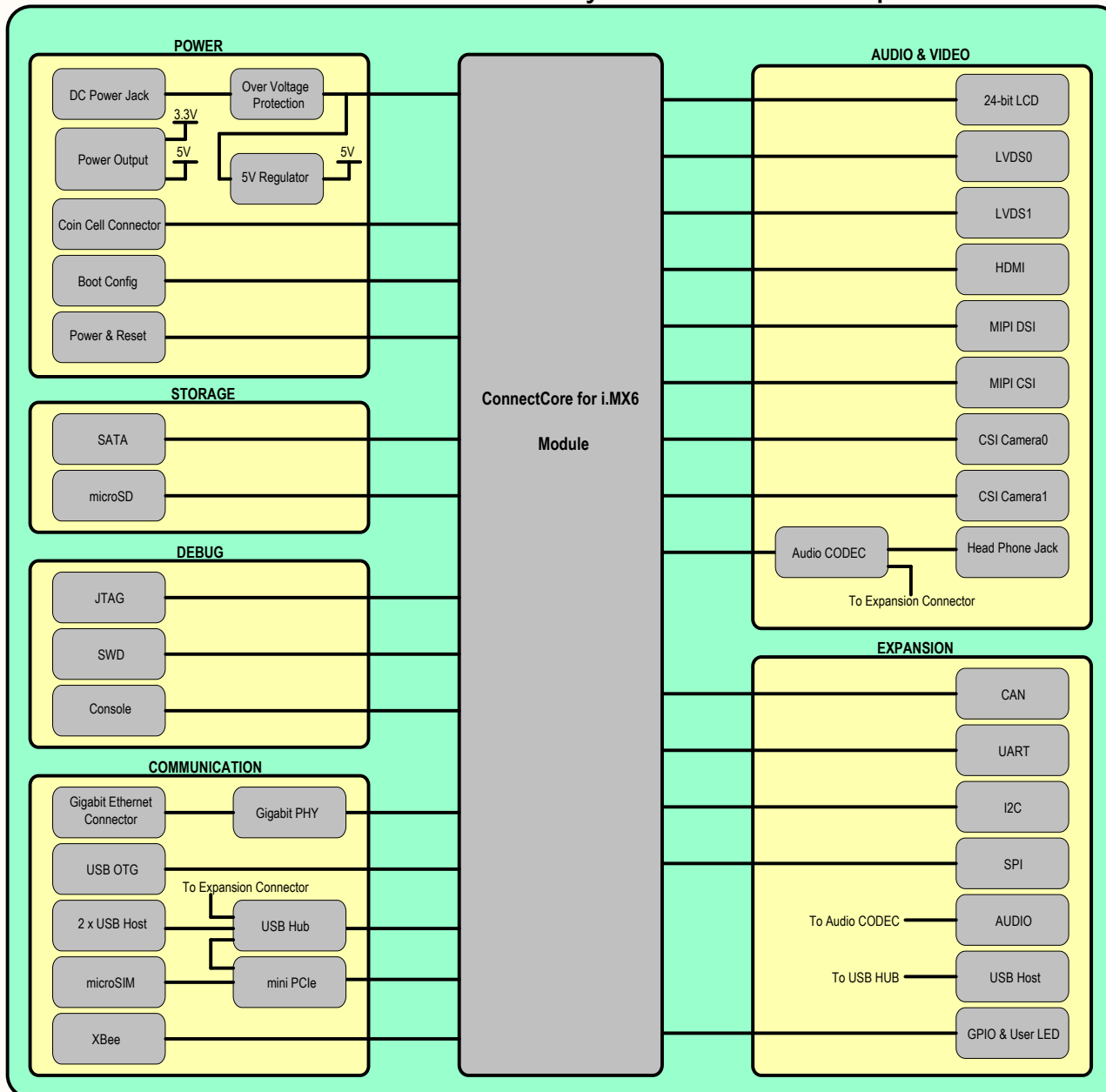


# ConnectCore for i.MX6 System Board Computer

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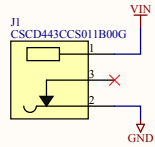


Page	Name
Page 1	Block Diagram
Page 2	ConnectCore for i.MX6 Module
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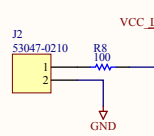


