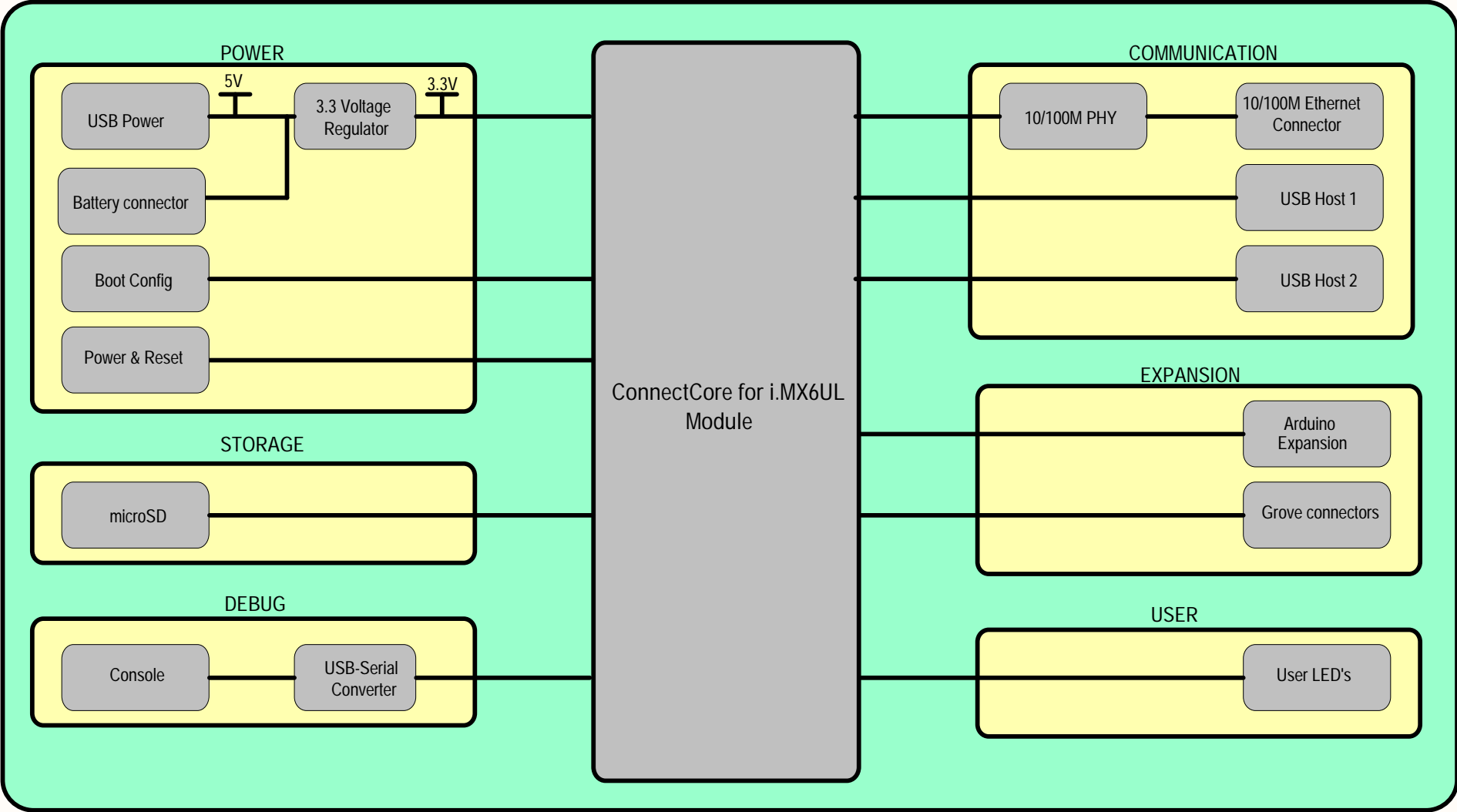


# ConnectCore for i.MX6UL Starter Board

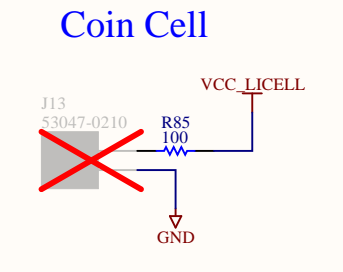
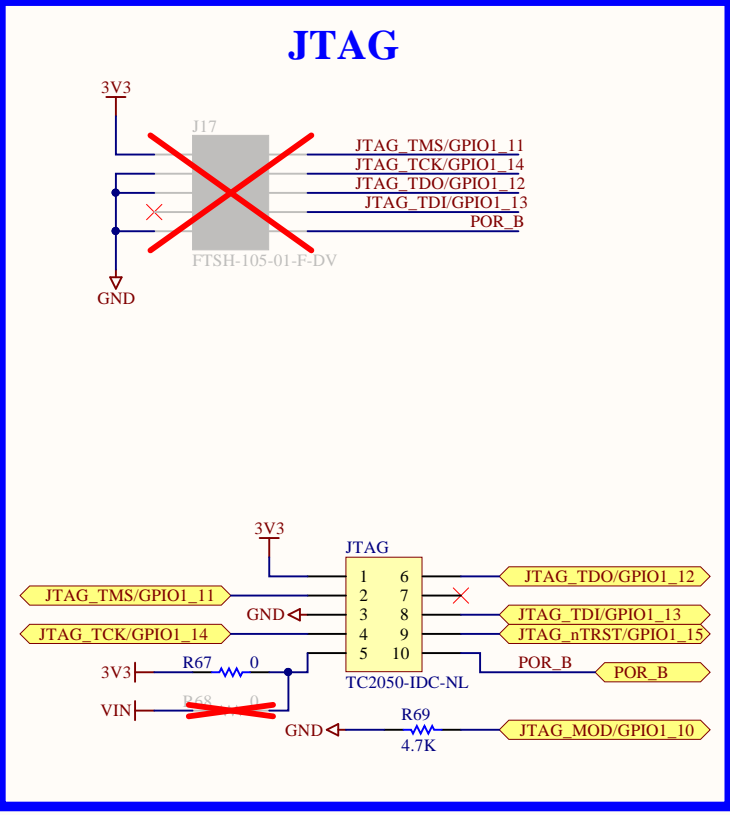
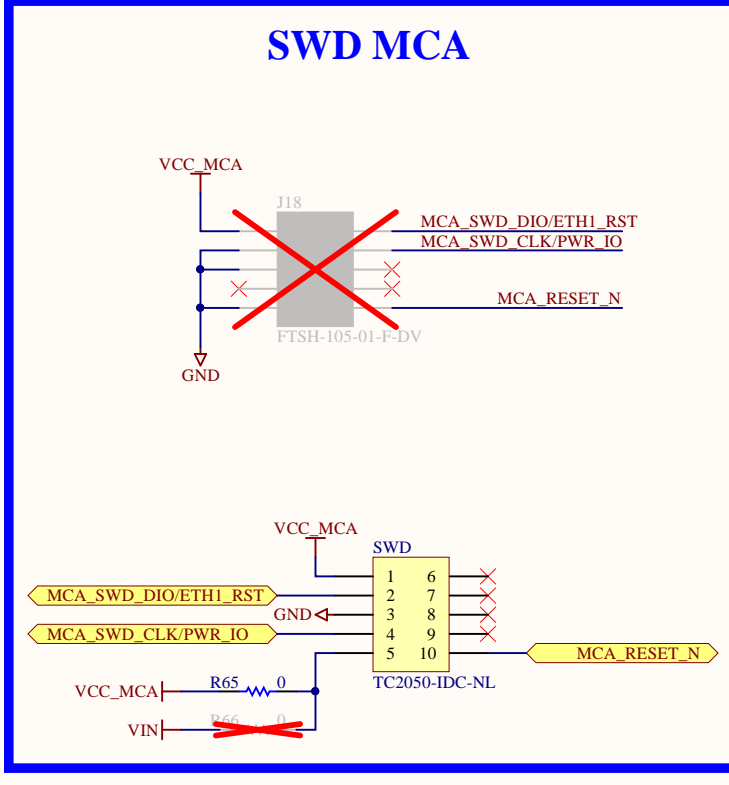
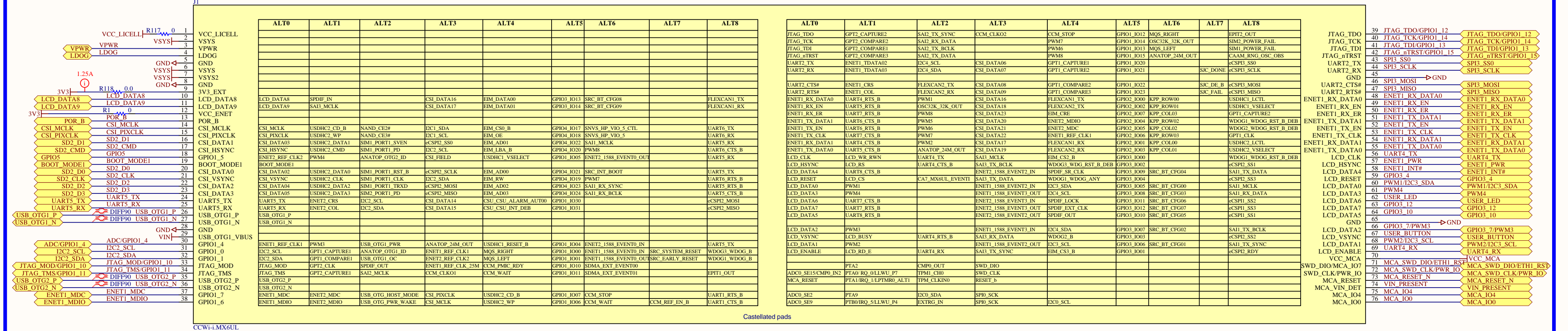


## Table of Content

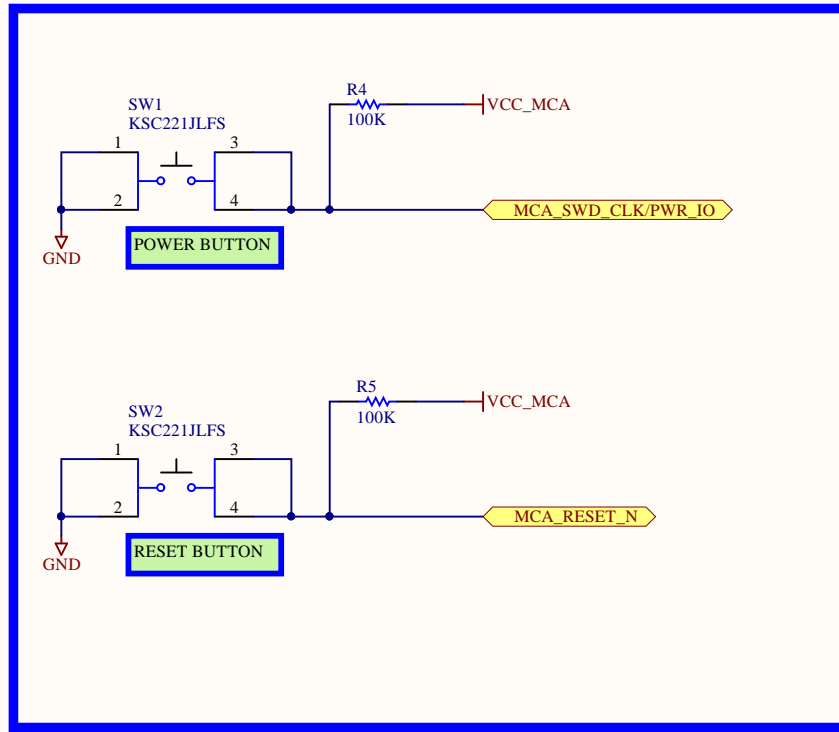
Page	Name
Page 1	Block Diagram
Page 2	ConnectCore for i.MX6UL Module
Page 3	Power, boot selector, boot mode, reset
Page 4	10-/100 Mb Ethernet
Page 5	microSD, USB Host, Arduino expansion, User LED, Console
Page 6	GPIO Table, System Power Rails
Page 7	History, Mechanical



