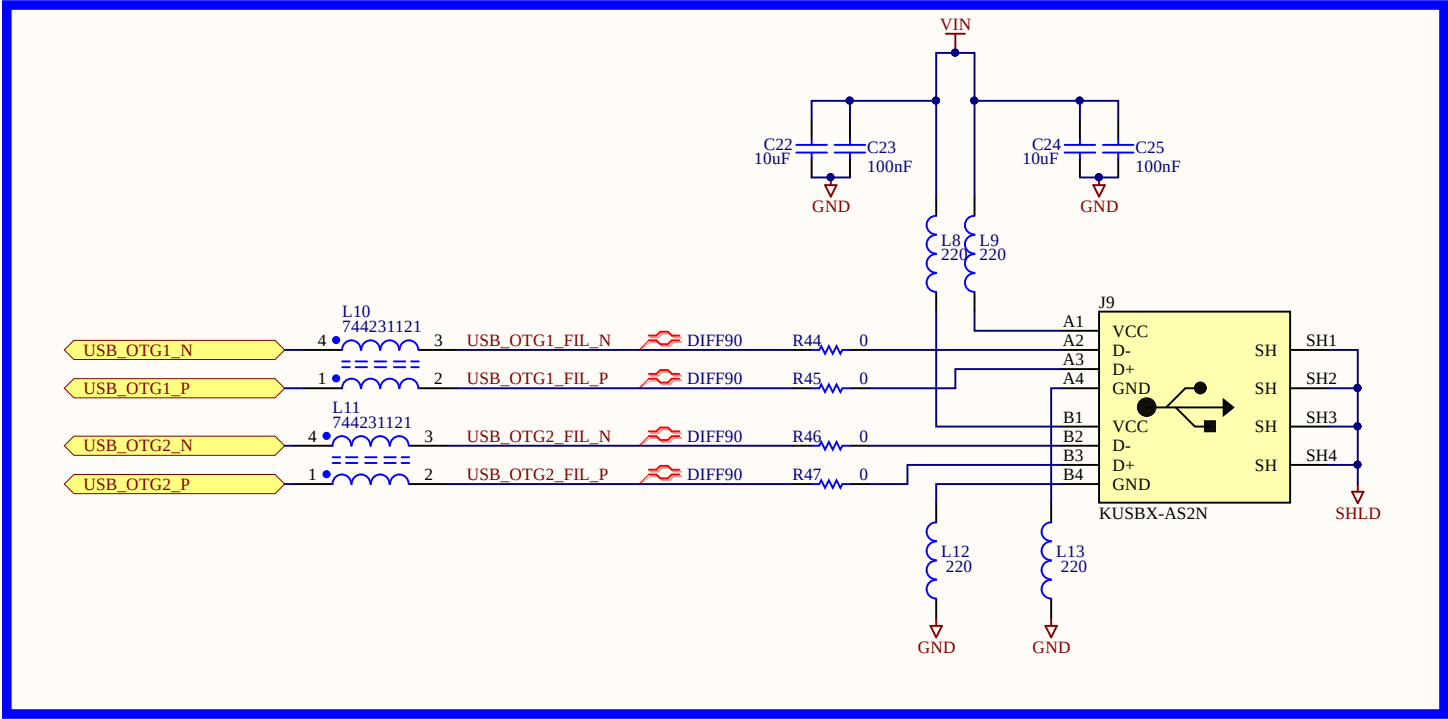
LVDS



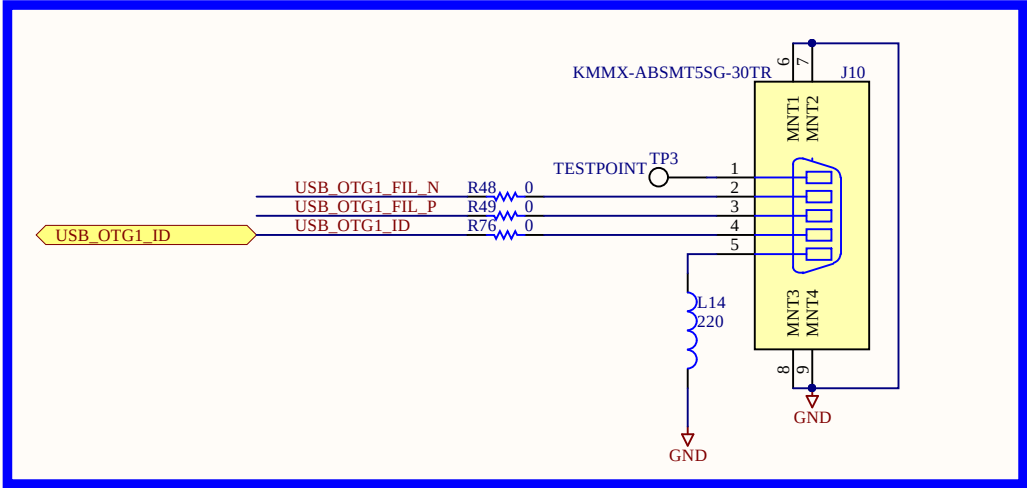
MIPI display



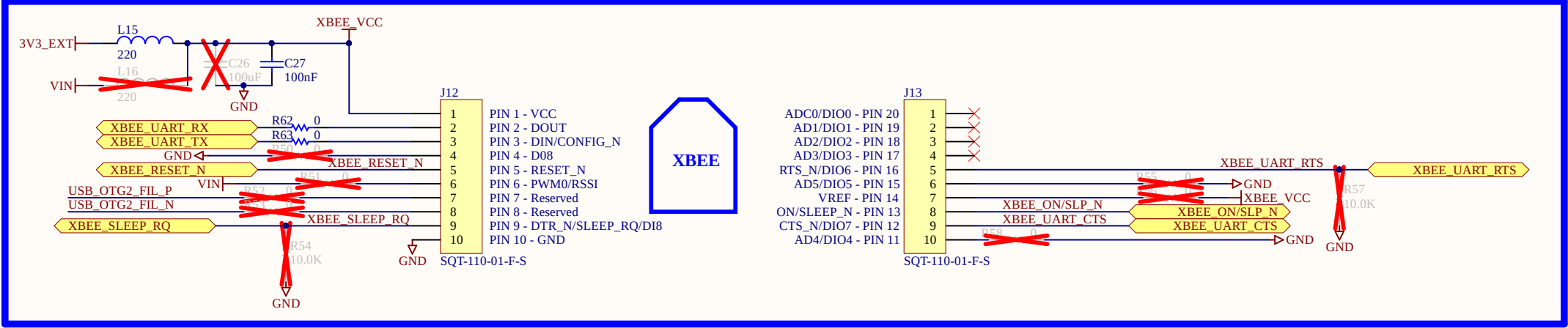
USB HOST



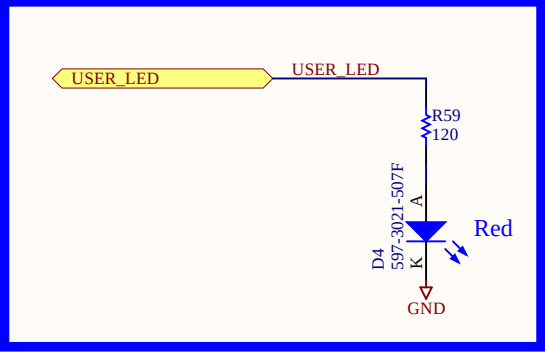
USB Device



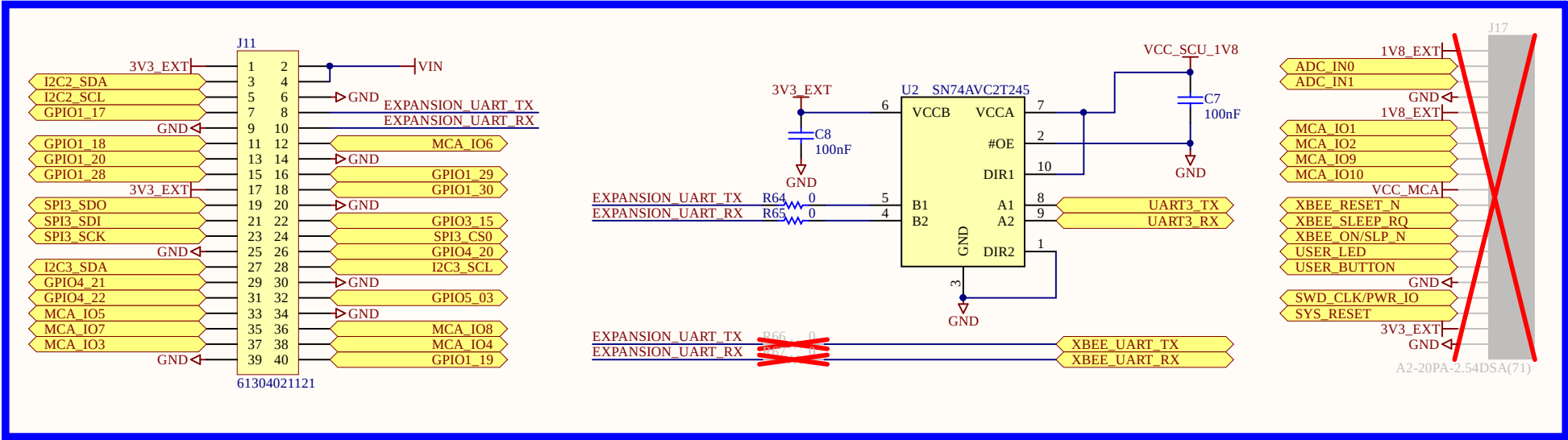
XBee



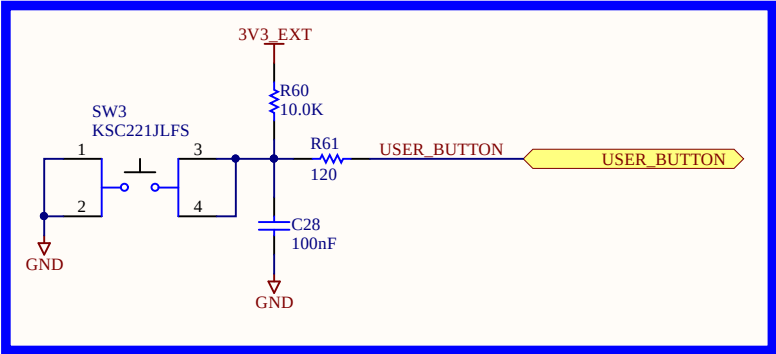
USER LED



Raspberry Pi Expansion

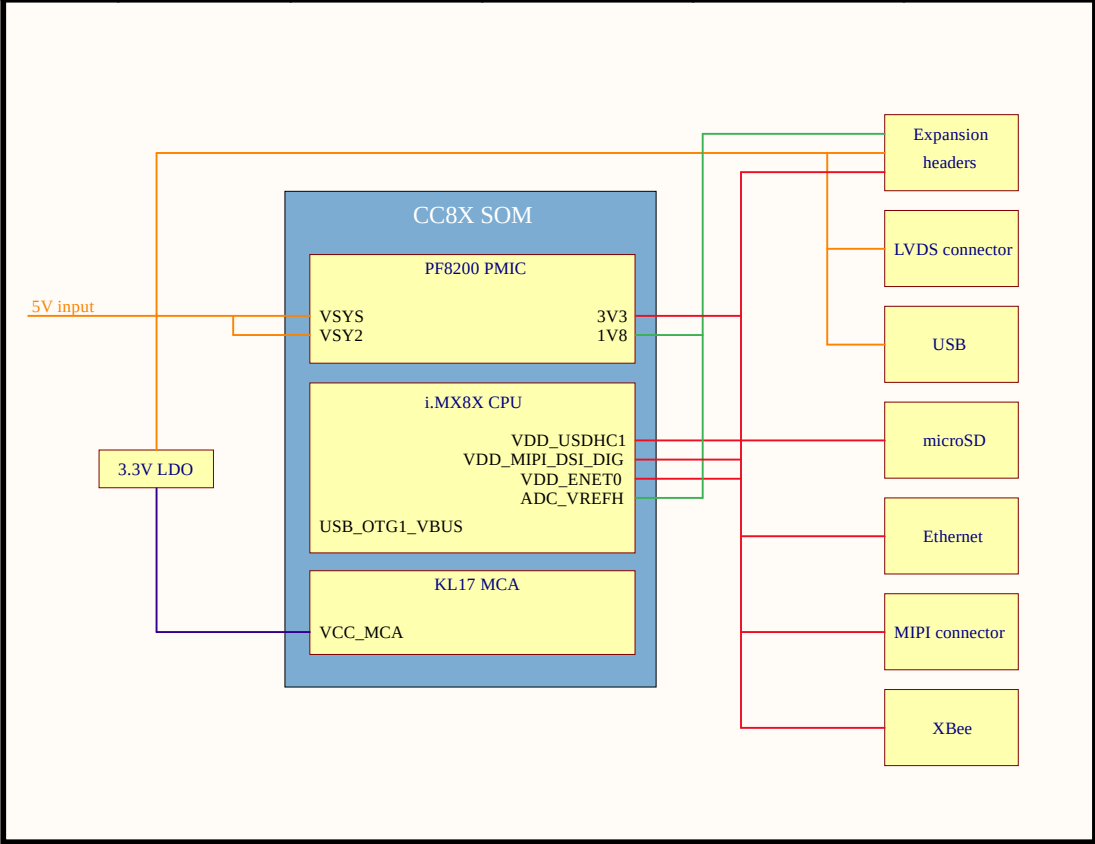


USER BUTTON



System Power Rails

Voltage (V)	Supply Name	Block	Generated by	Current Capability (mA)	Notes
5.0	VIN	USB Host	External DC supply	3000	
		LVDS			
		Raspberry Pi Ext			
		ConnectCore 8X			
3.3	3V3	microSD	PMIC SW2	2500	
		ETHERNET			
		MIPI			
		LVDS			
