

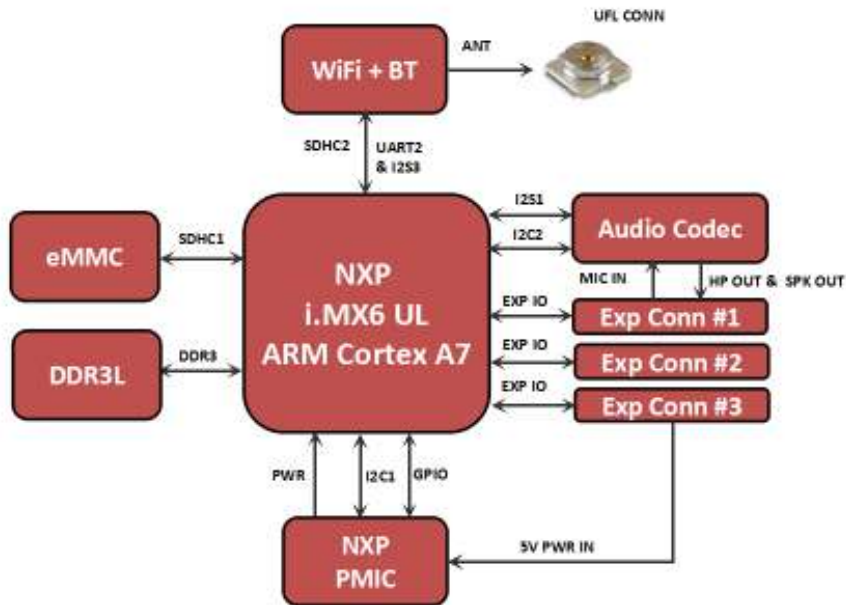
**NXPU\_IOPB**  
**IMX6UL SOM CARD**  
**COVER PAGE**

REV	Revision Notes	Designer	Approver	Date
A1	Initial Release	Guruprasad	Jothi	18-08-2016
A2	SDHC1_RST_B & GPIO1_IO9 signals are swapped	Guruprasad	Jothi	24-08-2016
A3	Added PD resistor to JTAG MOD Pin	Guruprasad	Jothi	24-08-2016

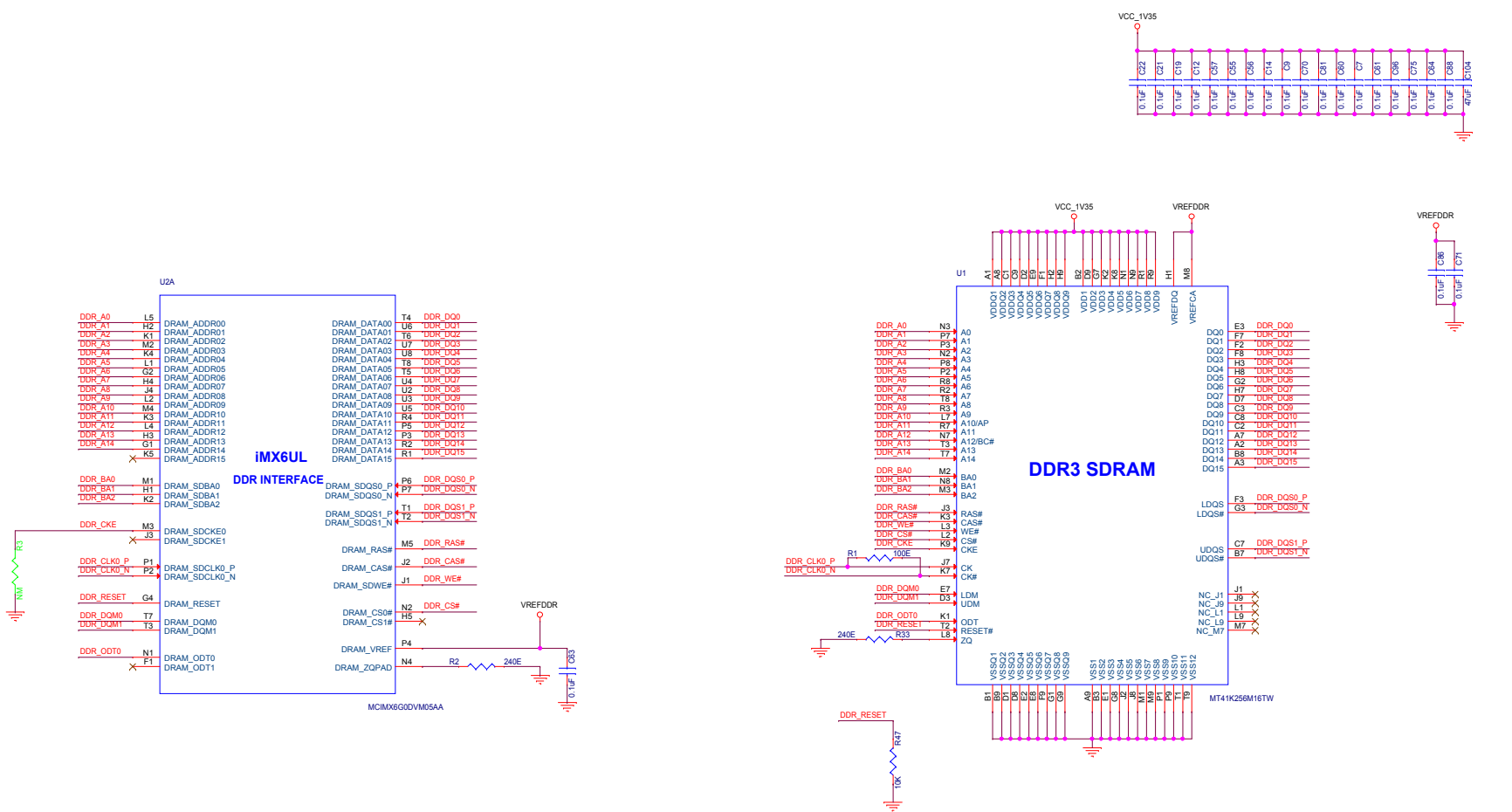
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NOTE : Parts in this color are No Mount or DNP

