

MIMXRT1060-EVK

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1. Unless Otherwise Specified:

- All resistors are in ohms, 1/16 Watt,0402
- All capacitors are in uF,0402
- All voltages are DC
- All polarized capacitors are aluminum electrolytic

2. Interrupted lines coded with the same letter or letter combinations are electrically connected.


Revision History

Rev. Code	Date	By	Description
X1	2018-2-25	Shawn Shi	For BOM preparation
X2	2018-3-12	Shawn Shi	Initial Release
A	2018-5-2	Shawn Shi	Delete U47 for JTAG_RESET
A1	2018-5-17	Shawn Shi	Rename LPC JTAG_TDI signa to JTAG_TDI_L
A2	2018-6-15	Shawn Shi	Change RT1050 symbol to RT1060, Change oscillator load capacitor value C42 and C43.
A3	2019-2-21	Shawn Shi	Update BOM: change R126 to R129 from populate to DNP, Populate SW5, Change C88 to 2.2uF/35V. Add notes for DQS PIN

3. Device type number is for reference only. The number varies with the manufacturer.

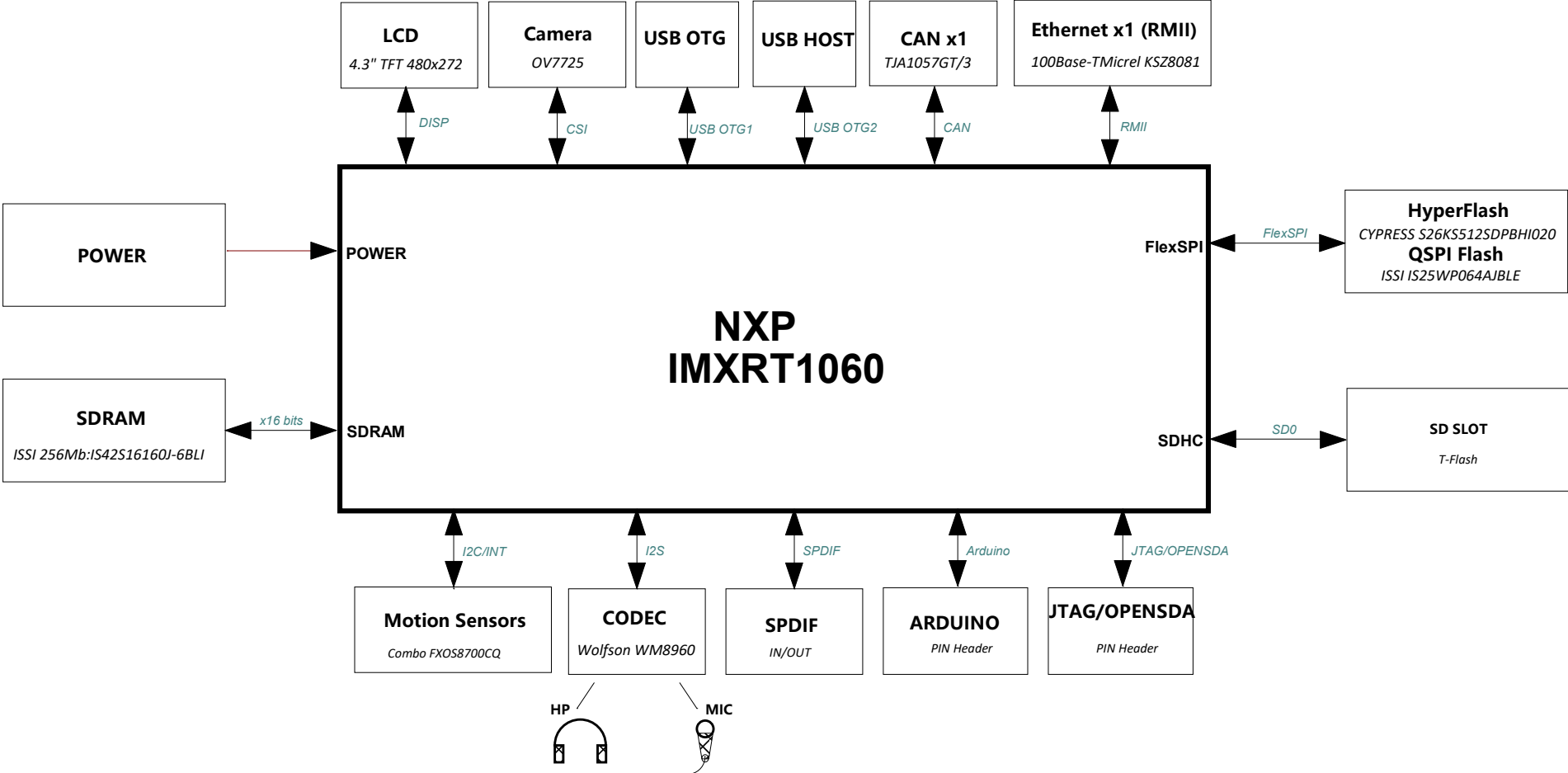
4. Special signal usage:
 _B Denotes - Active-Low Signal
 <> or [] Denotes - Vectored Signals

5. Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.

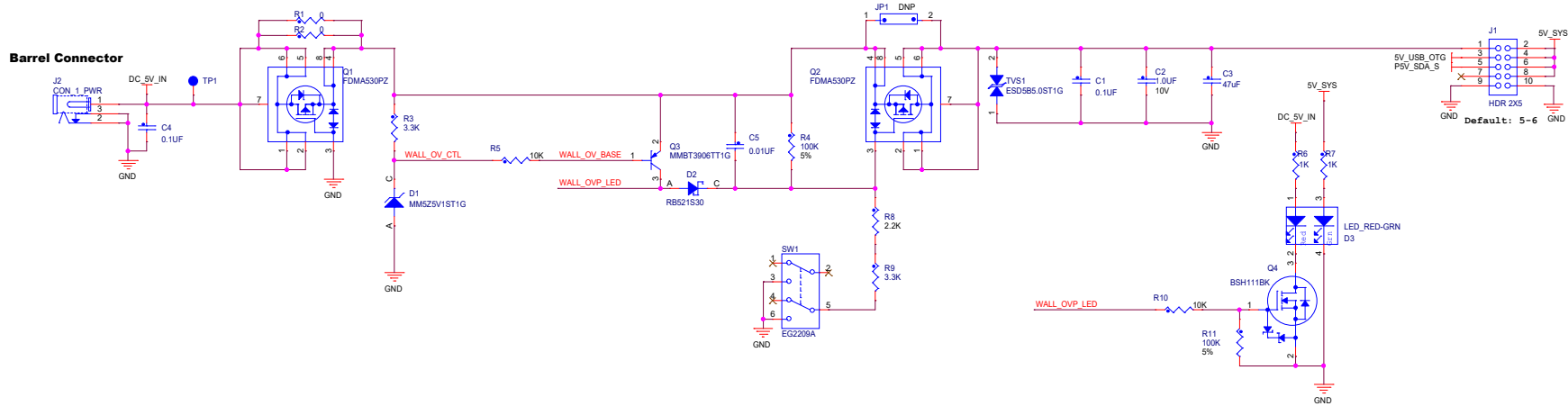


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 Drawing Title: **MIMXRT1060-EVK**
 Page Title: **COVER**
 Size C Document Number SCH-31357, PDF: SPF-31357 Rev A3
 Date: Thursday, February 21, 2019 Sheet 1 of 17

