MIMXRT1060-EVK

Table of Content

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

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.

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.

ICAP Classification: CP: ___ IUO: X PUBI: ___

Drawing Title: MIMXRT1060-EVK

Page Title: COVER

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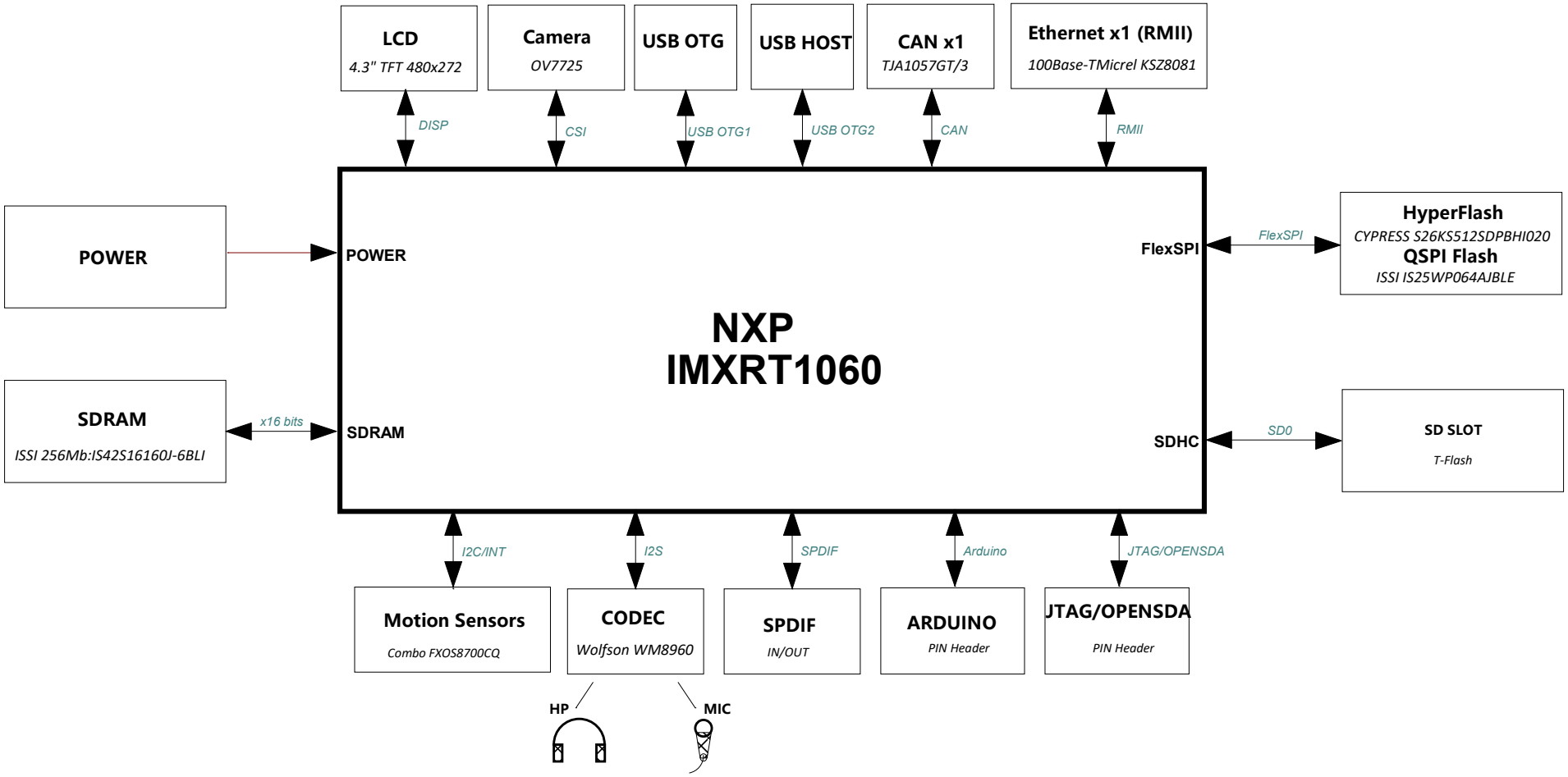
Blcok Diagram Rev A3#####

MIMXRT1060-EVK



ICAP Classification: CP: ___ IUO: X PUBI: ___

Drawing Title: MIMXRT1060-EVK

Page Title: BLOCK DIAGRAM

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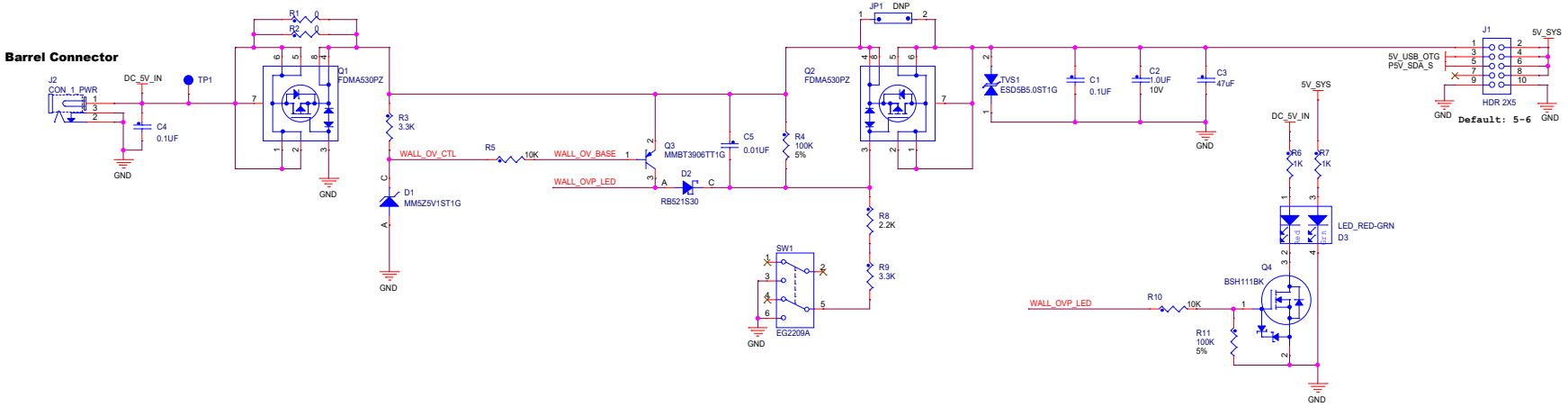
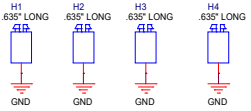
Main Power



Board Mounting Holes



Ground TPs

Layout Note: Place Ground TPs
to assist signal measurement.

