MIMXRT1010-EVK

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Revision History

Rev. Code	Date	By	Description
A	2019-04-23	Lucas Cao	A Version for prototype1 boards production
B	2019-06-18	Lucas Cao	Correct LPI2C connection on I2C1 SDA. Correct LPSPI connection on Ardunio.
C	2019-07-18	Lucas Cao	Add a path to Ardunio. Add a path to User Button.

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.

Microcontroller Product Group
6501 William Cannon Drive West
Austin, TX 78735-8598

ICAP Classification: CP: IUO: X PUBI:

Designer: Lucas Cao	Drawing Title: MIMXRT1010-EVK		
Drawn by: Lucas Cao	Page Title: COVER		
Approved: Approved	Size C	Document Number SCH-45852, PDF: SPF-45852	Rev C
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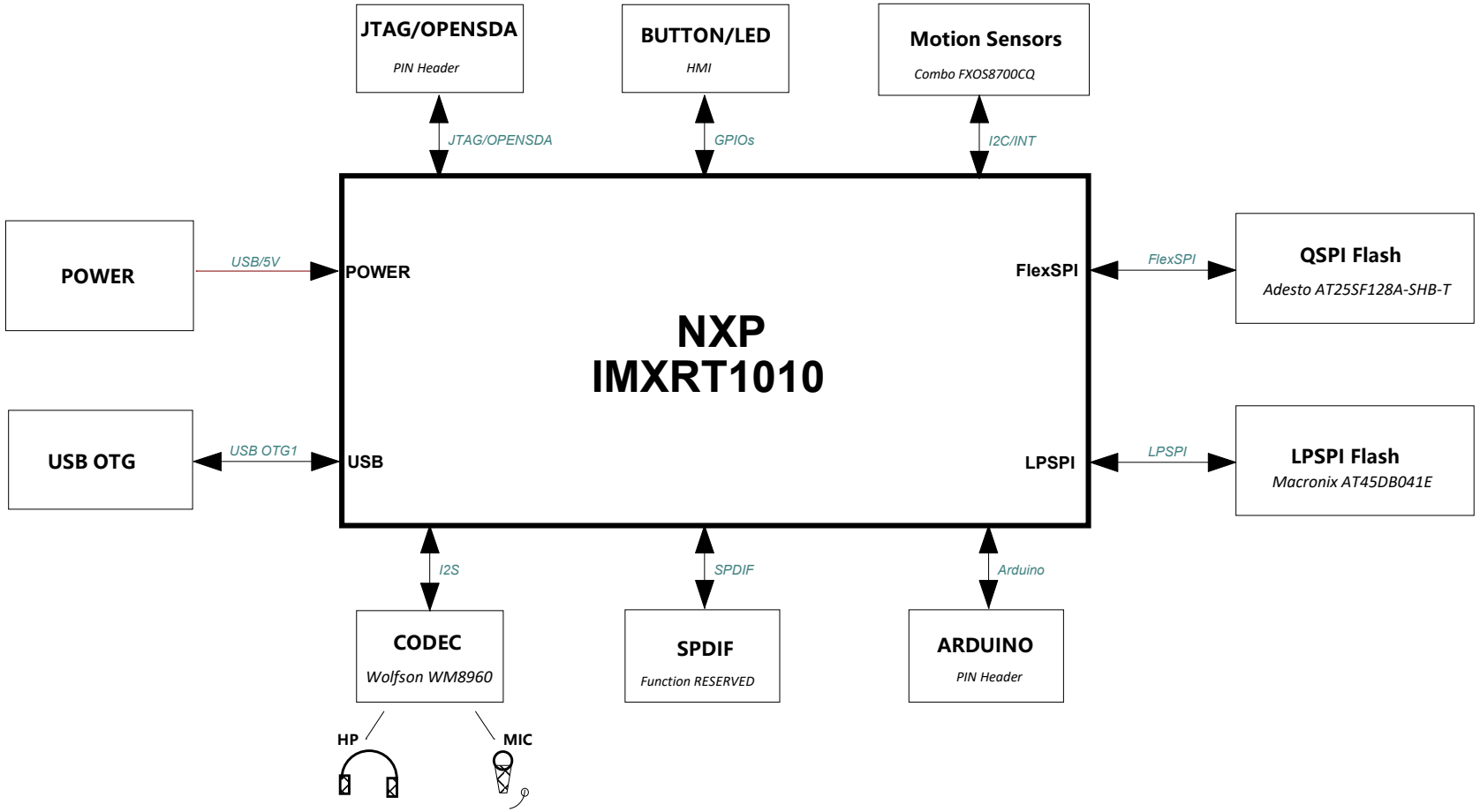
MIMXRT1010-EVK