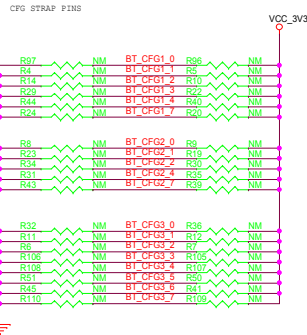
# BLOCK DIAGRAM



# IMX6 UL DDR3L



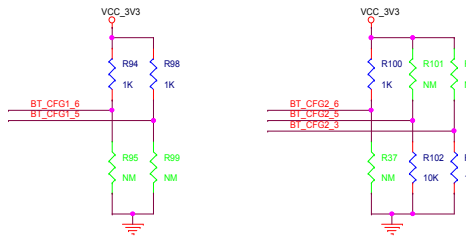
# IMX6 UL LCD INTERFACE AND BOOT CONFIG



U2B

IMX6UL - LCD INTERFACE				
12	GPI03_I08	BT_CFG1_0	B9	LCD_DATA00/GPI03_I05/ENET1_1588_EVENT2_IN/SA11_MCLK/SRC_BT_CFG0/I2C3_SDA/PWM1_OUT
12	GPI03_I08	BT_CFG1_1	A9	LCD_DATA01/GPI03_I06/ENET1_1588_EVENT2_OUT/SA11_TX_SYNC/SRC_BT_CFG1/I2C3_SCL/PWM2_OUT
12	GPI03_I07	BT_CFG1_2	E10	LCD_DATA02/GPI03_I07/ENET1_1588_EVENT3_IN/SA11_TX_BCLK/SRC_BT_CFG2/I2C4_SDA/PWM3_OUT
12	GPI03_I08	BT_CFG1_3	D10	LCD_DATA03/GPI03_I08/ENET1_1588_EVENT3_OUT/SA11_RX_DATA/SRC_BT_CFG3/I2C4_SCL/PWM4_OUT
12	GPI03_I08	BT_CFG1_4	C10	LCD_DATA04/GPI03_I09/UART8_CTS_B/ENET2_1588_EVENT2_IN/SA11_TX_DATA/SRC_BT_CFG4/SPI0F_SSR_CLK
12	GPI03_I08	BT_CFG1_5	B10	LCD_DATA05/GPI03_I010/UART8_RTS_B/ECSP11_SS1/ENET2_1588_EVENT2_OUT/SRC_BT_CFG5/SPI0F_OUT
12	SPI1_SS2	BT_CFG1_6	A10	LCD_DATA06/GPI03_I011/UART7_CTS_B/ECSP11_SS2/ENET2_1588_EVENT3_IN/SRC_BT_CFG6/SPI0F_LOCK
12	SPI1_SS3	BT_CFG1_7	D11	LCD_DATA07/GPI03_I012/UART7_RTS_B/ECSP11_SS3/ENET2_1588_EVENT3_OUT/SRC_BT_CFG7/SPI0F_EXT_CLK
12	CAN1_TX	BT_CFG2_0	B11	LCD_DATA08/GPI03_I013/EIM_DATA0/CS1_DATA16/SA3_RX_BT_CFG8/CAN1_TX/SPI0F_IN
12	CAN1_RX	BT_CFG2_1	A11	LCD_DATA09/GPI03_I014/EIM_DATA1/CS1_DATA17/SA3_MCLK/SRC_BT_CFG9/CAN1_RX
12	IIS3_RX_SYNC	BT_CFG2_2	E12	LCD_DATA10/GPI03_I015/EIM_DATA2/CS1_DATA18/SA3_RX_SYNC/SRC_BT_CFG10/CAN2_TX
12	IIS3_RX_BCLK	BT_CFG2_3	C12	LCD_DATA11/GPI03_I018/EIM_DATA3/CS1_DATA19/SA3_RX_BCLK/SRC_BT_CFG11/CAN2_RX
11,12	BT_IIS3_SYNC	BT_CFG2_5	B12	LCD_DATA12/GPI03_I017/EIM_DATA4/CS1_DATA20/ECSP11_RDY/SA3_TX_SYNC/SRC_BT_CFG12
