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**Revisions**

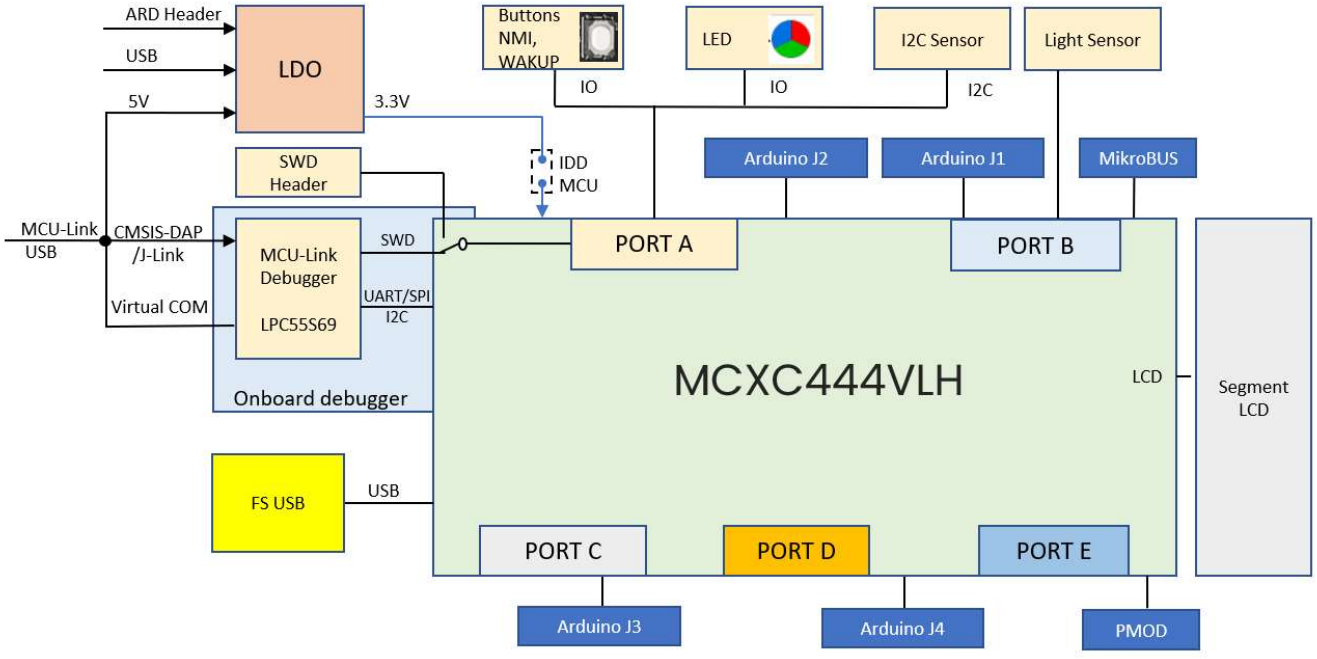
| Rev | Description | Date | Approved |
|---|---|---|---|
| X1 | Initial release | Mar 5, 2024 | William Jiang |
| X2 | BOM optimzatiom | Mar 6, 2024 | William Jiang |
| A | SCH optimzation | Mar 12, 2024 | William Jiang |

# FRDM-MCXC444

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



| | | | |
|---|---|---|---|
| Designer: Alex Yang | Drawing Title: FRDM-MCXC444 | | |
| Drawn by: Alex Yang | Page Title: TITLE PAGE | | |
| Approved: William Jiang | Size C | Document Number SCH-93440 PDF: SPF-93440 | Rev A |
| | Date: Wednesday, March 13, 2024 | Sheet 1 of 8 | |




