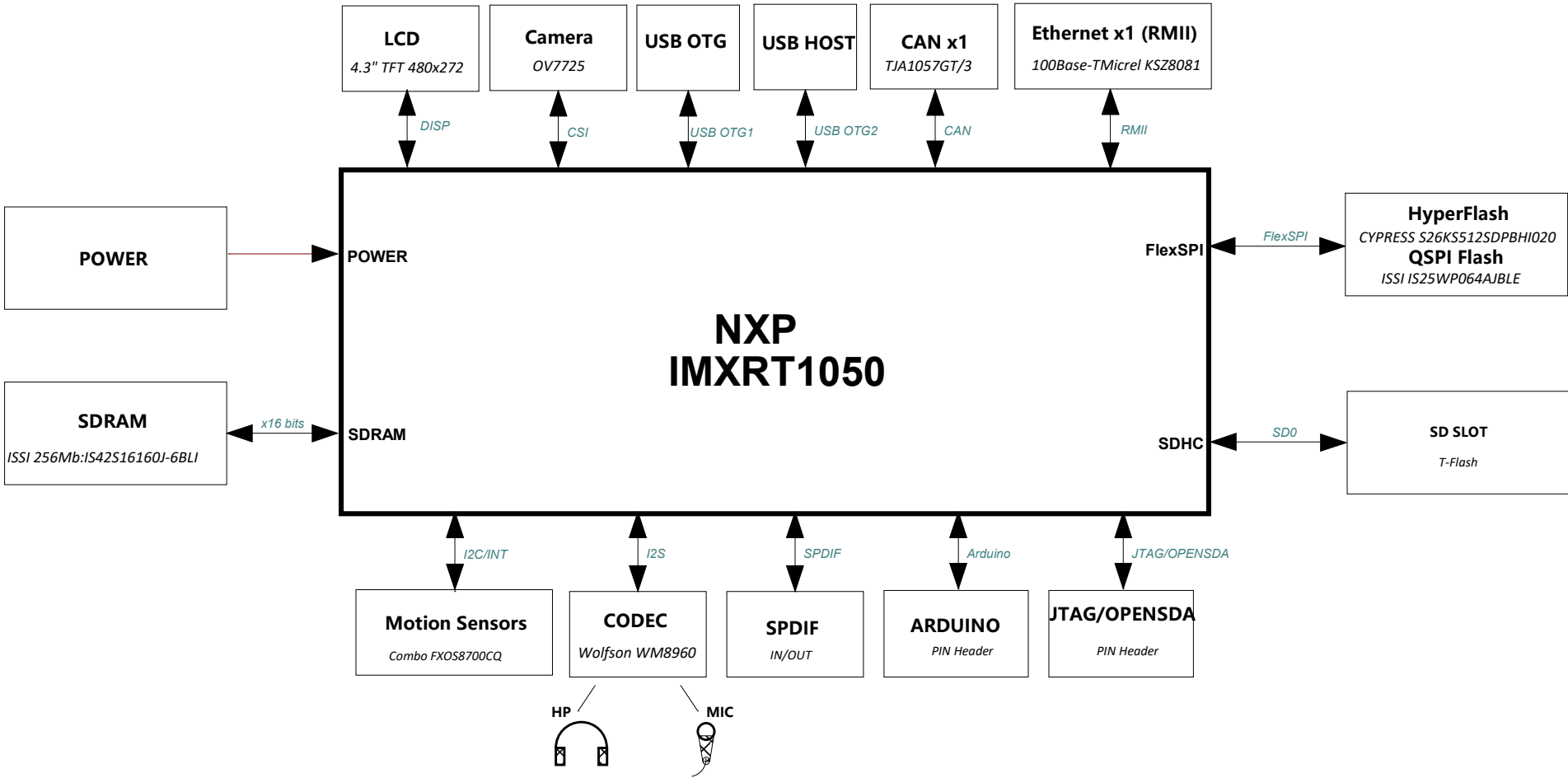
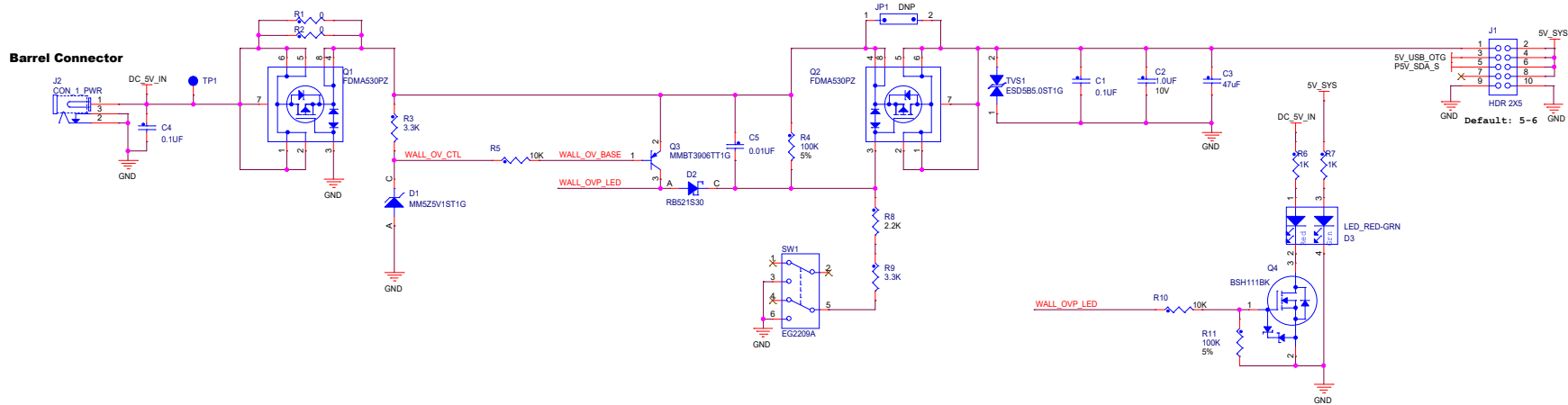


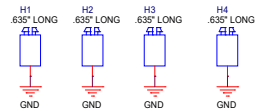
IMXRT1050-EVKB



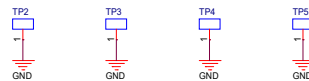
Main Power



Board Mounting Holes

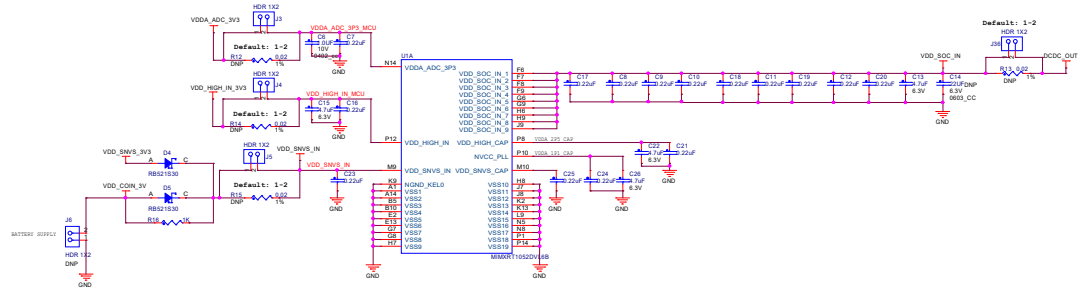


Ground TPs

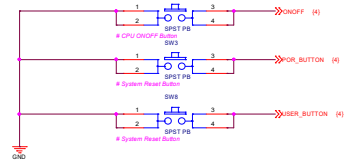


Layout Note: Place Ground TPs to assist signal measurement.