## Supply Inputs

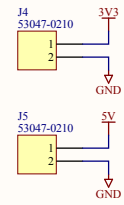
3.5V to 5.5V



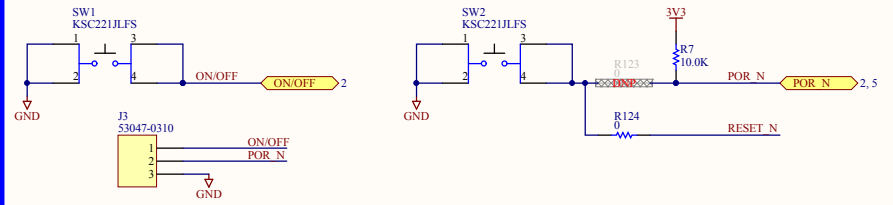
Coin Cell



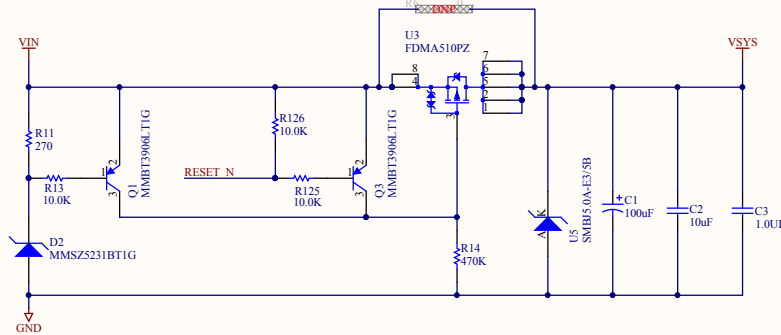
## Supply Outputs



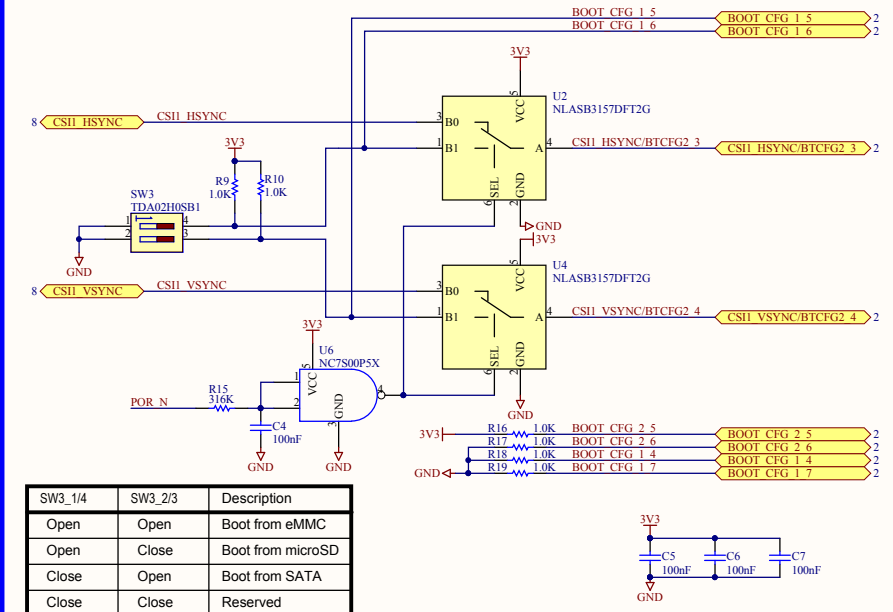
## Power and Reset



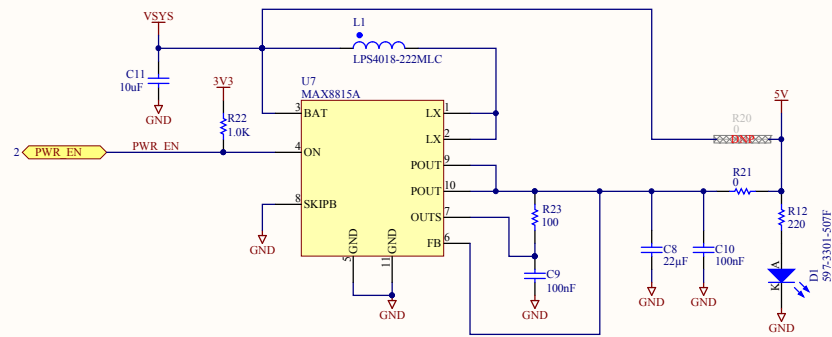
## Over Voltage Protection



## Boot Configuration

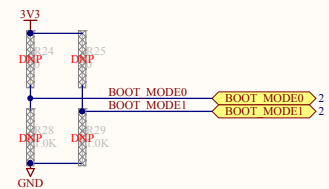


## 5V Regulator

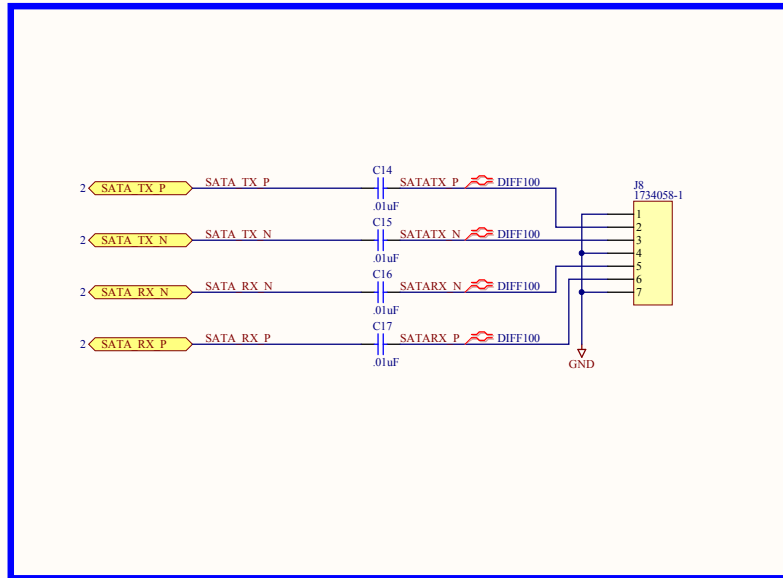


## Boot Mode

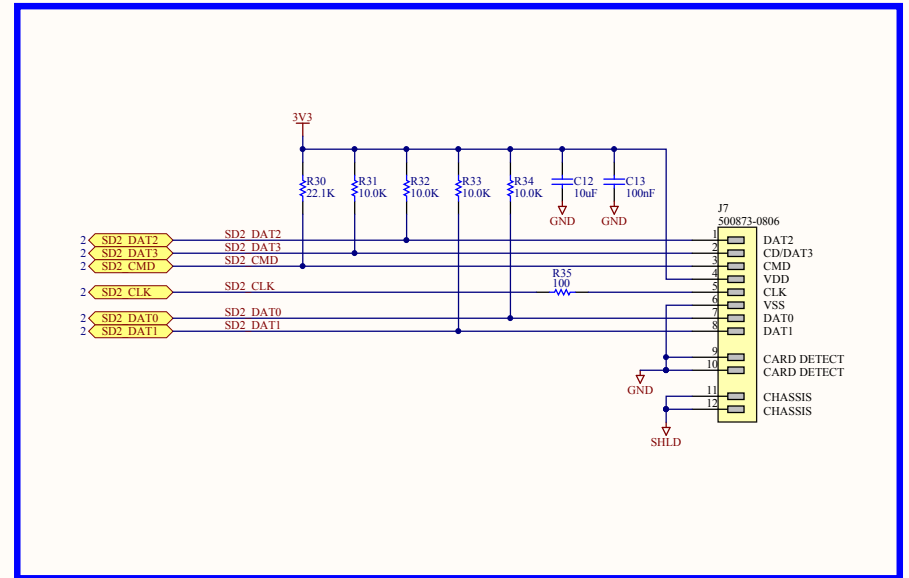
BOOT_MODE1	BOOT_MODE0	Description
0	0	Boot from Fuses
0	1	Serial Downloader
1	0	Boot from board settings
1	1	Reserved