Classification: Company Internal/Proprietary

Drawing Title: **FRDM-MCXC444**

Page Title: **BLOCK DIAGRAM**

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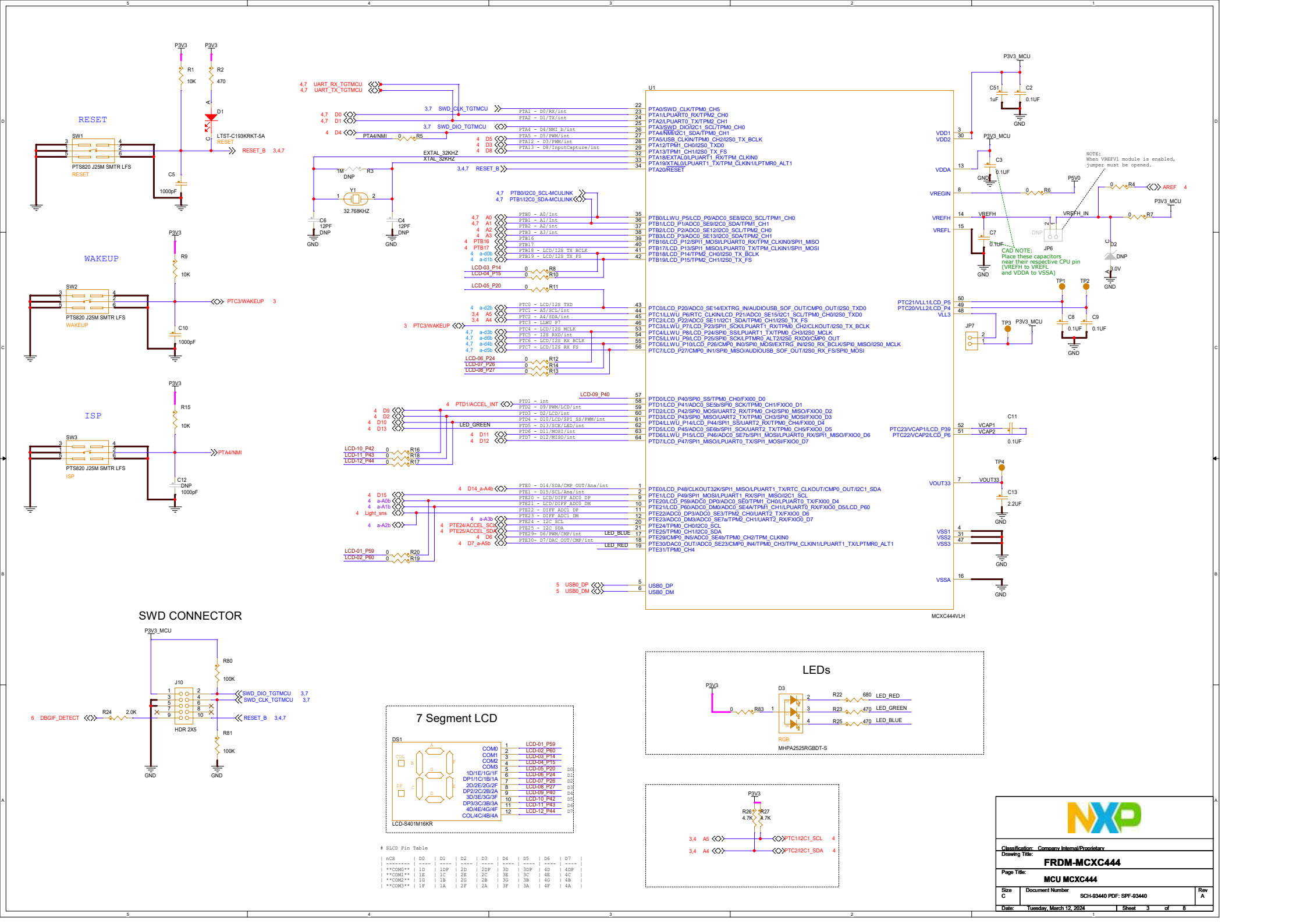
RESET
WAKEUP
ISP
SWD CONNECTOR
LEDs
7 Segment LCD
MCU MCXC444
MCXC444VLH