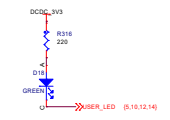
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Drawing Title: IMXRT1050-EVKB			
Page Title: MAIN POWER			
Size C	Document Number	SCH-30168, PDF-SPF-30168	Rev B1
Date:	Thursday, February 21, 2018	Sheet 3	of 17



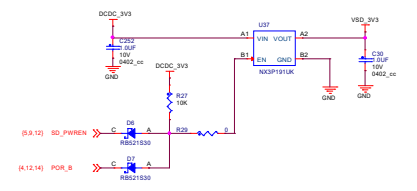
BUTTON



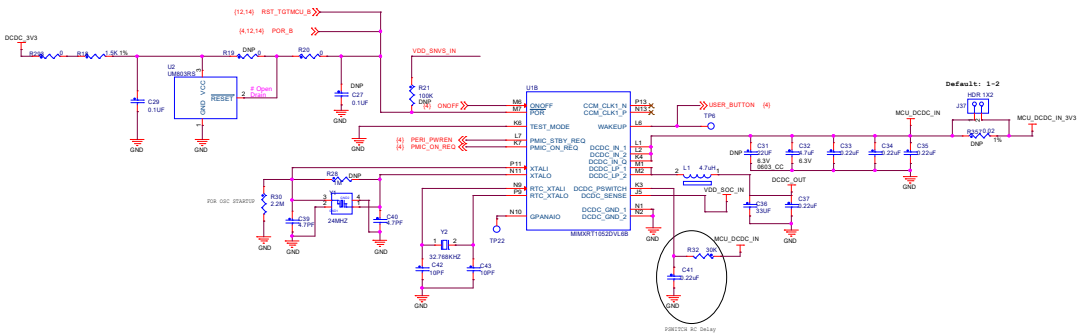
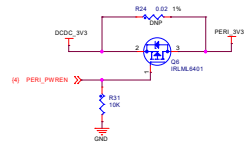
USER LED