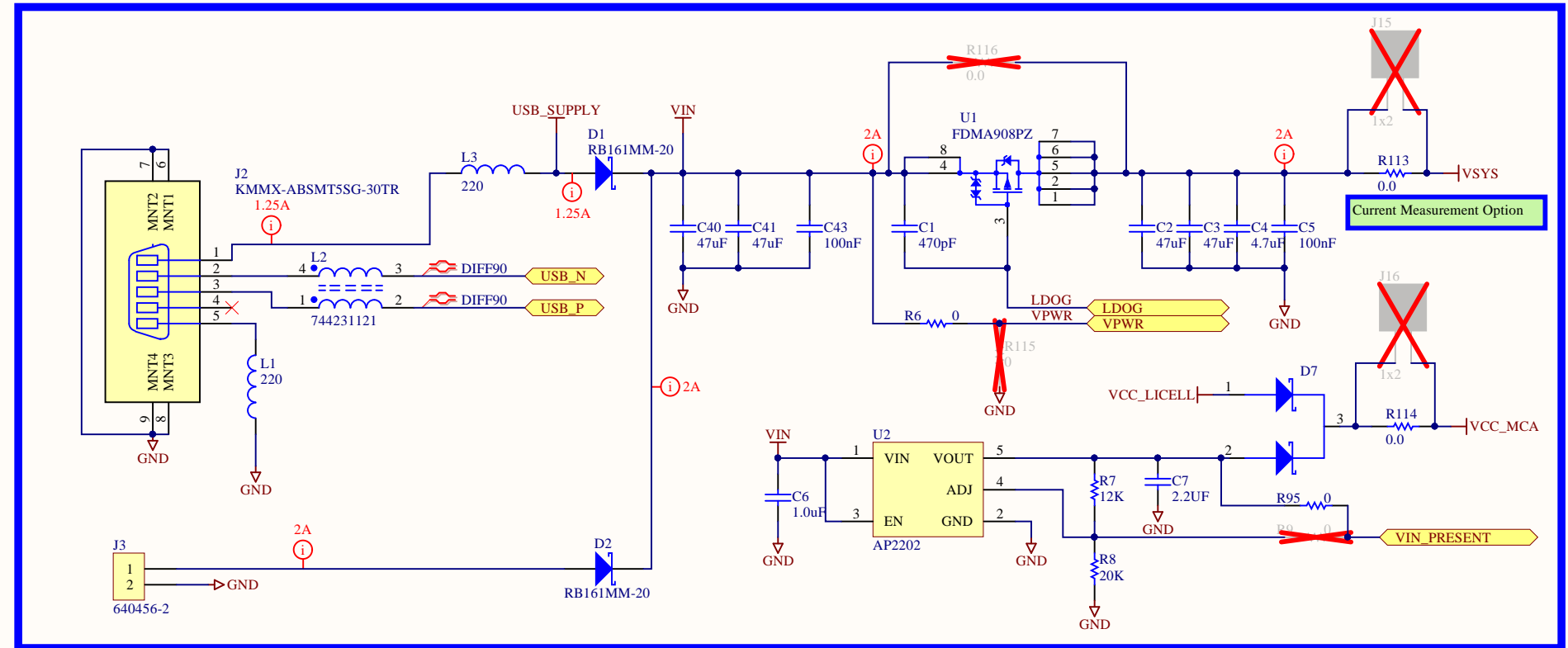
# ConnectCore for i.MX6UL Module



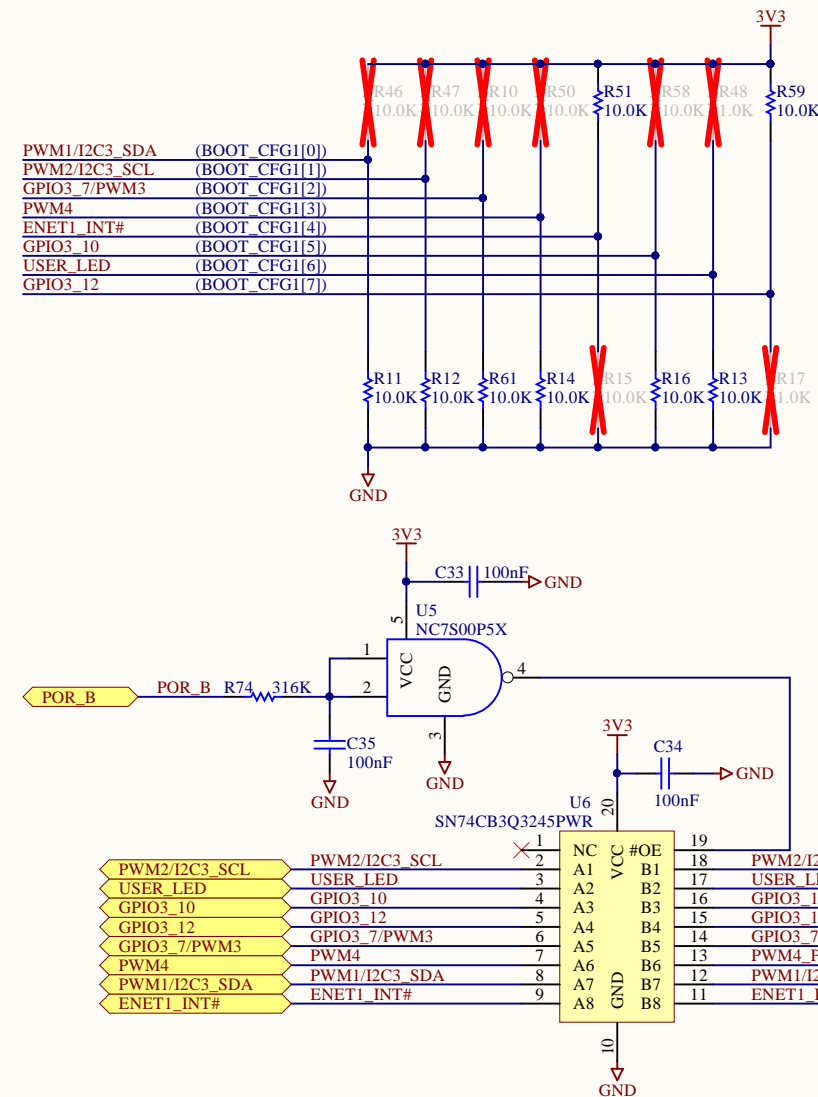
## Power and Reset



## Supply Inputs

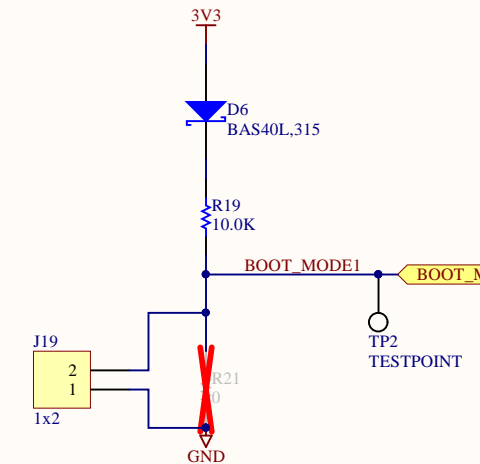


## Boot Selection

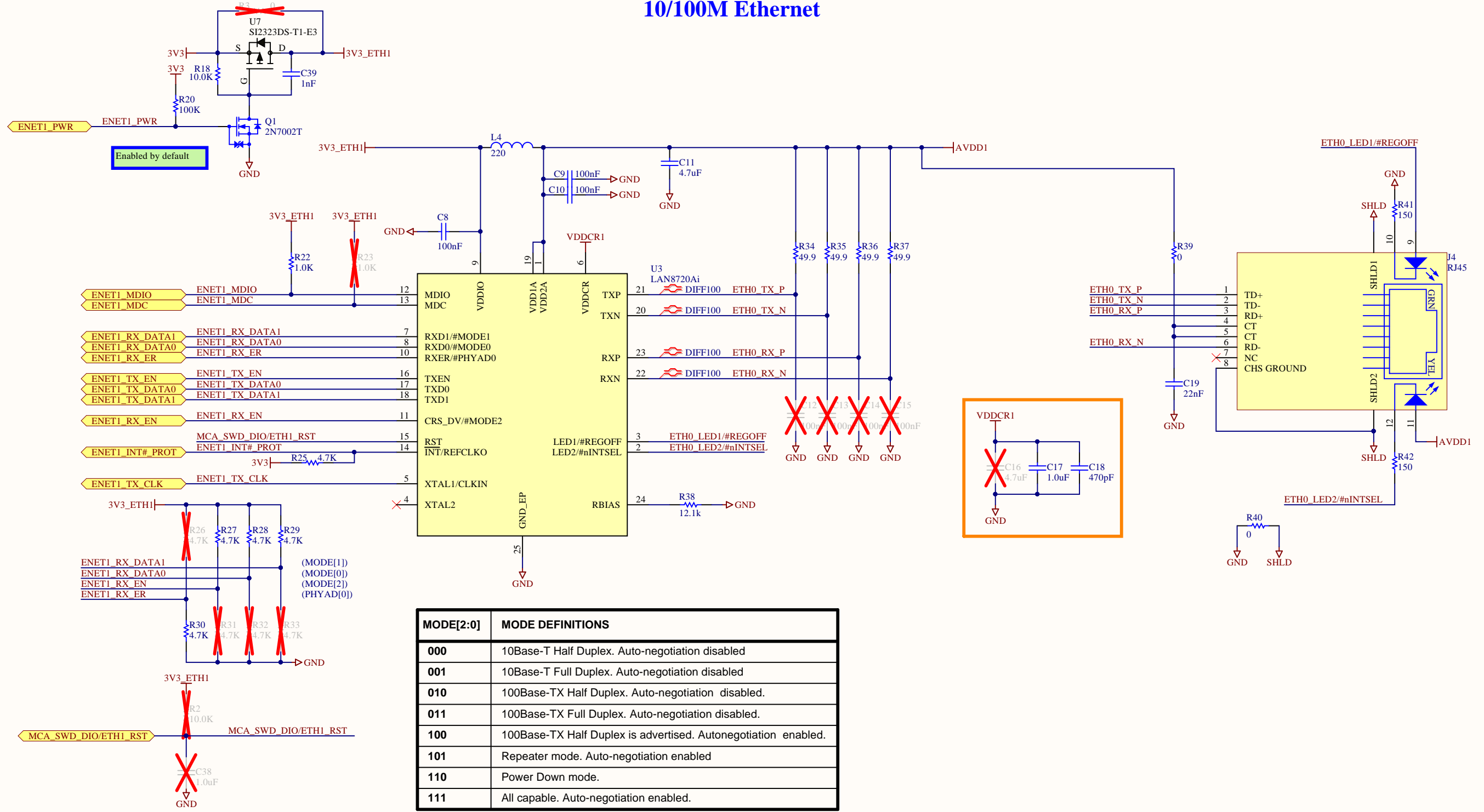


BOOTSTRAP	NAND
<b>BOOT_CFG1[0]</b>	Row Address Cycles: 00 - 3 cycles 01 - 2 cycles 10 - 4 cycles 11 - 5 cycles
<b>BOOT_CFG1[1]</b>	
<b>BOOT_CFG1[2]</b>	Number of devices: 00 - 1 device 01 - 2 devices 10 - 4 devices 11 - Reserved