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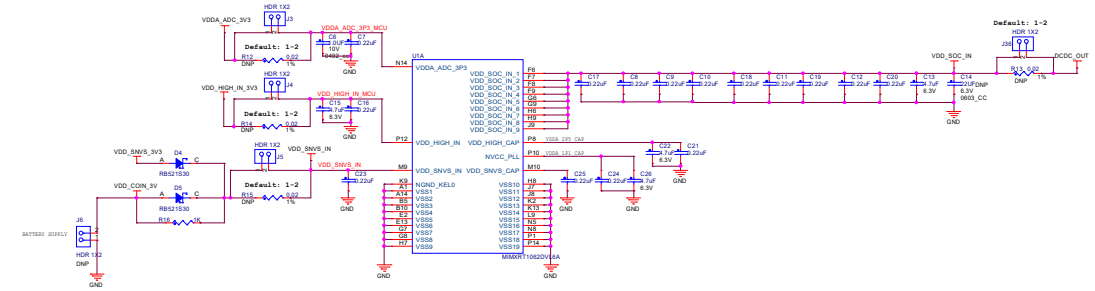
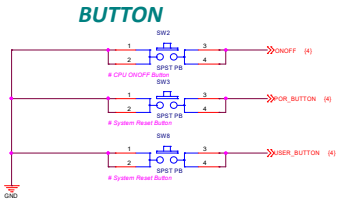
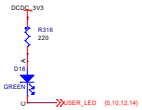