Blcok Diagram Rev C#####



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Drawing Title: MIMXRT1010-EVK

Page Title: BLOCK DIAGRAM

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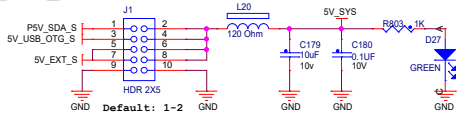
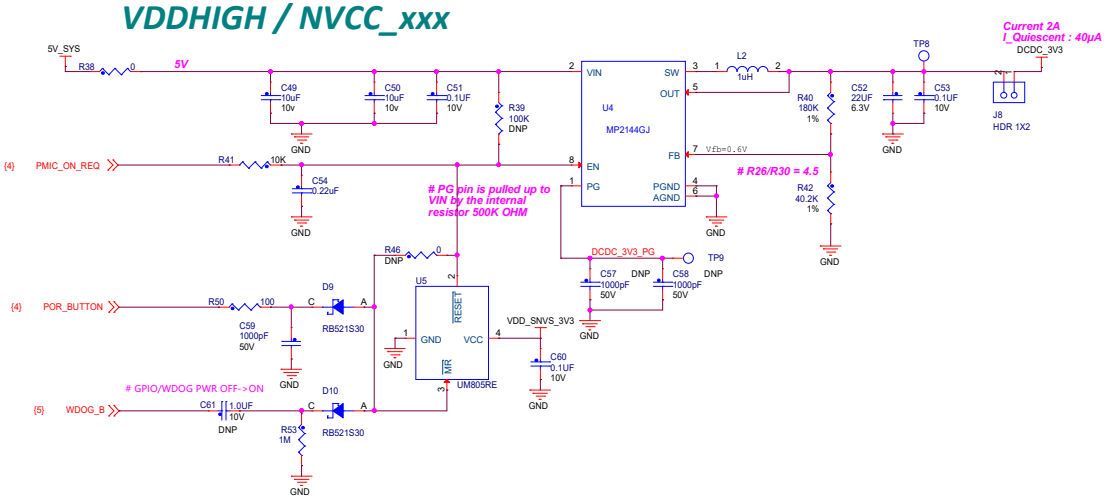
Main Power

USB POWER SUPPLY

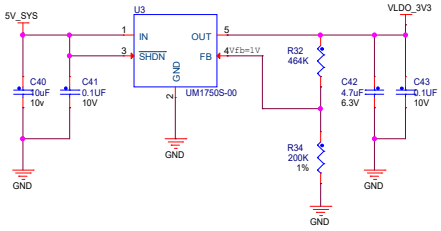
5V_EXT_S is for external supply



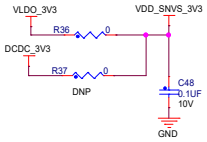
VDDHIGH / NVCC_xxx



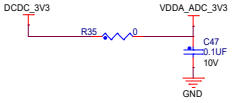
3V3 LDO for SNVS



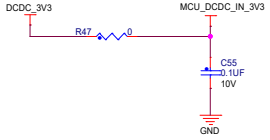
SNVS



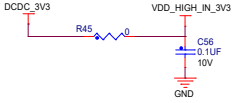
ADC



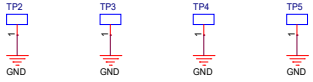
DCDC_IN



VDD_HIGH_IN

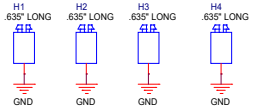


Ground TPs



Layout Note: Place Ground TPs to assist signal measurement.