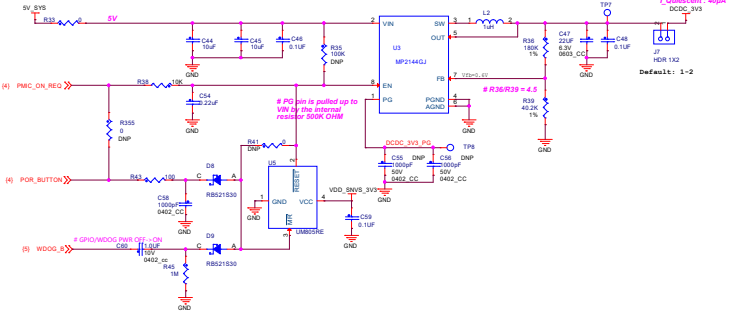
SD CARD POWER SWITCH



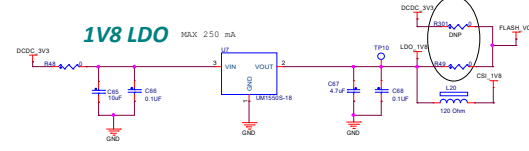
LCD 3V3 POWER SWITCH



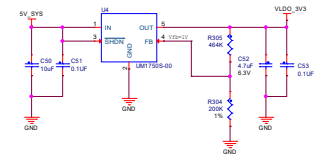
VDDHIGH / NVCC_XXX



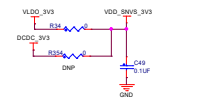
FLASH VCC



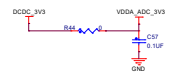
3V3 LDO for SNVS



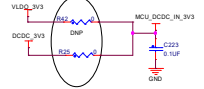
SNVS



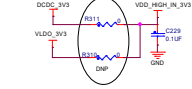
ADC



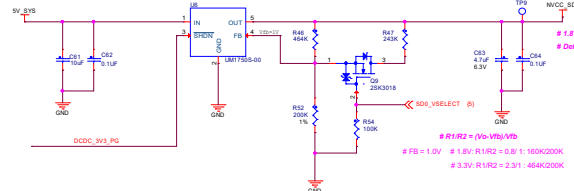
DCDC_IN



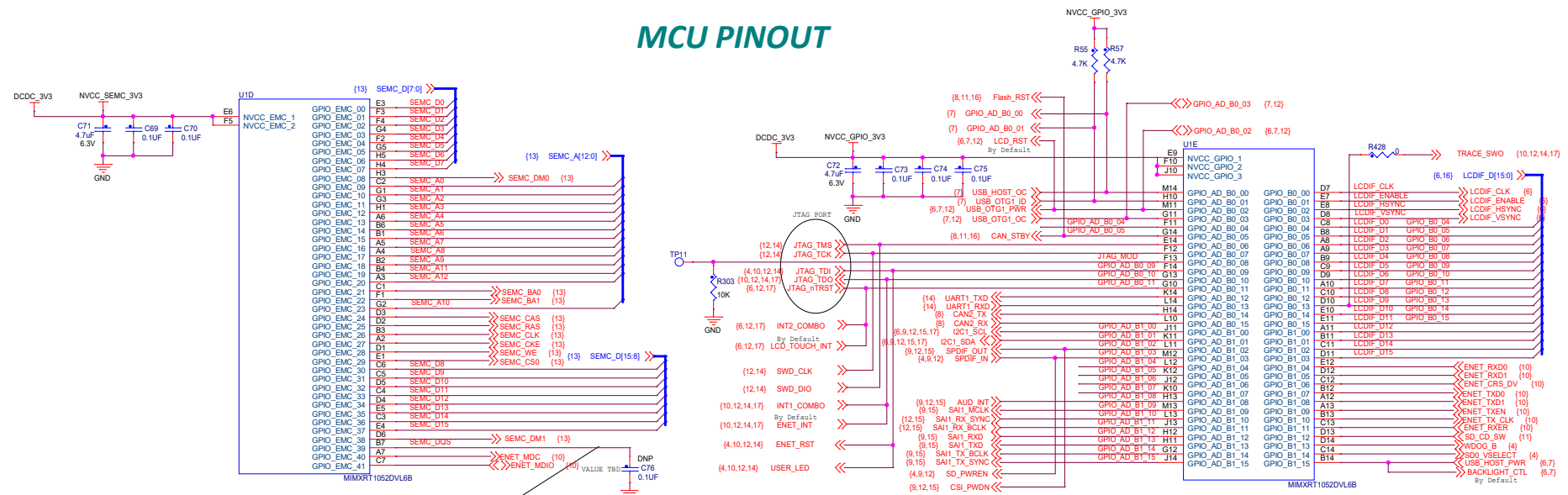
VDD_HIGH_IN



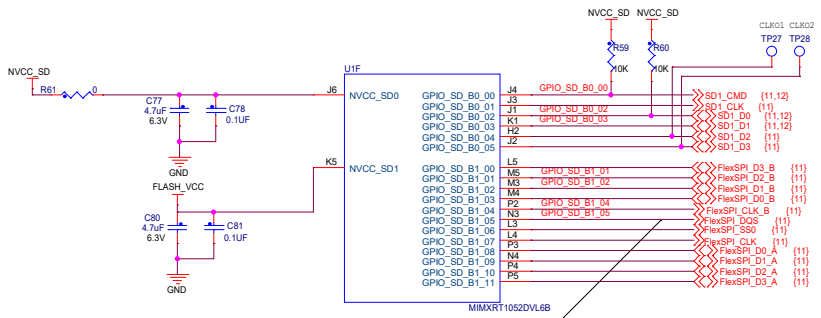
NVCC_SD <SD3.0>



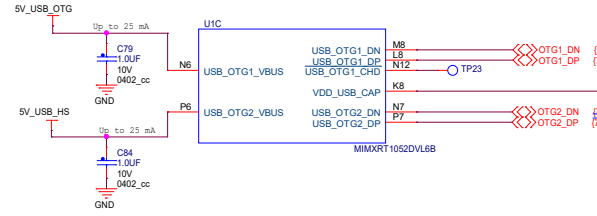
MCU PINOUT



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_10 (10,12,14,17)
- GPIO_AD_B0_11 <-> GPIO_AD_B0_11 (8,12,17)
- GPIO_SD_B0_00 <-> GPIO_SD_B0_00 (11,12)
- GPIO_SD_B0_01 <-> GPIO_SD_B0_02 (11)
- GPIO_SD_B0_02 <-> GPIO_SD_B0_03 (11,12)
- GPIO_SD_B0_03 <-> GPIO_SD_B0_03 (11,12)
- GPIO_SD_B1_01 <-> GPIO_SD_B1_02 (11)
- GPIO_SD_B1_02 <-> GPIO_SD_B1_02 (11)
- GPIO_SD_B1_04 <-> GPIO_SD_B1_04 (11)
- GPIO_SD_B1_04 <-> GPIO_SD_B1_04 (11)

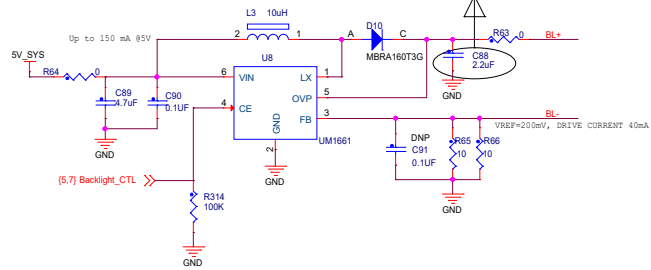
- GPIO_AD_B0_04 <-> GPIO_AD_B0_04 (16)
- GPIO_AD_B0_05 <-> GPIO_AD_B0_05 (8,11,16)
- GPIO_AD_B1_00 <-> GPIO_AD_B1_00 (6,9,12,15,17)
- GPIO_AD_B1_02 <-> GPIO_AD_B1_01 (6,9,12,15,17)
- GPIO_AD_B1_03 <-> GPIO_AD_B1_02 (9,12,15)
- GPIO_AD_B1_04 <-> GPIO_AD_B1_03 (4,9,12)
- GPIO_AD_B1_05 <-> GPIO_AD_B1_04 (12,15)
- GPIO_AD_B1_06 <-> GPIO_AD_B1_05 (12,15)
- GPIO_AD_B1_07 <-> GPIO_AD_B1_06 (12,15)
- GPIO_AD_B1_08 <-> GPIO_AD_B1_07 (12,15)
- GPIO_AD_B1_09 <-> GPIO_AD_B1_08 (9,12,15)
- GPIO_AD_B1_10 <-> GPIO_AD_B1_09 (9,15)
- GPIO_AD_B1_11 <-> GPIO_AD_B1_10 (12,15)
- GPIO_AD_B1_12 <-> GPIO_AD_B1_11 (12,15)
- GPIO_AD_B1_13 <-> GPIO_AD_B1_12 (9,15)
- GPIO_AD_B1_14 <-> GPIO_AD_B1_13 (9,15)
- GPIO_AD_B1_15 <-> GPIO_AD_B1_14 (9,15)
- GPIO_AD_B1_15 <-> GPIO_AD_B1_15 (9,15)

- 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)



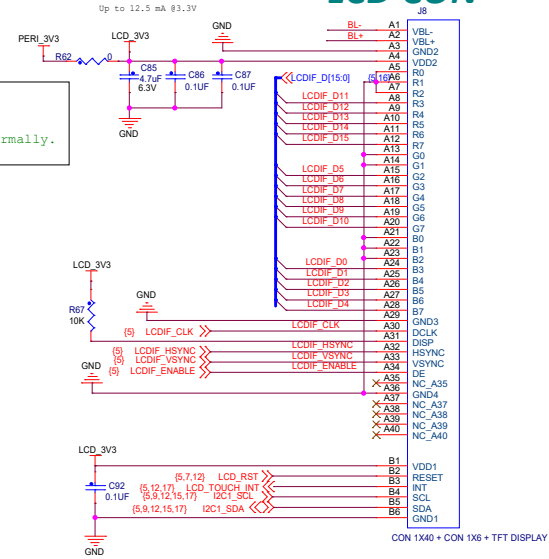
ICAP Classification: CP, IUC, X, PUBI	
Drawing Title: IMXRT1050-EVKB	
Page Title: MIMXRT1052DVJ6B	
Size C	Document Number SCH-30168, PDF-SPF-30168
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Backlight Control