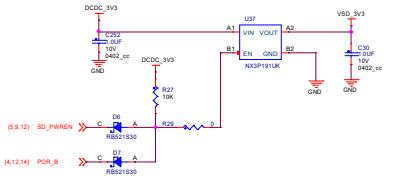
BUTTON



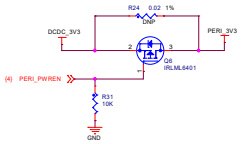
USER LED

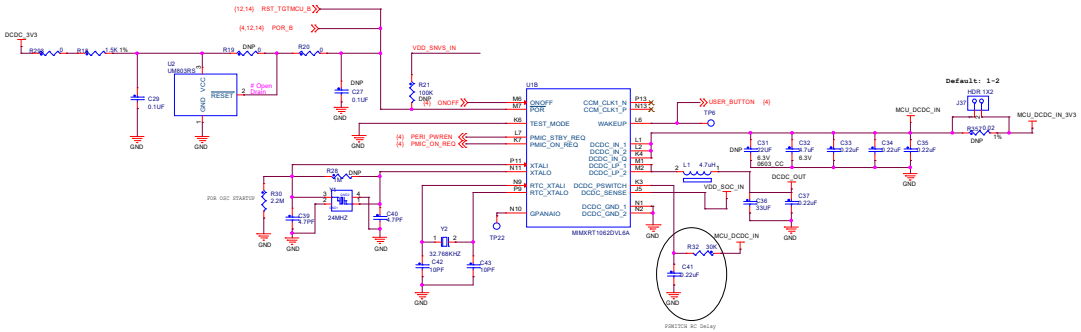


SD CARD POWER SWITCH

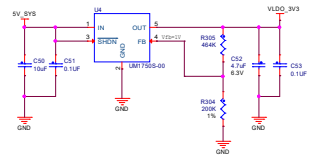


LCD 3V3 POWER SWITCH

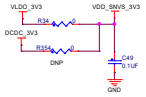




3V3 LDO for SNVS

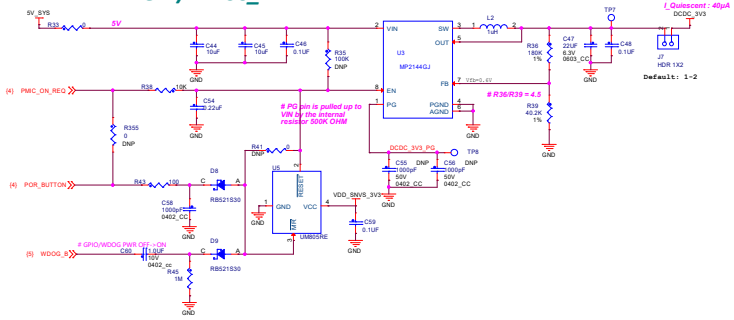


SNVS

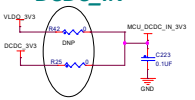


ADC

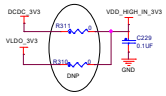
VDDHIGH / NVCC_xxx



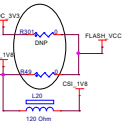
DCDC_IN



VDD_HIGH_IN



FLASH VCC

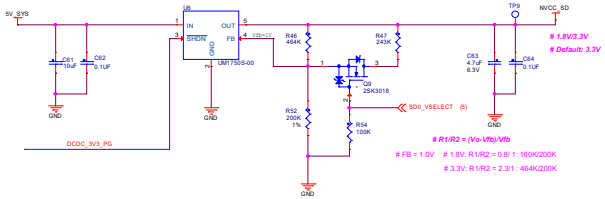


1V8 LDO

MAX 250 mA

NVCC_SD <SD3.0>

MAX 350 mA



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Page Title:	POWER DOMAIN		
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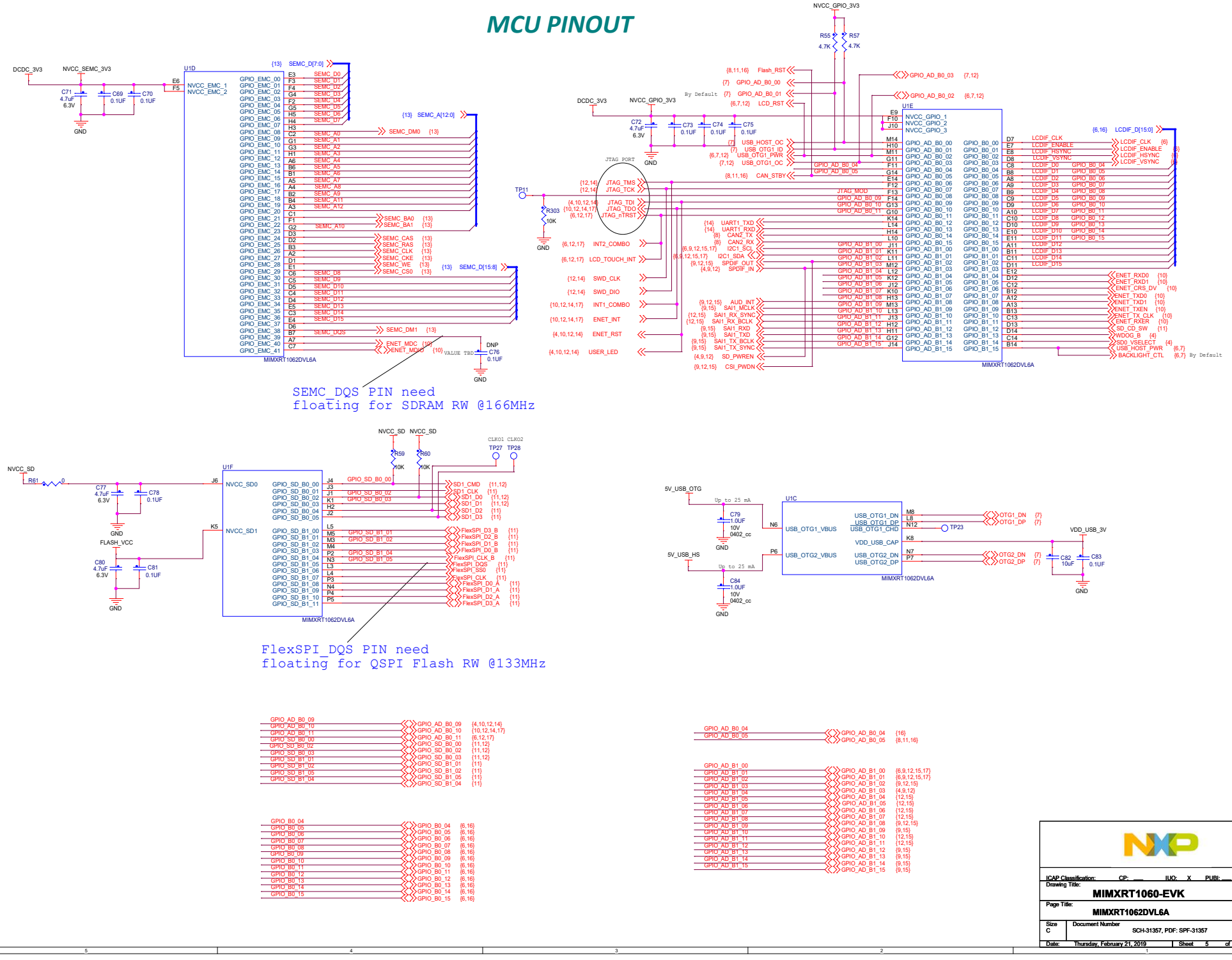
MCU PINOUT



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Page Title:	MIMXRT1062DVL6A		
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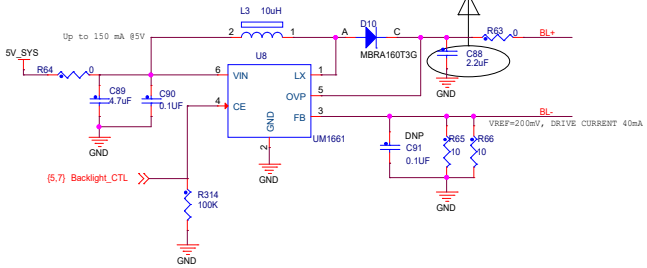
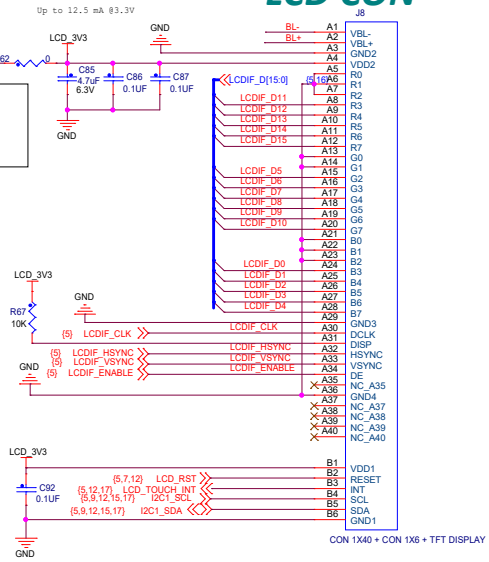
Backlight Control