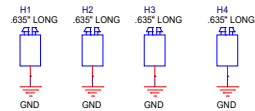
MIMXRT1060-EVK



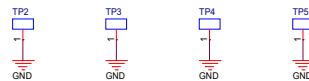
Main Power



Board Mounting Holes

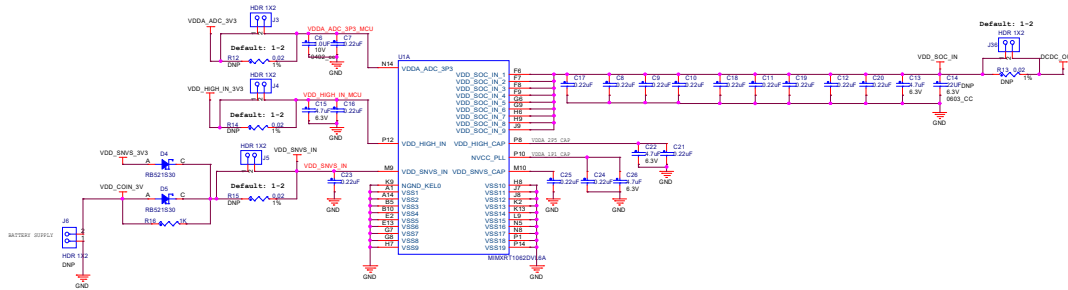


Ground TPs

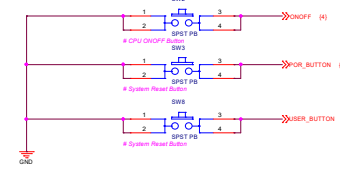


Layout Note: Place Ground TPs to assist signal measurement.

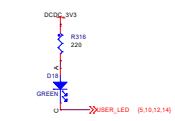
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Page Title: MAIN POWER			
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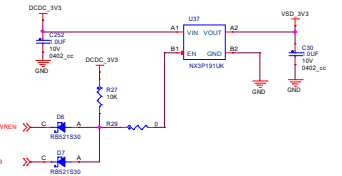
BUTTON



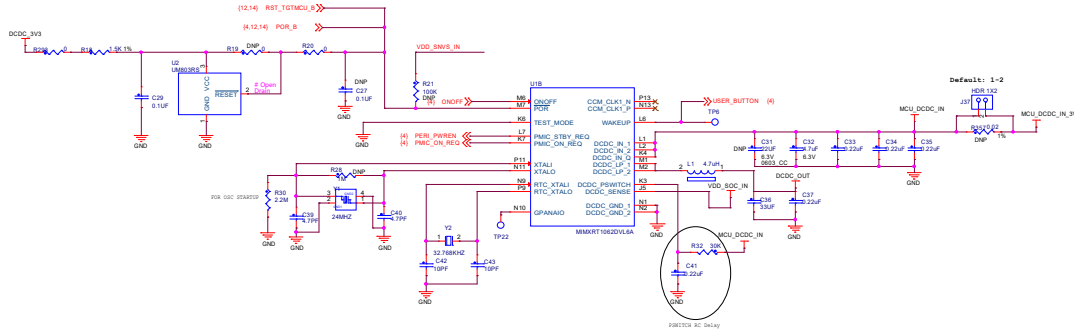
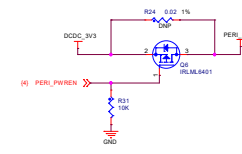
USER LED



