PCN# 20260324002

Modification Kit from -3 to -4 for

MitySBC-A5E
All Variants

Date: March 24, 2026

To: Purchasing Agents

Dear Customer,

This is an initial announcement of a change to a product that is currently offered by Critical Link. The details of this change are on the following pages.

For questions regarding this notice, contact the info@criticallink.com

Sincerely,

Critical Link, LLC

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PCN Number: 20260324002
PCN Date: March 24, 2026
Title: Modification Kit from -3 to -4
Contact: info@criticallink.com
Phone: (315) 425-4045
Ship Date: Starting Feb 2026

Overview

Changes to MitySBC-A5E are identified in the following sections.

1 Install pullups on U30, Console TX level translator

1.1 Description of Change

A 10k Ohm resistor was installed on the Agilex-5 side and the FT230XS USB to UART bridge chip side of the console TX UART signal.

1.2 Reason for Change

It was noted that on power on and reboots some characters from the first line of text were not properly transmitted to an attached console monitoring device. The pullup resistors ensured that the state of the UART pin and bridge chip input was stable during power on and reset operations, resulting in all text being captured during boot cycle testing.

1.3 Anticipated Impact on Form, Fit, Function (positive / negative)

The modification allows users to always see the first line of text from the console after a power on or reboot operation. No other loss of text was noted.

1.4 Anticipated Impact on Quality or Reliability (positive / negative)

The changes do not affect quality or reliability of the board.

2 Reduce pullup strength on I2C_EMAC1 Level Translator

2.1 Description of Change

Pullup resistors on the 1.8V side and 3.3V side of the I2C_EMAC1 level translator were changed from 1K Ohm to 4.7 K Ohm.

2.2 Reason for Change

The change was needed to ensure that the translated I2C levels satisfied the I2C VIL and VIH levels of all attached devices, particularly the USB-C multiplexer chip, HD3SS3220IRNHR.

2.3 Anticipated Impact on Form, Fit, Function (positive / negative)

No expected change to specified form, fit, or function is expected.

2.4 Anticipated Impact on Quality or Reliability (positive / negative)

It is expected that the reliability of communicating with the HD3SS3220IRNHR should be improved.

3 Reverse m.2 NVME PCIe Tx lane order

3.1 Description of Change

The connections between the m.2 NVME PCIe connector (JXX) and the Agilex-5 transmit PCIe signals have been modified according to the table below. Essentially, the lane ordering was reversed along the GTSL1B bank.

J15 Pin	Net Name	-1/-2/-3 “Old” Connection	-4 “new” connection
49	PCIe_TX0_P	BE129	AW129
47	PCIe_TX0_N	BE126	AW126
37	PCIe_TX1_P	BC129	BA129
35	PCIe_TX1_N	BC126	BA126
25	PCIe_TX2_P	BA129	BC129
23	PCIe_TX2_N	BA126	BC126
13	PCIe_TX3_P	AW129	BE129
11	PCIe_TX3_N	AW126	BE126

3.2 Reason for Change

The existing design has the Rx and Tx lane order reversed (0 .. 3 vs 3 .. 0) with respect to one another. This violates the PCIe specification. The change makes the Rx and Tx lane order consistent and allows a proper PCIe link to be established.

3.3 Anticipated Impact on Form, Fit, Function (positive / negative)

The change allows users to install and use an m.2 NVME SSD or other m.2 M-Key card utilizing the x4 PCIe interface.

3.4 Anticipated Impact on Quality or Reliability (positive / negative)

No impact on quality or reliability is expected.

4 Install Pullup resistors on FMC_SCL and FMC_SDA lines.

4.1 Description of Change

A 4.7K Ohm resistor was added between the FMC_SCL net (J1-C30) and +3.3V. A second 4.7K Ohm resistor was added between the FMC_SDA net (J1-C31) and +3.3V.

4.2 Reason for Change

To read the I2C based EEPROM on an attached FMC card, the open drain signals require a pullup to +3.3V to operate correctly.

4.3 Anticipated Impact on Form, Fit, Function (positive / negative)

This change allows the EEPROM on an attached FMC card to be accessed via the Agilex 5 FPGA.

4.4 Anticipated Impact on Quality or Reliability (positive / negative)

No change to quality or reliability is expected.

5 Products Affected

Details regarding the full revision history is in the MitySBC-A5E Revision History section on the Critical Link support site.

https://support.criticallink.com/redmine/projects/mitysbc_a5/wiki/Errata_and_Product_Change_Notifications

Model Number	Starting PCA	Replacement PCA
A5ED-B96-C7F-RC-SBC-X	80-001679RC-3	80-001679RC-4
A5ED-B96-C7F-RC-SBC	80-001788RC-3	80-001788RC-4
A5ED-B96-C7F-RC-SBC	80-001789RC-3	80-001789RC-4
A5ED-B94-C7F-RC-SBC	80-001877RC-3	80-001877RC-4

Table 1: Products Affected

6 Document Revision History

Date	Version	Change Description
24-March-2026	1.0	Initial Version