

PCN# 20200420000

Continuous Improvement on:

MitySOM-A10S Modules

Date: April 20, 2020

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: 20200420000

PCN Date: April 20, 2020

Title: Continuous Improvement

Contact: Bill Halpin

Phone: (315) 425-4045

Ship Date: 04/01/2020

Overview

Changes to MitySOM-A10S are identified in the following sections.

1 Change "VREFP_ADC" Load Capacitance

1.1 Description of Change

The original voltage reference design that drives VREFP_ADC on the A10S modules had a load capacitance of 0.2uF. The module is updating the load to be 0.022uf capacitance.

The original voltage reference design on the A10S modules had two 0.1uf capacitors on the VREFP_ADC net. The manufacturer of the IC driving the signal (LM4121AIM5-1.2) recommends a load capacitance of 0.022uF to 0.047uf. The updated design removes one capacitor (C261) and replaces another (C260) with a 0.022uf capacitor.

1.2 Reason for Change

The A10 ADC function does not work properly due to incorrect reference voltage.

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

No change to Fit. Form is reduced with the removal of C261.

For A10S SOM units with revisions of "dash 3" and lower it possible that the reference voltage for the A10 SoC's internal ADC will be lower than the 1.25V it requires. In this case then the values read from internal ADC will not be valid. The "dash 4" and newer modules will have the correct reference voltage for the A10 SoC's internal ADC thus the readings from this ADC will be the accurate.

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

There is no impact to Quality or Reliability with this change.

2 Products Affected

Details regarding the full revision history can be located in the MitySOM- A10S Revision History section on the Critical Link support site.

https://support.criticallink.com/redmine/projects/mitysom_a10s/wiki

Table 1: Products Affected

| Model Number | Starting PCA | Replacement PCA |
|-------------------|---------------|-----------------|
| A10S-P8-A5E-RC-SB | 80-001124RC-3 | 80-000705RC-9 |
| A10S-P8-A5E-RI-SB | 80-001124RI-3 | 80-001124RI-4 |
| A10S-P9-A5E-RC-SB | 80-001146RC-3 | 80-001146RC-4 |
| A10S-P8-X5E-RC-SA | 80-001174RC-3 | 80-001174RC-4 |
| A10S-P8-X5E-RI-SA | 80-001174RI-3 | 80-001174RI-4 |
| A10S-P9-X5E-RC-SA | 80-001175RC-3 | 80-001175RC-4 |
| A10S-P9-X5E-RI-SA | 80-001175RI-3 | 80-001175RI-4 |

See MitySOM-A10S Datasheet and Carrier Board Design Guide for migration options across the MitySOM- A10S family.

3 Document Revision History

| Date | Version | Change Description |
|--------------|---------|--------------------|
| 7-April-2020 | 1.0 | Initial Version |