MHPA2525RGBDT-S
LCD-S401M16KR
FRDM-MCXC444
MCU MCXC444
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Drawing Title:
Page Title:
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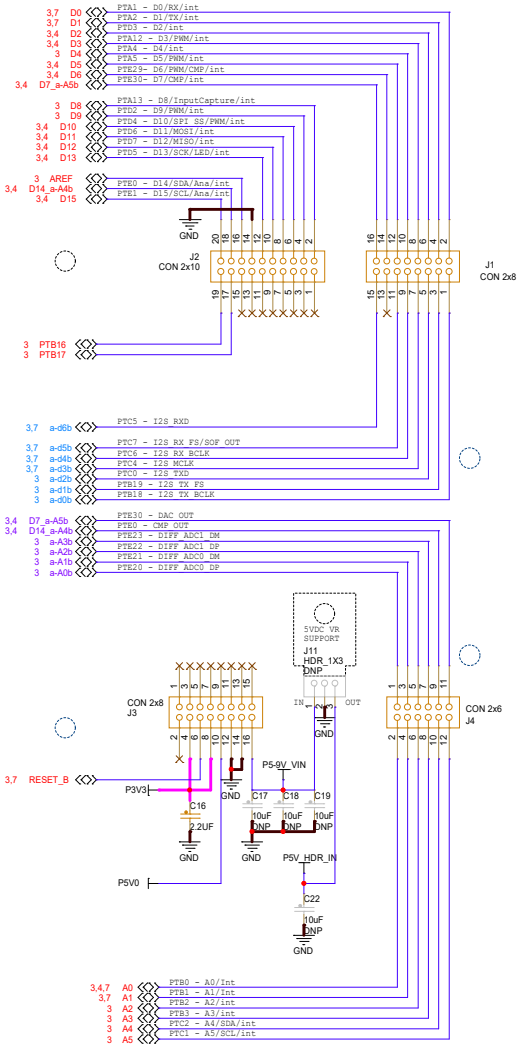
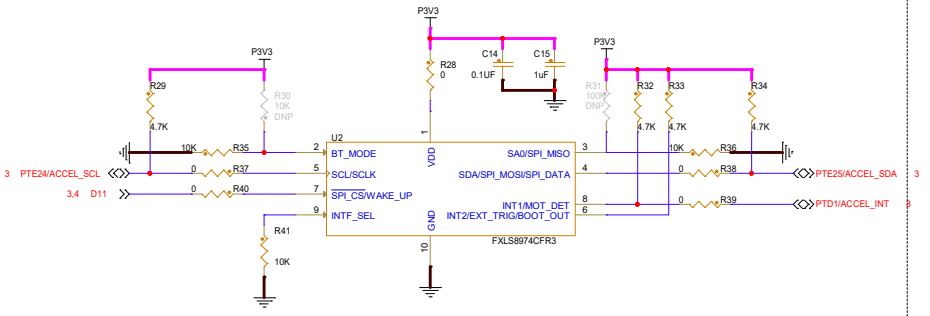
# ARDUINO HEADERS