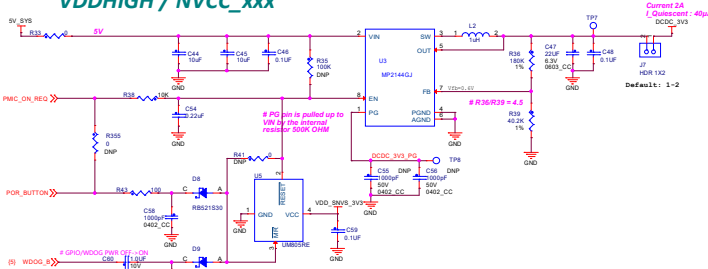
SD CARD POWER SWITCH



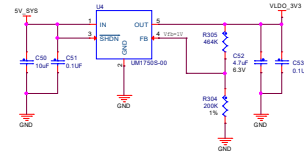
LCD 3V3 POWER SWITCH



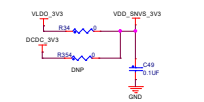
VDDHIGH / NVCC_3V3



3V3 LDO for SNVS



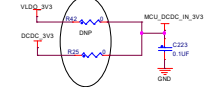
SNVS



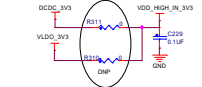
ADC



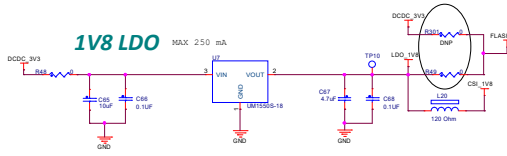
DCDC_IN



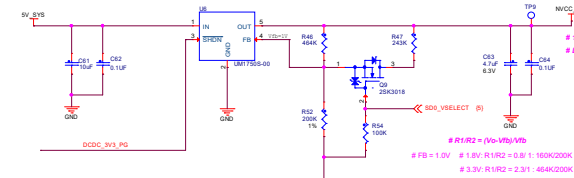
VDD_HIGH_IN



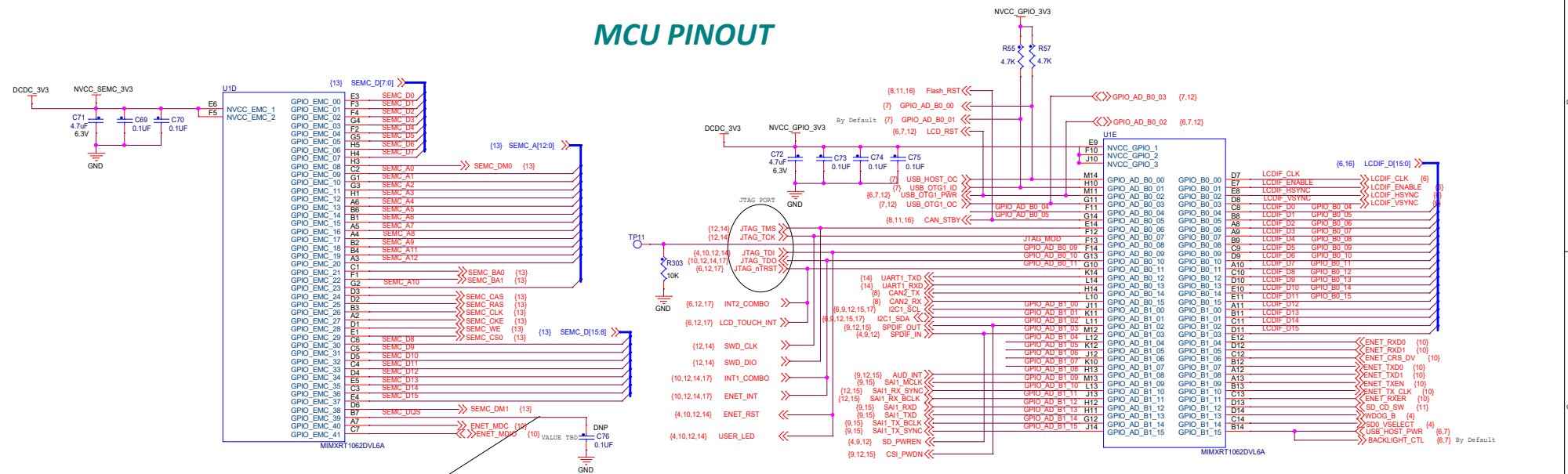
FLASH VCC



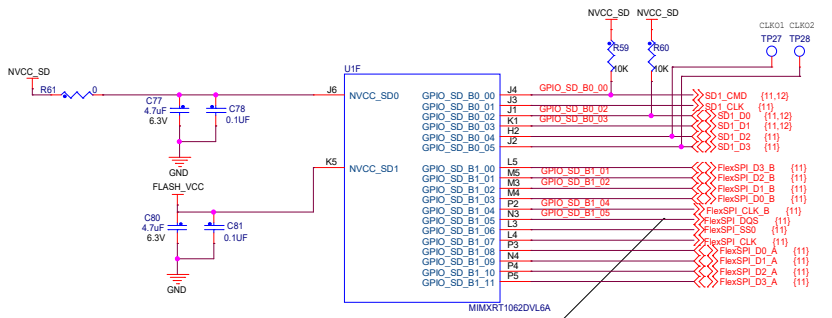
NVCC_SD <SD3.0>



MCU PINOUT



SEMC_DQS PIN need floating for SDRAM RW @166MHz



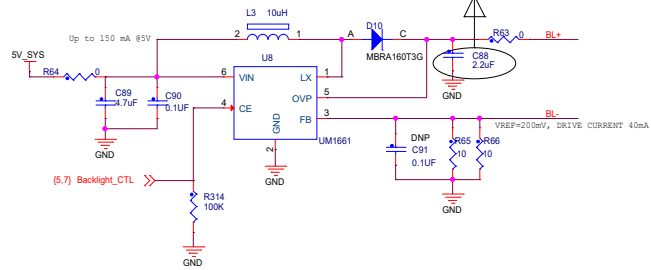
FlexSPI DQS PIN need floating for QSPI Flash RW @133MHz

GPIO_AD_B0_09	GPIO_AD_B0_09	(4,10,12,14)
GPIO_AD_B0_11	GPIO_AD_B0_11	(10,12,14,17)
GPIO_SD_B0_00	GPIO_SD_B0_00	(11,12)
GPIO_SD_B0_01	GPIO_SD_B0_01	(11)
GPIO_SD_B0_02	GPIO_SD_B0_02	(11,12)
GPIO_SD_B0_03	GPIO_SD_B0_03	(11,12)
GPIO_SD_B1_01	GPIO_SD_B1_01	(11)
GPIO_SD_B1_02	GPIO_SD_B1_02	(11)
GPIO_SD_B1_04	GPIO_SD_B1_04	(11)
GPIO_B0_04	GPIO_B0_04	(8,16)
GPIO_B0_05	GPIO_B0_05	(8,16)
GPIO_B0_06	GPIO_B0_06	(8,16)
GPIO_B0_07	GPIO_B0_07	(8,16)
GPIO_B0_08	GPIO_B0_08	(8,16)
GPIO_B0_09	GPIO_B0_09	(8,16)
GPIO_B0_10	GPIO_B0_10	(8,16)
GPIO_B0_11	GPIO_B0_11	(8,16)
GPIO_B0_12	GPIO_B0_12	(8,16)
GPIO_B0_13	GPIO_B0_13	(8,16)
GPIO_B0_14	GPIO_B0_14	(8,16)
GPIO_B0_15	GPIO_B0_15	(8,16)

GPIO_AD_B0_04	GPIO_AD_B0_04	(16)
GPIO_AD_B0_05	GPIO_AD_B0_05	(8,11,16)
GPIO_AD_B1_00	GPIO_AD_B1_00	(6,8,12,15,17)
GPIO_AD_B1_02	GPIO_AD_B1_02	(9,12,15)
GPIO_AD_B1_03	GPIO_AD_B1_03	(4,9,12)
GPIO_AD_B1_04	GPIO_AD_B1_04	(12,15)
GPIO_AD_B1_05	GPIO_AD_B1_05	(12,15)
GPIO_AD_B1_06	GPIO_AD_B1_06	(12,15)
GPIO_AD_B1_07	GPIO_AD_B1_07	(12,15)
GPIO_AD_B1_08	GPIO_AD_B1_08	(9,12,15)
GPIO_AD_B1_09	GPIO_AD_B1_09	(9,15)
GPIO_AD_B1_10	GPIO_AD_B1_10	(12,15)
GPIO_AD_B1_11	GPIO_AD_B1_11	(12,15)
GPIO_AD_B1_12	GPIO_AD_B1_12	(9,15)
GPIO_AD_B1_13	GPIO_AD_B1_13	(9,15)
GPIO_AD_B1_14	GPIO_AD_B1_14	(9,15)
GPIO_AD_B1_15	GPIO_AD_B1_15	(9,15)

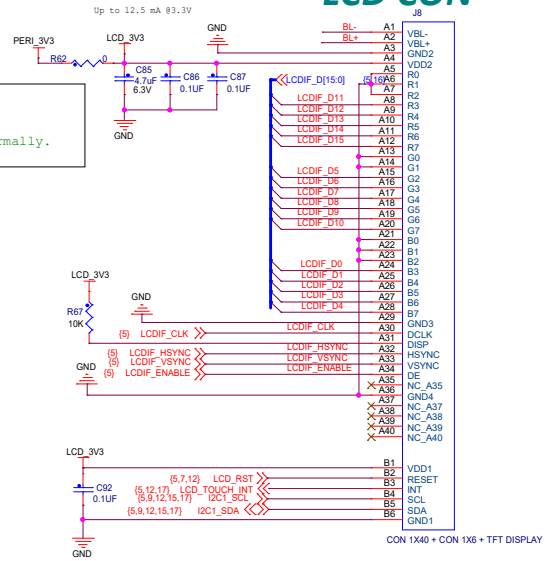
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 Page Title: **MIMXRT1062DVL6A**
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Backlight Control



Note:
If you use LCD module for Rev X2, A, A1 and A2,
need to change C88 to 2.2uf/35V or 1.0uf/35V
to ensure the backlight control circuits working normally.