11,12	BT_IIS3_BCLK	BT_CFG2_6	A12	LCD_DATA13/GPI03_I018/USDH2C_RESET_B/EIM_DATA4/CS1_DATA21/SA3_TX_BCLK/SRC_BT_CFG13
11,12	BT_IIS3_DOUT	BT_CFG2_7	D13	LCD_DATA14/GPI03_I019/USDH2C_DATA0/EIM_DATA6/CS1_DATA22/SA3_RX_DATA/SRC_BT_CFG14
11,12	BT_IIS3_DIN	BT_CFG3_0	C13	LCD_DATA15/GPI03_I020/USDH2C_DATA5/EIM_DATA7/CS1_DATA23/SA3_TX_DATA/SRC_BT_CFG15
12	GPI03_I021	BT_CFG3_1	B13	LCD_DATA16/GPI03_I021/UART7_TX/USDH2C_DATA6/EIM_DATA8/CS1_DATA19/SRC_BT_CFG24
12	GPI03_I022	BT_CFG3_2	A13	LCD_DATA17/GPI03_I022/UART7_RX/USDH2C_DATA7/EIM_DATA9/CS1_DATA20/SRC_BT_CFG25
12	GPI03_I023	BT_CFG3_3	D14	LCD_DATA18/GPI03_I023/USDH2C_CMD/EIM_DATA10/CS1_DATA10/SRC_BT_CFG26/PWM5_OUT
12	GPI03_I024	BT_CFG3_4	C14	LCD_DATA19/GPI03_I024/USDH2C_CLK/EIM_DATA11/CS1_DATA11/SRC_BT_CFG27/PWM6_OUT
12	SPI1_CLK	BT_CFG3_5	B14	LCD_DATA20/GPI03_I025/UART8_TX/USDH2C_DATA0/EIM_DATA12/CS1_DATA12/ECSP11_SCLK/SRC_BT_CFG28
12	SPI1_SS0	BT_CFG3_6	A14	LCD_DATA21/GPI03_I026/UART8_RX/USDH2C_DATA1/EIM_DATA13/CS1_DATA13/ECSP11_SS0/SRC_BT_CFG29
12	SPI1_MISO	BT_CFG3_7	B16	LCD_DATA22/GPI03_I027/USDH2C_DATA2/EIM_DATA14/CS1_DATA14/ECSP11_MISO/SRC_BT_CFG30
12				LCD_DATA23/GPI03_I028/USDH2C_DATA3/EIM_DATA15/CS1_DATA15/ECSP11_MISO/SRC_BT_CFG31
12	IIS3_MCLK		A8	LCD_CLK/GPI03_I00/UART4_TX/EIM_CS2_B/SA3_MCLK
12	GPI03_I01		B8	LCD_ENABLE/GPI03_I01/UART4_RX/EIM_CS3_B/ECSP12_RDY/SA3_TX_SYNC/LCD_RD_E
12	GPI03_I02		D9	LCD_HSYNC/GPI03_I02/UART4_CTS_B/ECSP12_SS1/SA3_TX_BCLK
12	GPI03_I03		C9	LCD_VSYNC/GPI03_I03/UART4_RTS_B/ECSP12_SS2/SA3_RX_DATA/LCD_BUSY
12	GPI03_I04		E9	LCD_RESET/GPI03_I04/ECSP12_SS3/SA3_TX_DATA/LCD_CS