Board Mounting Holes



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

Drawing Title: **MIMXRT1010-EVK**

Page Title: **MAIN POWER**

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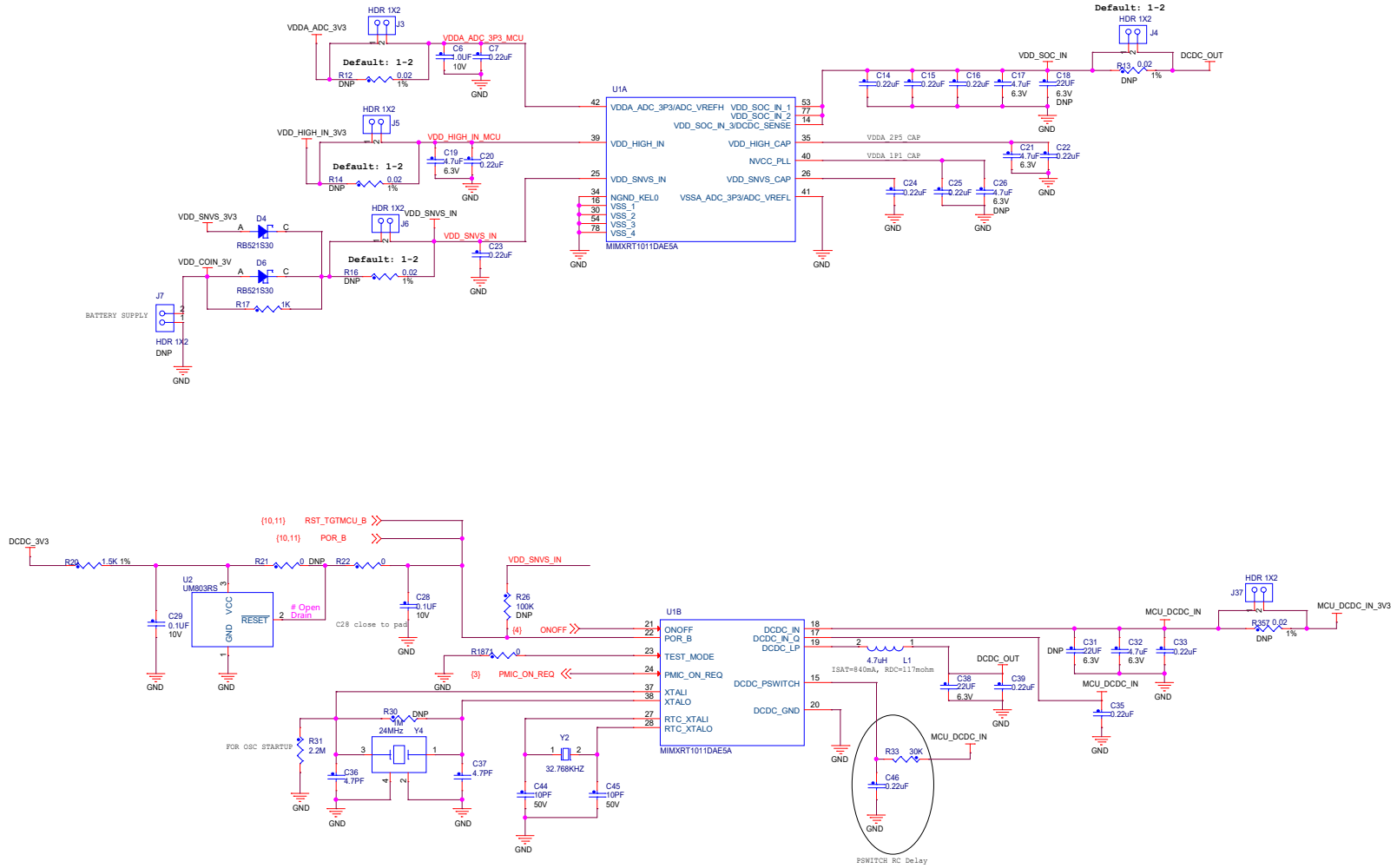
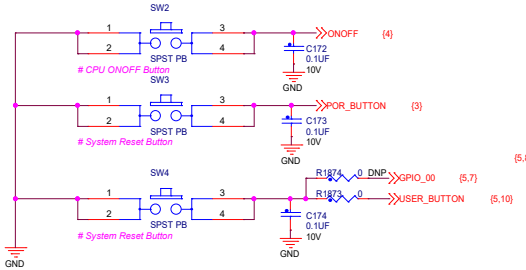
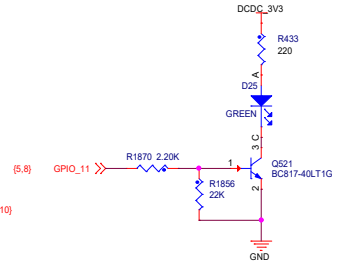