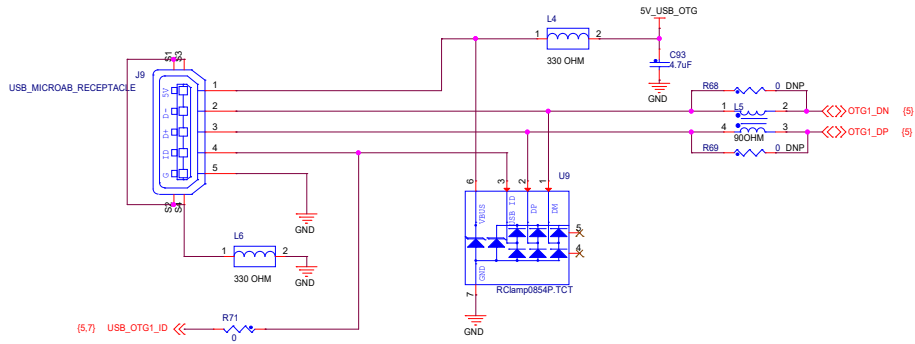
LCD CON



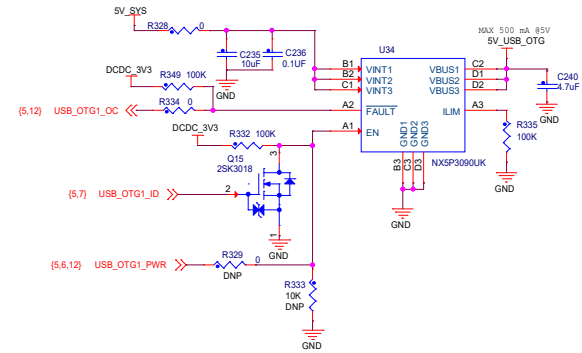


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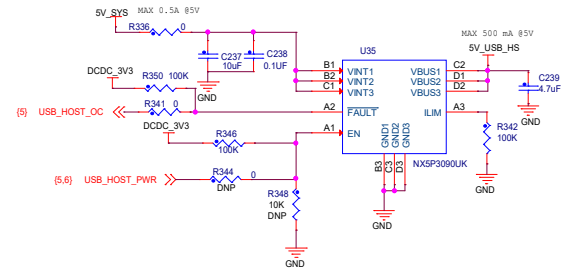
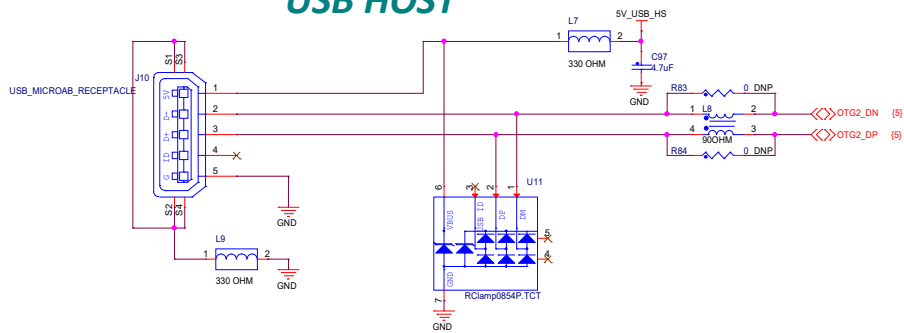
USB OTG



USB POWER

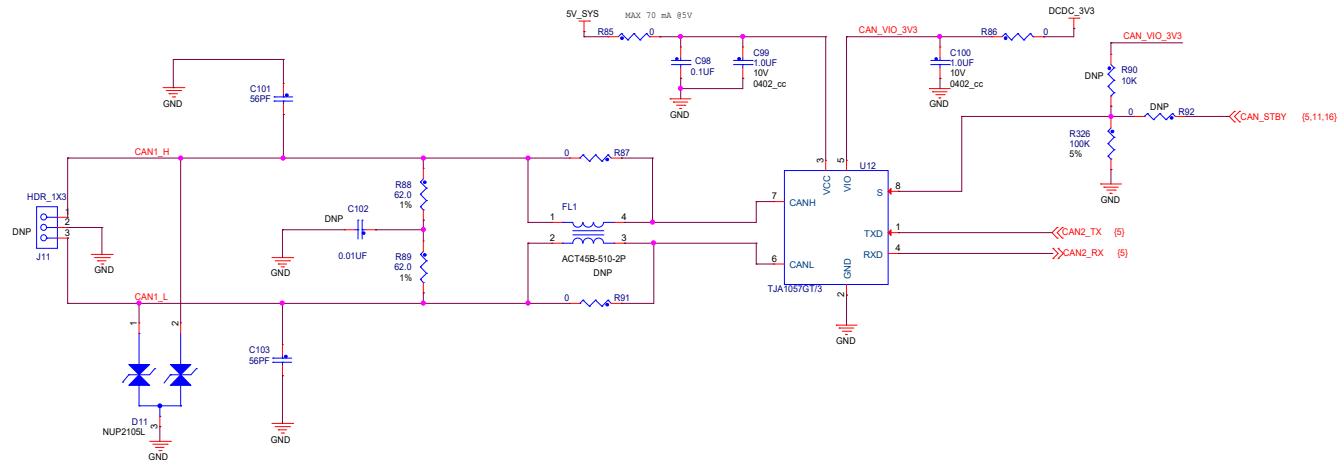


USB HOST

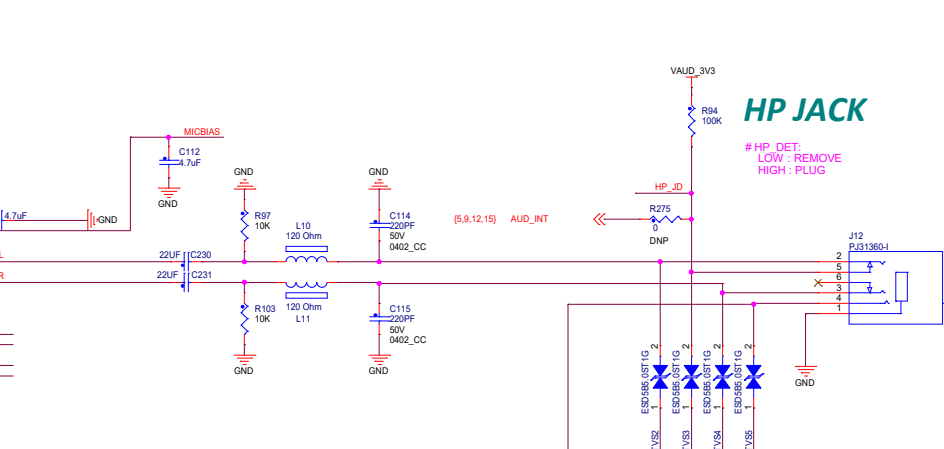
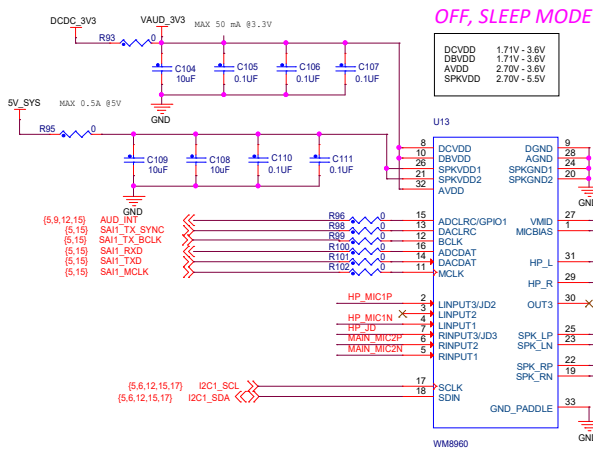