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



CON 1X40 + CON 1X6 + TFT DISPLAY

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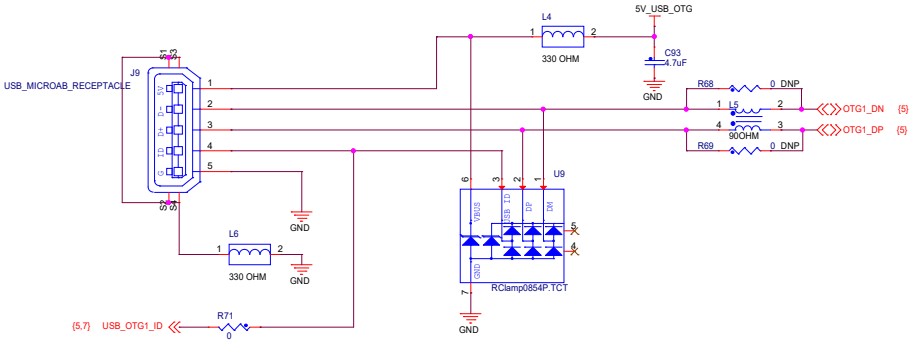
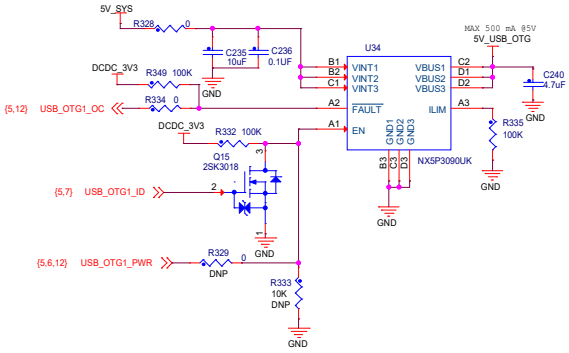
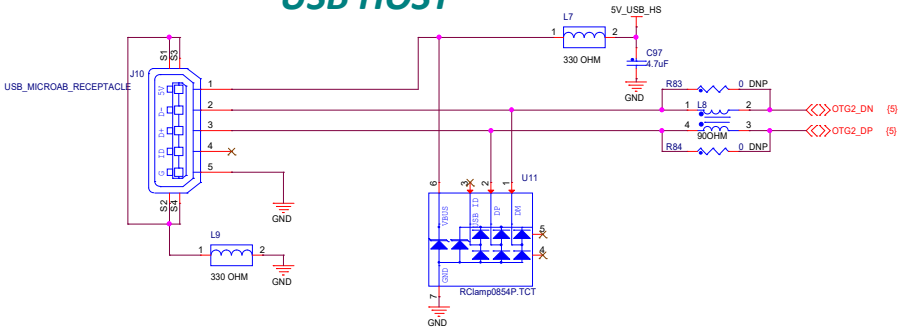
USB OTG

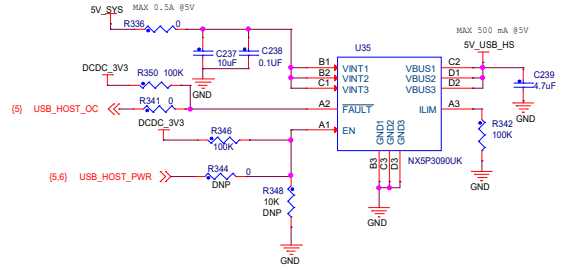


USB POWER



USB HOST





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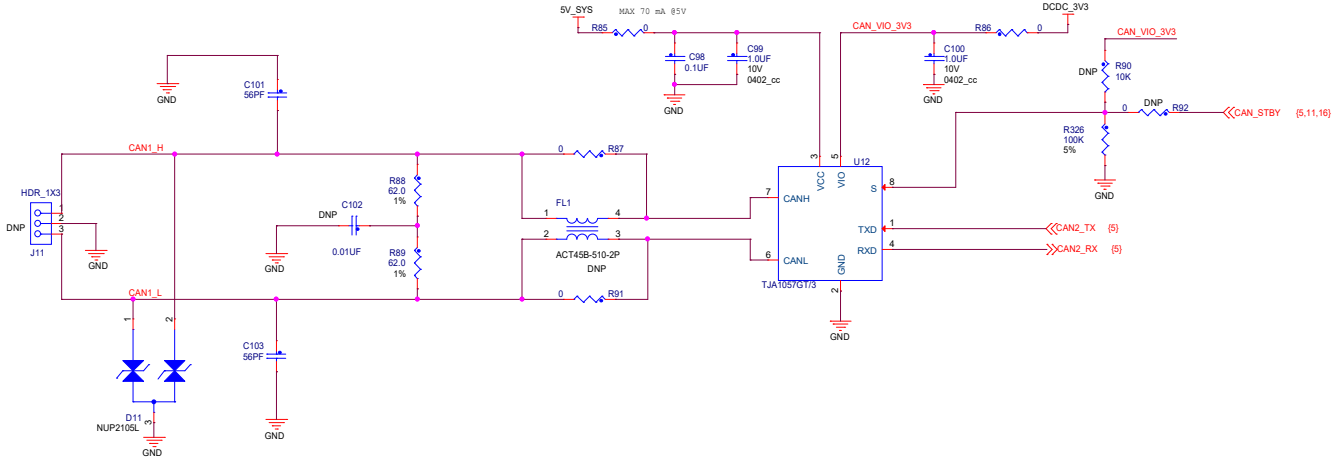
CAN BUS