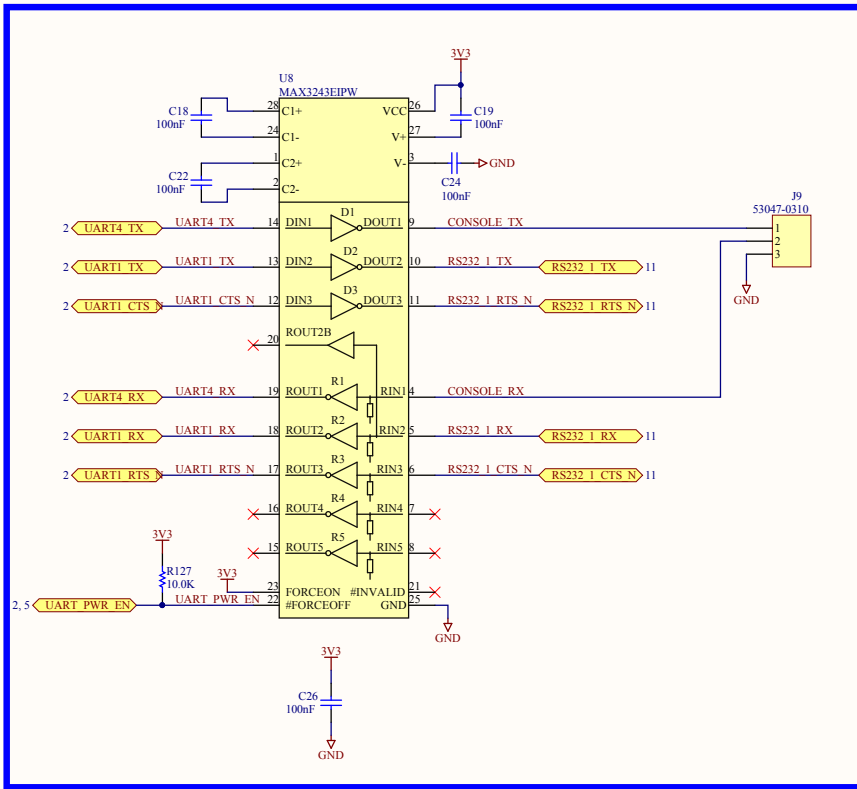
## SATA



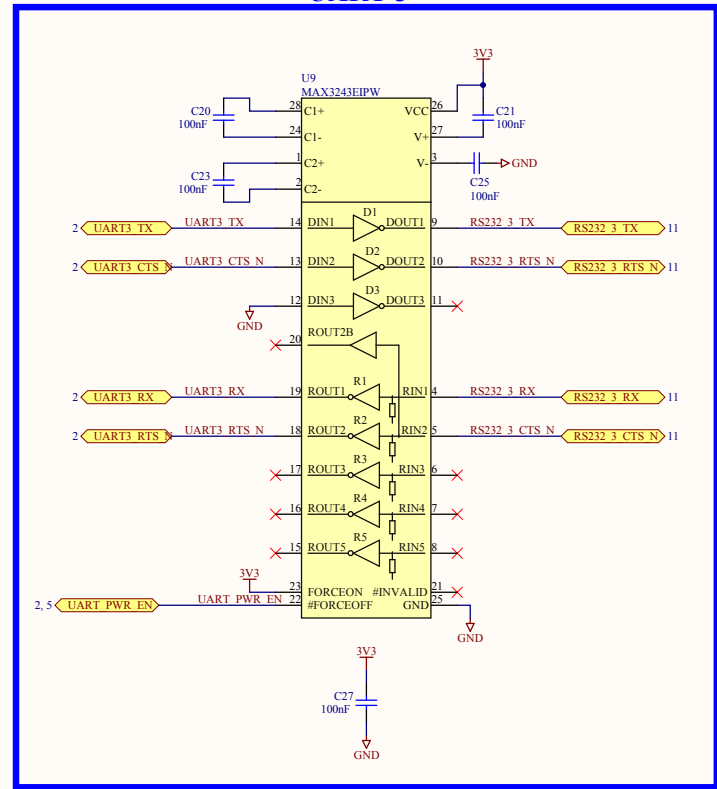
## microSD



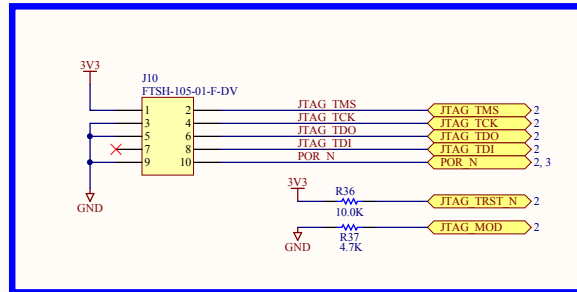
### Console and UART1



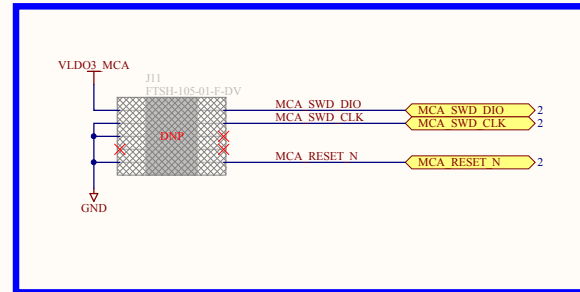
### UART 3



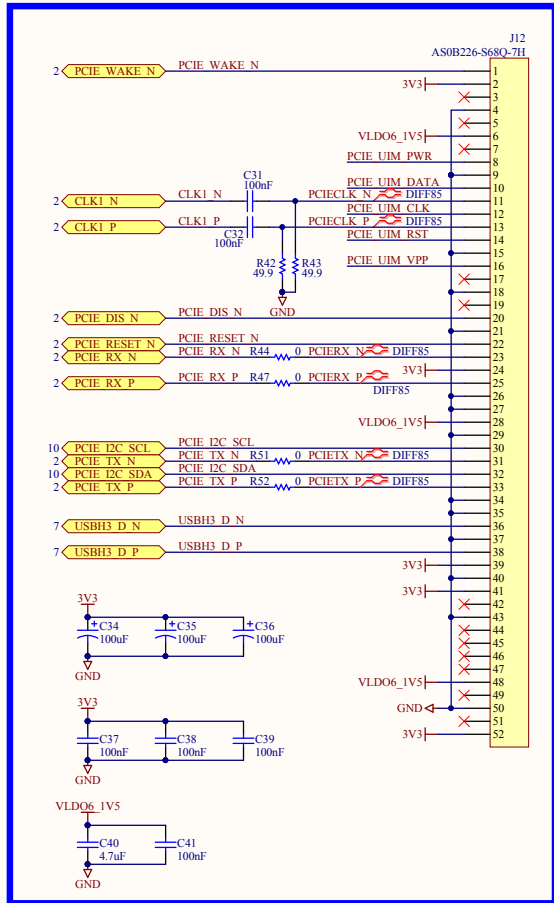
### JTAG



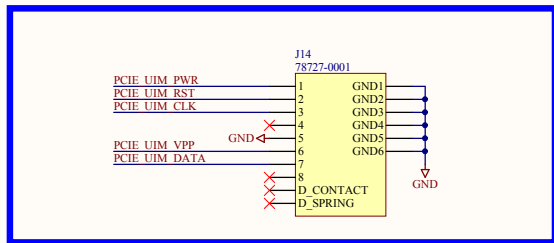
### SWD



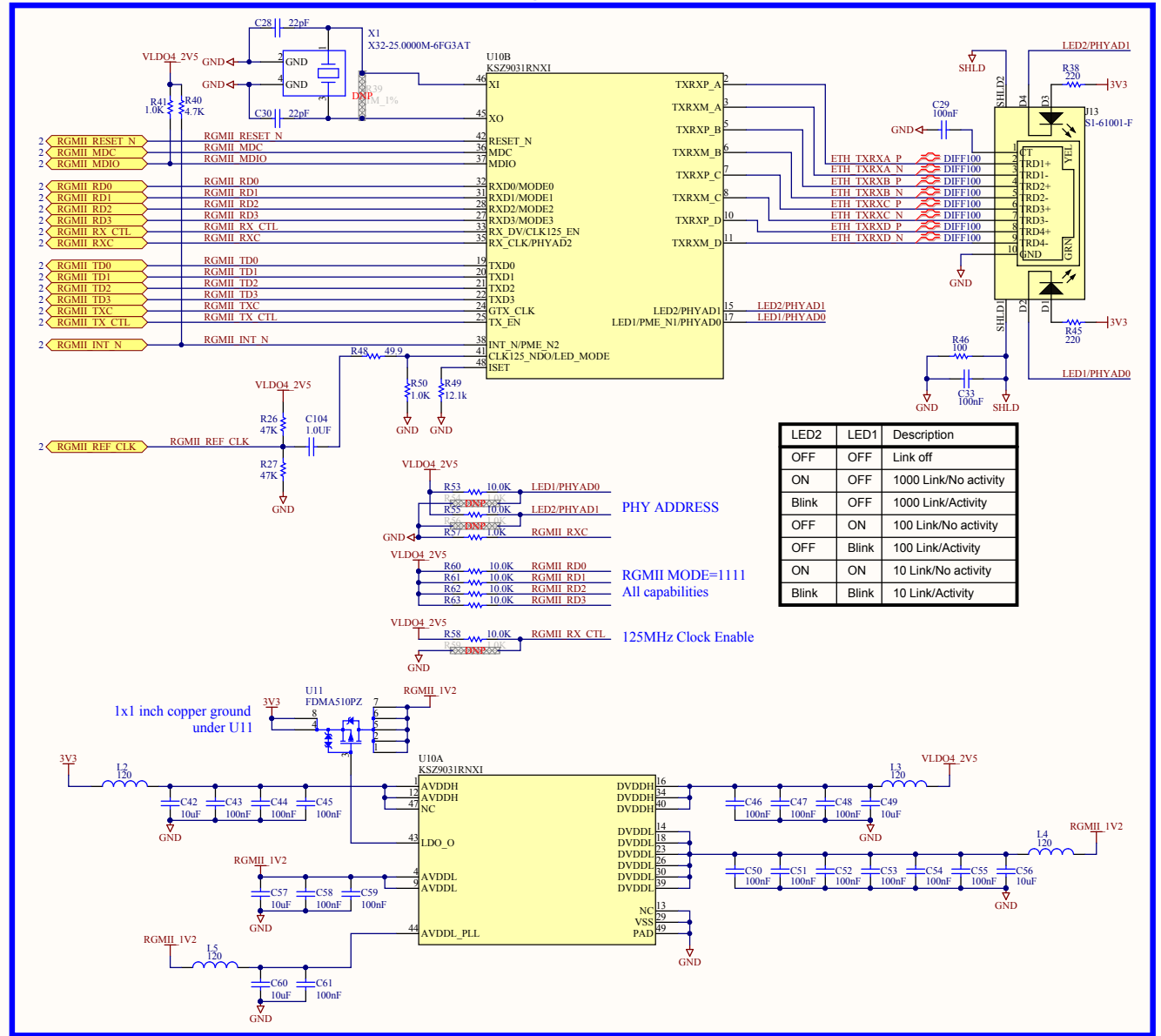