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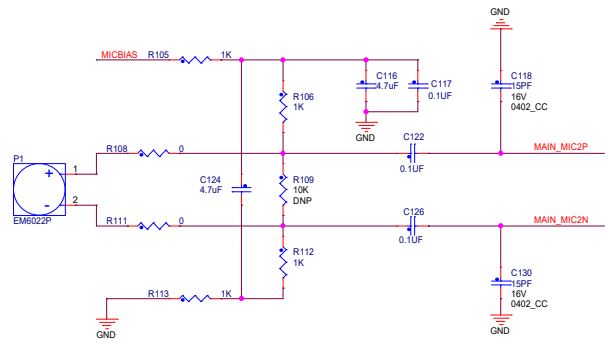
CAN BUS



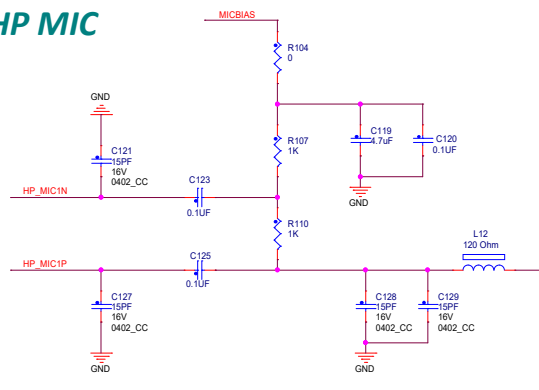
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Page Title: CAN	
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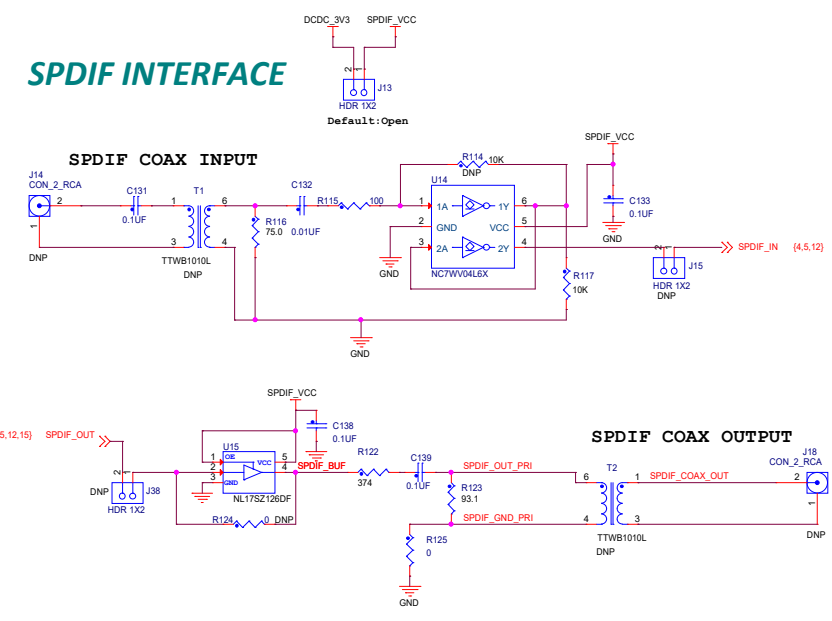
Main Board MIC



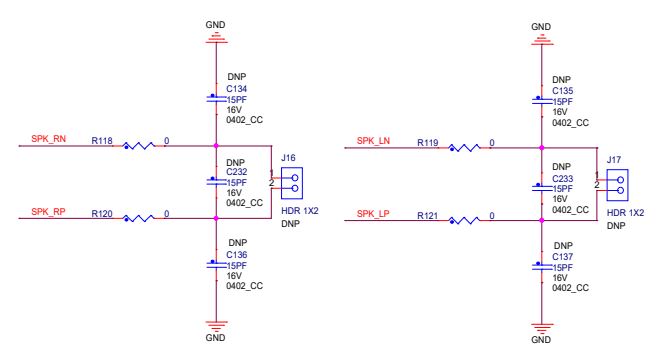
HP MIC



SPDIF INTERFACE



Speaker

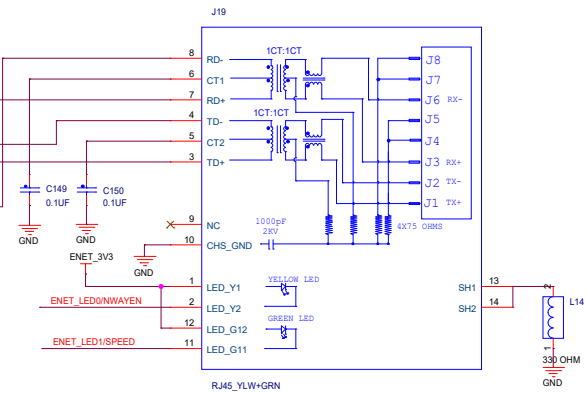
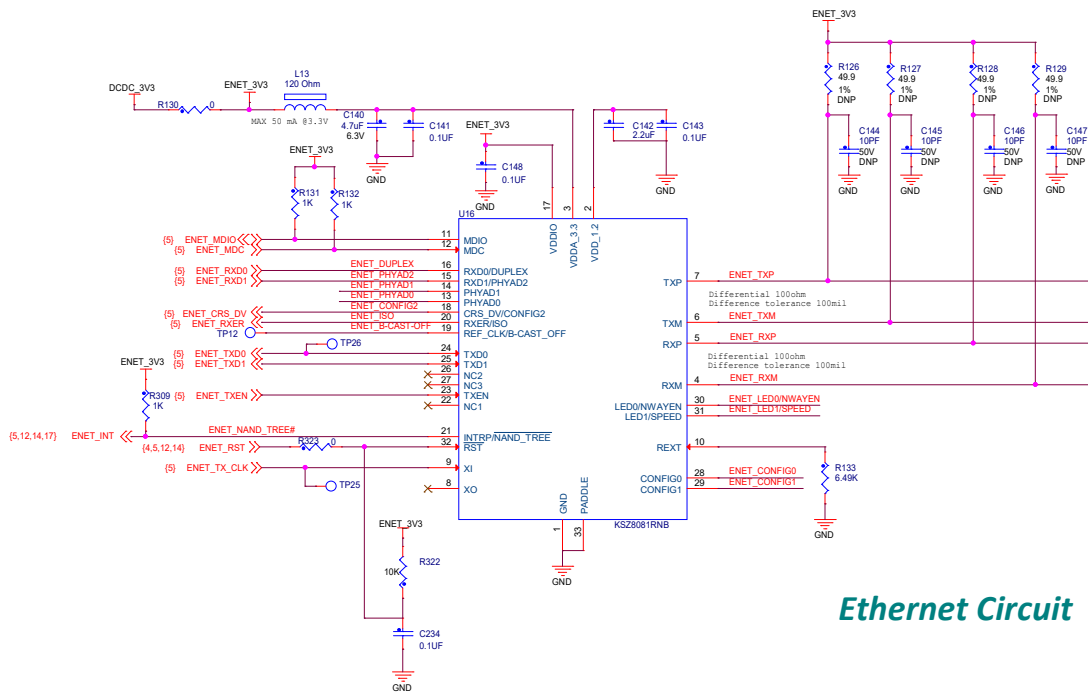