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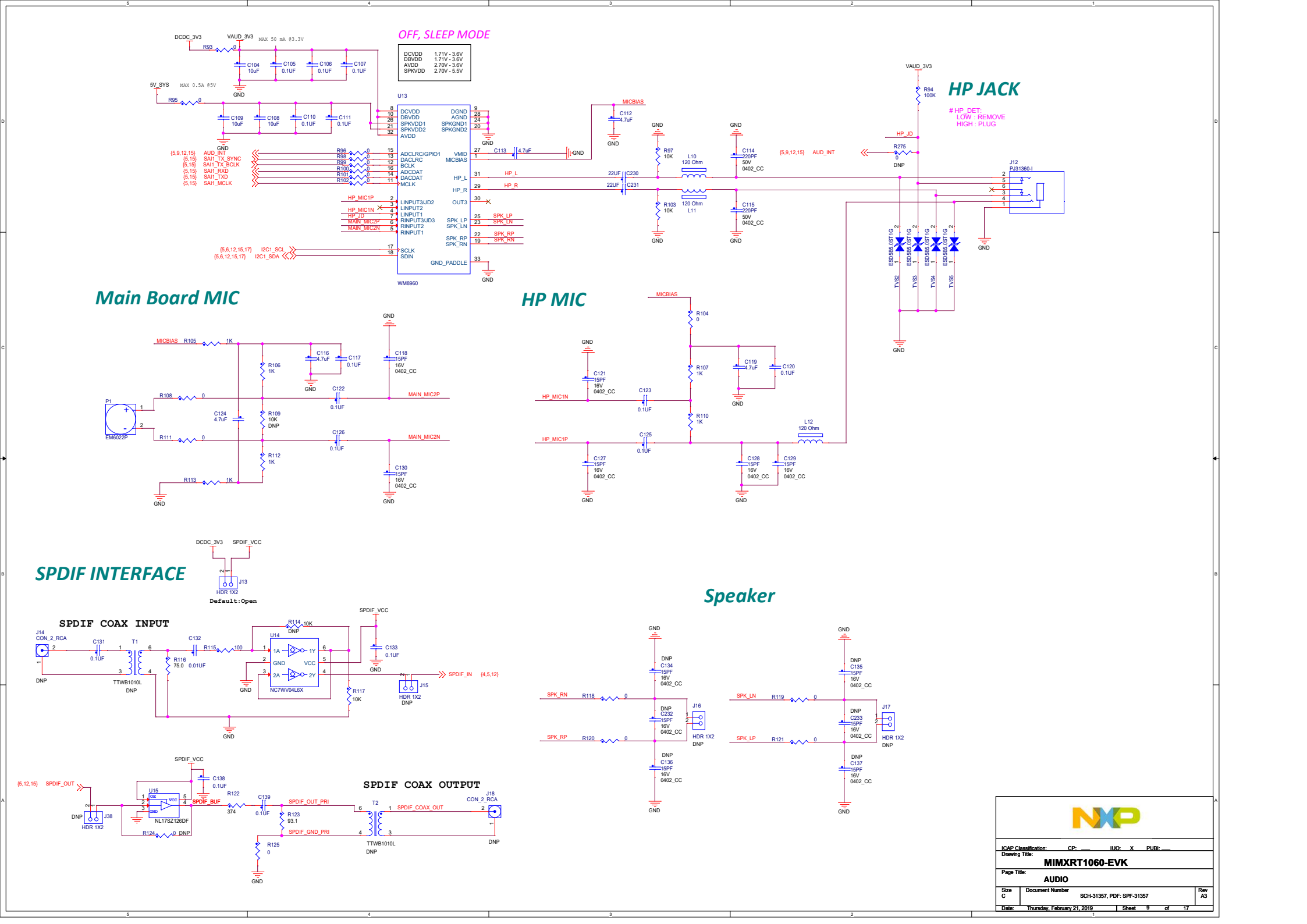

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Page Title:	AUDIO		
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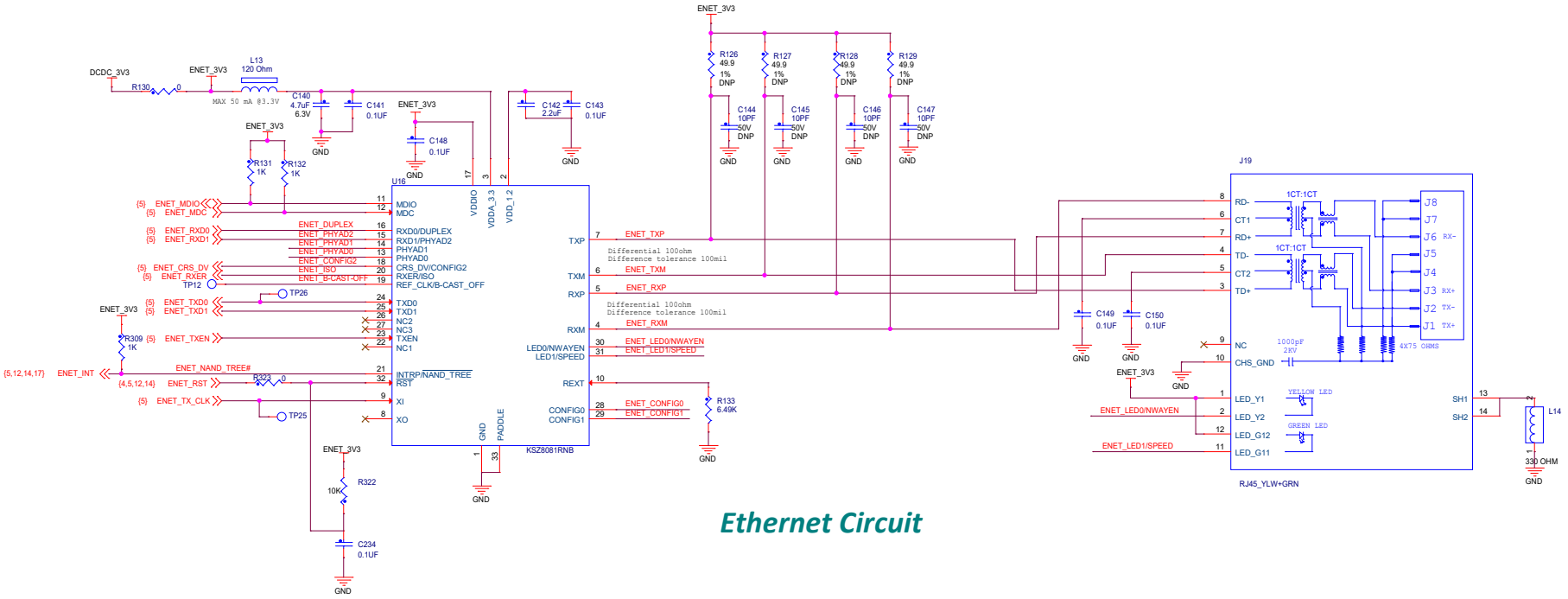
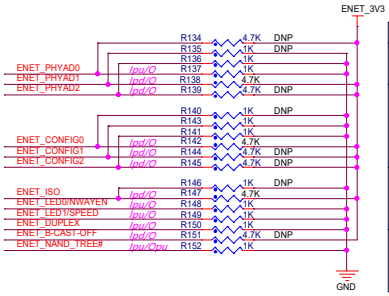


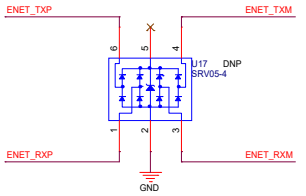
Ethernet Circuit



# CFG	Description
PHYAD[2:0]	PHY ADDR 00-XXX (00010 DEFAULT)
CONFIG[2:0]	IF MODE 001 RMII 101 RMII Back-to-Back xxx Reserved-not used
ISO	ISOLATE mode Pull-up = Enable Pull-down (default) = Disable
SPEED	SPEED mode Pull-up (default) = 100Mbps Pull-down = 10Mbps