<b>BOOT_CFG1[3]</b>	
<b>BOOT_CFG1[4]</b>	Pages in Block: 00 - 128 pages 01 - 64 pages 10 - 32 pages 11 - 256 pages
<b>BOOT_CFG1[5]</b>	
<b>BOOT_CFG1[6]</b>	Samsung's toggle mode DDR NAND 0 - Raw NAND 1 - Toggle mode NAND
<b>BOOT_CFG1[7]</b>	Boot Device Selection: 1 - Boot from NAND interface

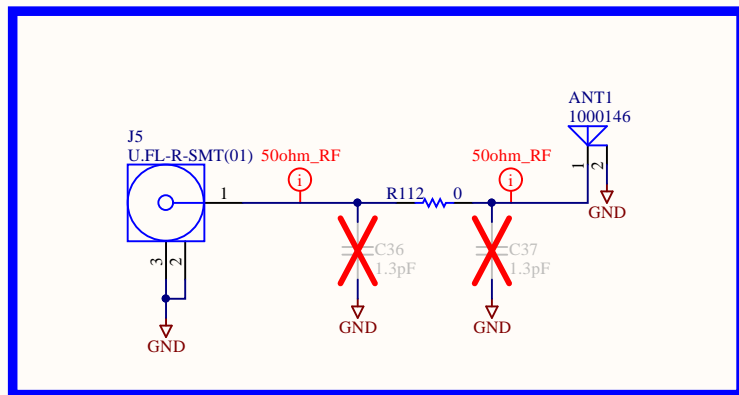
BOOT_MODE1	BOOT_MODE0	Description
0	0	Boot from Fuses
1	0	Boot from board settings