BUTTON



USER LED



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Page Title:	MIMXRT1010 PART1		
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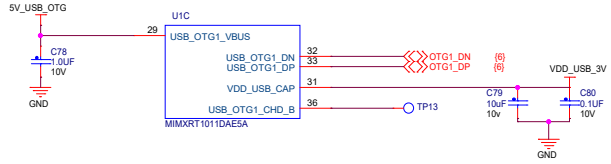
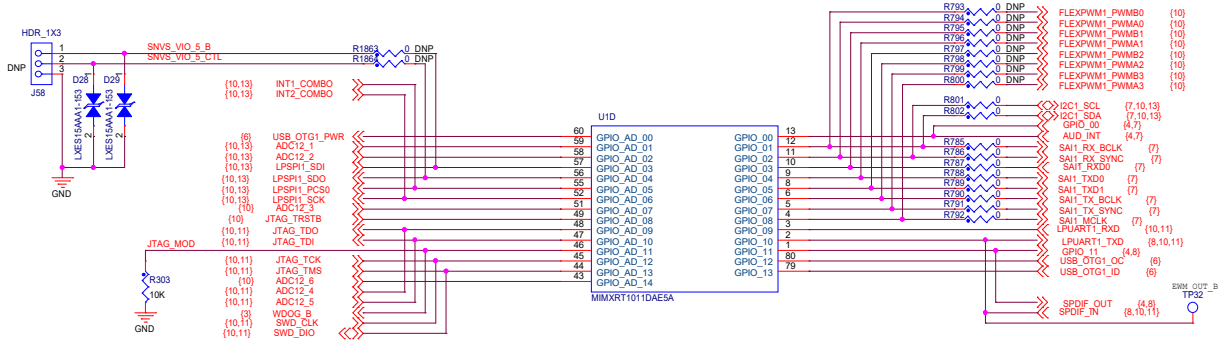
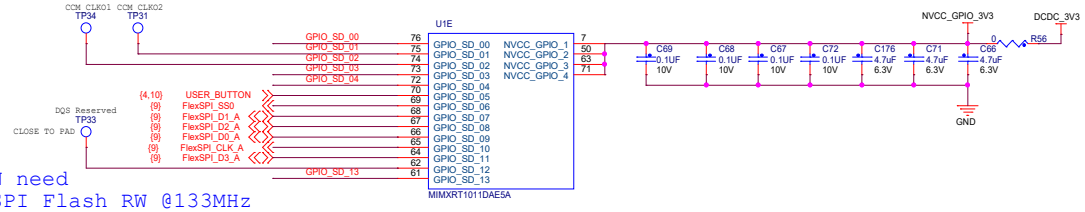
MCU PINOUT







FlexSPI_DQS PIN need
floating for QSPI Flash RW @133MHz

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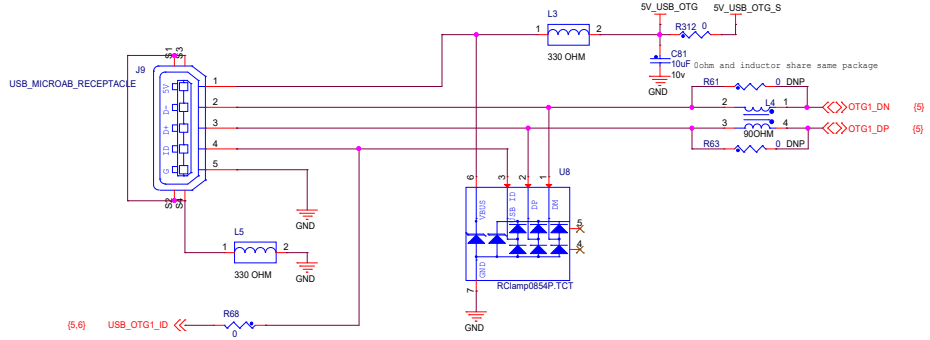
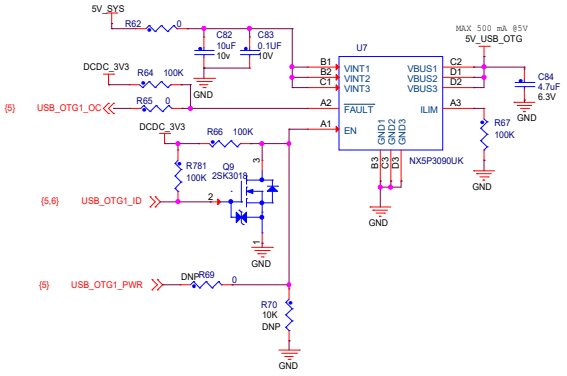
USB OTG