ICAP Classification: CP, IUC, X, PUBI

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Page Title: **AUDIO**

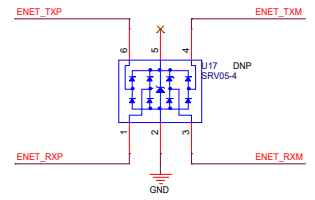
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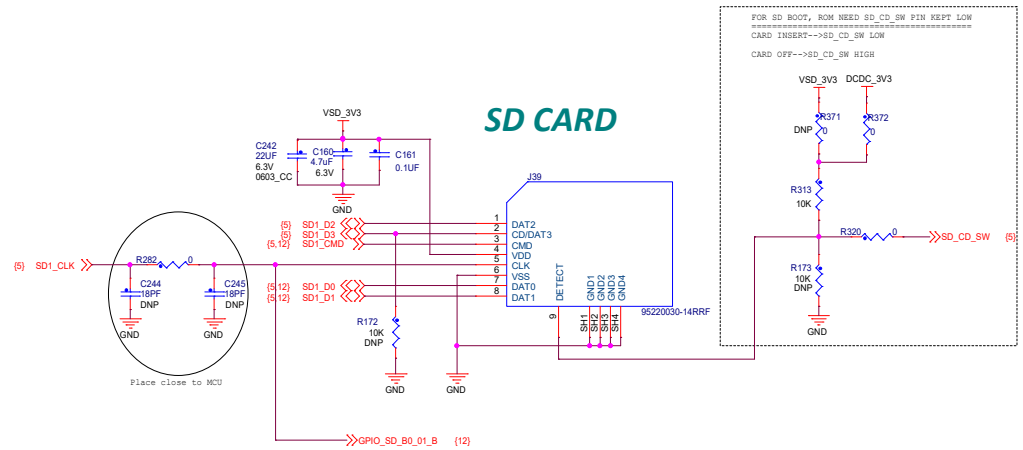


Ethernet Circuit

# CFG	Description	# CFG	Description
PHYAD[2:0]	PHY ADDR 00-XXX (00010 DEFAULT)	DUPLEX	DUPLEX mode Pull-up (default) = Half Duplex Pull-down = Full Duplex
CONFIG[2:0]	IF MODE 001 RMII 101 RMII Back-to-Back xxx Reserved-not used	NWAYEN	Nway Auto-Negotiation Pull-up (default) = Enable Pull-down = Disable
ISO	ISOLATE mode Pull-up = Enable Pull-down (default) = Disable	B_CAST_OFF	Broadcast Off - for PHY Address 0 Pull-up = PHY Address 0 set as unique PHY addr Pull-down (default) = PHY Address 0 set as broadcast PHY addr
SPEED	SPEED mode Pull-up (default) = 100Mbps Pull-down = 10Mbps	NAND_TREE#	NAND Tree Mode Pull-up (default) = Disable Pull-down = Enable

ESD PROTECTION

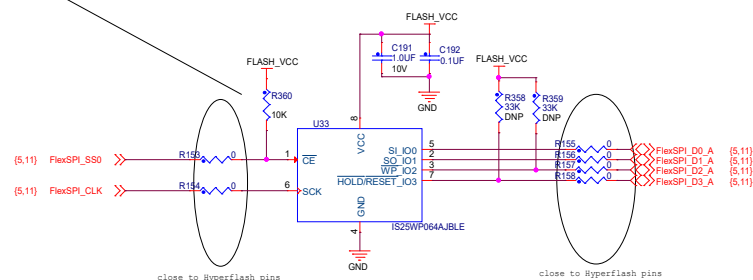
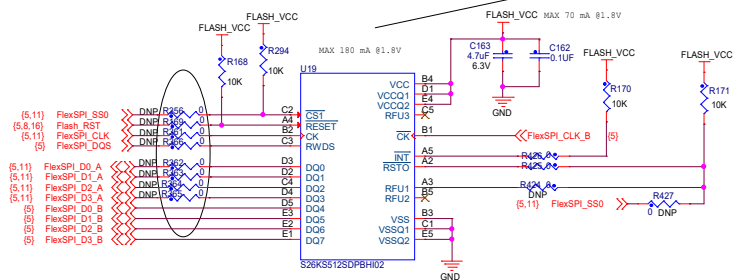




OPTION1: USE Hyperflash(DNP R153-R158, Mount R356,R361-R366)
 OPTION2: USE QSPI FLASH(Mount R153-R158, DNP R356,R361-R366)

1V8 HyperFlash

1V8 QSPI Flash

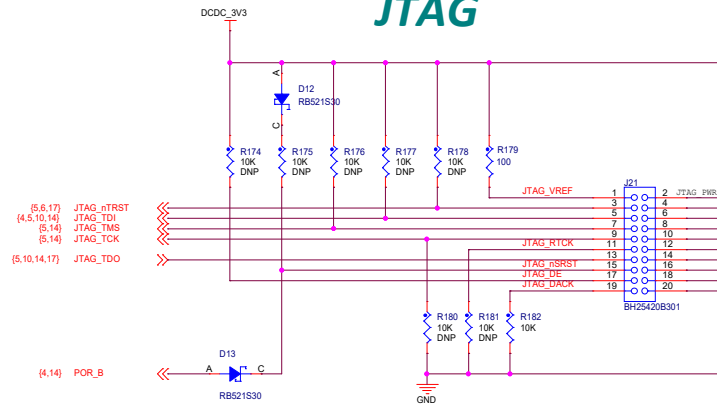


Share the same package with S27KS0641DPBH1023
 (if HYPERRAM is replaced, then DNP R425,R426,Mount R424,R427)

