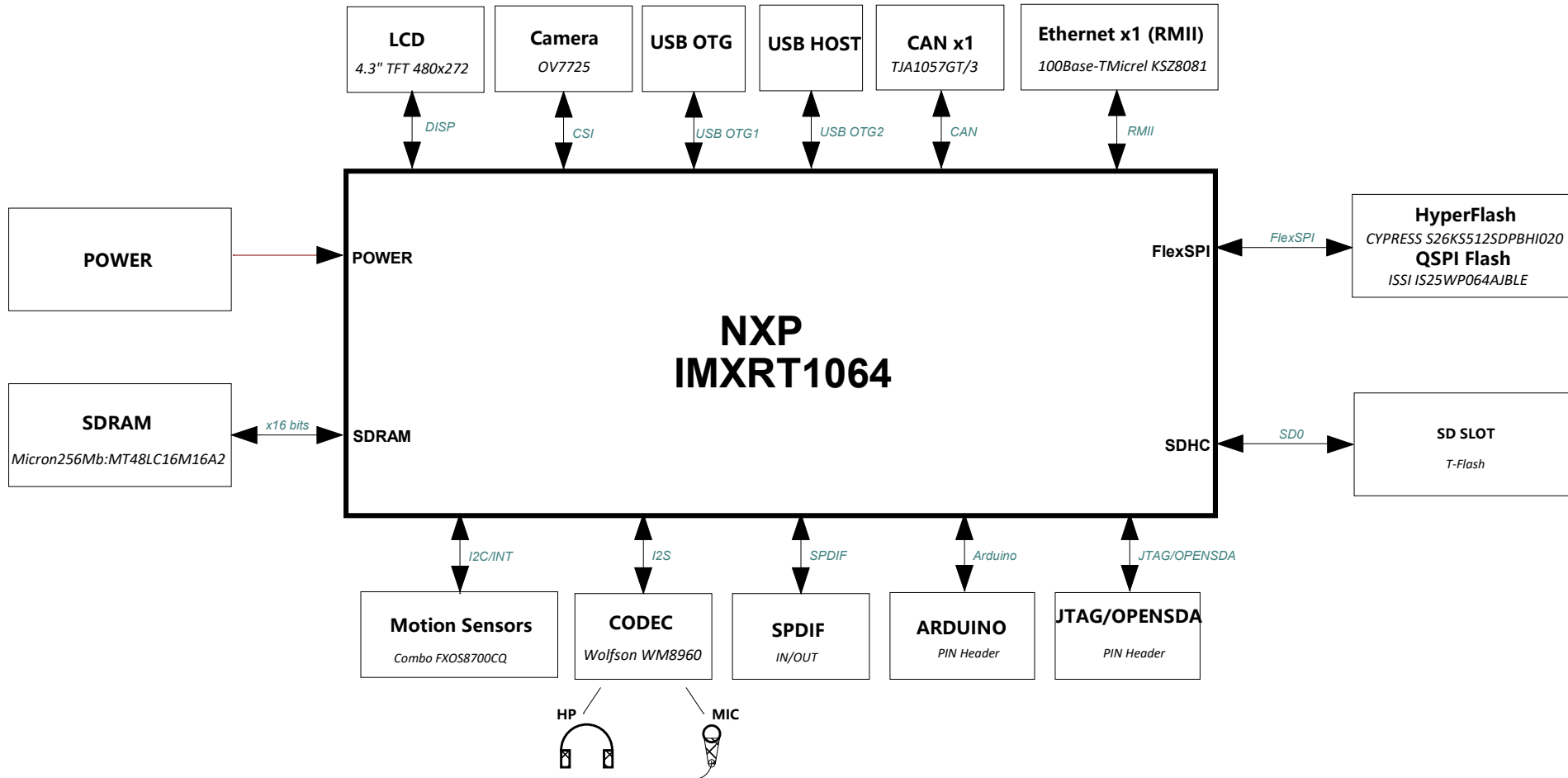



MIMXRT1064-EVK

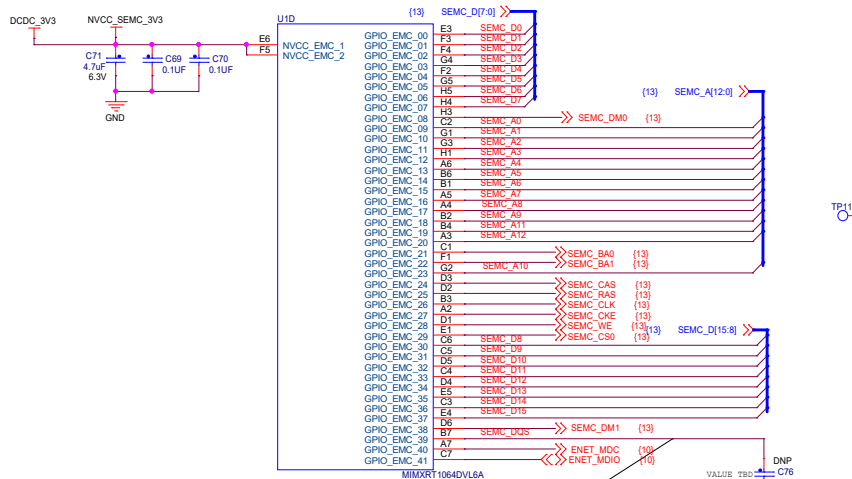


The schematic diagram illustrates a USB-C to USB-A adapter circuit. It begins with a USB-C connector (J2) providing power (PWR) and ground (GND). The power line (DC_5V_IN) is filtered by a 0.1µF capacitor (C4) and passes through a temperature sensor (TP1). The signal then enters a USB-C receptacle (D1, FDMA530PZ) which is configured for 5V output. The output of the receptacle is connected to a 5V regulator (Q2, FDMA530PZ) through a 3.3kΩ resistor (R3). The regulator's output (5V_SYS) is filtered by a 0.1µF capacitor (C1) and a 10V electrolytic capacitor (C2). A 47µF capacitor (C3) is also connected to the 5V_SYS line. The 5V_SYS line is connected to a USB-A connector (J1) and a 5V LED (D3, BSH111BK) through a 1kΩ resistor (R7). The LED is also connected to a 10kΩ resistor (R10) and a 100kΩ resistor (R11). The circuit includes several protection features: a TVS diode (TVS1, ESD5B5.0ST1G) for ESD protection, a MOSFET (Q3, MMBT3906TT1G) for over-current protection, and a diode (D2, RBS21S30) for over-voltage protection. A switch (SW1, EG2209A) is used to select between the 5V_SYS and the LED. The circuit is powered by a 5V USB OTG (P5V_SDA_S) and a 5V SYS (5V_SYS) line. The ground (GND) is connected to the USB-A connector and the LED.

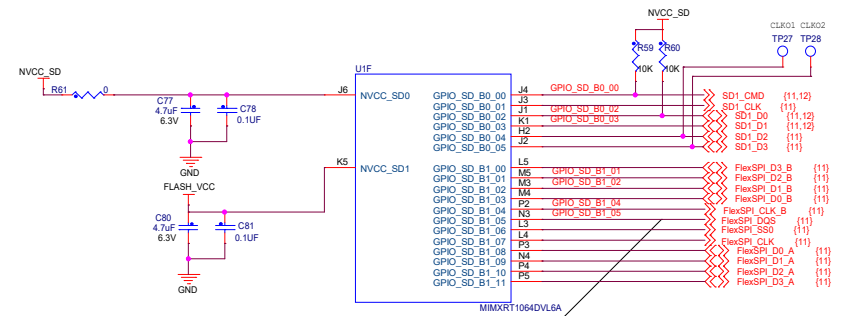
Four circuit diagrams are shown, each representing a different component layout. Each diagram consists of a blue rectangular component labeled with its length, ".635" LONG". Below each component is a red ground symbol labeled "GND". The components are connected to the ground symbol by a red line. The diagrams are labeled H1, H2, H3, and H4 from left to right.

				
ICAP Classification: CP: _____ IUG: X PURL: _____				
Drawing Title: MIMXRT1064-EVK				
Page Title: MAIN POWER				
Size C	Document Number	SCH-32221, PDF: SPF-32221		Rev A2
Date:	Thursday, March 12, 2020	Sheet	3	of 17