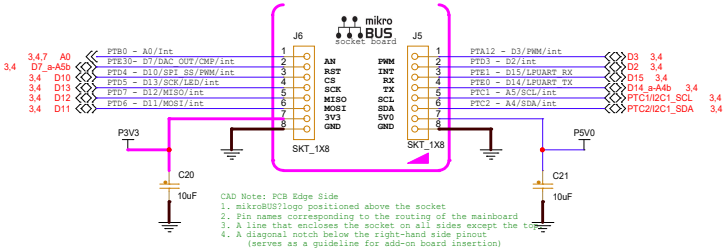



# I2C Sensor

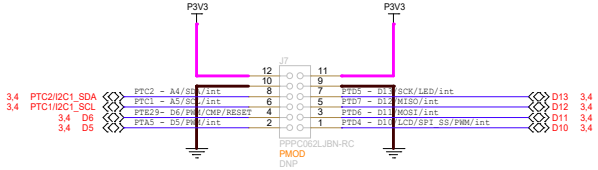



| SA0 | I2C write address | I2C read address |
|---|---|---|
| SA0: 0 | 30h | 31h |
| SA0: 1 | 32h | 33h |

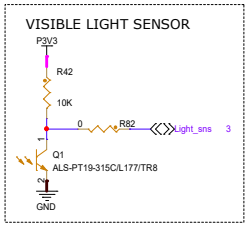
# Mikro Bus



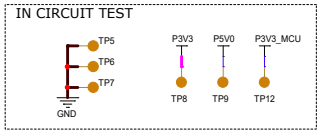

# PMOD




## VISIBLE LIGHT SENSOR




## IN CIRCUIT TEST




## MOUNTING HOLE


Classification: Company Internal/Proprietary

Drawing Title: **FRDM-MCXC444**

Page Title: **Headers**

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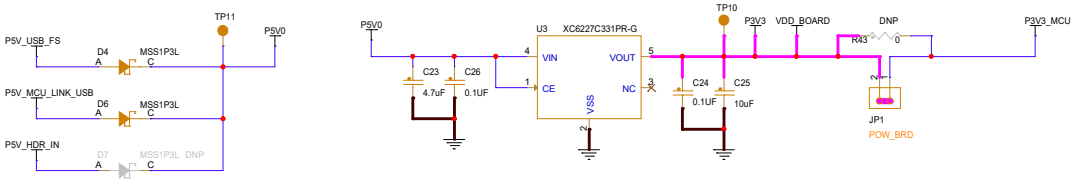
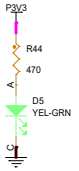
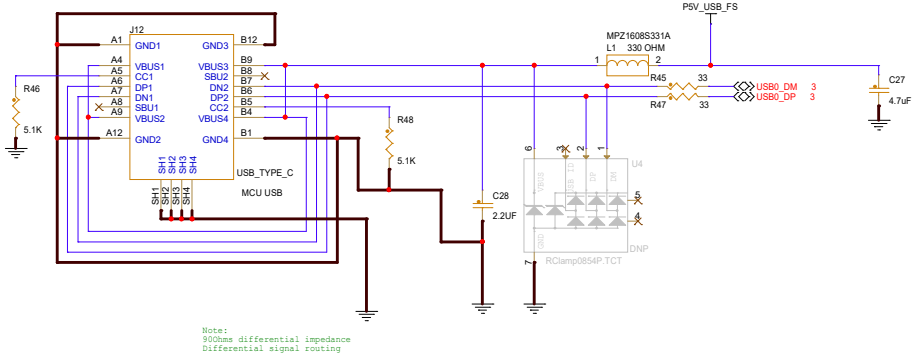
## POWER