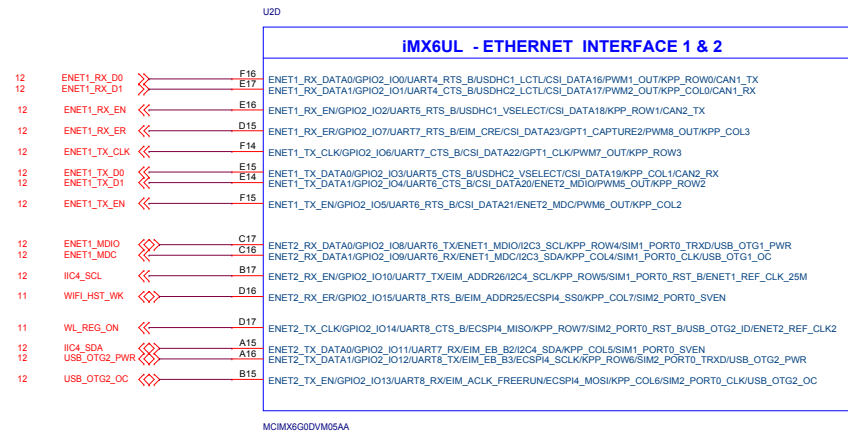
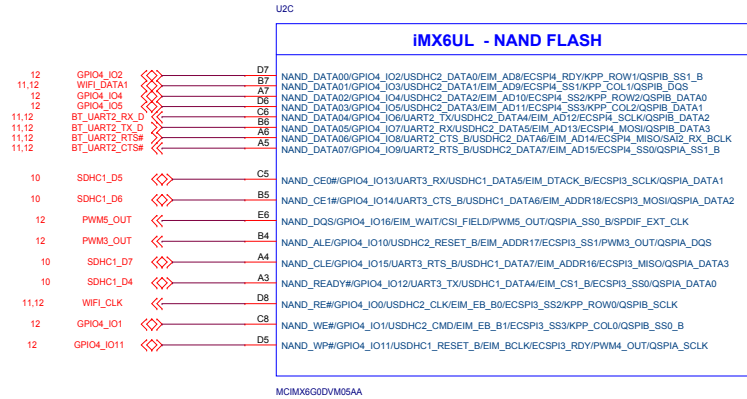
MCIMX6G0VMD5AA




CFG1[6:5] = 11 => eMMC  
CFG1[6:5] = 10 => SDCard

CFG2[6:5] = 10 => 8 bit eMMC  
CFG2[3] = 0 => uSDHC1

# IMX6 UL NAND AND ETHERNET INTERFACE



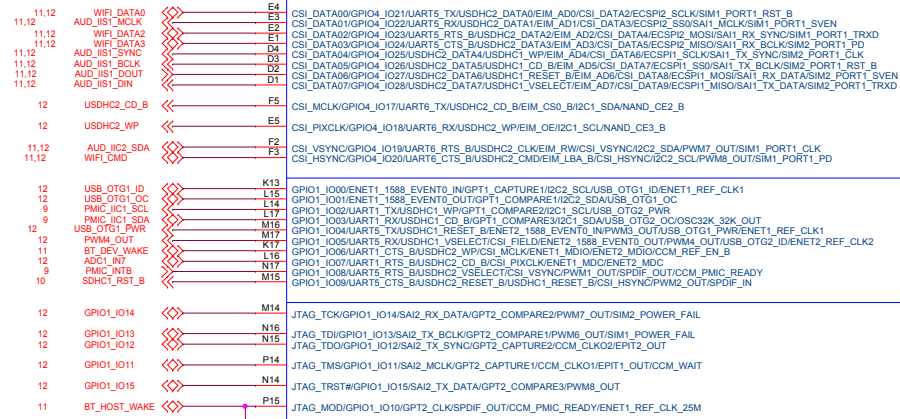
NXPUIOPB

	c	Title : IMX6 UL NAND AND ETHERNET INTERFACE	
	Fab No : 501-1-00468		Rev: A3
	Asy No : 701-1-00544		Sheet 5 of 13

# IMX6 UL CSI GPIO JTAG UART & SD INTERFACE

U2E

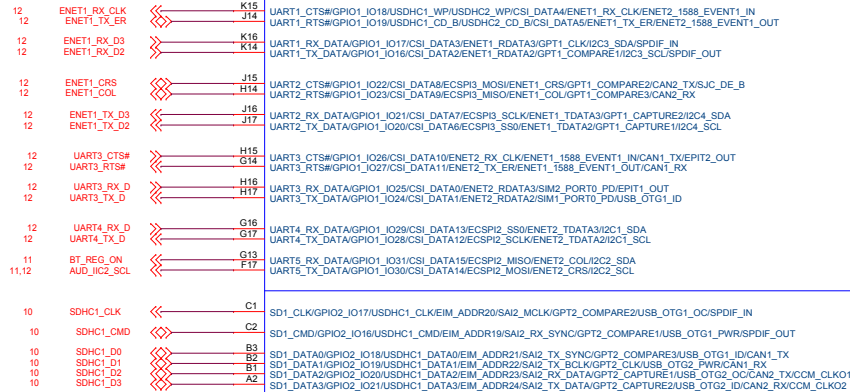
## IMX6UL - Camera Sensor, GPIO & JTAG Interface