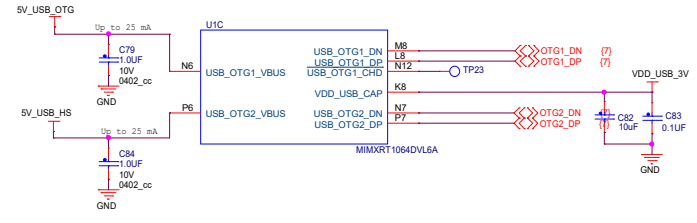
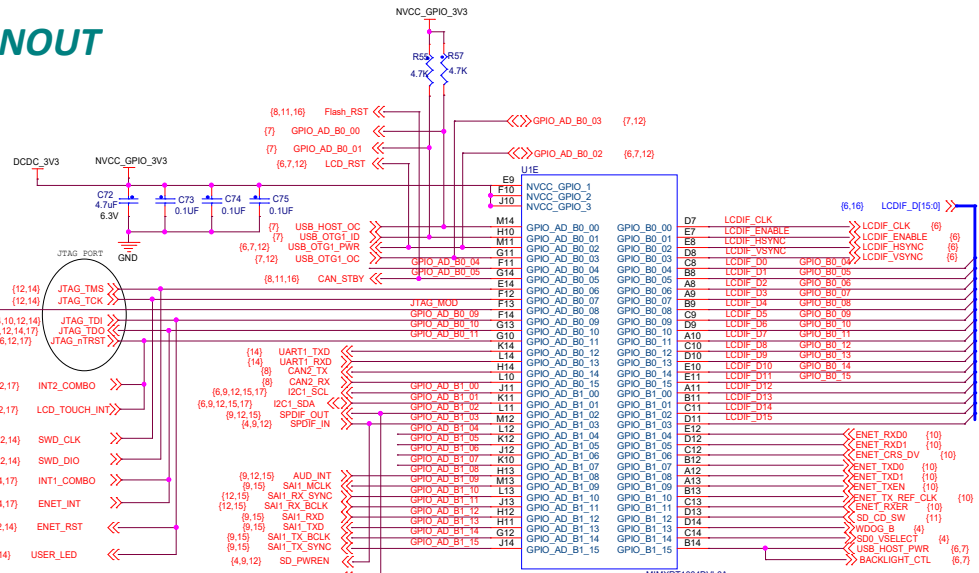
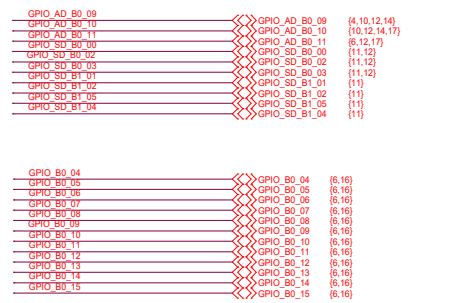
MCU PINOUT



SEMC DQS PIN need floating for SDRAM RW @166MHz



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

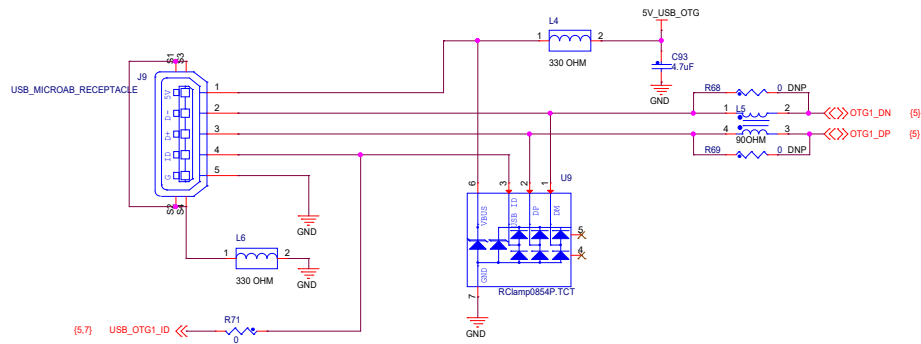


[illegible]

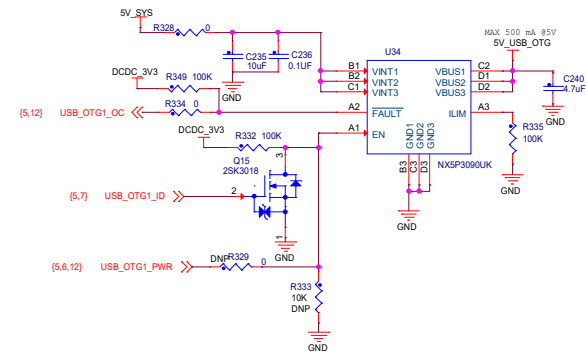
Note:
If you use LCD module for Rev A, need to change C88 to 2.2uf/35V or 1.0uf/35V to ensure the backlight control circuits working normally.