## miniPCIe



## micro SIM

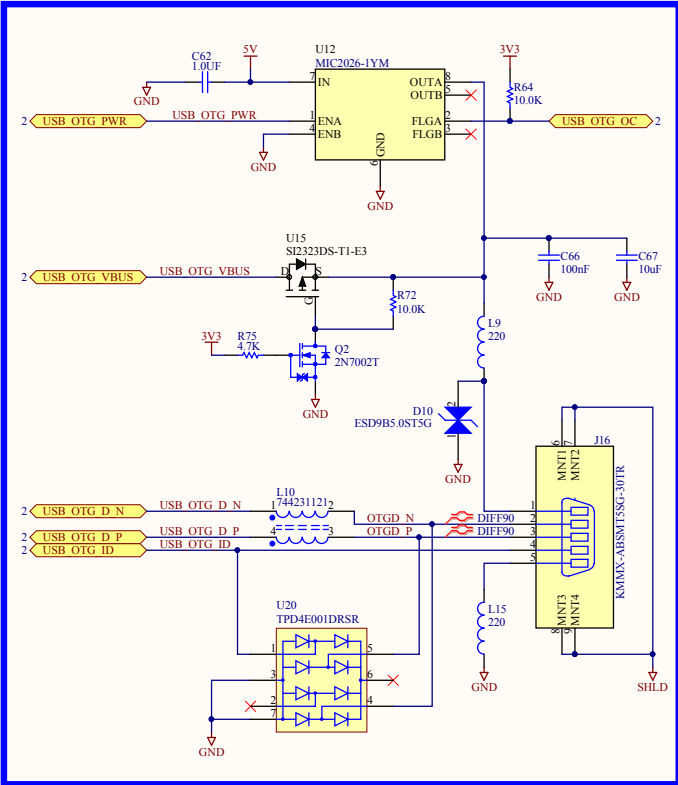


## Gigabit Ethernet

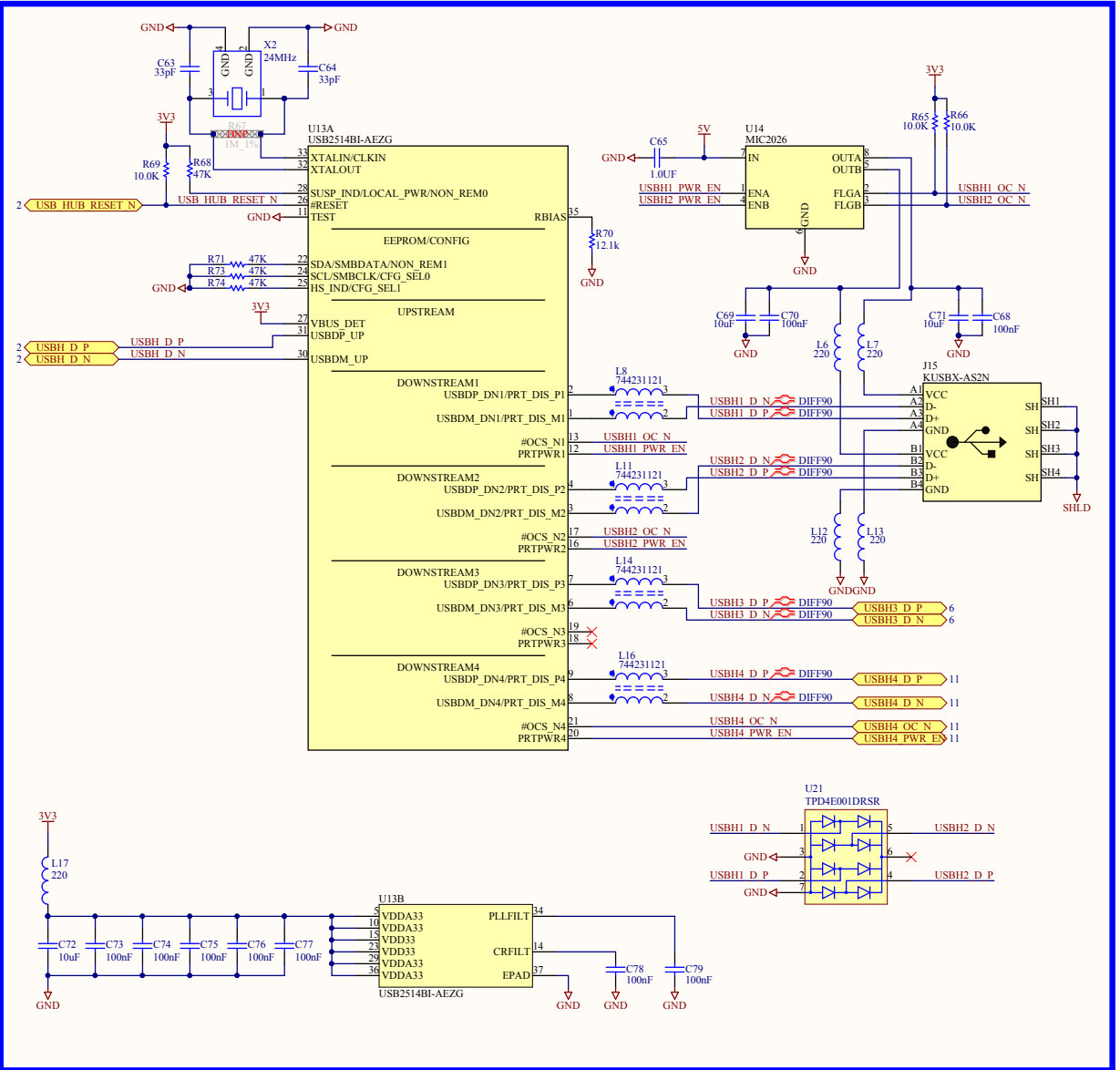


LED2	LED1	Description
OFF	OFF	Link off
ON	OFF	1000 Link/No activity
Blink	OFF	1000 Link/Activity
OFF	ON	100 Link/No activity
OFF	Blink	100 Link/Activity
ON	ON	10 Link/No activity
Blink	Blink	10 Link/Activity