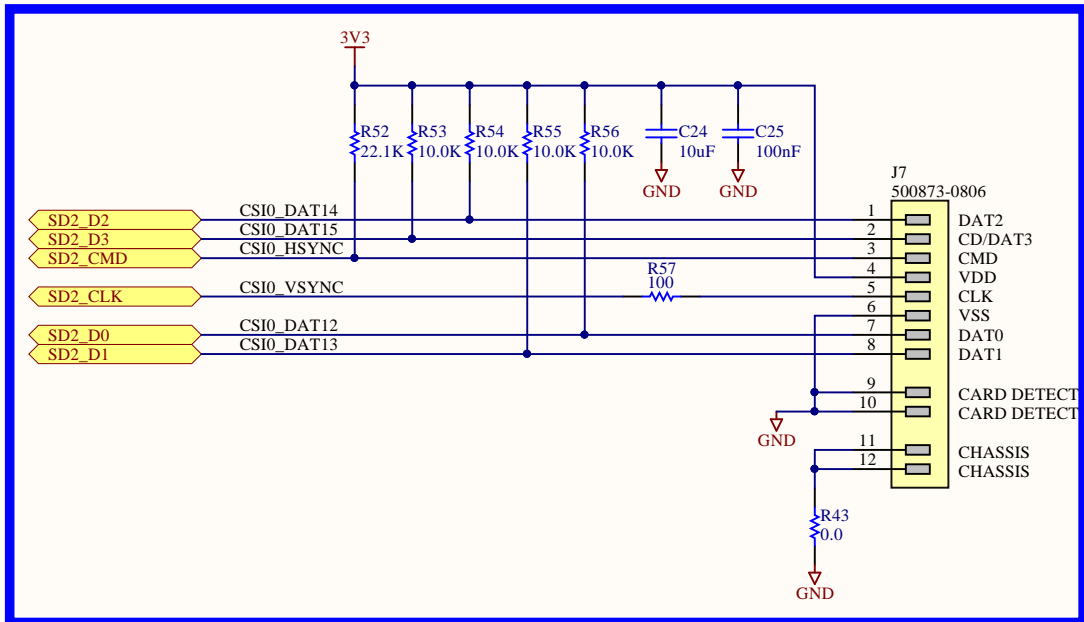
# 10/100M Ethernet



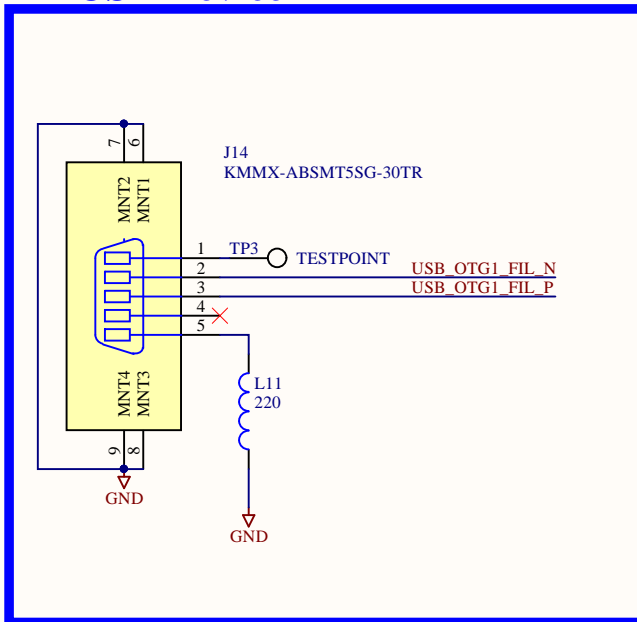
# Antenna