[illegible]

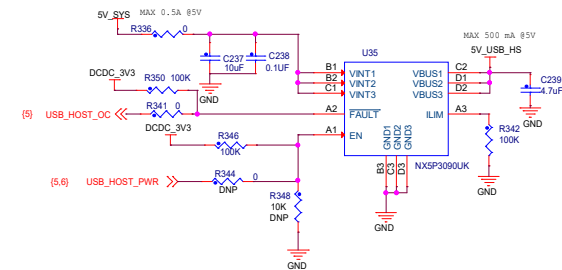
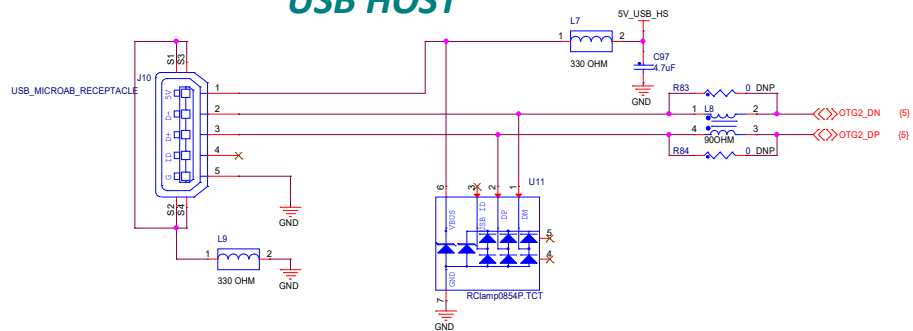
USB OTG



USB POWER

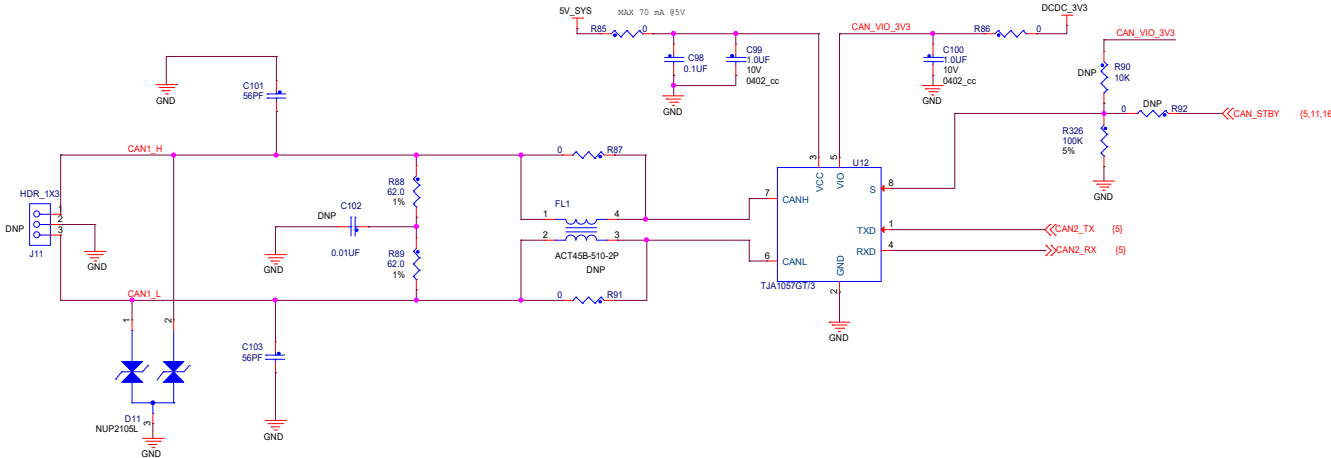


USB HOST

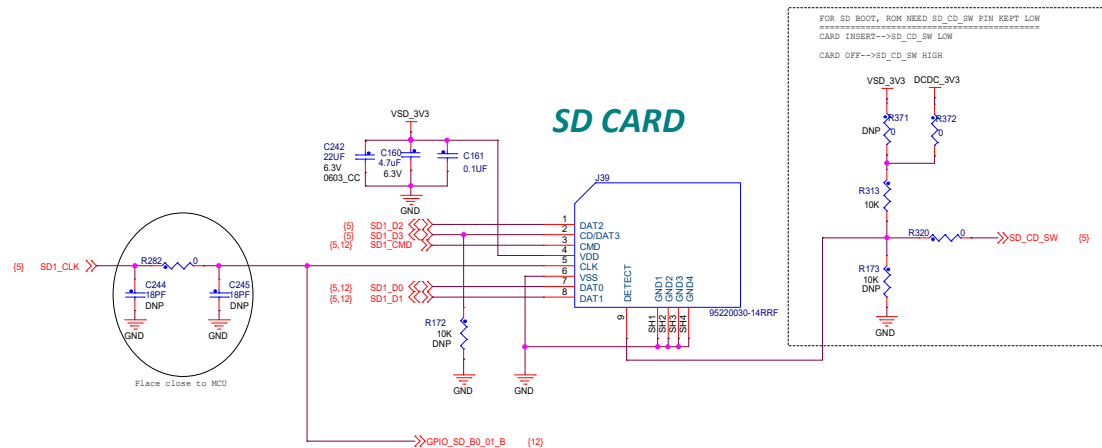


ICAP Classification: _____		CP: _____	IJO: X	PUBI: _____
Drawing Title: MIMXRT1064-EVK				
Page Title: USB				
Size C	Document Number SCH-32221, PDF: SPF-32221			Rev A2
Date: Thursday, March 12, 2020		Sheet 7 of 17		