# USB\_OTG



# USB\_HOST

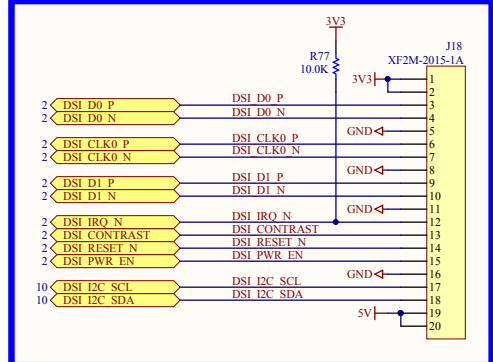
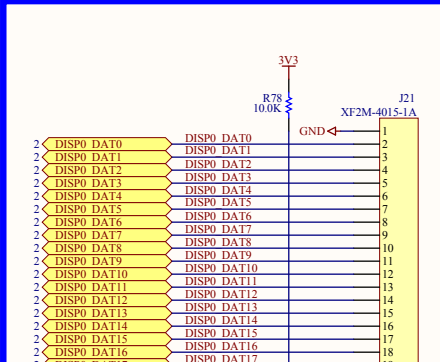
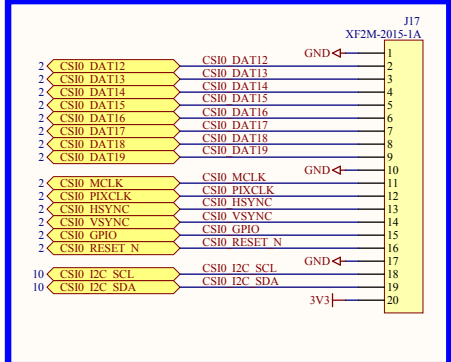
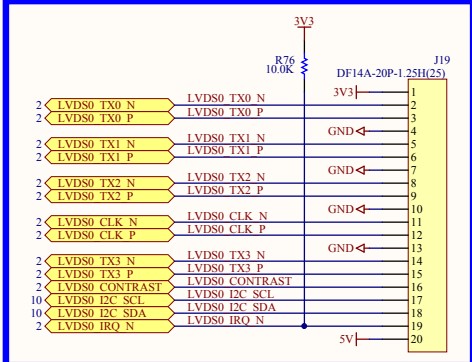


### LVDS0

### Parallel Camera 0

### Parallel Display 0

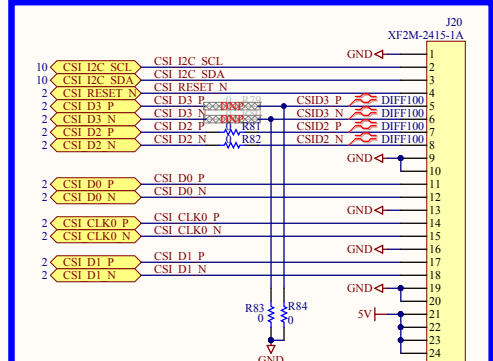
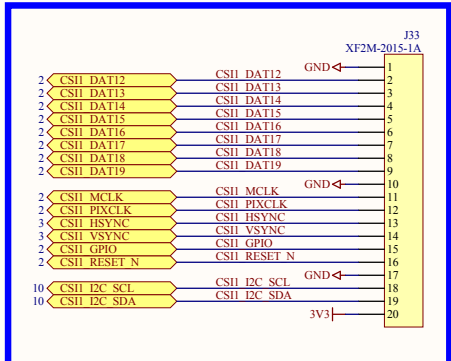
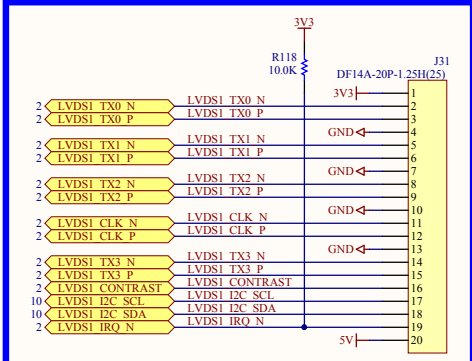
### MIPI Display