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

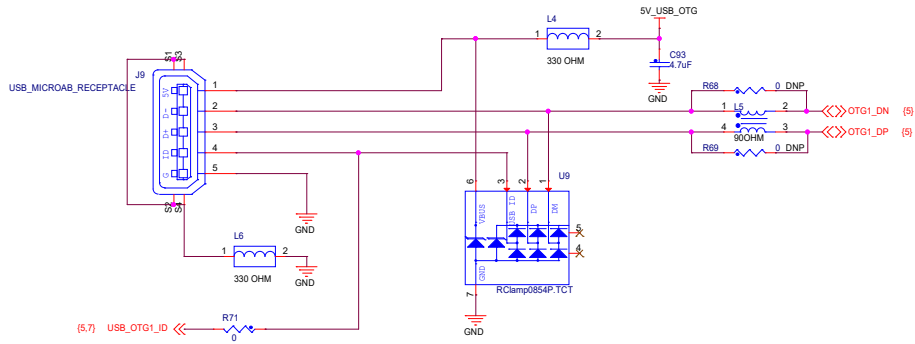
LCD CON



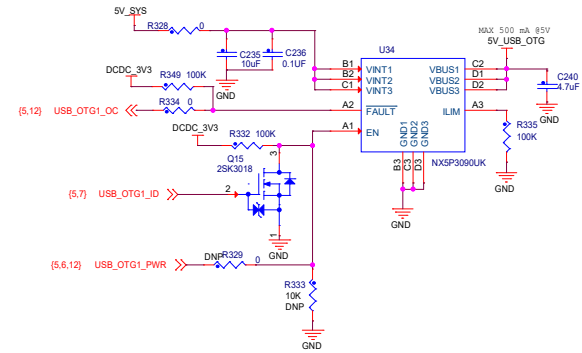


ICAP Classification: CP: _____ IUC: X PUB: _____	
Drawing Title: IMXRT1050-EVKB	
Page Title: LCD	
Size C	Document Number SCH-30168, PDF: SPF-30168
Date: Tuesday, August 25, 2020	Rev B1
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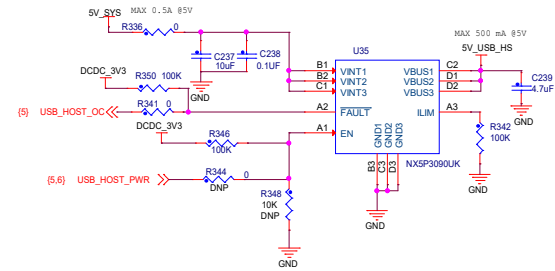
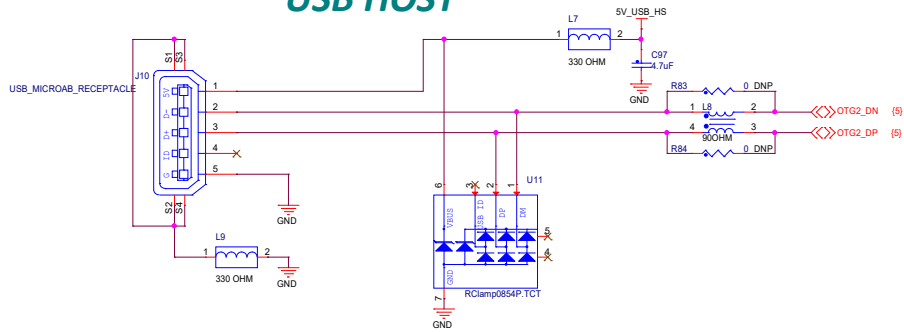
USB OTG