CAN BUS



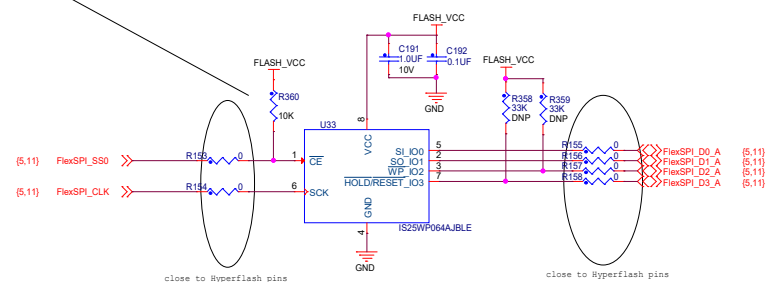
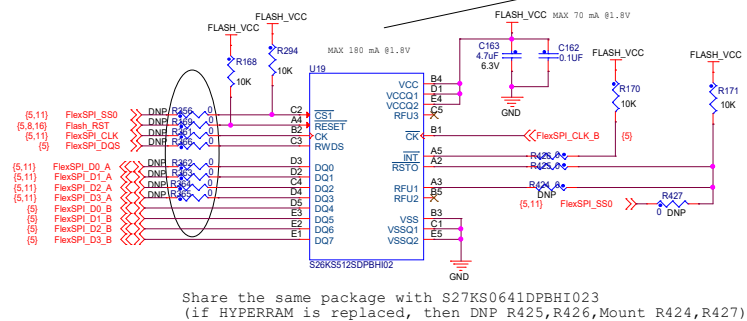
ICAP Classification:		CP: _____	IUD: X	PUBI: _____
Drawing Title:				
MIMXRT1064-EVK				
Page Title:				
CAN				
Size C	Document Number			Rev A2
	SCH-32221, PDF: SPF-32221			
Date:	Thursday, March 12, 2020	Sheet	8	of 17



