

MitySOM-AM62 System On Module (SOM)

Revision History and Errata

1 Introduction

This document describes the revision history and any known design issues or exceptions to the form, fit or functional specifications for the MitySOM-AM62 family of System On Modules (SOMs) developed by Critical Link LLC.

Details regarding the modules may be accessed at <https://www.criticallink.com/product/mitysom-am62/>, and additional support information may be located at https://support.criticallink.com/redmine/projects/mitysom_am62x/wiki.

This document is subject to change without notification. However, the most recent version of this document will be made available at the website [https://support.criticallink.com/redmine/projects/mitysom_am62x/wiki/Errata and Module Product Change Notifications](https://support.criticallink.com/redmine/projects/mitysom_am62x/wiki/Errata_and_Module_Product_Change_Notifications). The website supports email notification (via the “watch option”) for changes to documents published.

2 Product Marking

The module model number and serial number may be visually read from a label affixed to the backside of the module. The same label also includes a Data Matrix code that includes the Printed Circuit Assembly (PCA) number, serial number, and model number. The Printed Circuit Board (PCB) revision is etched in copper, also visible on the side of the module.

The model number begins with “6254”, “6252”, “6251”, “6234”, “6232”, or “6231”.

The serial number is of the format “S/NXXXXXX”, where XXXXXX is the serial number.

The PCB revision begins with a “90-“.

The PCA part number begins with “80-“ and is stored in the Data Matrix code. The PCA number can also be determined by the serial number, if necessary. Please contact Critical Link for details.

3 PCA Product History

The PCA product history for all MitySOM-AM62 modules is listed below. Details for Product Change Notifications (PCNs) may be downloaded from the link below.

[https://support.criticallink.com/redmine/projects/mitysom_am62x/wiki/Errata and Module Product Change Notifications](https://support.criticallink.com/redmine/projects/mitysom_am62x/wiki/Errata_and_Module_Product_Change_Notifications)

Table 1 highlights the PCA product history for all MitySOM-AM62 modules.

Table 1 Revision History

Model Number¹	PCA Number¹	Applicable Design Exceptions	PCNs
6254-TX-DAD-RI 6254-TX-XXD-RI	80-001614RI-1 RevA 80-001633RI-1 RevA	4.1 Potential Latch up on Power Off / Shutdown 4.2 VSEL_SD (MMC1 IO voltage select) not driven on SOM 4.3 PMIC GPIO not drive on SOM 4.4 PMIC silicon is designated pre-production 4.5 Processor Module is General Purpose (GP) security option.	20230205000
6254-TX-XXD-RI-GP ² 6254-TX-XXD-RI	80-001682RI-2 RevA 80-001633RI-2 RevA	4.4 PMIC silicon is designated pre-production 4.5 Processor Module is General Purpose (GP) security option.	20230205000
6231-IX-XXA-RI 6252-TX-XXD-RI 6254-TX-XXD-RI	80-001631RI-3 RevA 80-001632RI-3 RevA 80-001633RI-3 RevA	No know design exceptions, all processor configurations using High Security Field Securable (HS-FS) option.	

Notes:

- 1- Red indicates obsolete models.
- 2- The GP option is only available with Development Kit purchases.

4 Known Design Exceptions and Usage Notes

This section outlines the design exceptions to the baseline module specification for the MitySOM-AM62 family of SOMs.

4.1 Potential Latch up on Power Off / Shutdown

If the on-board power management integrated circuit (PMIC) is commanded to power down, it is possible for the +3.3V rail not to shut down when used with the MitySOM-AM62 Development Kit reference design. There are no known workarounds for this issue.

PCN 20230205000 addresses this issue.

4.2 VSEL_SD (MMC1 IO voltage select) not driven on SOM

The external SD-card IO voltage selection pin, used for the processor MMC1 data voltage levels, requires an external pullup resistor to +3.3V on the carrier card when using an external SD-Card as boot media on the MMC1 processor bus.

PCN 20230205000 addresses this issue.

4.3 PMIC GPO1 not driven on SOM

The PMIC General Purpose Output 1 (GPO1) signal is an open drain signal and requires a pullup resistor to +3.3V on the carrier card to operate properly.

PCN 20230205000 addresses this issue.

4.4 Preproduction PMIC silicon populated

The PMIC silicon loaded on module variants identified with this issue is designated preproduction by Texas Instruments (TI) and is intended for early adoption / integration activity. TI has not identified any known issues/errata related to the preproduction versions of the device.

4.5 Migration to High Secure (HS-FS) processor option

Prior to -3 revisions of the MitySOM-AM62x, the installed AM62x processor utilized the General Purpose (GP) non-secure option. With revision -3 of all variants of the MitySOM-AM62x modules, the installed AM62x processor will utilize the High Security Field Securable (HS-FS) security option. This impacts the boot process / software. Please see the [critical link support site](#) for more information. SOMs with the GP security option will only be available as part of MitySOM-AM62x development kits.

5 REVISION HISTORY

Date	Change Description
05-FEB-2023	Initial release for Production -2 configuration.
31-MAY-2023	Add clarification about configurations including preproduction silicon and processors with General Purpose (GP) vs. High Security Field Securable (HS-FS) options.
05-JUN-2023	Corrected VD_SEL to VSEL_SD