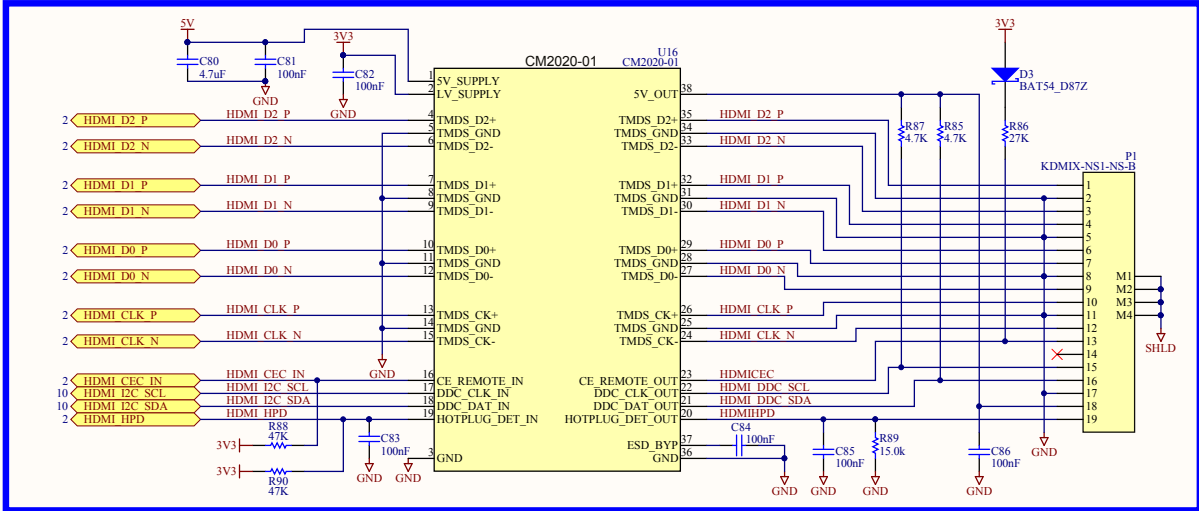
### LVDS1

### Parallel Camera 1

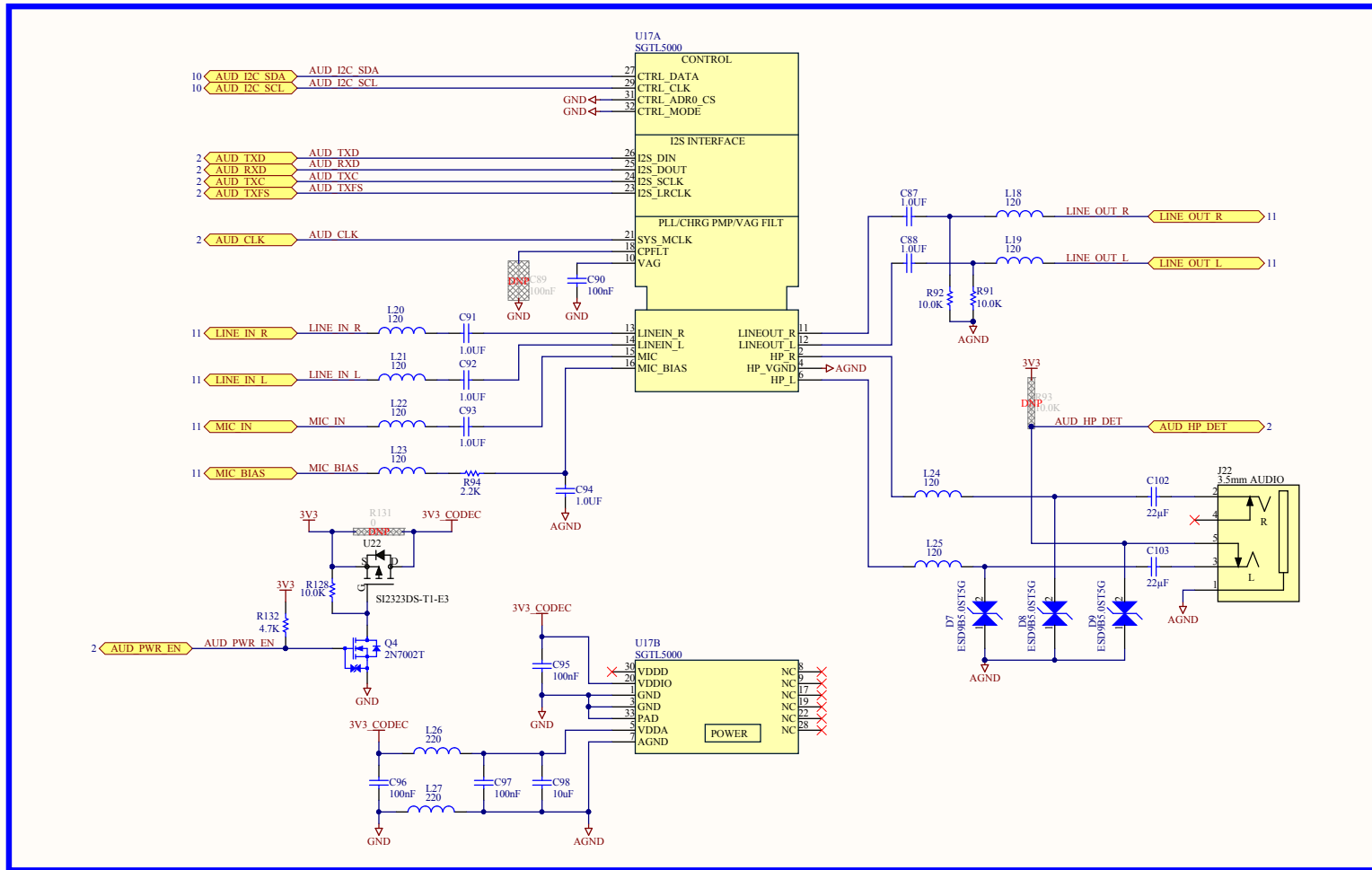
### MIPI Camera



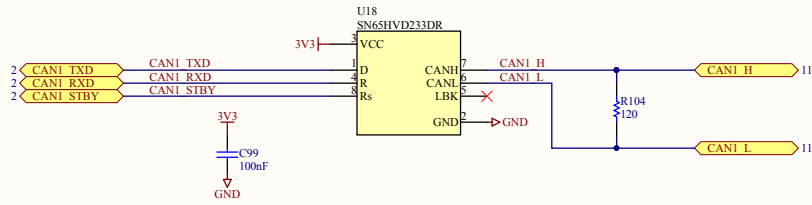
### HDMI



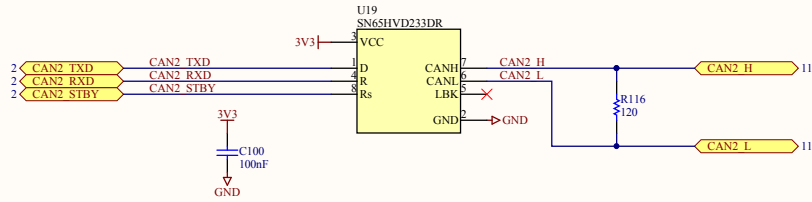
# AUDIO



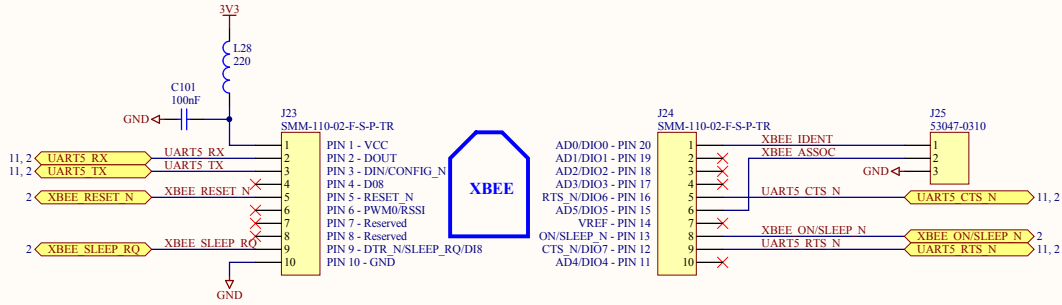
### CAN1



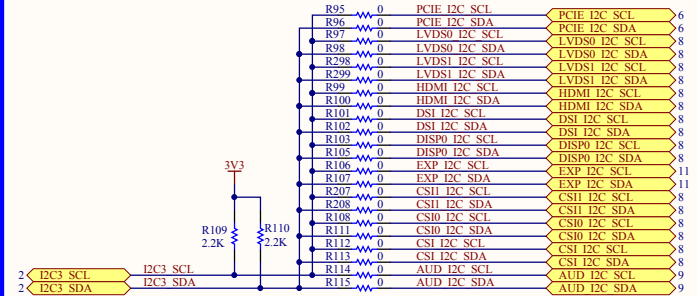
### CAN2



### XBee



### I2C



### I2C3 (3.3V)

Peripheral	Speed (kbps)	Addresses (hex)	Default Address (hex)
PCIe Port	TBD	TBD	TBD
LVDS0 Touch	TBD	TBD	TBD
LVDS1 Touch	TBD	TBD	TBD
HDMI EDID	100	0x50	0x50
MIPI Display	TBD	TBD	TBD
LCD Touch	TBD	TBD	TBD
Expansion Port	TBD	TBD	TBD
CSI0 Camera	TBD	TBD	TBD
CSI1 Camera	TBD	TBD	TBD
MIPI Camera	TBD	TBD	TBD
Audio CODEC	400	Write : 0x14 Read : 0x15	Write : 0x14 Read : 0x15

