

# **Armadillo-800 EVA Revision Information**

**A8000-D00Z**

**Version 1.1.0  
2012/02/28**

**Atmark Techno, Inc.**

**Armadillo Site**

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## **Armadillo-800 EVA Revision Information**

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# Chapter 1. Preface

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This document contains the revision information of Armadillo-800 EVA as at the time of publication. The revision information is based around the "product revision".



The silkscreen "Rev. X" marking printed on the board is the board (PCB) revision. The board revision differs to the product revision.

## 1.1. Covered Products

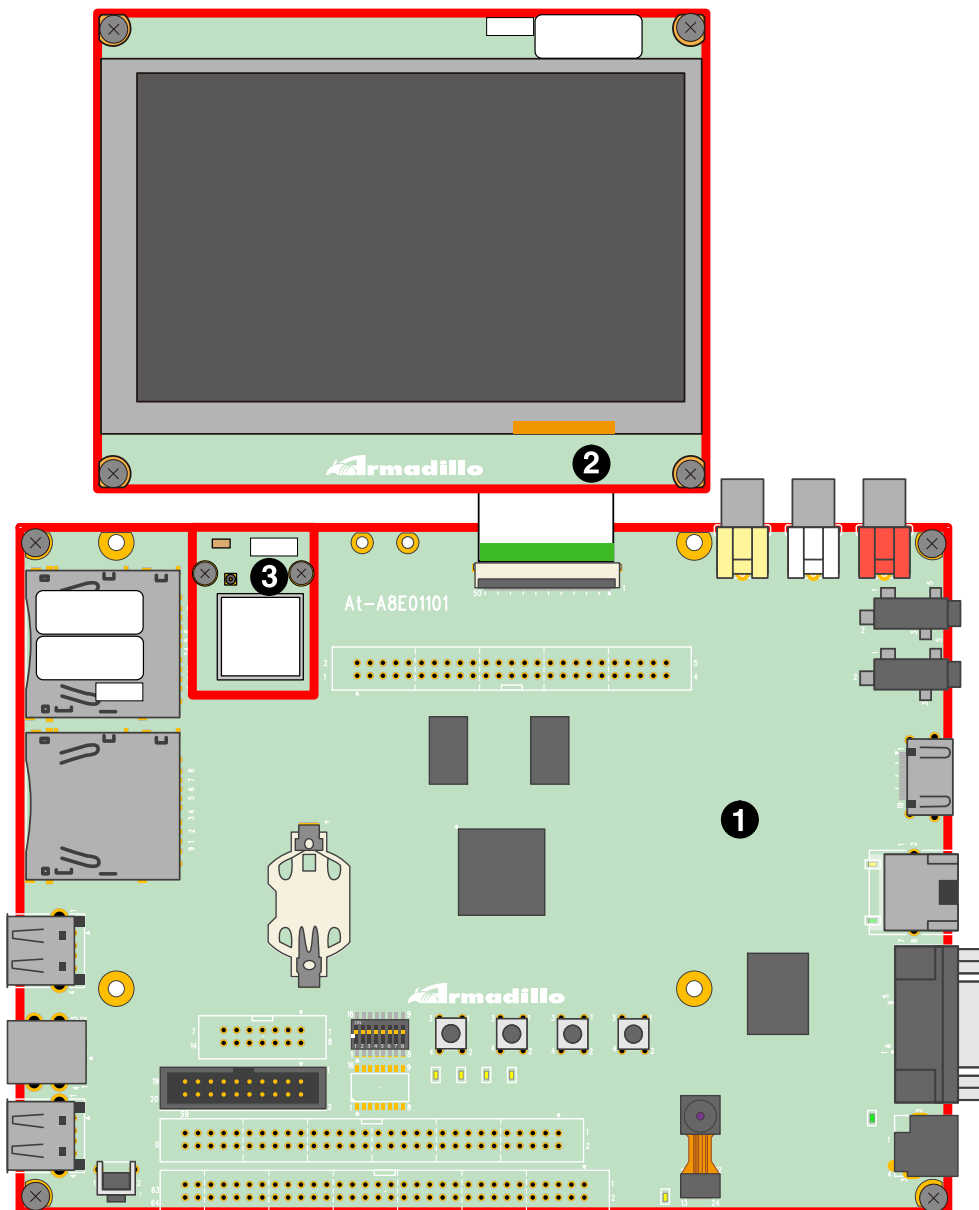
This document covers the following products.

- Armadillo-800 EVA (Product ID: A8000-D00Z)

# Chapter 2. Product Revisions

Armadillo-800 EVA is comprised of the three components below, each with their own product revision.