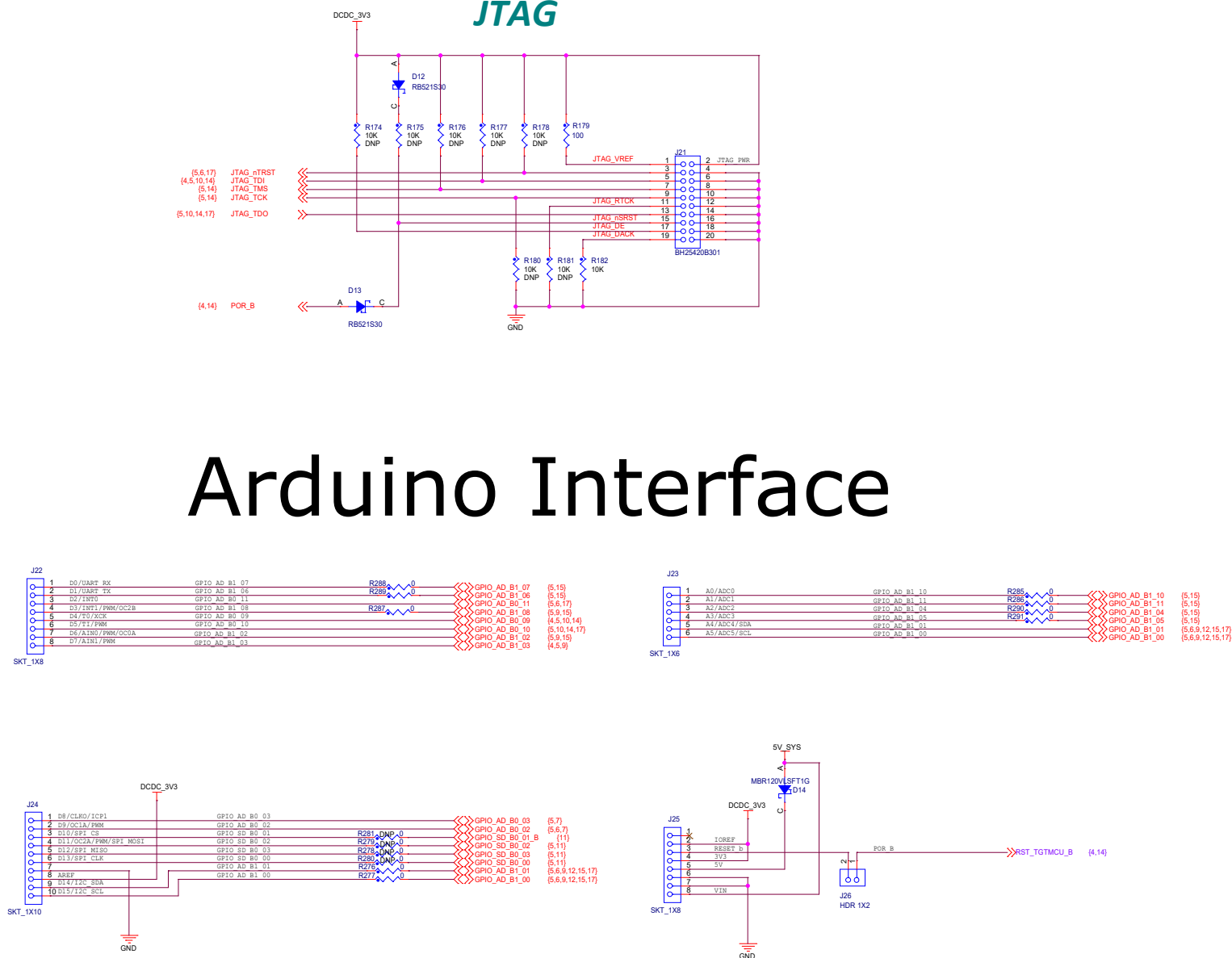
1V8 HyperFlash

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

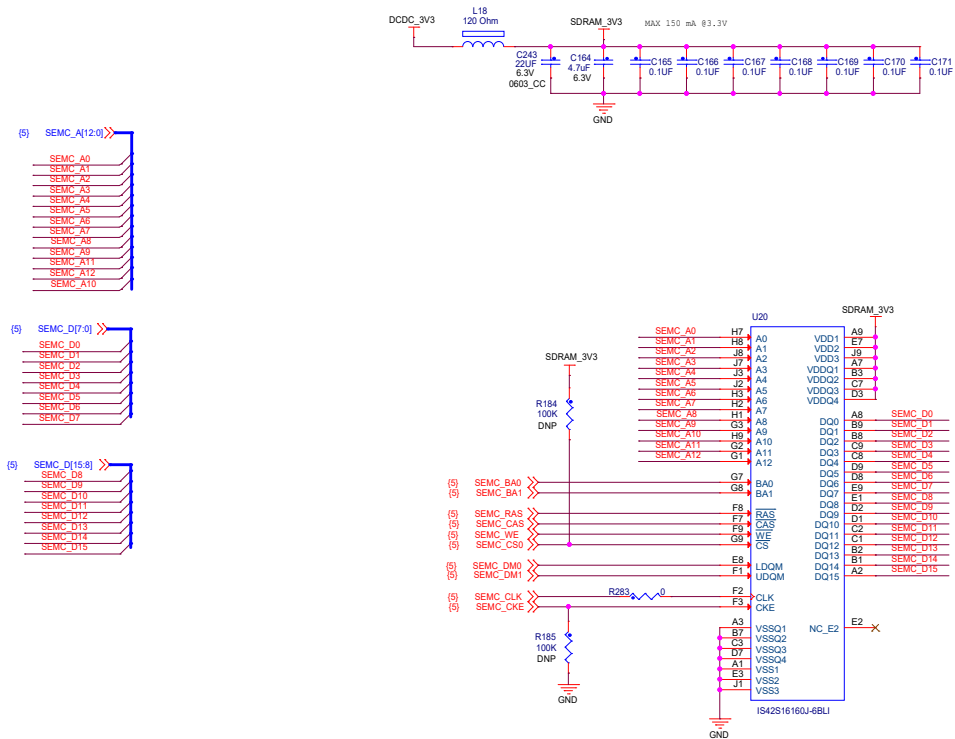
1V8 QSPI Flash