MCIMX660DVMSAA

U2F

## IMX6UL - UART & SD INTERFACE

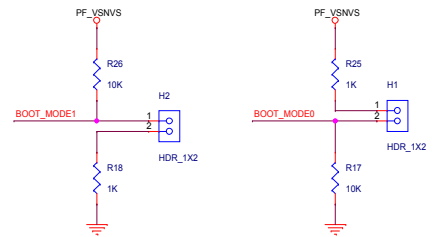
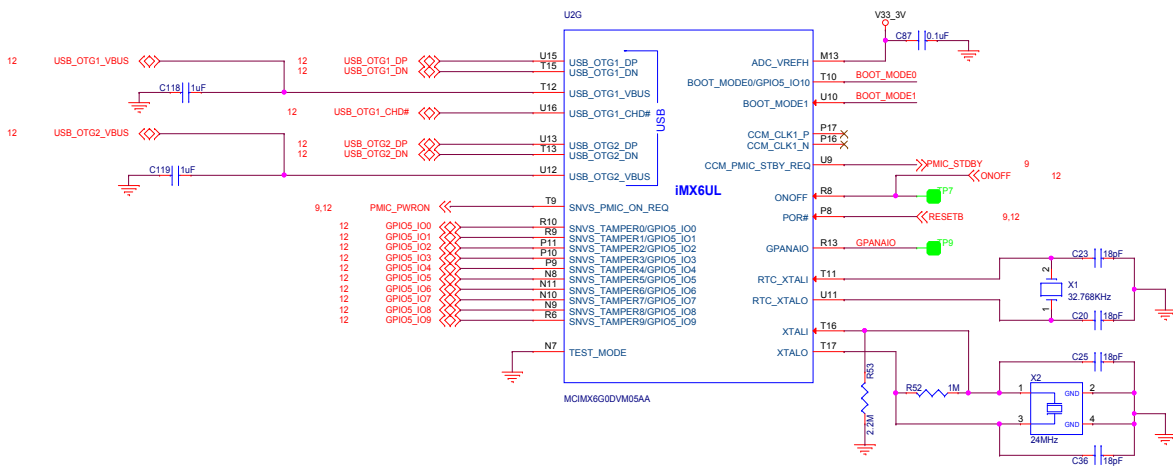


MCIMX660DVMSAA

NXPUIOPB

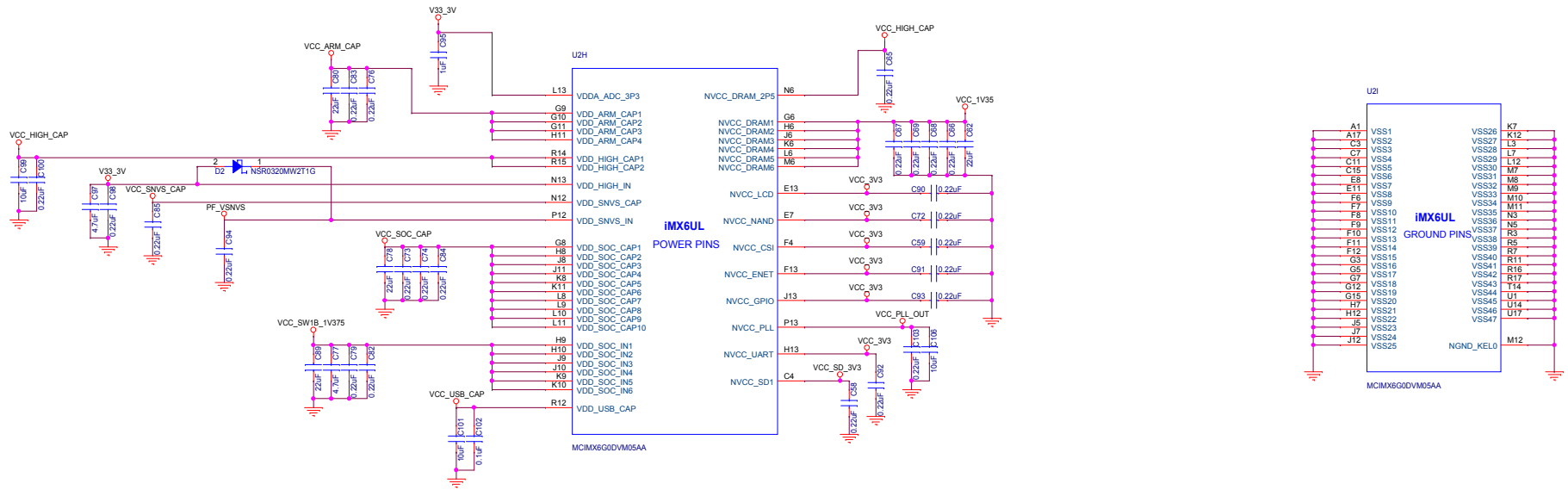
	c	Title: IMX6 UL CSI GPIO JTAG UART & SD INTERFACE	
	Fab No : 501-1-00466		Rev: A3
	Asy No : 701-1-00544		Sheet 6 of 13

