



## Revision History

### Document Revisions

Date	Doc. Revision	Product Version	Changes
02-May-2024	Rev. 0.1	V1.1 A	Initial release
02-May-2024	Rev. 0.1	V1.1 A	Added <a href="#">Section 5</a>

## Contents

<b>1</b>	<b>Errata #1: HAR-10823 – U-Boot Might Hang While Detecting Memory Size</b>	<b>3</b>
1.1	Customer Impact . . . . .	3
1.2	Description . . . . .	3
1.3	Workaround . . . . .	3
<b>2</b>	<b>Errata #2: HAR-10648 – A manufacturing issue might affect the V1.1A DSI bridge functionality</b>	<b>4</b>
2.1	Customer Impact . . . . .	4
2.2	Description . . . . .	4
2.3	Workaround . . . . .	4
<b>3</b>	<b>Errata #3: HAR-10647 – A manufacturing issue might affect the V1.1A Ethernet PHY functionality</b>	<b>5</b>
3.1	Customer Impact . . . . .	5
3.2	Description . . . . .	5
3.3	Workaround . . . . .	5
<b>4</b>	<b>Errata #4: HAR-10889 – A manufacturing issue might affect the V1.1B functionality</b>	<b>6</b>
4.1	Customer Impact . . . . .	6
4.2	Description . . . . .	6
4.3	Workaround . . . . .	6
<b>5</b>	<b>Errata #5: HAR-11098 – The MAYA-W1 input voltage is higher than the recommended absolute maximum rating</b>	<b>7</b>
5.1	Customer Impact . . . . .	7
5.2	Description . . . . .	7
5.3	Workaround . . . . .	7

# 1 Errata #1: HAR-10823 – U-Boot Might Hang While Detecting Memory Size

Affected version:

**Verdin AM62 V1.1**

Fixed in:

**not scheduled**

## 1.1 Customer Impact

None

## 1.2 Description

The boot process might hang with the following error on 512MB module variant:

```
U-Boot SPL 2023.04-6.4.0-devel+git.96179e4a5bb0 (Sep 06 2023 - 06:13:04 +0000)
SYSFW ABI: 3.1 (firmware rev 0x0009 '9.0.7--v09.00.07 (Kool Koala)')
WARNING: Less than 64MB RAM detected
```

## 1.3 Workaround

Reset the board.

## 2 Errata #2: HAR-10648 – A manufacturing issue might affect the V1.1A DSI bridge functionality

---

Affected version:

**Verdin AM62 V1.1B**  
**Verdin AM62 V1.1A**

Fixed in:

**Verdin AM62 V1.1C**

### 2.1 Customer Impact

The Toshiba TC9594XBG MIPI DSI bridge might not work reliably because of a soldering issue on the module. The Verdin AM62 MIPI DSI output might not function properly in this situation.

### 2.2 Description

A few Verdin AM62 are affected by a soldering issue on an LDO that generates the 1.2V voltage for the Toshiba TC9594XBG MIPI DSI bridge. In this situation, the MIPI DSI output of the module might not work reliably.

### 2.3 Workaround

If your module is affected by this errata, please contact the Toradex RMA department. This issue will be fixed in future product revisions.

## 3 Errata #3: HAR-10647 – A manufacturing issue might affect the V1.1A Ethernet PHY functionality

---

Affected version:

**Verdin AM62 V1.1B**  
**Verdin AM62 V1.1A**

Fixed in:

**Verdin AM62 V1.1C**

### 3.1 Customer Impact

The Texas Instruments DP83867IR Ethernet Transceiver might not work reliably because of a soldering issue on the module. The Verdin AM62 Gigabit Ethernet interface might not function properly in this situation. The module RGMII interface is not affected by this errata.

### 3.2 Description

A few Verdin AM62 are affected by a soldering issue on an LDO that generates the 1.0V voltage for the Texas Instruments DP83867IR Ethernet Transceiver. In this situation, the Gigabit Ethernet interface of the module might not work reliably. The module RGMII interface is not affected by this errata. This interface can be used to evaluate the module network functionalities.