# CFG	Description
DUPLEX	DUPLEX mode Pull-up (default) = Half Duplex Pull-down = Full Duplex
NWAYEN	Nway Auto-Negotiation Pull-up (default) = Enable Pull-down = 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
NAND_TREE#	NAND Tree Mode Pull-up (default) = Disable Pull-down = Enable

ESD PROTECTION



ICAP Classification: CP: ___ IUO: X PUBI: ___

Drawing Title: **MIMXRT1060-EVK**

Page Title: **ETHERNET**

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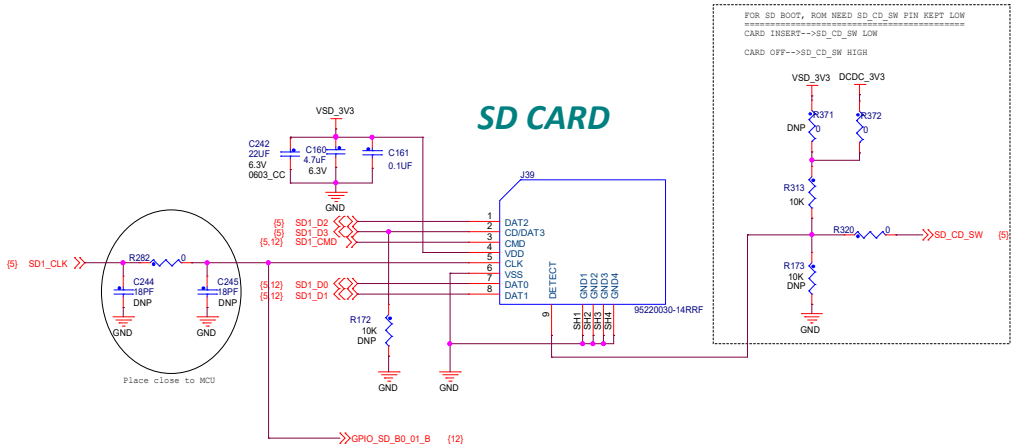
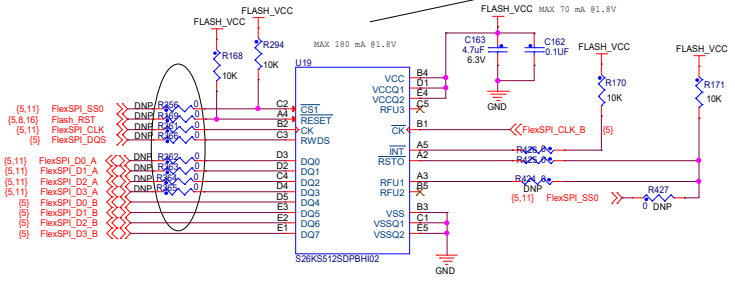
SD CARD



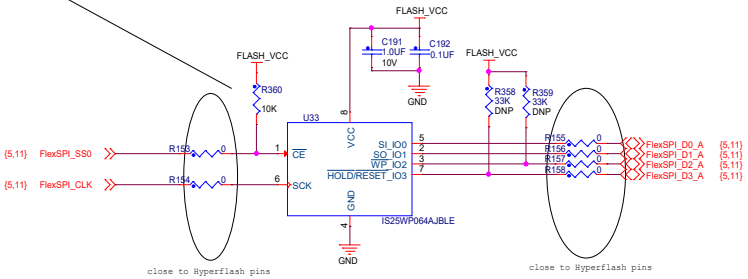
OPTION1: USE Hyperflash(DNP R153~R158, Mount R356,R361~R366)
OPTION2: USE QSPI FLASH(Mount R153~R158, DNP R356,R361~R366)

1V8 HyperFlash



Share the same package with S27KS0641DPBHI023
(if HYPERRAM is replaced, then DNP R425,R426,Mount R424,R427)

1V8 QSPI Flash



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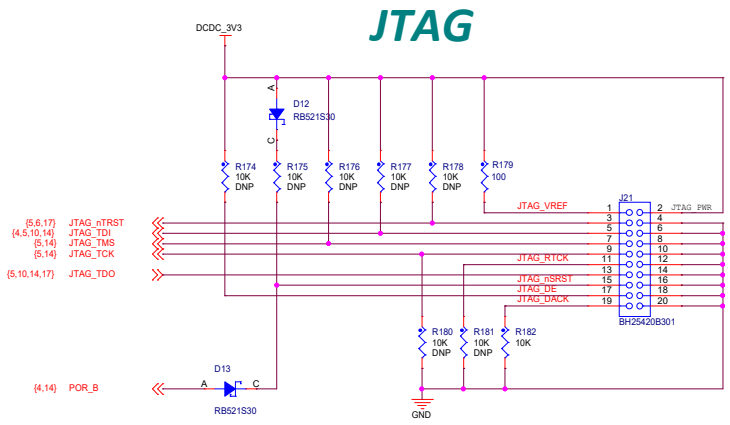
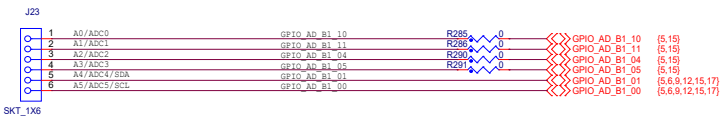
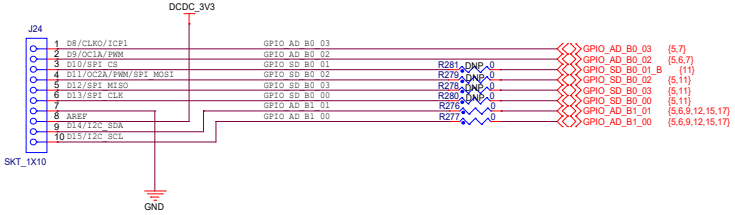
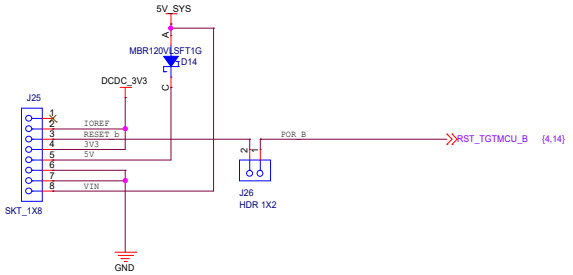