# IMX6 UL CLK RESET USB



BOOT_MODE[1:0]	BOOT TYPE
00	FUSES
01	SERIAL DOWNLOADER
10	INTERNAL BOOT
11	RESERVED

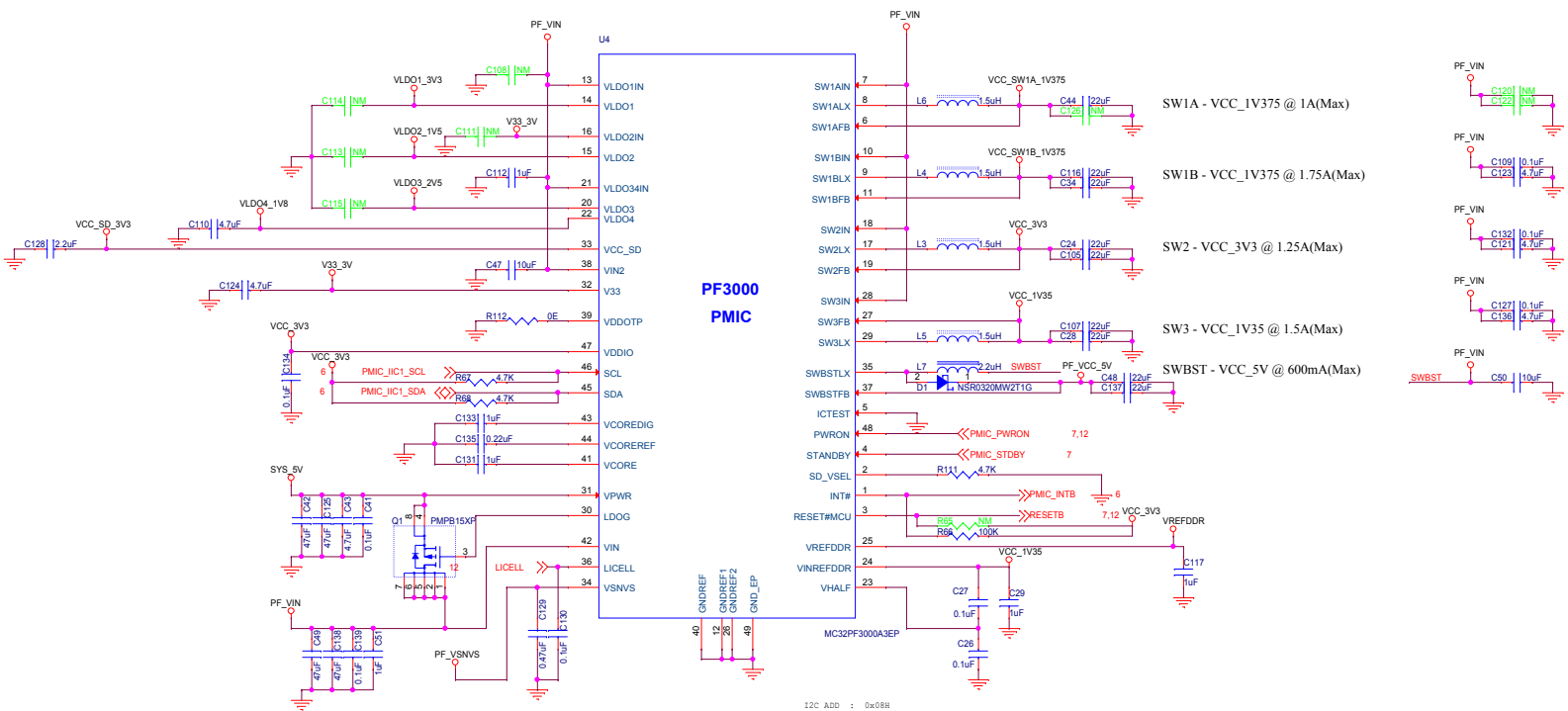
# IMX6 UL POWER & GROUND





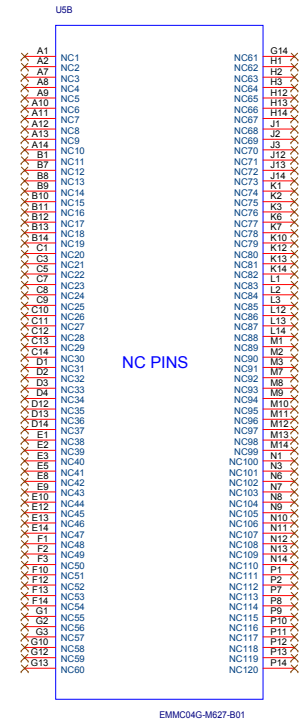
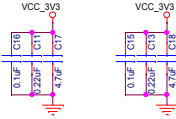
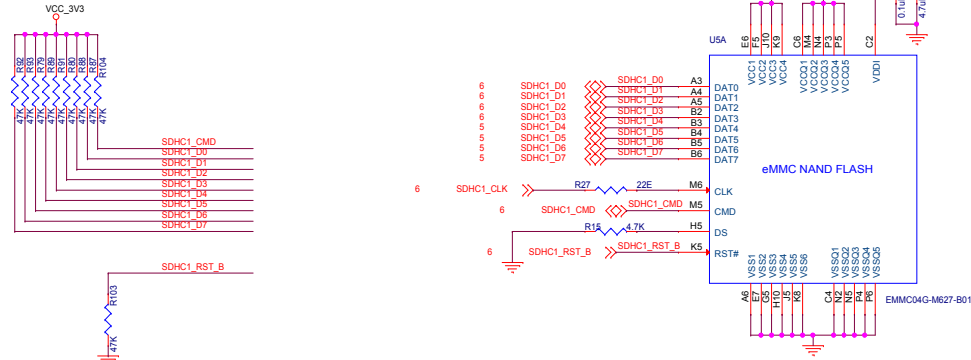
# PMIC- PF3000A3

- VLDO1\_3V3 @ 100mA(Max)
- VLDO2\_1V5 @ 250mA(Max)
- VLDO3\_2V5 @ 100mA(Max)
- VLDO4\_1V8 @ 350mA(Max)
- VCC\_SD\_1V8/3V3 @ 100mA(Max)
- V33\_3V @ 350mA(Max)