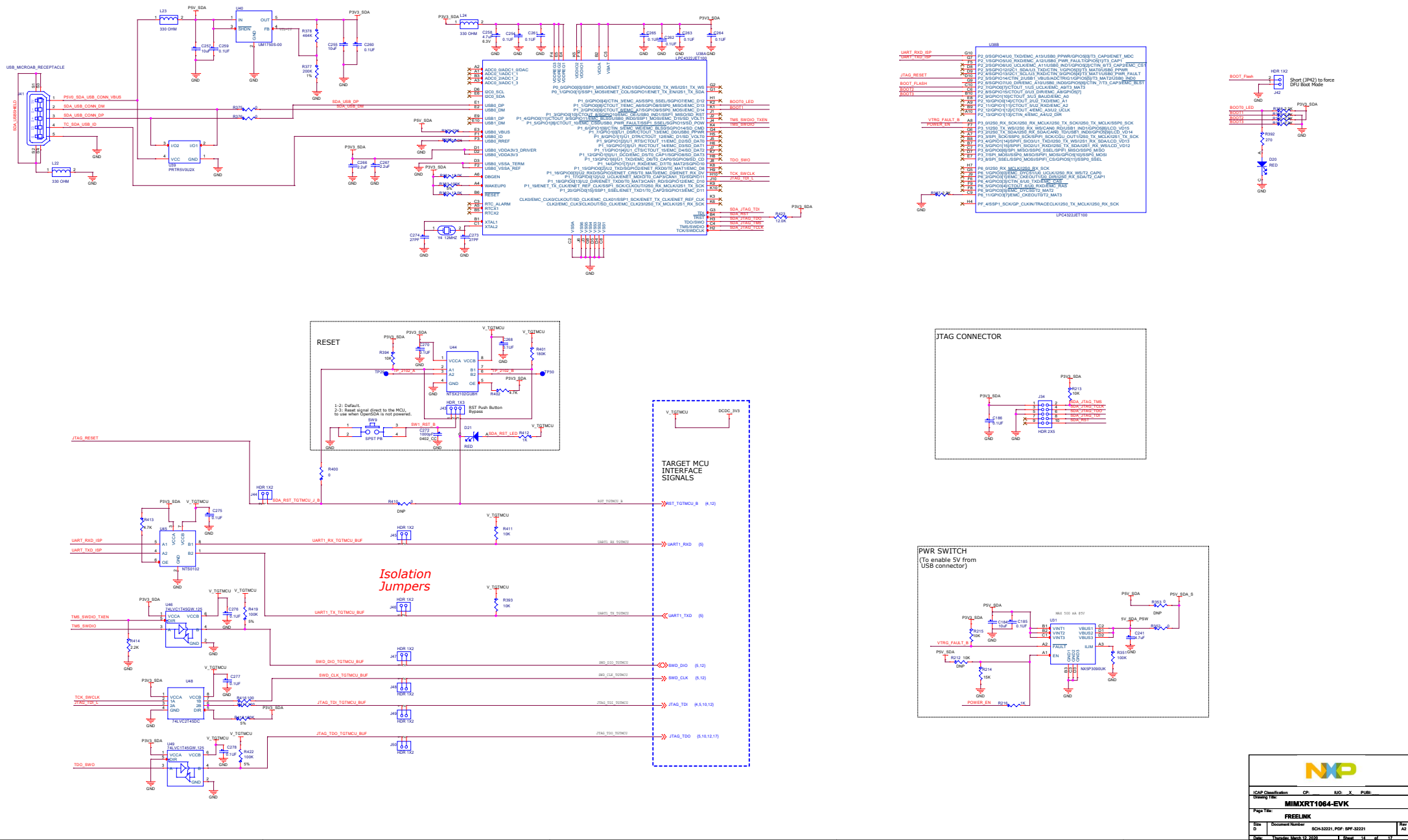
Arduino Interface



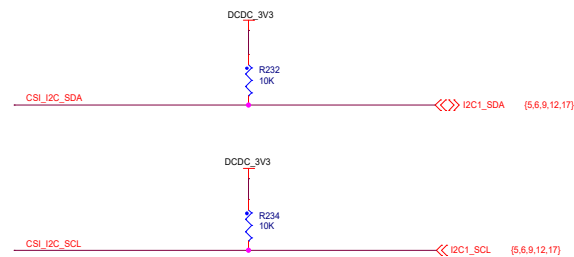
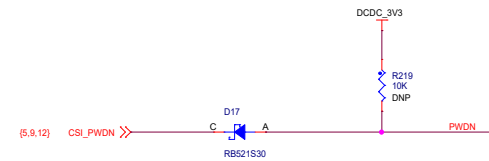
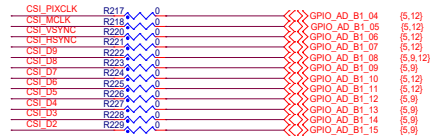
SDRAM