Arduino Interface







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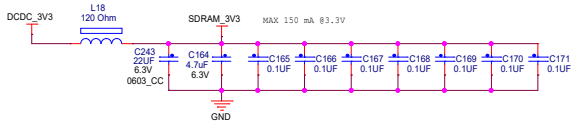
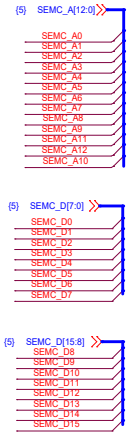
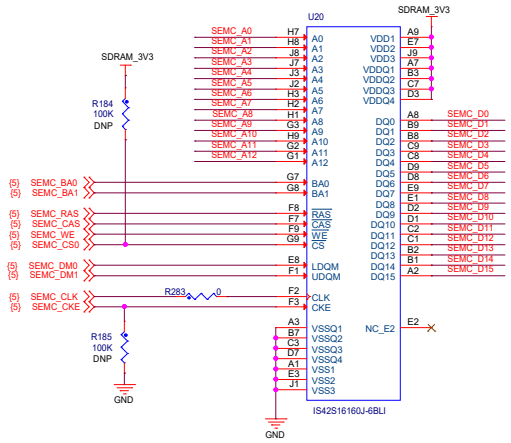
SDRAM







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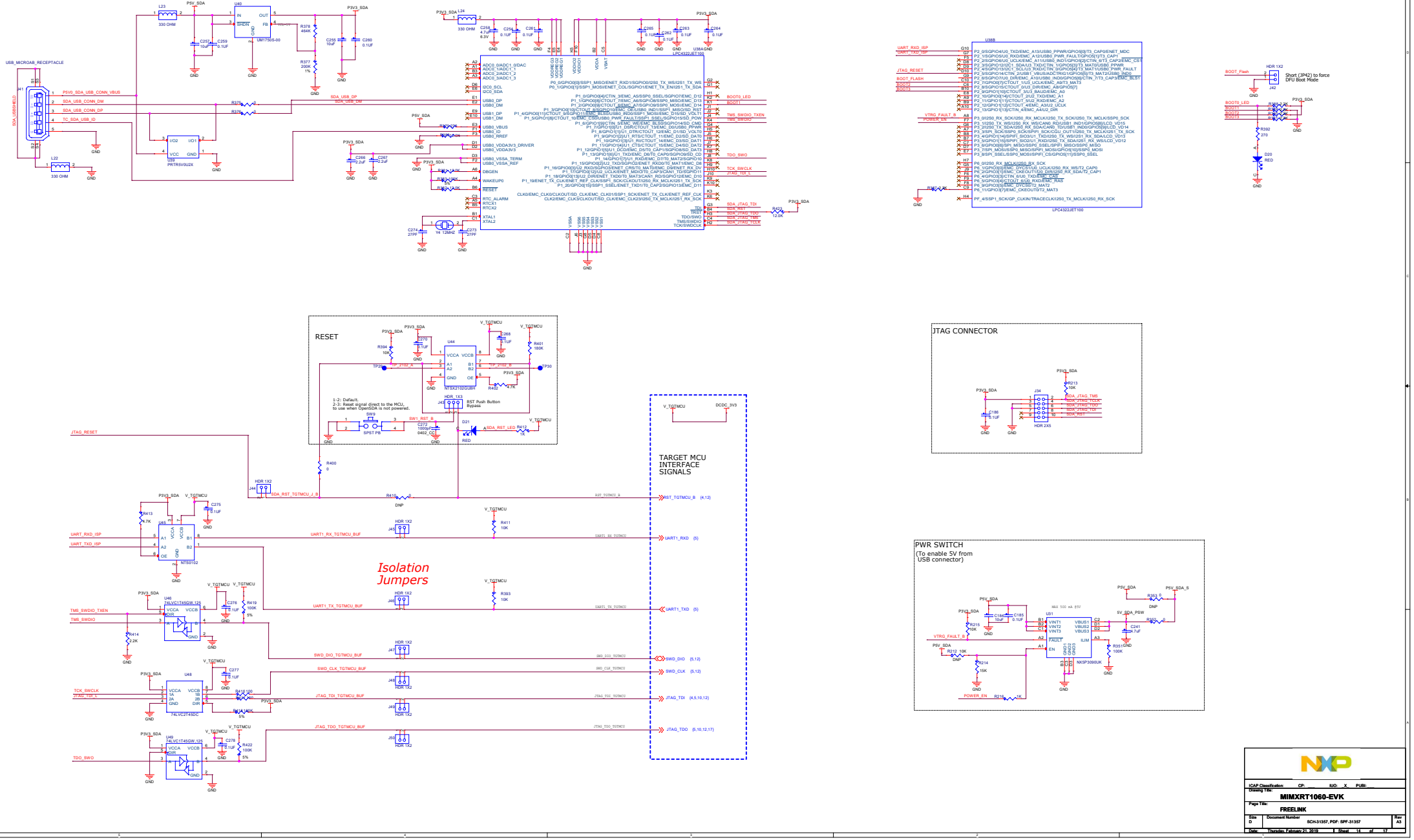
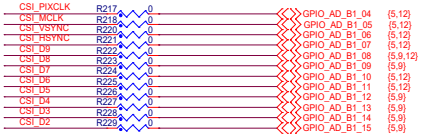
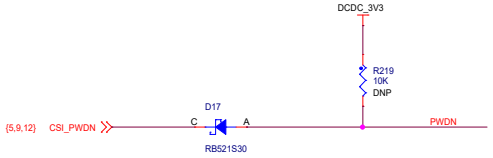
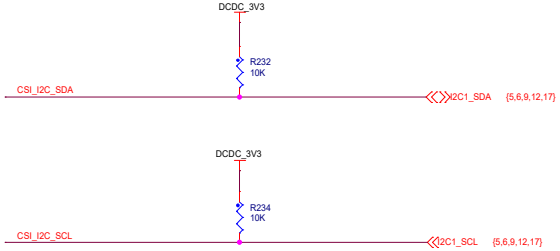
Freelink Interface