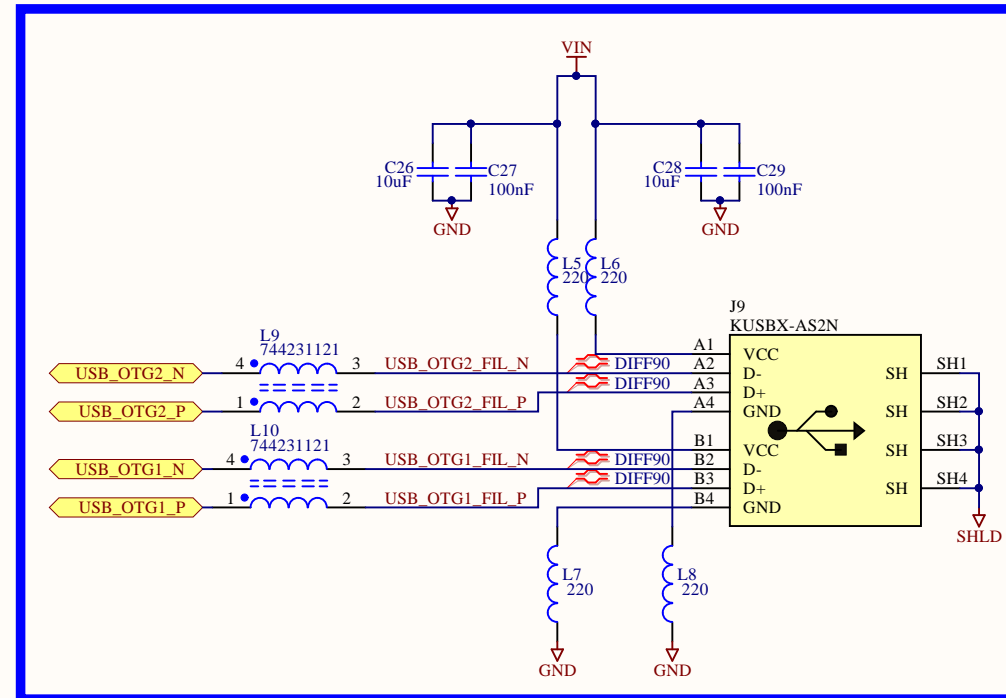
### microSD



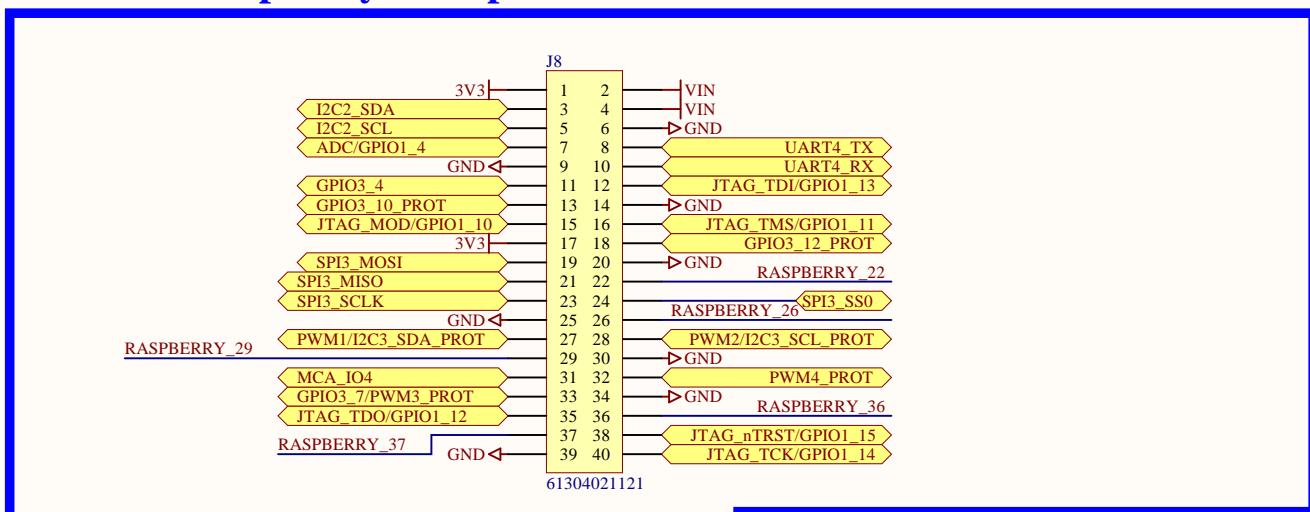
### USB Device



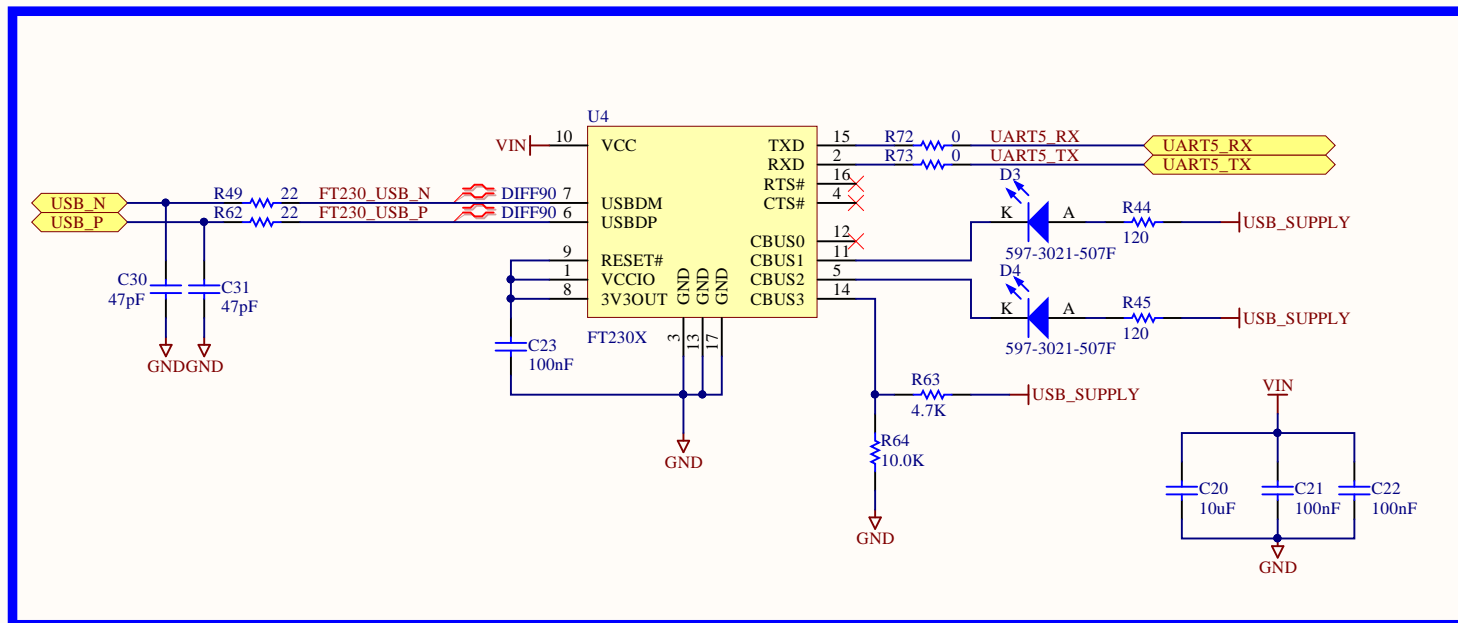