### 3.3 Workaround

If your module is affected by this errata, please contact the Toradex RMA department. This issue will be fixed in future product revisions.

## 4 Errata #4: HAR-10889 – A manufacturing issue might affect the V1.1B functionality

---

Affected version:

**Verdin AM62 V1.1B**

Fixed in:

**Verdin AM62 V1.1C**

### 4.1 Customer Impact

Potential reliability issue affecting the following interfaces: JTAG, ADC, LVDS, UART2, GPIOs, PWM, CAN, Audio. However, Toradex has not observed this so far.

### 4.2 Description

A PCB manufacturing problem was discovered, where micro-vias on some SoC BGA balls were not plugged, leading to missing solder and reduced yield in the production. This reduced yield was discovered quite early in the production process. A 100% X-ray control on the affected product batch was put in place in addition to our usual quality control process (AOI, Functional Testing, etc.). Despite our extensive control and X-ray verification, we cannot rule out the possibility that a limited number of products may have evaded our scrutiny initially.

### 4.3 Workaround

If you are experiencing issues with the interfaces cited in the customer impact section, using a Toradex Carrier Board, and running a Toradex Quarterly Release BSP Reference Image, please contact our RMA department.

## 5 Errata #5: HAR-11098 – The MAYA-W1 input voltage is higher than the recommended absolute maximum rating

Affected version:

**Verdin AM62 V1.0**  
**Verdin AM62 V1.1**

Fixed in:

**Verdin AM62 V1.2**

### 5.1 Customer Impact

The MAYA-W1 Wi-Fi module can experience reduced reliability and possible damage to internal components if the Verdin AM62 V1.1 VCC is powered with 4.2V or higher. The issue could arise on certain Verdin carrier boards (Verdin Development Board, Mallow, Yavia, and Ivy) that supply the VCC from a 5V rail.

### 5.2 Description

The MAYA-W1 Wi-Fi module's datasheet was updated revising the maximum input voltage rating, before Toradex released Verdin AM62 V1.2 products. The absolute maximum input voltage has been adjusted from 6.5V down to 4.2V. Unfortunately, this change affects some Verdin AM62 modules (specifically, the Solo 512MB WB IT V1.1 0072, Dual 1GB WB IT V1.1 0074, and Quad 2GB WB IT V1.1 0076), as they directly power the Wi-Fi module from the module input voltage. The Verdin input voltage range is officially specified as 3.135V to 5.5V.

The issue lies in the carrier board's power supply to the module. While the Dahlia carrier board adheres to 3.3V voltage, other boards (Verdin Development Board, Mallow, Yavia, and Ivy) provide 5V, exceeding the Wi-Fi module's specifications. Additionally, any customer-designed carrier boards that exceed 4.2V are also affected.

The Verdin AM62 V1.2 has been updated to power the MAYA-W1 Wi-Fi module from a regulated 3.3V rail. This means Verdin AM62 modules with version 1.2 and newer are not affected by the issue and can be powered with input voltages up to 5.5V without any issue. Modules without Wi-Fi/Bluetooth are not affected by this errata.

### 5.3 Workaround

To mitigate this issue, consider the following countermeasures:

For Verdin AM62 V1.1 modules, ensure that the module input voltage remains below 4.2V. Currently, the Dahlia carrier board is the only Verdin family carrier board provided by Toradex that adheres to this limitation by providing 3.3V.

Avoid turning on the Wi-Fi or Bluetooth radio while the module is powered with an input voltage higher than 4.2V.

During evaluation, it's possible to operate the Wi-Fi module with voltages between 4.2V and 5.5V. However, please be mindful of the potential impact on long-term reliability or damage. Toradex has not observed any damaged Wi-Fi modules in their in-house tests, which span multiple days and include extreme temperature conditions. It's important to note that this practice deviates from the official MAYA-W1 specifications and is not recommended for use in final products.

For optimal performance and reliability, we recommend a transition to the Verdin AM62 V1.2 modules



(when they become available). These newer modules power the MAYA-W1 Wi-Fi module from a regulated 3.3V rail and are not affected by the issue described in this errata.