USB POWER



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Page Title: **USB**

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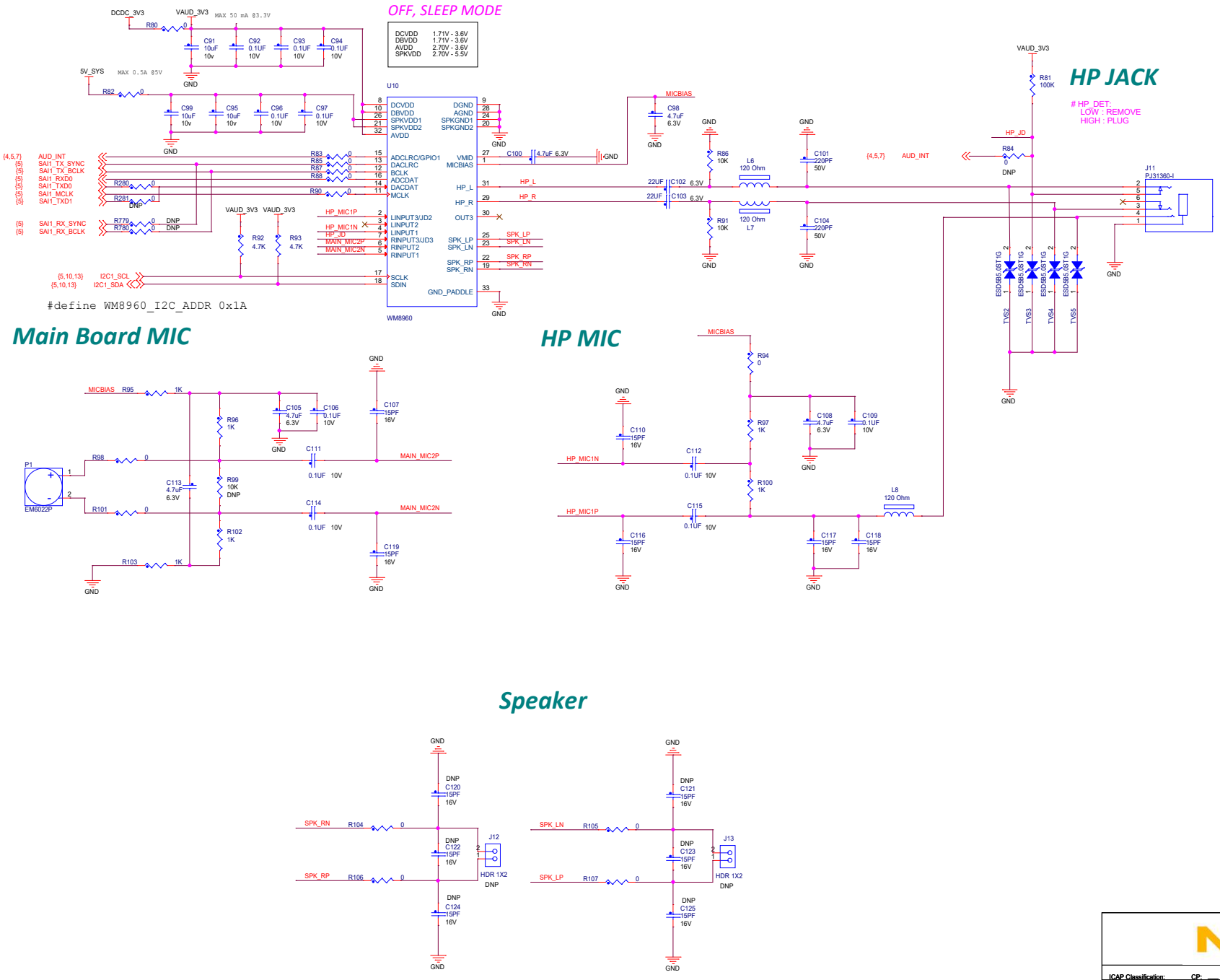

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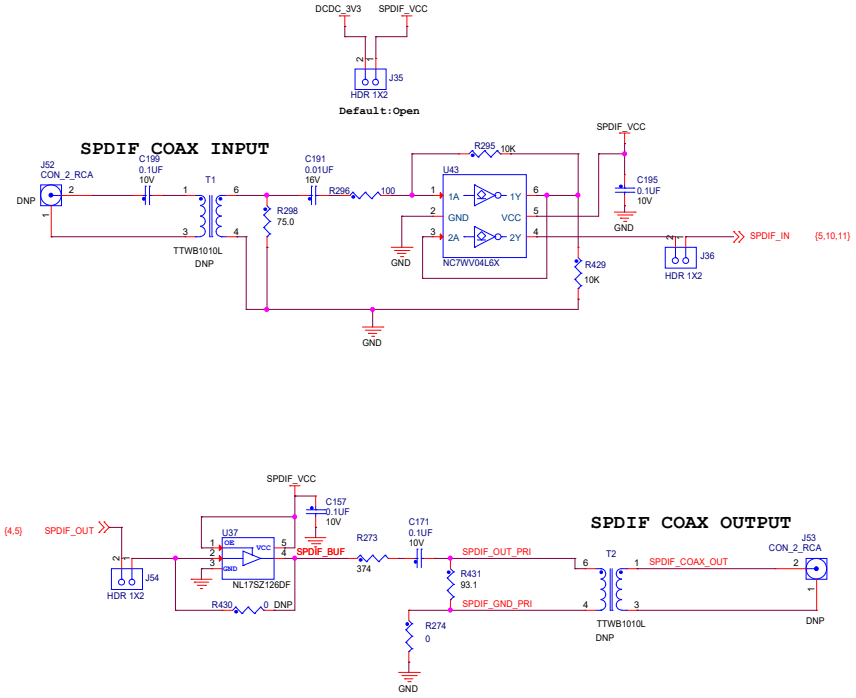
SPDIF Interface