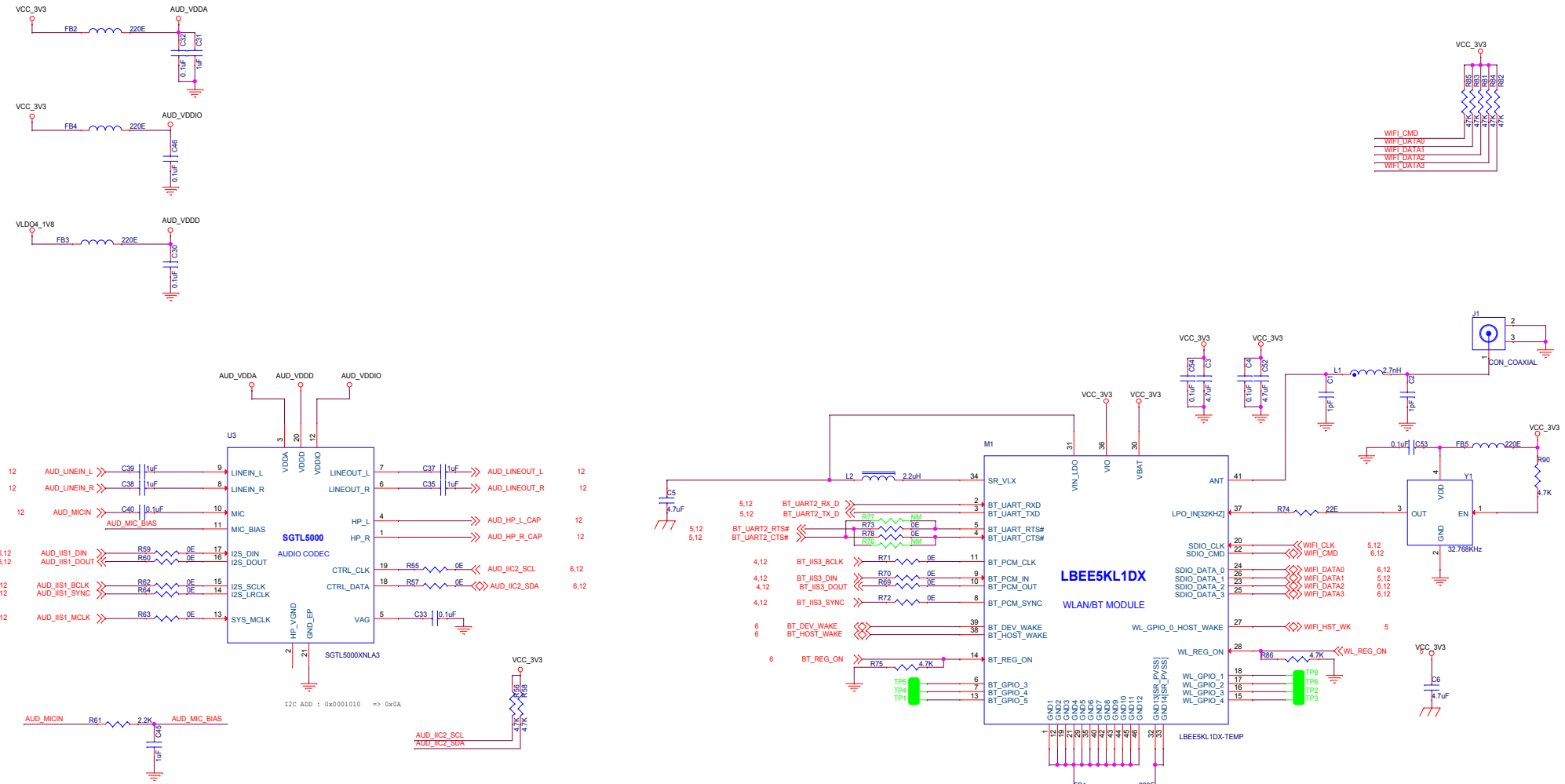


I2C ADD : 0x088

# eMMC- EMMC04G

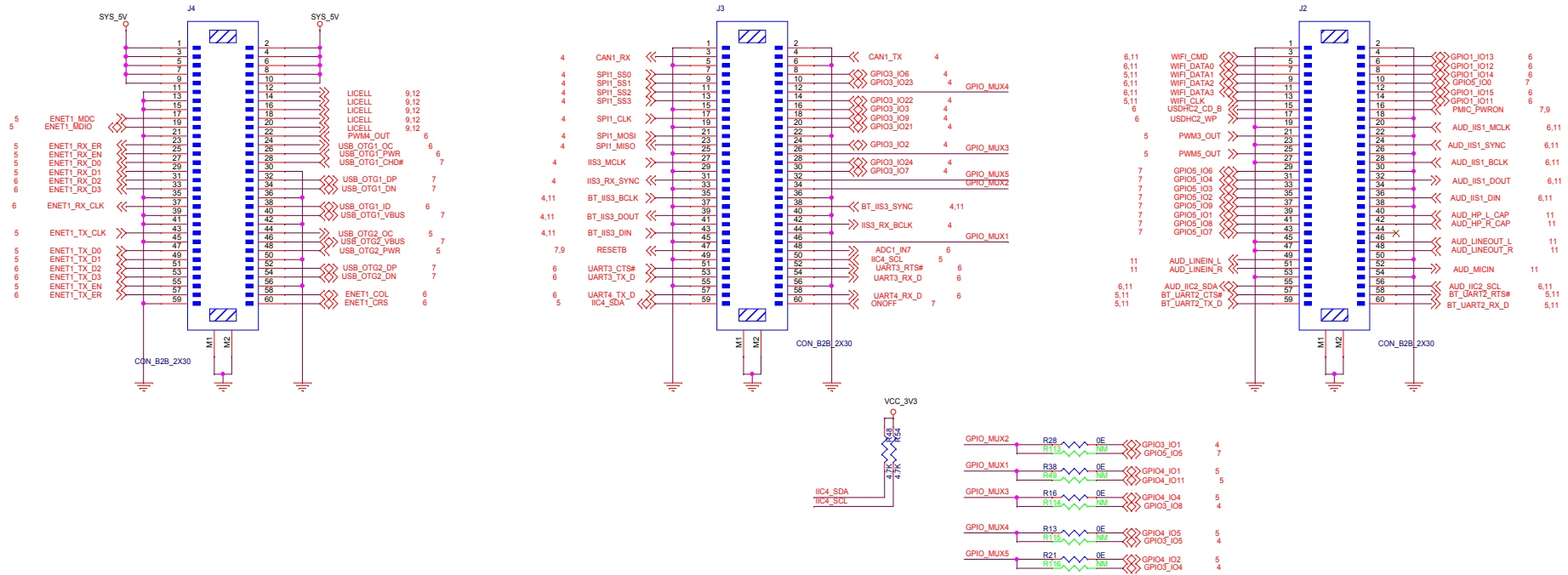


# AUDIO CODEC & WIFI BT MODULE



NXPUI IOPB	
	<b>Title :</b> AUDIO CODEC & WIFI BT MODULE
<b>Fab No :</b> 501-1-00466	<b>Rev:</b> A3
<b>Asy No :</b> 701-1-00544	Sheet 11 of 13

# EXPANSION CONNECTORS



# MISCELLANEOUS

## MOUNTING HOLES



## BARE PCB



	c	Title : MISCELLANEOUS	
	Fab No : 501-1-00466		Rev: A3
	Asy No : 701-1-00544		Sheet 13 of 13