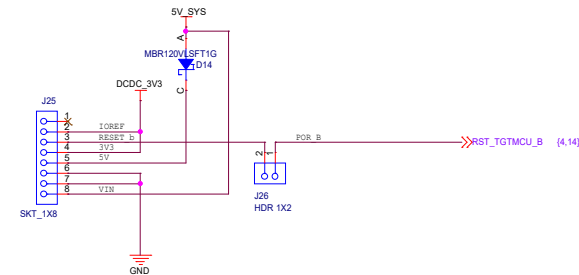
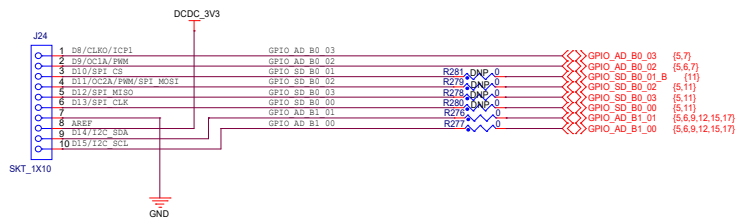
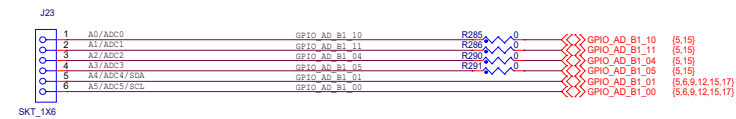
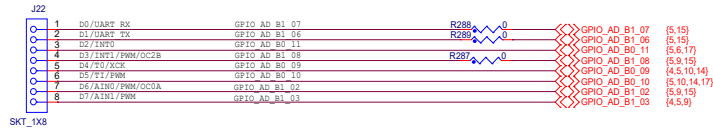


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Page Title: SD/FLASH	
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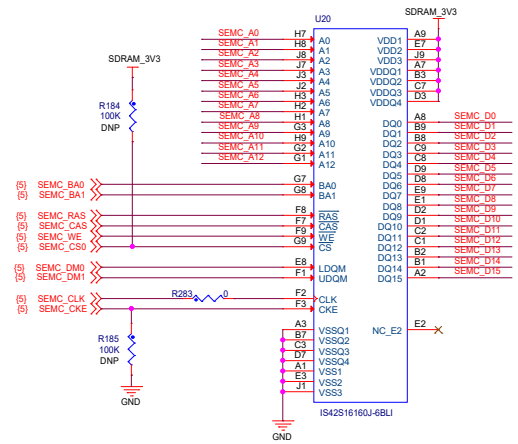
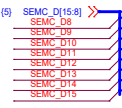
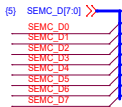
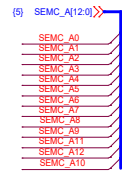
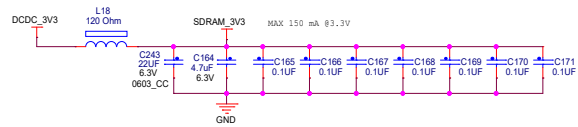
JTAG



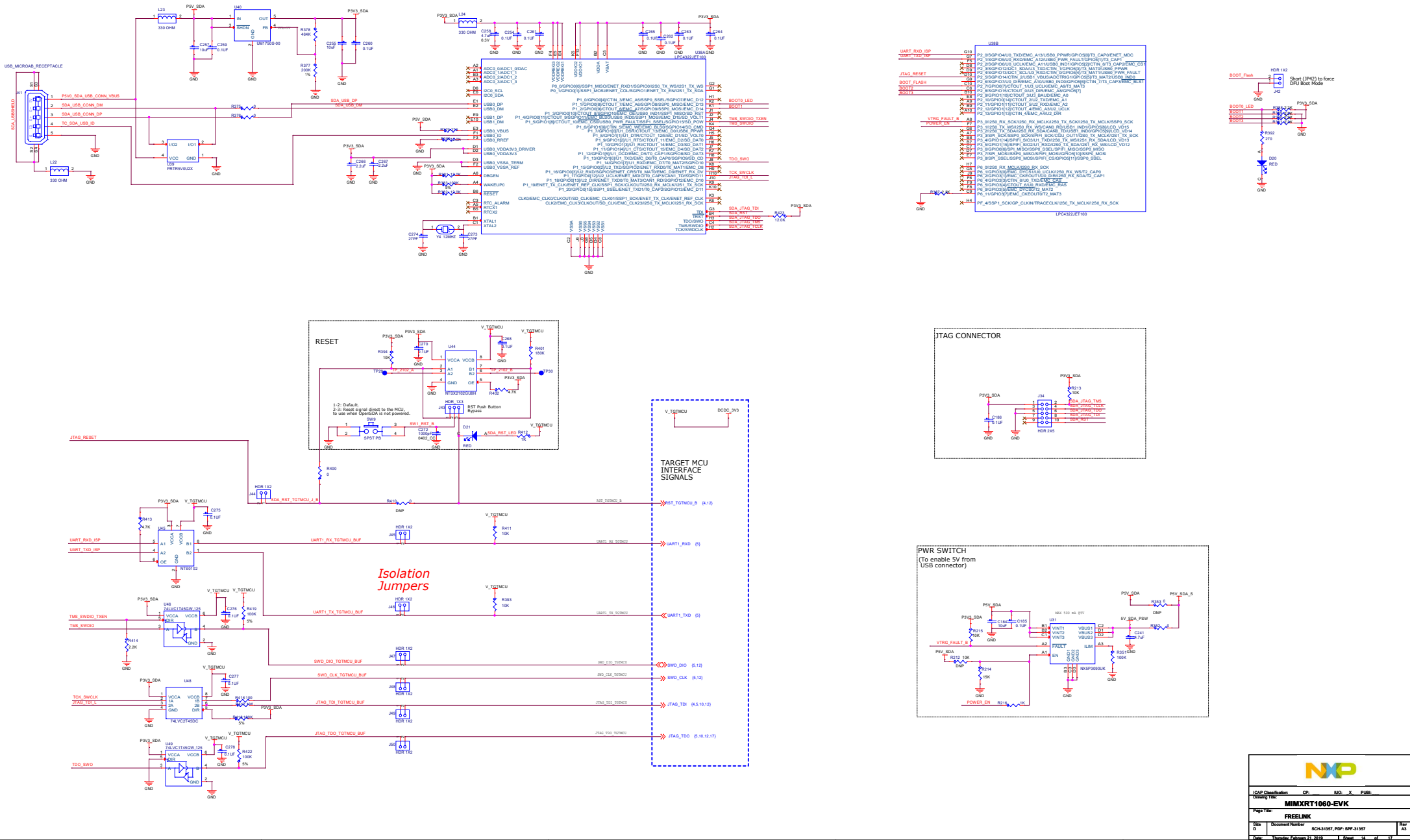
Arduino Interface



SDRAM

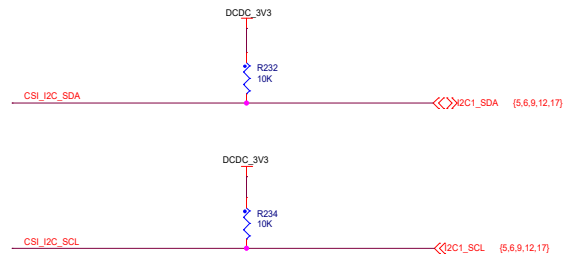
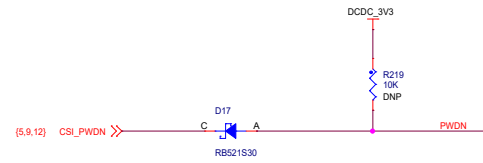