		XBee			
		Raspberry Pi Exp			
	VCC_MCA	MCA	U1	150	
1.8	VCC_SCU_1V8	BOOT	PMIC LDO1	400	
		UART3 level shifter			
	1V8	Raspberry Pi Exp	PMIC SW6	2500	



GPIO Table

SOM pad name	GPIO	Signal name
i.MX8X processor		
ENET0_RGMII_TXD2	GPIO5_01	ENET0_RESET
ENET0_RGMII_TXD3	GPIO5_02	ENET0_INT#
USDHC1_RESET_B	GPIO4_19	MIPI_DSI0_IRQ_N
MCLK_IN0	GPIO0_19	USER_LED
MCLK_OUT0	GPIO0_20	USER_BUTTON
QSPI0A_SCLK	GPIO3_16	XBEE_SLEEP_RQ
QSPI0A_DQS	GPIO3_13	XBEE_RESET_N
QSPI0A_SS0_B	GPIO3_14	XBEE_ON/SLP_N
ENET0_RGMII_RXD3	GPIO5_IO8	ENET0_PWR
ENET0_REFCLK_125M_25M	GPIO5_IO9	SD_CARD_DETECT
MCA (KL14)		
SWD_CLK/PWR_IO	PTA0	ON/OFF

1	2	3	4	5	6	7	8								