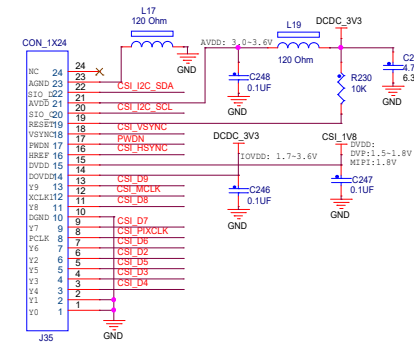
Freelink Interface



Camera Signals



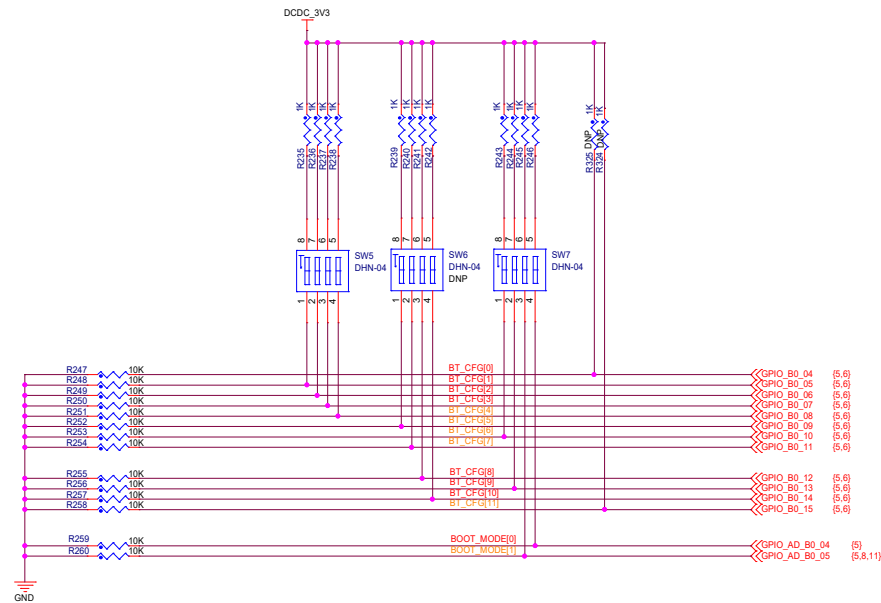
FPC FOR MT9M114/OV7725 MODULE



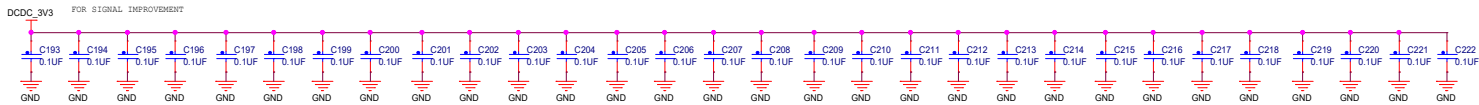
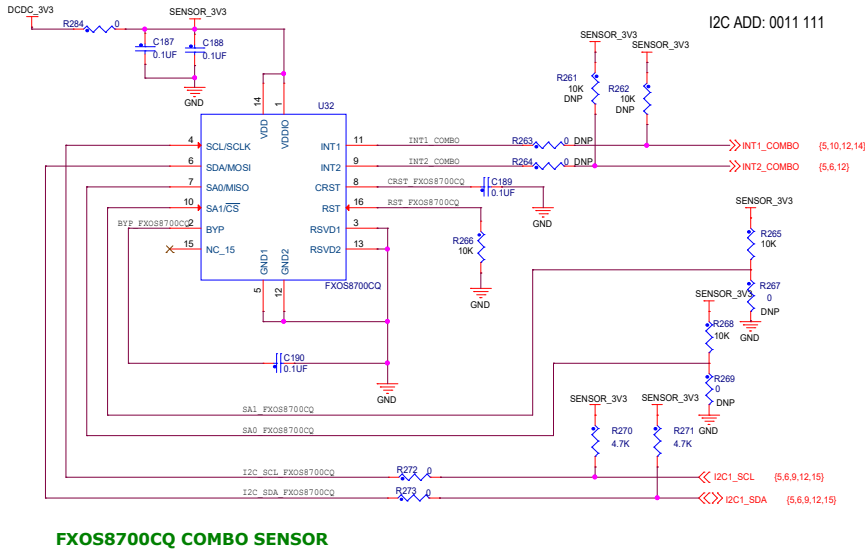
ICAP Classification:		CP: _____	IUD: X	PUBI: _____
Drawing Title:				
MIMXRT1064-EVK				
Page Title:				
CSI				
Size C	Document Number SCH-32221, PDF: SPF-32221			Rev A2
Date: Thursday, March 12, 2020		Sheet 15 of 17		

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
FlexSPI - 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



COMBO SENSOR



JCAP Classification: _____		GP: _____	IUD: X	PUBI: _____
Drawing Title: MIMXRT1064-EVK				
Page Title: MISC				
Size C	Document Number SCH-32221, PDF: SPF-32221			Rev A2
Date:	Thursday, March 12, 2020		Sheet	17 of 17