### USB HOST



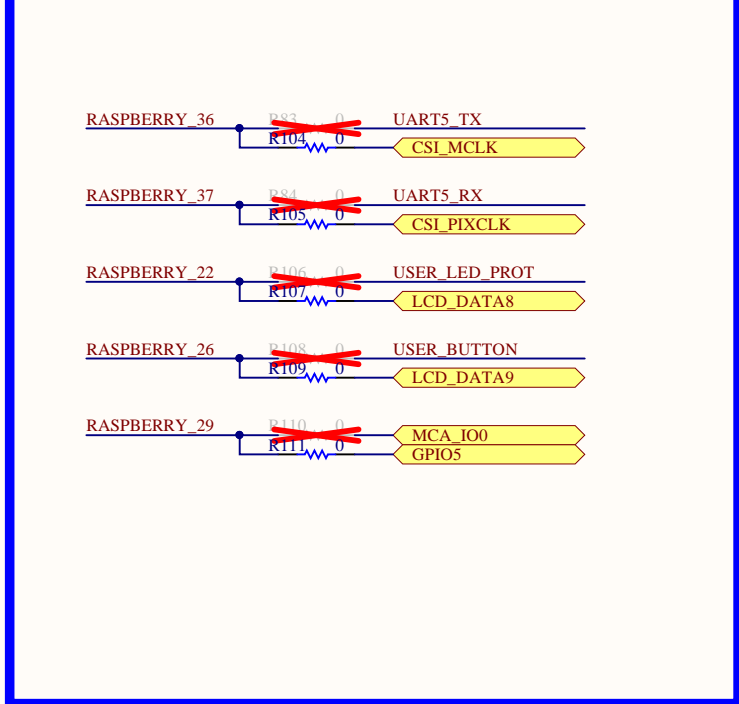
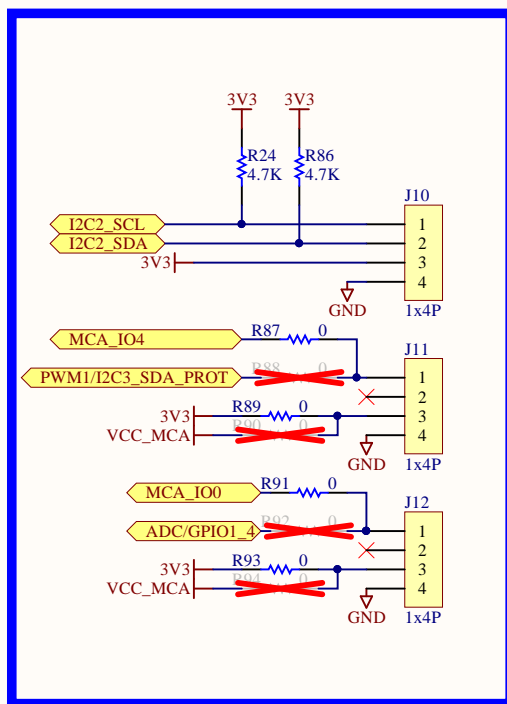
### Raspberry Pi Expansion