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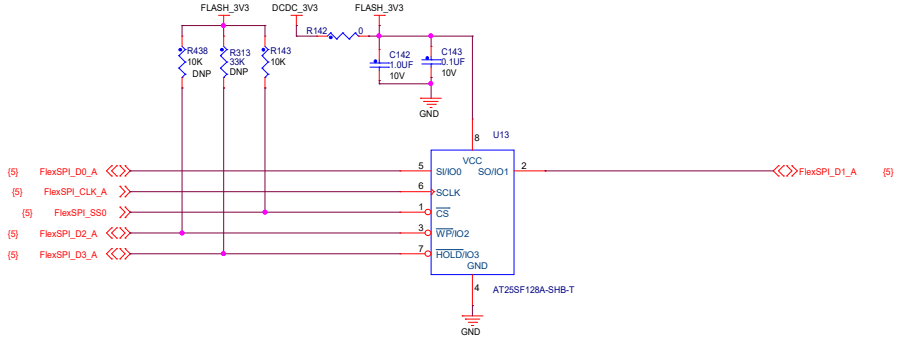
3v3 QSPI Flash



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Drawing Title: **MIMXRT1010-EVK**

Page Title: **FLEXSPI FLASH**

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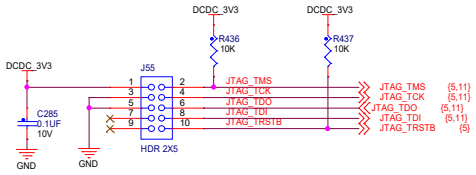
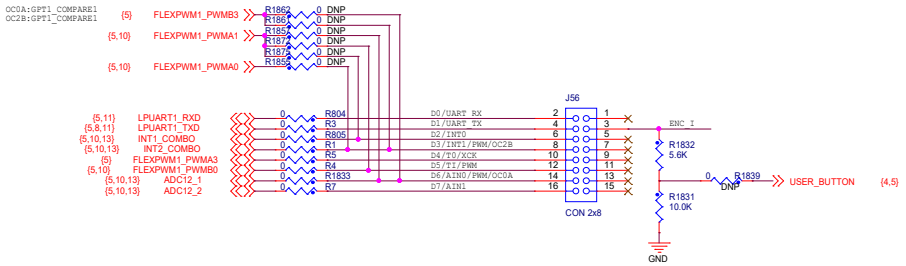
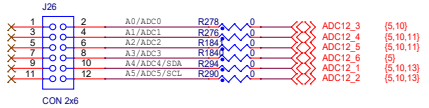
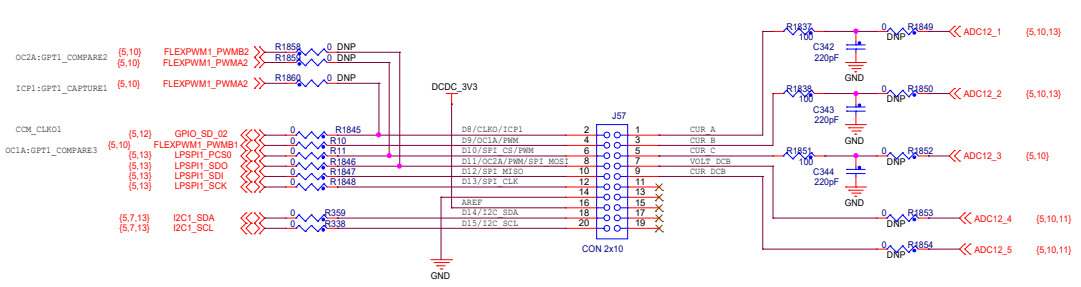
JTAG Connector