Freelink Interface

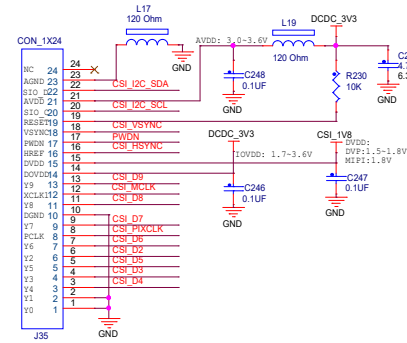


Camera Signals

CSI_PIXCLK	R217	0	GPIO_AD_B1_04	(5,12)
CSI_MCLK	R218	0	GPIO_AD_B1_05	(5,12)
CSI_VSYNC	R220	0	GPIO_AD_B1_06	(5,12)
CSI_PSYNC	R221	0	GPIO_AD_B1_07	(5,12)
CSI_D9	R222	0	GPIO_AD_B1_08	(5,9,12)
CSI_D8	R223	0	GPIO_AD_B1_09	(5,9)
CSI_D7	R224	0	GPIO_AD_B1_10	(5,12)
CSI_D6	R225	0	GPIO_AD_B1_11	(5,12)
CSI_D5	R226	0	GPIO_AD_B1_12	(5,9)
CSI_D4	R227	0	GPIO_AD_B1_13	(5,9)
CSI_D3	R228	0	GPIO_AD_B1_14	(5,9)
CSI_D2	R229	0	GPIO_AD_B1_15	(5,9)

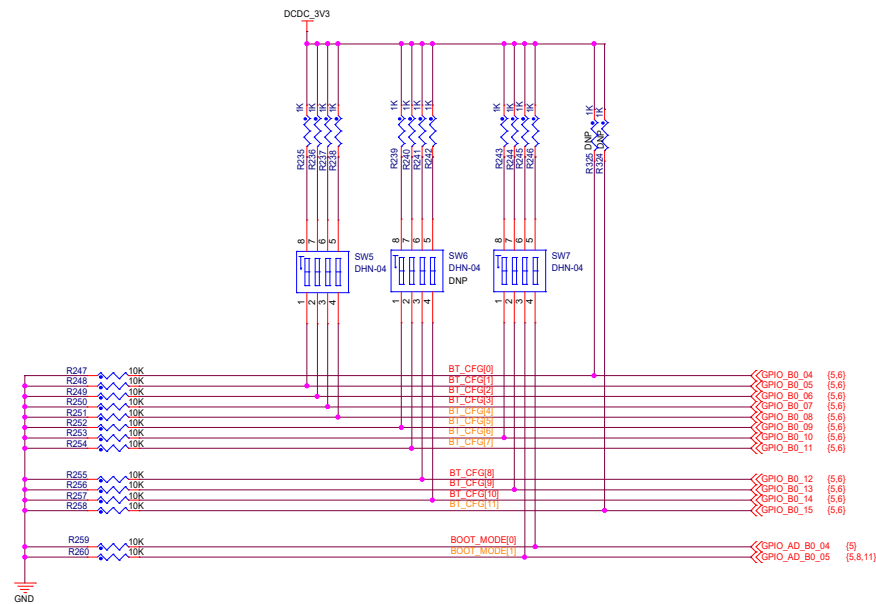



FPC FOR MT9M114/OV7725 MODULE



FUSE MAP

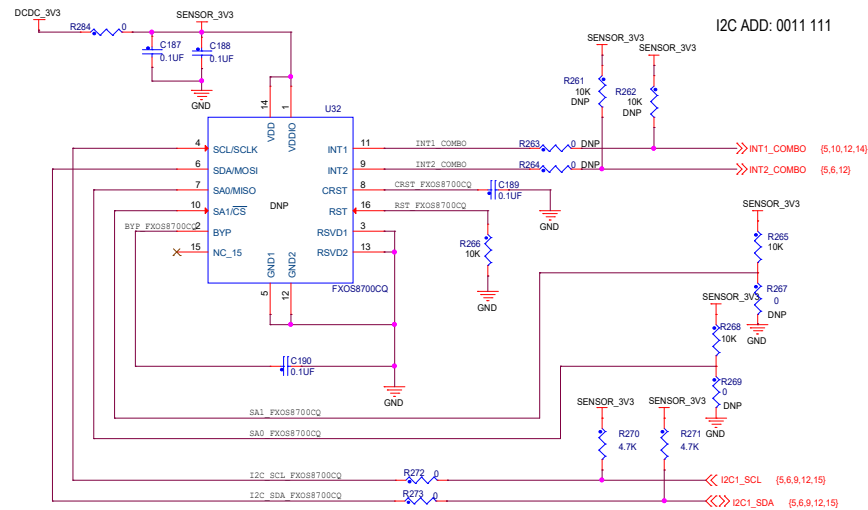
TYPE	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
	BOOT_CFG[11]	BOOT_CFG[10]	BOOT_CFG[9]	BOOT_CFG[8]	BOOT_CFG[7]	BOOT_CFG[6]	BOOT_CFG[5]	BOOT_CFG[4]	BOOT_CFG[3]	BOOT_CFG[2]	BOOT_CFG[1]	BOOT_CFG[0]
FlexSPI - Serial NOR	<i>Infini-Loop: (Debug USE only) 0 - Disable 1 - Enable</i>	<i>FLASH_TYPE 000-Device supports 3B read by default 001-Device supports 4B read by default 010-HyperFlash 1V8 011-HyperFlash 3V3 100-MXIC Octal DDR</i>			0	0	0	0	<i>HOLD TIME: 00 - 500us 01 - 1ms 10 - 3ms 11 - 10ms</i>		<i>EncryptedXIP 0 - Disabled 1 - Enabled</i>	<i>Reserved</i>
SD	<i>Infini-Loop: (Debug USE only) 0 - Disable 1 - Enable</i>	<i>Reserved</i>	<i>Bus Width: 0 - 1-bit 1 - 4-bit</i>	<i>SD1 VOLTAGE SELECTION: 0 - 3.3V 1 - 1.8V</i>	0	1		<i>SD/SDXC Speed: 00 - Normal/SDR12 01 - High/SDR25 10 - SDR50 11 - SDR104</i>	<i>SD Power Cycle Enable: '0' - No power cycle '1' - Enabled via USDHC_RST pad</i>	<i>SD Loopback Clock Source Sel: (for SDR50 and SDR104 only) '0' - through SD '1' - direct</i>	<i>Port Select: 0 - eSDHC1 1 - eSDHC2</i>	<i>Fast Boot: 0 - Regular 1 - Fast Boot</i>



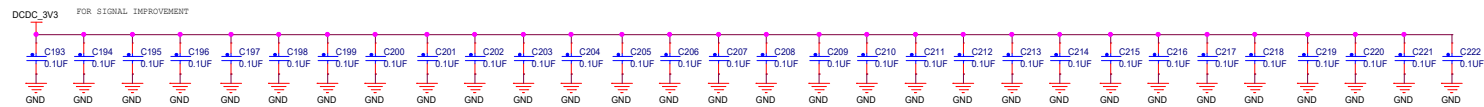


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COMBO SENSOR



FXOS8700CQ COMBO SENSOR



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