USB POWER

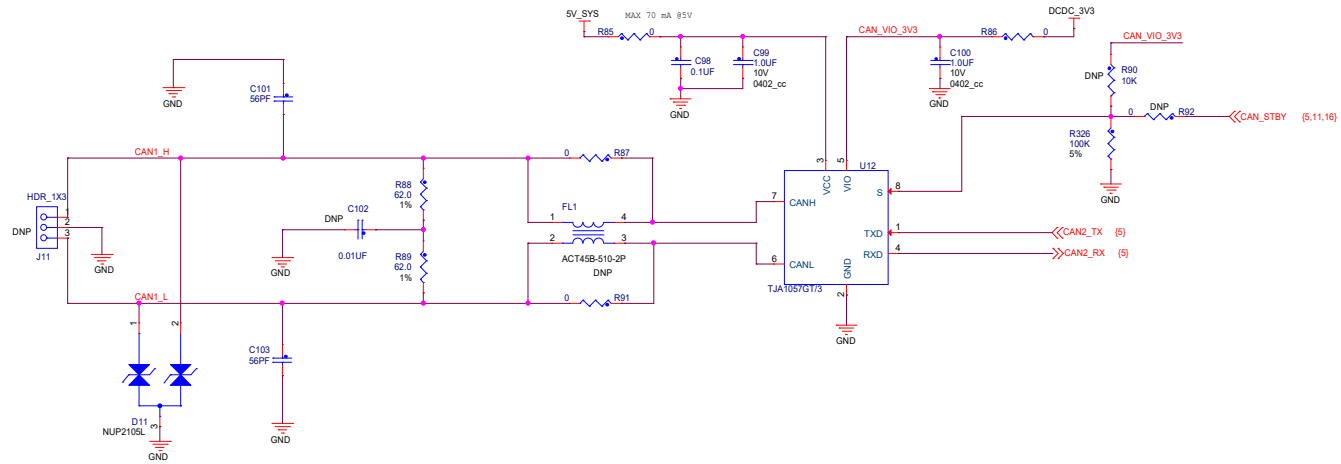


USB HOST

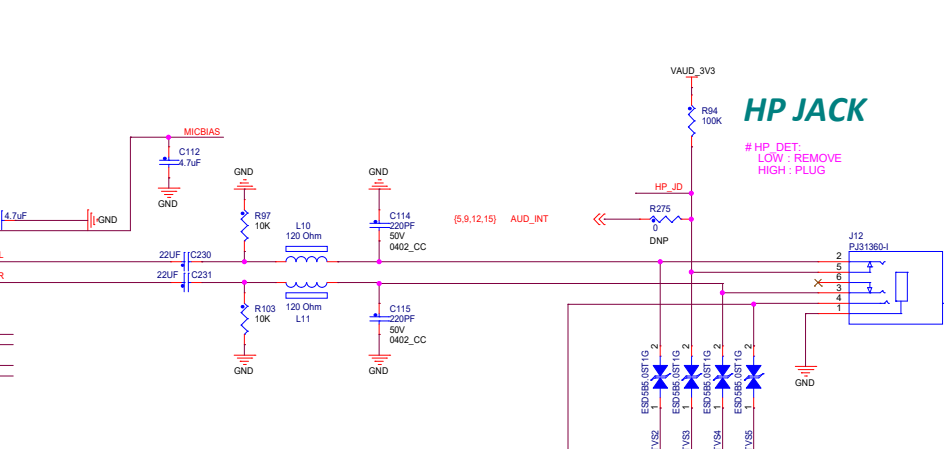
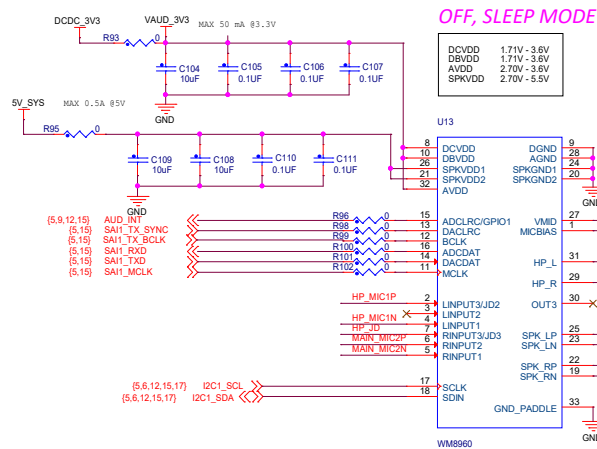


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IMXRT1050-EVKB					
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Size	Document Number	SCH-30168, PDF: SPF-30168			Rev
C					B1
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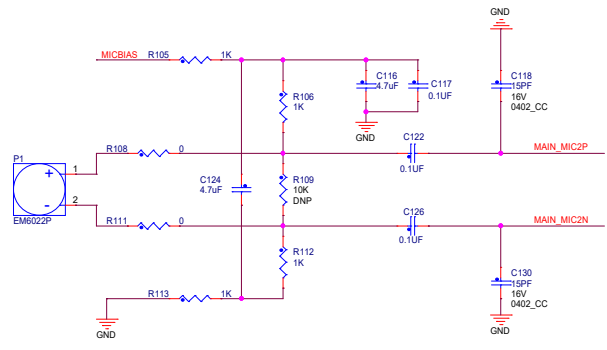
CAN BUS



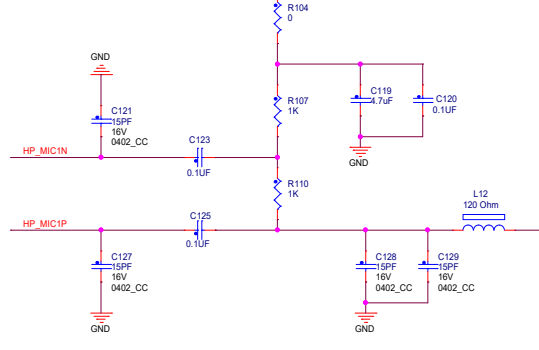
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Page Title: CAN			
Size C	Document Number	SCH-30168, PDF-SPF-30168	Rev B1
Date:	Thursday, February 21, 2018	Sheet 8 of 17	