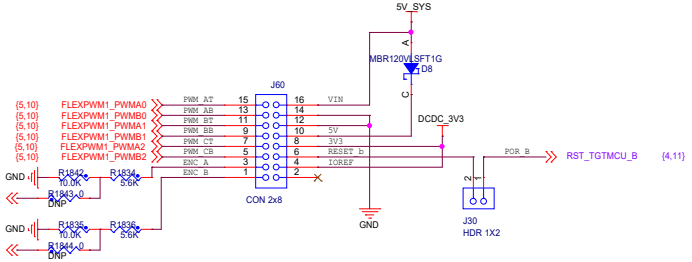


Arduino and Motor control Interface









For PMSM Control Board: Mount R1849 - R1854

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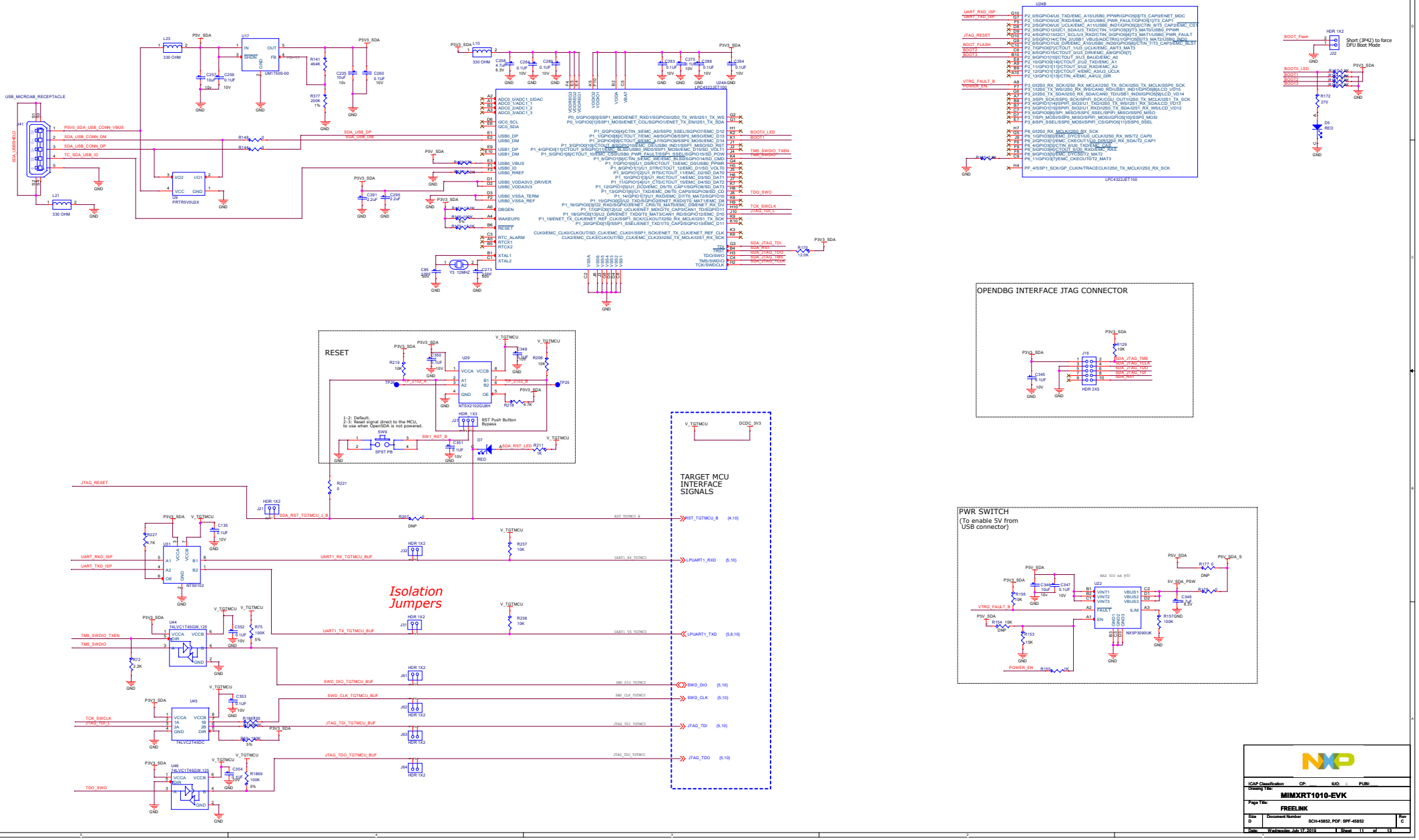
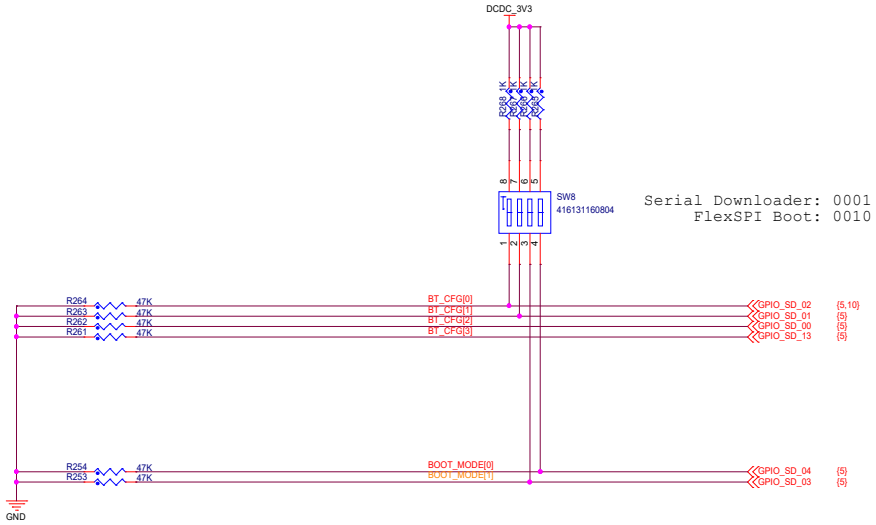
Freelink Interface