## USB FULL SPEED
## USB Type C




Note:
90Ohms differential impedance
Differential signal routing

| | | |
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| Drawing Title: FRDM-MCXC444 | | |
| Page Title: USB & PWR | | |
| Size C | Document Number SCH-93440 PDF: SPF-93440 | Rev A |
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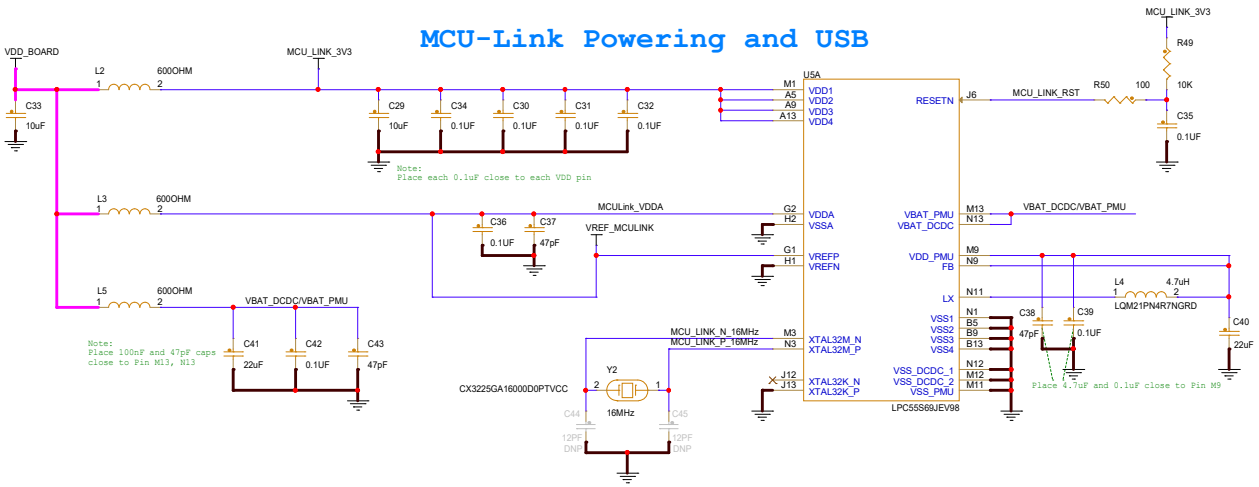
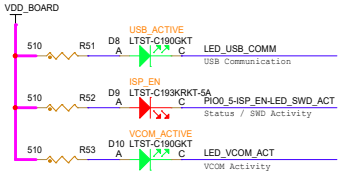
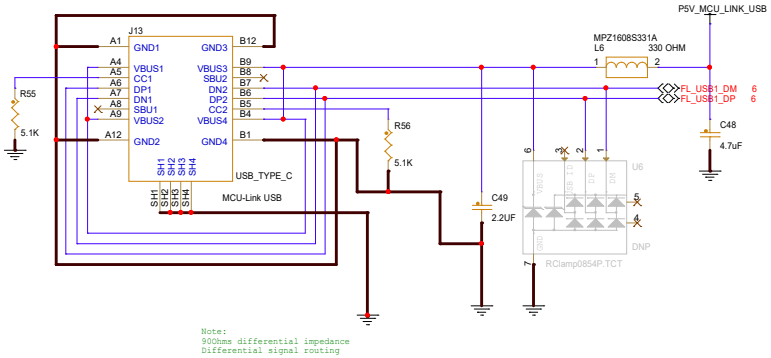
# MCU-Link Powering and USB