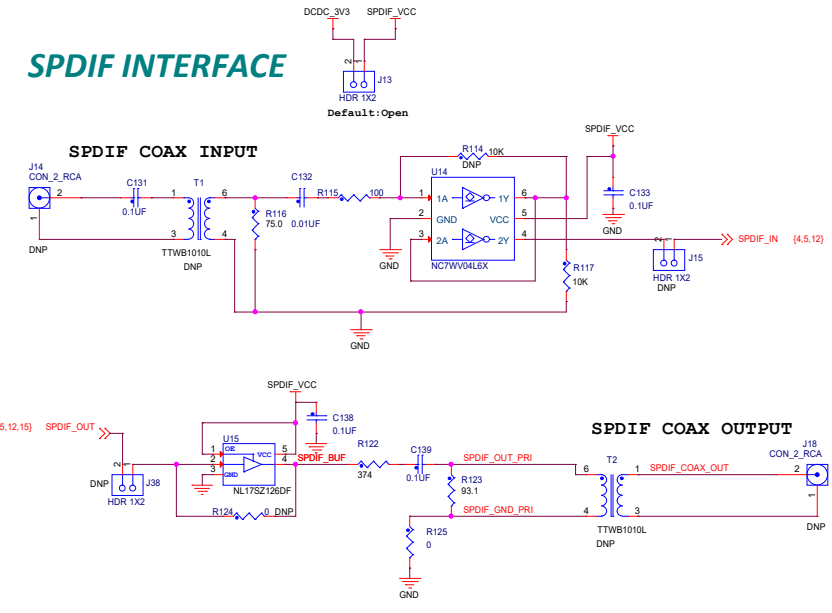
Main Board MIC



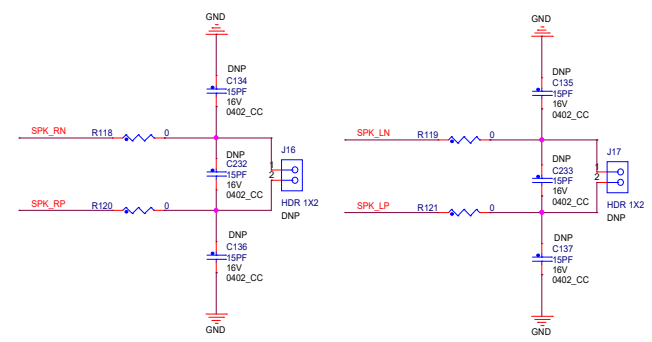
HP MIC



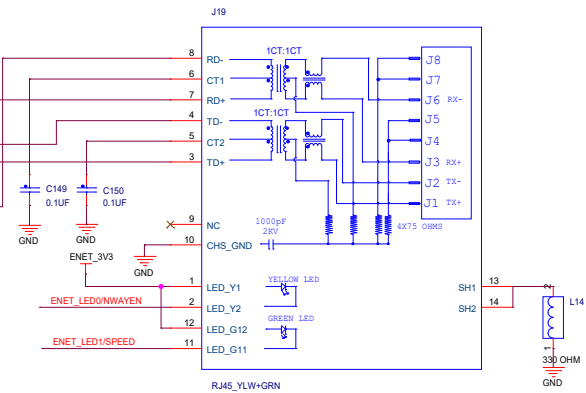
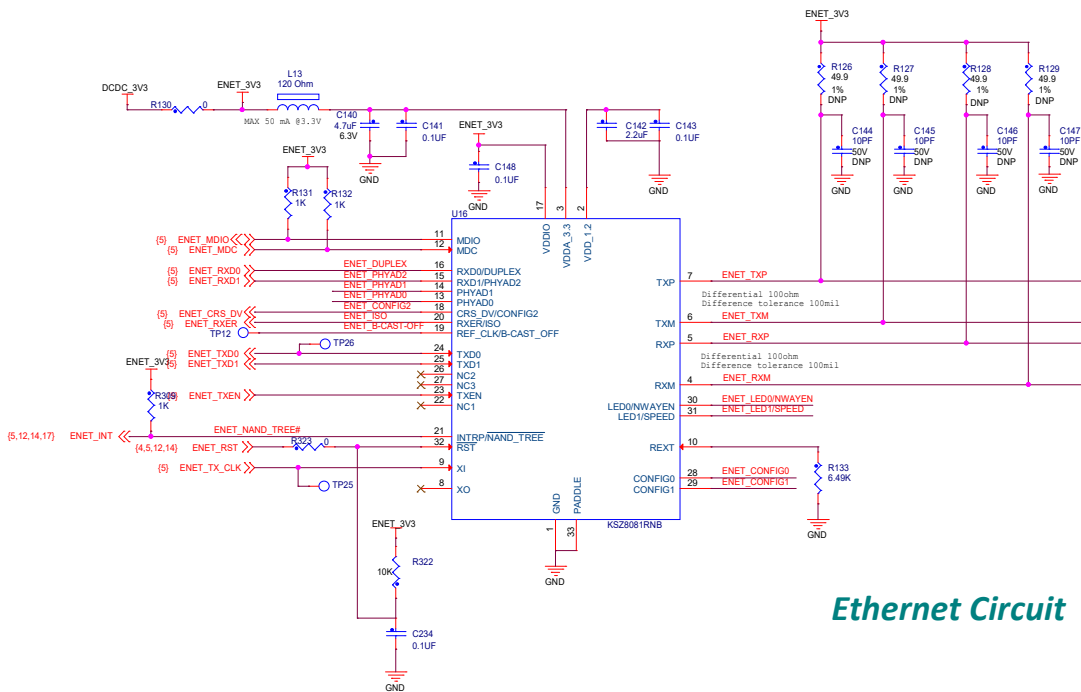
SPDIF INTERFACE



Speaker



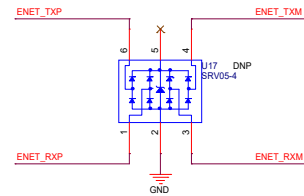
ICAP Classification: CP, IUC, X, PUBI
 Drawing Title: **IMXRT1050-EVKB**
 Page Title: **AUDIO**
 Date: Thursday, February 21, 2018 | Sheet 9 of 17

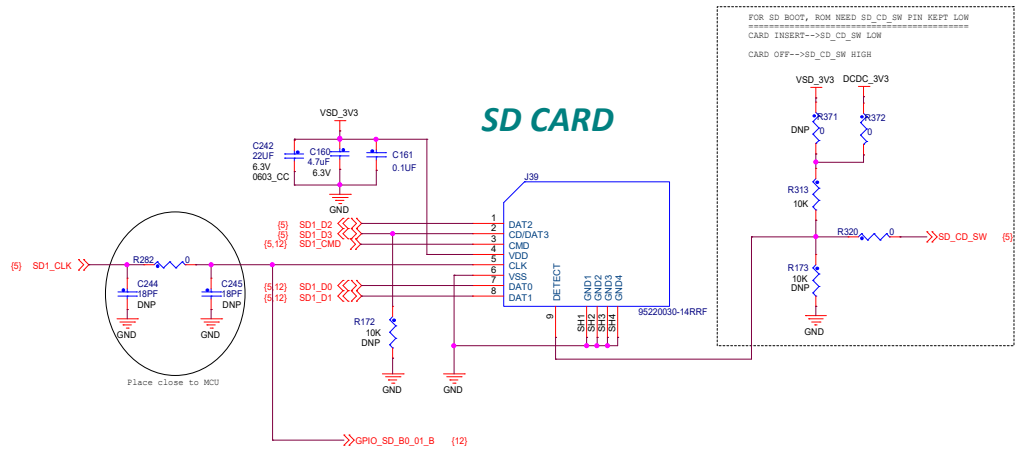


Ethernet Circuit

# 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

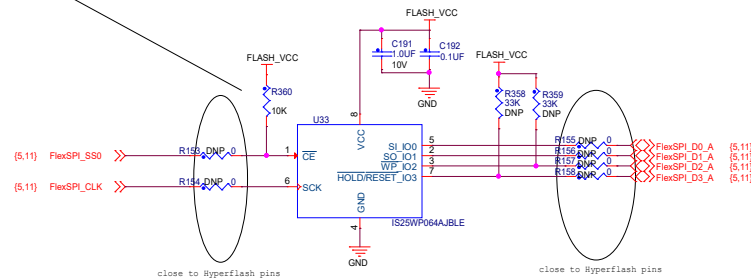
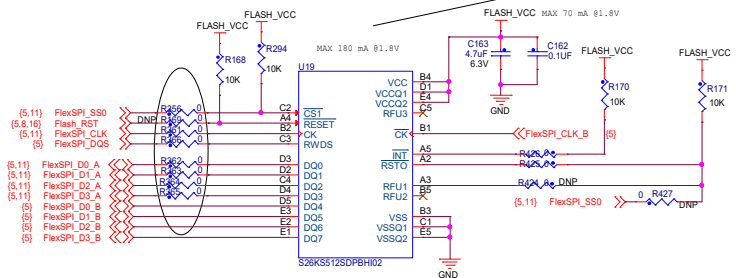




1V8 HyperFlash

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

1V8 QSPI Flash

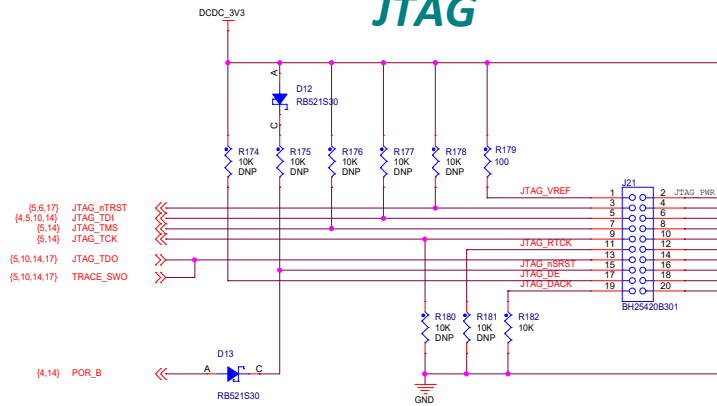


Share the same package with S27KS064IDPBHI023
 (if HYPERRAM is replaced, then DNP R425,R426,Mount R424,R427)