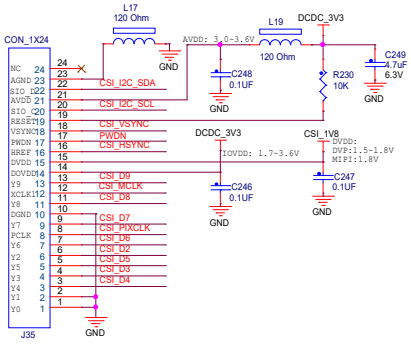
Camera Signals







FPC FOR MT9M114/OV7725 MODULE



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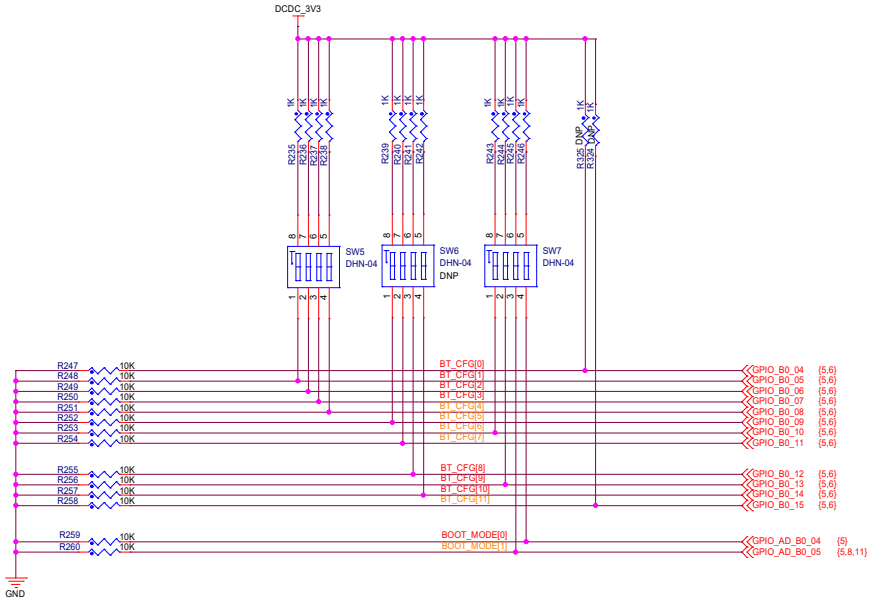
FUSE MAP

	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
TYPE	**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]**
FlexSPI1 - Serial NOR	*Infinit-Loop: (Debug USE only) 0 - Disable 1- Enable*	*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*			*0*	*0*	*0*	*0*	*HOLD TIME: 00 - 500us 01 - 1ms 10 - 3ms 11 - 10ms*		*EncryptedXIP 0 - Disabled 1- Enabled*	*Reserved*
SD	*Infinit-Loop: (Debug USE only) 0 - Disable 1- Enable*	*Reserved*	*Bus Width: 0 - 1-bit 1 - 4-bit*	*SD1 VOLTAGE SELECTION: 0 - 3.3V 1 - 1.8V*	*0*	*1*	*SD/SDXC Speed: 00 - Normal/SDR12 01 - High/SDR25 10 - SDR50 11 - SDR104*		*SD Power Cycle Enable: '0' - No power cycle '1' - Enabled via USDHC_RST pad*	*SD Loopback Clock Source Sel: (for SDR50 and SDR104 only) '0' - through SD '1' - direct*	*Port Select: 0 - eSDHC1 1 - eSDHC2*	*Fast Boot: 0 - Regular 1 - Fast Boot*



ICAP Classification: CP: ___ IUO: X PUBI: ___

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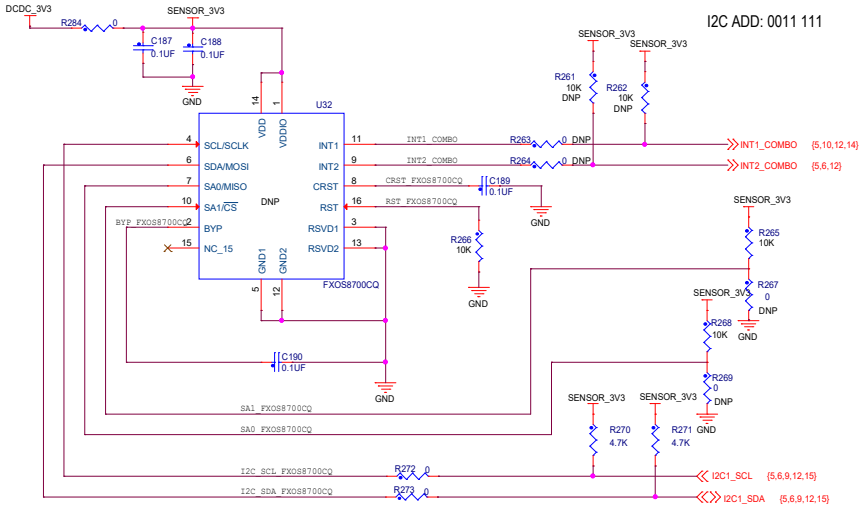
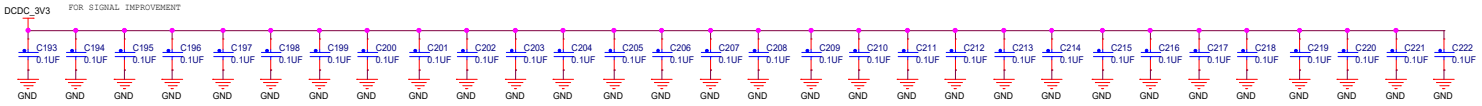
COMBO SENSOR



FXOS8700CQ COMBO SENSOR



ICAP Classification: CP: ___ IUO: X PUBI: ___

Drawing Title: **MIMXRT1060-EVK**

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