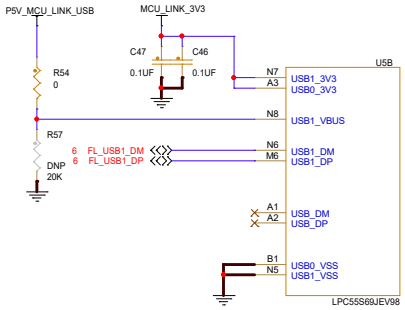


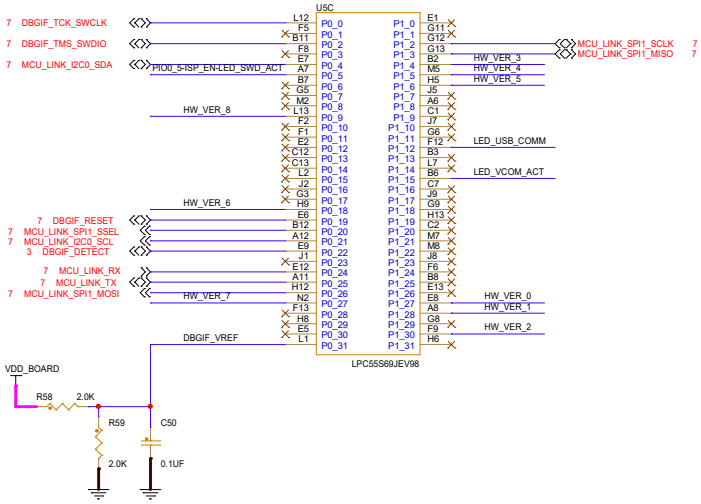

# MCU-Link LEDs



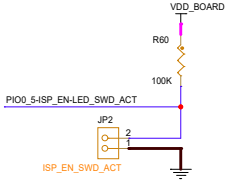

# MCU-Link USB Type C

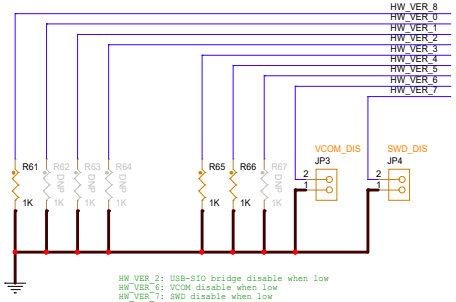



# MCU-Link Mode




Classification: Company Internal/Proprietary

Drawing Title: **FRDM-MCXC444**

Page Title: **MCU_LINK_USB**

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| C | SCH-93440 PDF: SPF-93440 | A |

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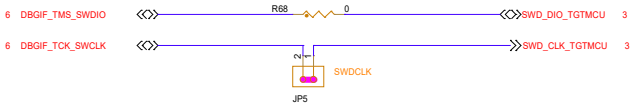
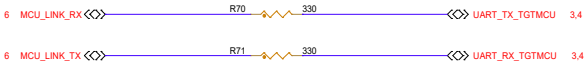
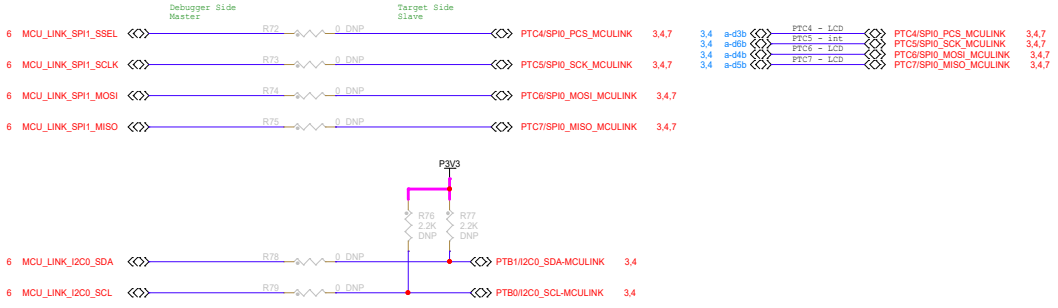
# MCU-Link Debug Interface




# MCU-Link UART




# USB Bridge




Classification: Company Internal/Proprietary

Drawing Title: **FRDM-MCXC444**

Page Title: **MCU_LINK_DEBUG**

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| REF DES | JUMPER | PAGE NAME |
|---|---|---|
| JP6,JP7 | 1-2 | 03-MCU MCXC444 |
| JP1 | 1-2 | 05 USB & PWR |
| JP2,JP3,JP4 | OPEN | 06 MCU_LINK_USB |
| JP5 | 1-2 | 07 MCU_LINK_DEBUG |

| REF DES | ASSY_OPT | PAGE NAME |
|---|---|---|
| C17,C18,C19,C22,J7,J11,R30, R31 | DNP | 04-Headers |
| C4,C6,C12,D2,JP6,R3 | DNP | 03-MCU MCXC444 |
| D7,R43,U4 | DNP | 05 USB & PWR |
| C44,C45,R57,R62,R63,R64,R67, U6 | DNP | 06 MCU_LINK_USB |
| R72,R73,R74,R75,R76,R77,R78, R79 | DNP | 07 MCU_LINK_DEBUG |

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Drawing Title:

**FRDM-MCXC444**

Page Title:

**APPENDIX JUMPER/DNP**

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