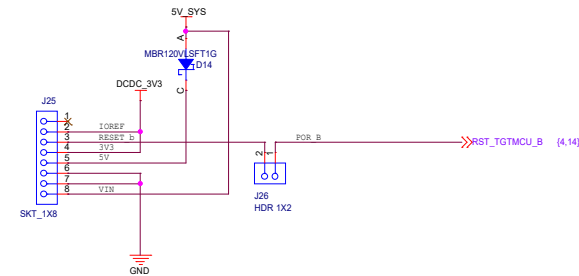
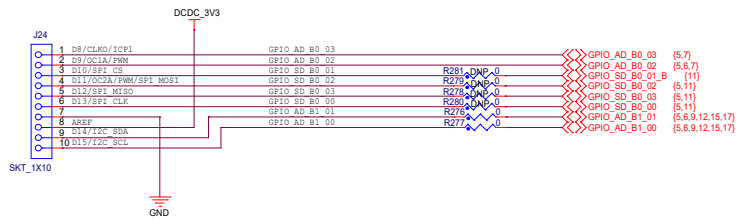
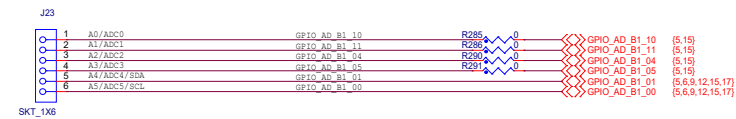
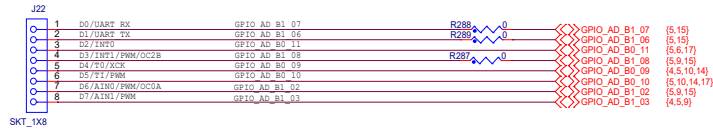


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Drawing Title: IMXRT1050-EVKB	
Page Title: SD/FLASH	
Size C	Document Number SCH-30168, PDF: SPF-30168
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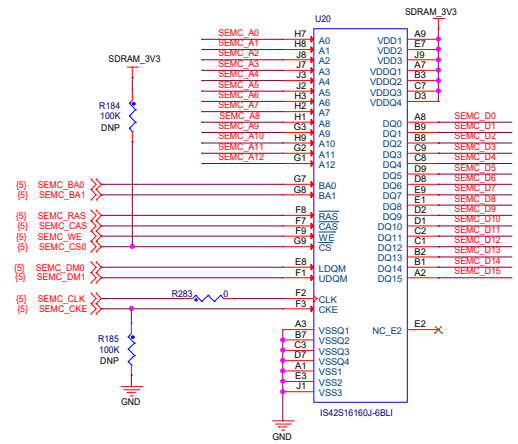
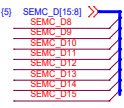
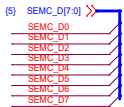
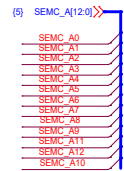
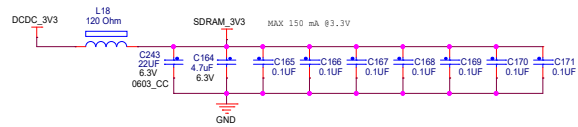
JTAG