A	Format: DD/MM/YYYY 22/01/2018 - ConnectCore for i.MX8X SBC Express * Revision: 02 - Initial version. 14/06/2018 - ConnectCore for i.MX8X SBC Express * Revision: 03 - Depopulate J8, J18 (MIPI display). - Board spin: 3001558x-01 revA to 3001558x-02 revA: * Change values of R10 to 4.7K and R12 to 100K. * Silkscreen change: MIPI CSI => MIPI DSI. * Changed MCA_VIN_DET connection to the output of the regulator. * Add 2.2µF output capacitor (C4) after D1 on VCC_MCA. * Changed J5.3 pin from 3V3 to 3V3_EXT. * Changed J17 supplies from 1V8 to 1V8_EXT and 3V3 to 3V3_EXT. * Swapped RTS and CTS lines on the XBee socket. * Adding U9 for adapting MIPI_DSI0_IRQ_N voltage level. 03/03/2021 - ConnectCore for i.MX8X SBC Express * Revision: 04 - Replace R12 by a 0-ohm resistor.						A								
B							B								
C							C								
D	PCB						D								
1	2	3	4	5	6	7	8								
						<table><tr><td colspan="2">Title: History</td></tr><tr><td>Designer: Juan Anzola</td><td>Sheet: 7 of 7</td></tr><tr><td>Variant: 55002011-01</td><td>Rev: 04</td></tr><tr><td colspan="2">Description: ConnectCore i.MX8X SBC Express</td></tr></table>	Title: History		Designer: Juan Anzola	Sheet: 7 of 7	Variant: 55002011-01	Rev: 04	Description: ConnectCore i.MX8X SBC Express		DIGI
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