PCN# 20211116000

Substitute PMIC:

MitySOM-335x Modules

Date: November 16, 2021

To: Purchasing Agents & Design Engineers

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 Hardware Manager Bill Halpin (bill.halpin@critiallink.com).

Sincerely,

Critical Link, LLC

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**PCN Number:** 20211116000

**PCN Date:** November 16, 2021

**Title:** Substitute PMIC for MitySOM-335x

**Contact:** Bill Halpin

**Phone:**(315) 425-4045

**EOL Date:** 11/16/21

## Overview

Changes to MitySOM-335x System on Modules are identified in the following sections.

# 1 Substitute DDR3 PMIC

### 1.1 Description of Change

The MitySOM-335x family of System-On-Modules (SOM) with DDR3 memory features a Texas Instruments (TI) Power Management Integrated Chip (PMIC), mfg P/N: TPS65910A3A1RSL. This device is being substituted with another TI PMIC, mfg P/N: TPS65910AA1RSL.

The TPS65910AA1RSL is designed to be a companion chip to DDR2 memory devices , with one of the fixed outputs (SWIO) of this device being 1.8V rather than 1.5V. There is no difference in the other voltage outputs between the two devices. In order to use the TPS65910AA1RSL with DDR3 memory devices an in-line ferrite bead, mfg P/N BK2125HS470-T, is being removed and replaced with a Schottky diode, mfg P/N SD0805S020S0R5, to reduce the voltage to power the on-SOM DDR3 memories.

The removal of the ferrite bead will not impact performance as there are no requirements from the AM335x or DDR3 devices to provide a filtered supply.

### 1.2 Reason for Change

This change is being implemented due to availability issues with mfg P/N: TPS65910A3A1RSLR. This is not a permanent change to the MitySOM-335x family and will be implemented as required to ensure continuity of supply chain with the SOM platform.

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

The form of the modules is minimally impacted. The PMIC chips are identical in size and footprint. The Schottky diode is the same 0805 package as the ferrite bead , however it is slightly shorter (0.8 vs 1.05 mm) and slightly wider (1.35 vs 1.25 mm).

There is no change to the fit of the module.

There is no change to the function of the module and no associated software changes are necessary.

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

There is no expected impact on quality.

## 2 Products Affected

Details regarding the full revision history can be located in the MitySOM-335x Revision History section on the Critical Link support site.

https://support.criticallink.com/redmine/projects/armc8-platforms/wiki/Module_Product_Change_Notifications

**Table 1 Products Affected**

| Model Number | Starting PCA | Replacement PCA |
|---|---|---|
| 3352-HX-X38-RC | 80-000596RC-8 | 80-000596RC-9 |
| 3352-HX-X27-RC | 80-000597RC-8 | 80-000597RC-9 |
| 3352-HX-X27-RI | 80-000597RI-8 | 80-000597RI-9 |
| 3354-HX-X38-RC | 80-000599RC-8 | 80-000599RC-9 |
| 3354-HX-X38-RI | 80-000599RI-8 | 80-000599RI-9 |
| 3352-HX-XX7-RI | 80-000601RI-8 | 80-000601RI-9 |
| 3352-HX-X47-RI | 80-000695RI-8 | 80-000695RI-9 |
| 3354-HX-XX8-RC | 80-000906RC-8 | 80-000906RC-9 |
| 3358-IX-X38-RI | 80-000907RI-8 | 80-000907RI-9 |
| 3358-IX-X3A-RI | 80-000927RI-8 | 80-000927RI-9 |
| 3352-HX-X4A-RC | 80-001019RC-8 | 80-001019RC-9 |
| 3352-HX-X38-RC* | 80-001041RC-8 | 80-001041RC-9 |
| 3352-HX-X38-RL | 80-001088RL-8 | 80-001088RL-9 |
| 3354-IX-XXA-RC | 80-001341RC-8 | 80-001341RC-9 |
| 3352-HX-X3A-RC | 80-001471RC-8 | 80-001471RC-9 |
| 3352-HX-X3A-RC* | 80-001472RC-8 | 80-001472RC-9 |

.*- Custom code

## 3 Document Revision History

| Date | Version | Change Description |
|---|---|---|
| 16-Nov-2021 | 1.0 | Initial Version |