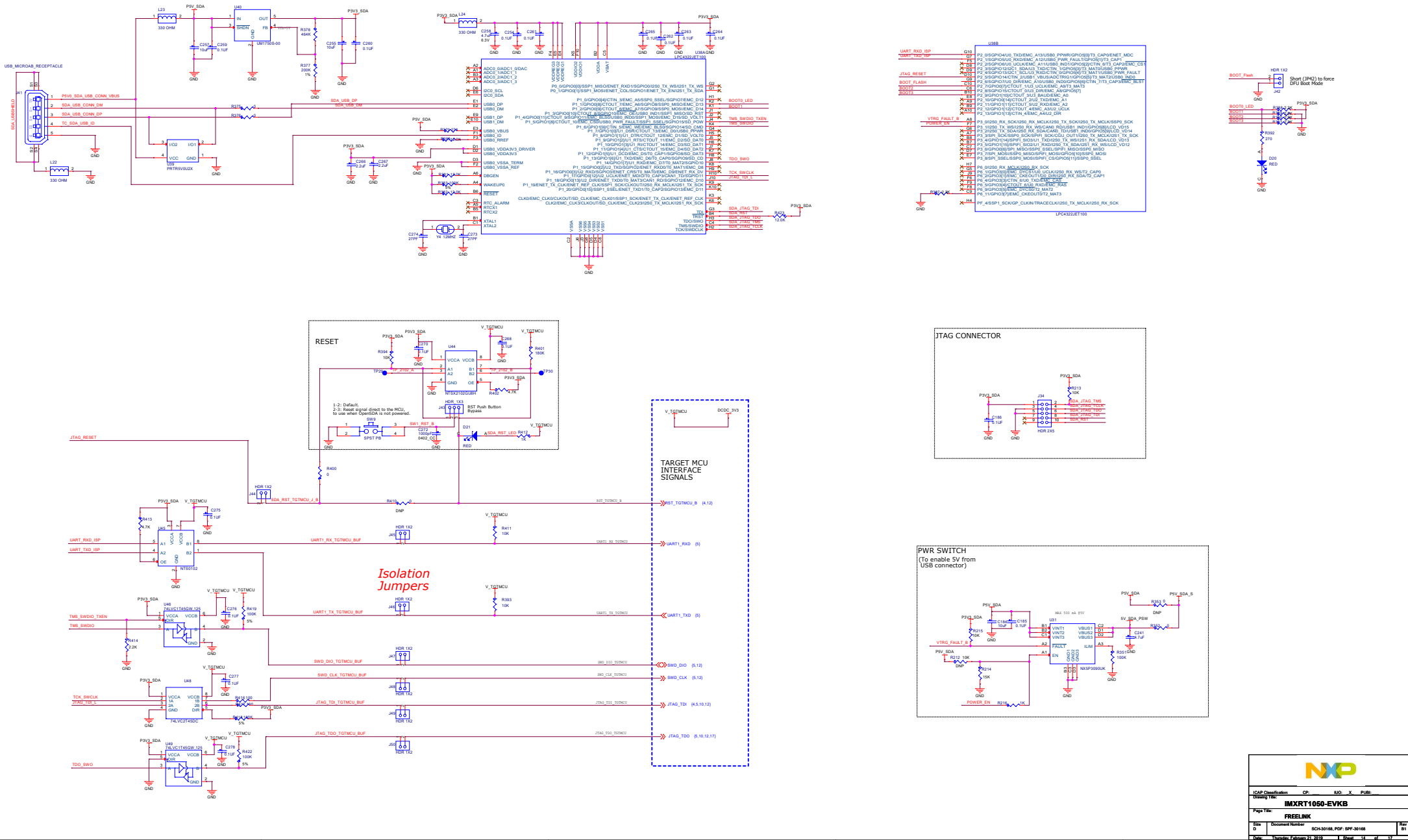
Arduino Interface



SDRAM

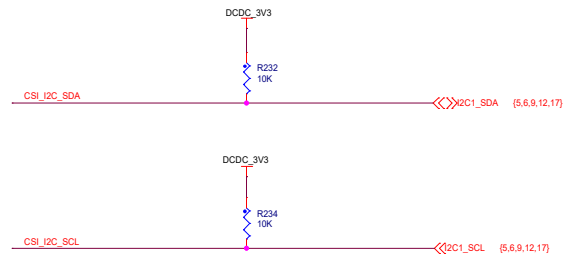
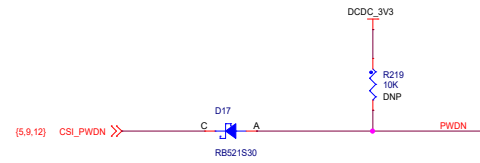


Freelink Interface

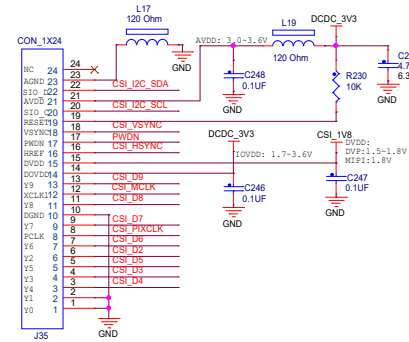


Camera Signals

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

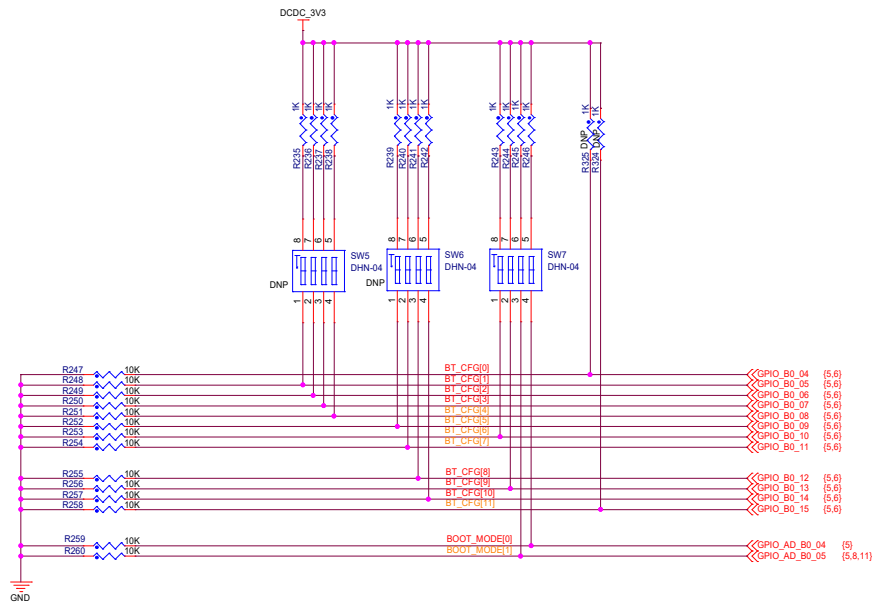



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Drawing Title: IMXRT1050-EVKB	
Page Title: CSI	
Size C	Document Number SCH-30168, PDF: SPF-30168
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FUSE MAP

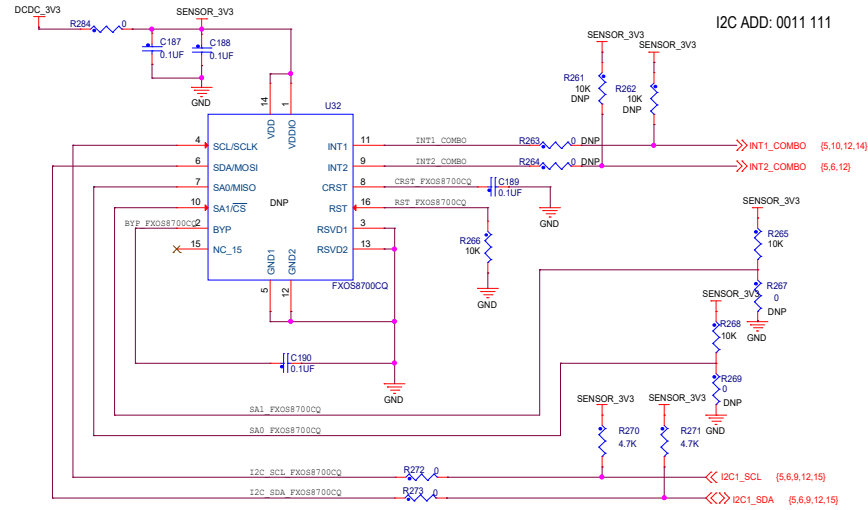
TYPE	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
	BOOT_CFG[11]	BOOT_CFG[10]	BOOT_CFG[9]	BOOT_CFG[8]	BOOT_CFG[7]	BOOT_CFG[6]	BOOT_CFG[5]	BOOT_CFG[4]	BOOT_CFG[3]	BOOT_CFG[2]	BOOT_CFG[1]	BOOT_CFG[0]
FlexSPI - Serial NOR	<i>Infini-Loop: (Debug USE only) 0 - Disable 1 - Enable</i>	<i>FLASH_TYPE 000-Device 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>



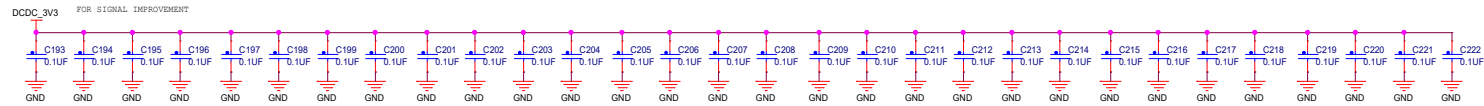


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Drawing Title: IMXRT1050-EVKB	
Page Title: BOOT	
Size C	Document Number SCH-30168, PDF: SPF-30168
Date: Thursday, February 21, 2018	Rev B1
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COMBO SENSOR



FXOS8700CQ COMBO SENSOR



ICAP Classification: CP: IUC: X PUB:	
Drawing Title: IMXRT1050-EVKB	
Page Title: MISC	
Size C	Document Number SCH-30168, PDF: SPF-30168
Date: Thursday, February 21, 2018	Rev B1
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