Title: CAN, I2C, XBee

Designer: Daniel Alessanco Sheet: 10 of 13

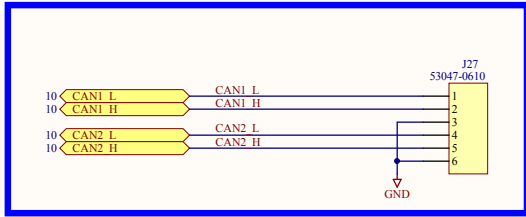
Variant: 55001809-99

Rev: 0.2

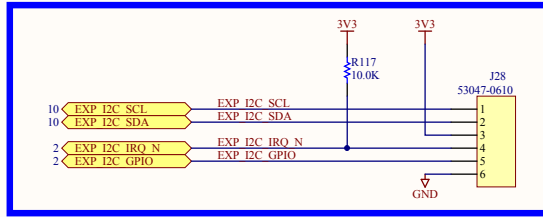
Description: Description



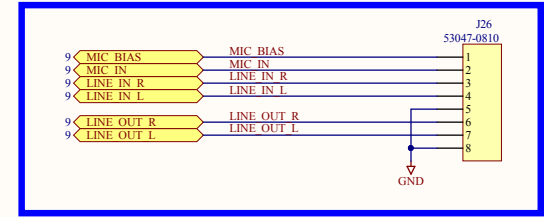
### CAN



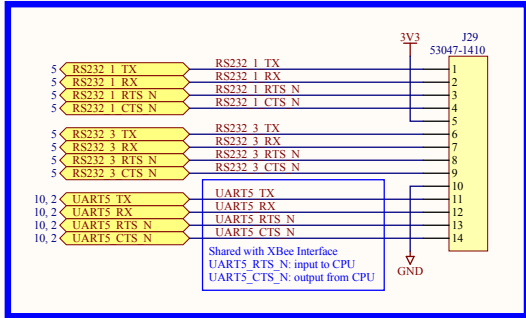
### I2C



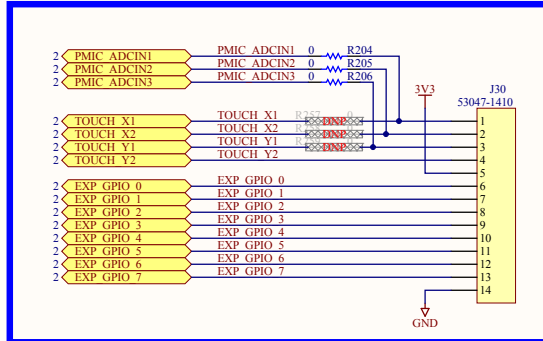
### AUDIO



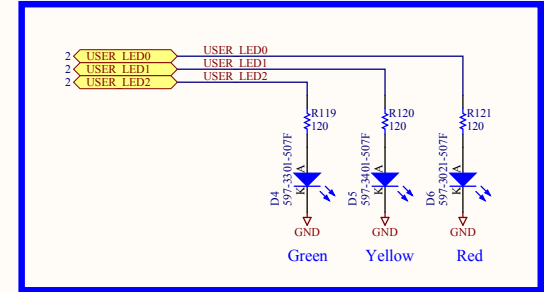
### UART



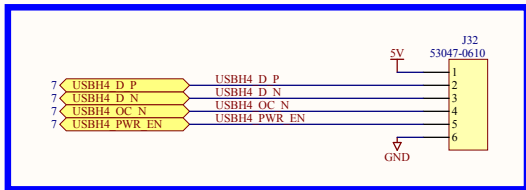
### GPIO



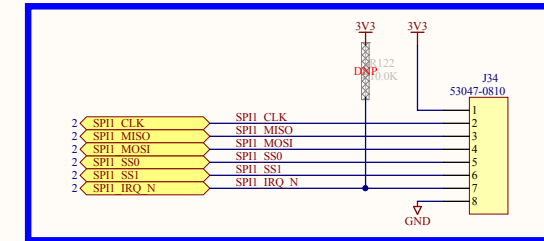
### USER LEDs



### USB



### SPI



## System Power Rails

Voltage (V)	Supply Name	Block	Generated by	Current Capability (mA)	Notes
5.0	VIN	Overvoltage Prot	External DC supply	3000	
	5V	USB Host	MAX8815A	1000	
		USB OTG			
		HDMI			
		LVDS0			
		LVDS1			
		MIPI DSI			
		MIPI CSI			
		LCD			
	3.3	3V3	EMMC	DA9063 BUCKPERI	1500
microSD					
UART					
JTAG					
ETHERNET					
miniPCIE					
AUDIO					
CAN1/2					
XBee					
I2C					
LVDS					
MIPI DSI					
Parallel Camera					
Parallel Display					
HDMI					
VLDO3_MCA	MCA	DA9063 LDO3	200	MCA_VREFH	
3.0	VCC_LICELL	RTC	External Coin Cell		
2.5	VLDO4_2V5	ETHERNET	DA9063 LDO4	200	NVCC_ENET NVCC_RGMII
1.5	VLDO6_1V5	miniPCIE	DA9063 LDO6	200	

## GPIO Table

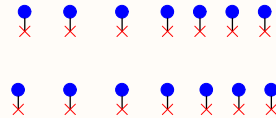
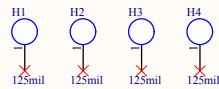
Signal Name	GPIO	Use
CSIO_DATA_EN	GPIO_5_20	CSIO_GPIO
EIM_A25	GPIO_5_2	CSI1_GPIO
EIM_BCLK	GPIO_6_31	DSI_PWR_EN
EIM_CS1	GPIO_2_24	EXP_GPIO_3
EIM_D23	GPIO_3_23	LVDS1_PEN_IRQ_N
EIM_D26	GPIO_3_26	DSI_RESET
EIM_D27	GPIO_3_27	XBEE_ON/SLEEP_N
EIM_D28	GPIO_3_28	XBEE_RESET_N
EIM_D29	GPIO_3_29	XBEE_SLEEP_RQ
EIM_DA10	GPIO_3_10	USB_HUB_RESET_N
EIM_DA15	GPIO_3_15	CSI1_RESET_N
EIM_EB0	GPIO_2_28	EXP_GPIO_4
EIM_EB1	GPIO_2_29	EXP_GPIO_5
EIM_EB3	GPIO_2_31	SPI1_IRQ_N
EIM_LBA	GPIO_2_27	DSI_IRQ_N
EIM_OE	GPIO_2_25	AUD_PWR_EN
EIM_RW	GPIO_2_26	UART_PWR_EN
EIM_WAIT	GPIO_5_0	CSIO_RESET_N
ENET_CRS_DV	GPIO_1_25	RGMII_RESET_N
ENET_TX_EN	GPIO_1_28	RGMII_INT_N
GPIO_2	GPIO_1_2	CAN1_STBY
GPIO_4	GPIO_1_4	PCIE_DIS_N
GPIO_5	GPIO_1_5	CAN2_STBY
GPIO_9	GPIO_1_9	BT_DISABLE_N
GPIO_16	GPIO_7_11	LVDS0_PEN_IRQ_N
GPIO_18	GPIO_7_13	EXP_GPIO_6
GPIO_19	GPIO_4_5	EXP_GPIO_7
NANDF_CS2	GPIO_6_15	EXP_I2C_IRQ_N
NANDF_CS3	GPIO_6_16	EXP_I2C_GPIO