FUSE MAP

	0/1	0/1	0/1
TYPE	**BOOT_CFG[2]**	**BOOT_CFG[1]**	**BOOT_CFG[0]**
FlexSPI1 - Serial NOR	*00-Device supports 3B read by default* *01-HyperFlash 3V3* *10-MXIC Octal DDR* *11 - Micron Octal DDR*		*EncryptedXIP* *0 - Disabled* *1- Enabled*



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Drawing Title: **MIMXRT1010-EVK**

Page Title: **BOOT**

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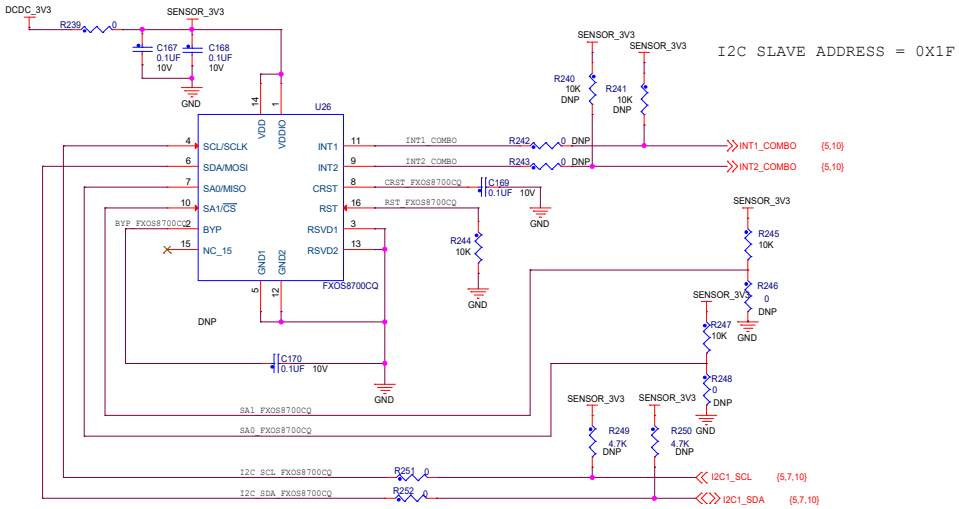
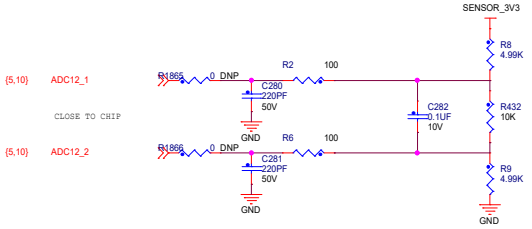
COMBO SENSOR

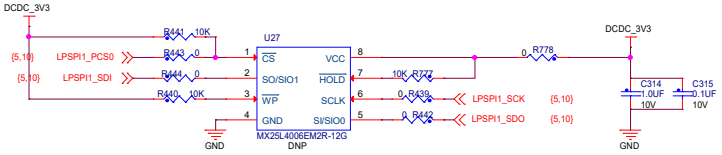


FXOS8700CQ COMBO SENSOR

ADC Sampling



LPSPI Flash



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