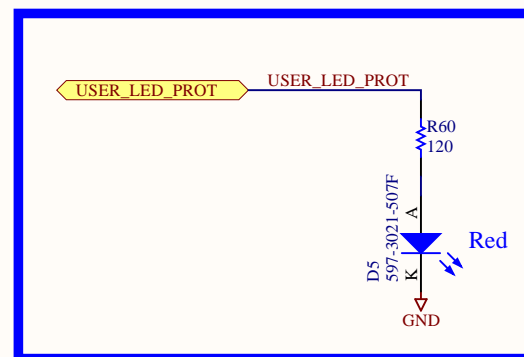
### Console



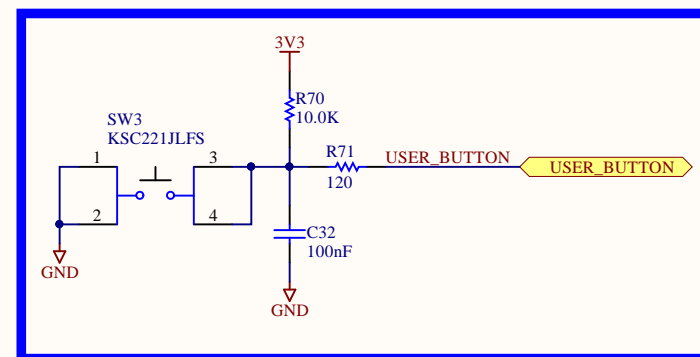
### Grove connectors



### USER LED



### USER BUTTON



## System Power Rails

Voltage (V)	Supply Name	Block	Generated by	Current Capability (mA)	Notes
5.0	VIN	USB Host	External DC supply	2000	
		Console			
		Raspberry Pi Ext			
	VSYS	ConnectCore 6UL	U1	2000	
3.3	3V3	microSD	PMIC SW2	1250	
		UART			
		JTAG			
		ETHERNET			
		BOOT			
		GROVE			
		Raspberry Pi Ext			
	VCC_MCA	MCA	U2	150	

## GPIO Table

Signal Name	GPIO	Use
<b>i.MX6UL processor</b>		
GPIO1_4	GPIO1_4	ADC/GPIO1_4
JTAG_MOD	GPIO1_10	JTAG_MOD/GPIO1_10
JTAG_TMS	GPIO1_11	JTAG_TMS/GPIO1_11
JTAG_TDO	GPIO1_12	JTAG_TDO/GPIO1_12
JTAG_TCK	GPIO1_14	JTAG_TCK/GPIO1_14
JTAG_TDI	GPIO1_13	JTAG_TDI/GPIO1_13
JTAG_nTRST	GPIO1_15	JTAG_nTRST/GPIO1_15
LCD_HSYNC	GPIO3_2	ENET1_PWR
LCD_DATA4	GPIO3_9	ENET1_INT#
LCD_RESET	GPIO3_4	GPIO3_4
LCD_D6	GPIO3_11	USER_LED
LCD_D7	GPIO3_12	GPIO3_12
LCD_D5	GPIO3_10	GPIO3_10
LCD_D2	GPIO3_7	GPIO3_7/PWM3
LCD_VSYNC	GPIO3_3	USER_BUTTON
<b>MCA (KL03)</b>		
SWD_CLK	PTA0	MCA_SWD_CLK/PWR_IO
SWD_DIO	PTA2	RASPBERRY Pi EXT
MCA_IO4	PTA9	J11 Grove / Raspberry Pi EXT
MCA_IO0	PTB0	J12 Grove / Raspberry Pi EXT



Format: DD/MM/YYYY

12/02/2016 - ConnectCore i.MX6UL Starter Board  
\* Initial version

02/06/2016 - ConnectCore i.MX6UL Starter Board  
\* Board spin: 30015102-02 revA / 55001889-02 rev01  
- Added current measurement option to VSYS (R113/J15)  
- Added current measurement option to VCC\_MCA (R114/J16)  
- Supply VCC\_MCA through VCC\_LICELL as an option (D7)  
- R6/R115/R116 for being able to shunt U1  
- Modified Ethernet PHY reset circuitry  
- Added Ethernet PHY power switch (R20/Q1/U7/R3/C39)  
- Remove the configuration resistors to support only final module pinout  
- Added pull-up for I2C bus (R24/R86)  
- Added 2x47µF//100nF (C40/C41/C43) at the input of U1 based on NXP PF3000 recommendation

28/06/2016 - ConnectCore i.MX6UL Starter Board  
\* 55001889-02 rev02:  
- Depopulate R88/R92. Populate R87/R91

25/07/2016 - ConnectCore i.MX6UL Starter Board  
\* Revision: 1P - NPR004383  
- Populate J19 (BOOT\_MODE jumper)  
- Changed R19 from 0R to 10K resistor

20/09/2016 - ConnectCore i.MX6UL Starter Board  
\* Revision: 2P - ECO006990  
- Module revision change: HWID correction.

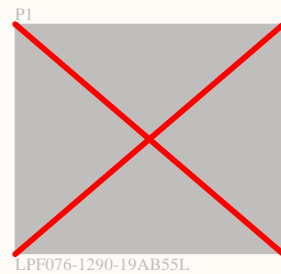
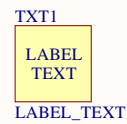
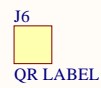
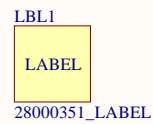
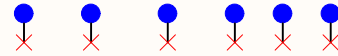
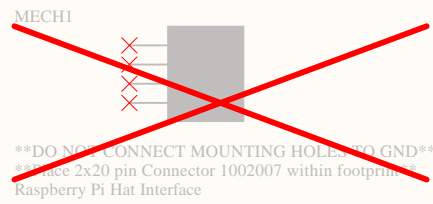
11/10/2016 - ConnectCore i.MX6UL Starter Board  
\* Revision: 3P - ECO007044  
- ConnectCore i.MX6UL module going to revision 3P.

21/02/2017 - ConnectCore i.MX6UL Starter Board  
\* Revision: 4P - ECO007182  
- ConnectCore i.MX6UL module (J1) P/N changed from 50001916-01 to 50001939-01

16/05/2017 - ConnectCore i.MX6UL Starter Board  
\* Revision: A - ECO007543  
- Release to revA without changes.

14/08/2017 - ConnectCore i.MX6UL Starter Board  
\* Revision: B - ECO007701  
- Release to revB without changes.

28/09/2017 - ConnectCore 6UL SBC Express  
\* ECO-008055: 55001889-02 rev C:  
- Fixing JIRA CC6UL-869  
- Depopulate C134, R36 and D1 from SNVS circuitry on the module.



<b>Title: History</b>	
Designer: Sébastien MEYER	Sheet: 7 of 7
Variant:55001889-02	Rev: C
Description: ConnectCore i.MX6UL Starter board	