NANDF_D0	GPIO_2_0	AUD_HP_DET
NANDF_D1	GPIO_2_1	DISP_IRQ
NANDF_D2	GPIO_2_2	USER_LED0
NANDF_D3	GPIO_2_3	USER_LED1
NANDF_D4	GPIO_2_4	USER_LED2
NANDF_D5	GPIO_2_5	EXT_GPIO_0
NANDF_D6	GPIO_2_6	EXT_GPIO_1
NANDF_D7	GPIO_2_7	EXT_GPIO_2
SD3_DAT2	GPIO_7_6	CSI_RESET_N
SD3_DAT3	GPIO_7_7	PCIE_WAKE_N
PMIC_GPIO7	PMIC_GPIO7	PWR_EN

Format: DD/MM/YYYY

09/07/2014 - ConnectCore i.MX6 System Board Computer

\* Revision: ?? - ECOxxXXXX

- PCB spin: 3001475x-01 revB => 3001475x-02 revA
- Changed R11 to 270R\_0805 (0.5W)
- Changed D2 to MMSZ5231TB1G
- Changed U7 to MAX8815AETB+
- Changed L11 to 2.2uH, 2.3A inductor
- Added a 2-pin 3.3V power connector and a 2-pin 5V power connector
- Removed SATA power connector
- PMIC\_ADCIN signals connected to GPIO expansion connector
- Changed pin 3 of J28 (I2C expansion) from GND to +3.3V
- Changed pin 5 of J29 (UART expansion) from GND to +3.3V
- Changed pin 5 of J30 (GPIO expansion) from GND to +3.3V
- Changed J34 (SPI expansion) to an 8-pin connector
- Changed expansion LVDS1 to DF14 connector
- Changed expansion CS11 to FFC CS11 connector
- Changed Xbee Connectors to SMD connectors
- Changed Boot configuration jumpers to a 2pos switch
- Changed SATA connector to an SMD SATA connector
- Changed U8 and U9 to MAX3243EIPW
- Changed C20-C27 to 0.1uF capacitors
- Changed X1 to and extended temperature range crystal
- Changed reset button SW2 to an extended temperature range button
- Reset button connected to over voltage circuit to completely reset the board
- Two 22uF capacitors added to the headphone output lines.
- Changed R28 and R29 from 10K to 1K
- Added two test points to the unused LDOs VLDO7 and VLDO8
- Added R26, R27 and C104 to improve RGMII\_REF\_CLK signal
- U11 changed from SI2323DS to FDMAS10 to improve power dissipation
- Added R127 and UART\_PWR\_EN signal to disable UARTs
- Power LED D1 connected to 5V instead of to VSYS
- Added Q4, U22, R131 and R132 to put audio codec on standby
- Added AUD\_PWR\_EN signal connected to EIM\_OE module pin
- Added connected to EIM\_RW module pin



Title: History, Mechanicals	
Designer: Daniel Alesanco	Sheet: 13 of 13
Variant: 55001809-99	Rev: 0.2
Description: Description	