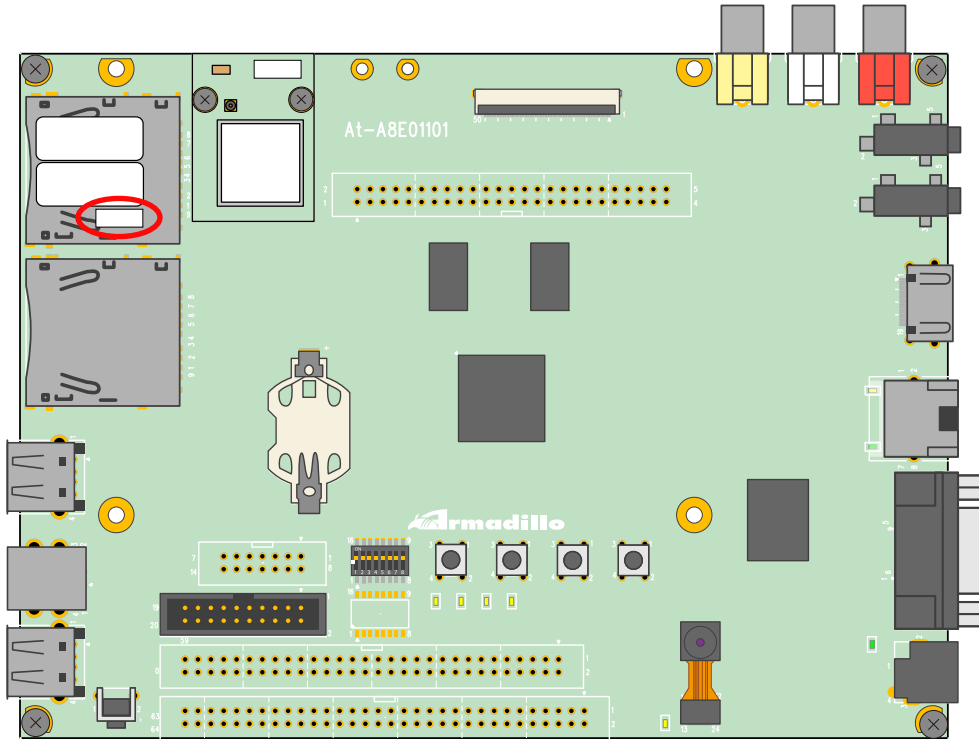
- ❶ Armadillo-800 EVA Board
- ❷ Armadillo-800 EVA LCD Expansion Board
- ❸ Armadillo-WLAN Module (AWL13)



**Figure 2.1. Armadillo-800 EVA**

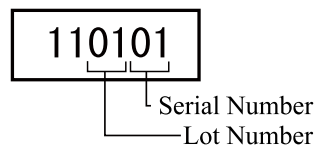
## 2.1. Armadillo-800 EVA Board

The Armadillo-800 EVA board product revision can be determined from the lot number and serial number. The lot number and serial number can be found on the lot sticker attached to the SD slot on the Armadillo-800 EVA board.



**Figure 2.2. Armadillo-800 EVA Board Lot Sticker Position**

Of the six digits on the lot sticker, the middle two digits are the lot number and the last two digits are the serial number. The lot number and serial number are written in hexadecimal.



**Figure 2.3. Armadillo-800 EVA Board Lot Sticker Format**

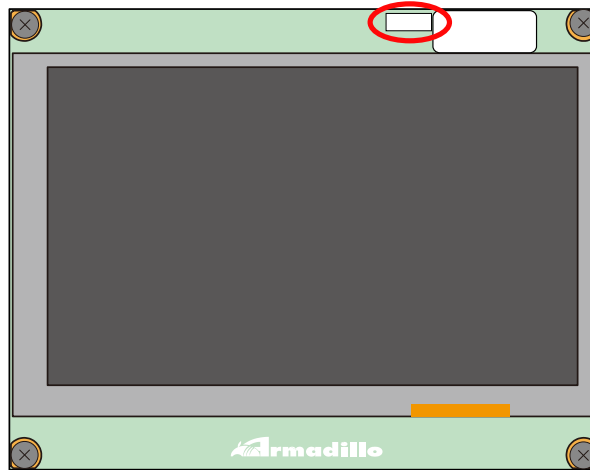
Please determine the product revision using the table below.

Lot Number	Serial Number	Product Revisions
01	01	A
	02 and later	B
02 and later	XX <sup>[a]</sup>	

<sup>[a]</sup>The serial numbers of lot numbers 02 and later have no bearing on the product revision.

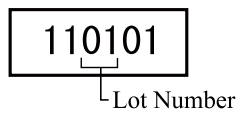
## 2.2. Armadillo-800 EVA LCD Expansion Board

The Armadillo-800 EVA LCD expansion board product revision can be determined from the lot number. The lot number can be found on the lot sticker attached to the upper part of the Armadillo-800 EVA LCD expansion board.



**Figure 2.4. Armadillo-800 EVA LCD Expansion Board Lot Sticker Position**

Of the six digits on the lot sticker, the middle two digits are the lot number. The lot number is written in hexadecimal.



**Figure 2.5. Armadillo-800 EVA Board Lot Sticker Format**

Please determine the product revision using the table below.

Lot Number	Product Revisions
01 and later	A

## 2.3. Armadillo-WLAN Module (AWL13)

For product revision information on the Armadillo-WLAN Module (AWL13), please refer to the "Armadillo-WLAN (AWL13) Revision Information".



# Chapter 3. Armadillo-800 EVA Board: Errata

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## 3.1. Product Revision A

The following is errata information for product revision A. Please see each section for details on the errata.

- Section 3.3, “A800-EVA-ERRATUM #1: LCD Screen Does Not Display Correctly When HDMI Monitor is Connected”
- Section 3.4, “A800-EVA-ERRATUM #2: A Voltage over the HDMI Standard is Applied to the HDMI CEC Signal Line”

## 3.2. Product Revision B

The following is errata information for product revision B. Please see each section for details on the errata.

- Section 3.3, “A800-EVA-ERRATUM #1: LCD Screen Does Not Display Correctly When HDMI Monitor is Connected”

## 3.3. A800-EVA-ERRATUM #1: LCD Screen Does Not Display Correctly When HDMI Monitor is Connected

### 3.3.1. Details

When power (+5V) is applied to the Armadillo-800 EVA while a powered HDMI monitor is connected to the Armadillo-800 EVA, the screen of the LCD module (AMPIRE: AM-800480L1TMQW-T00H) included with the Armadillo-800 EVA may not display correctly. When this occurs, the LCD screen enters a state similar to the following.

- Either the left half or the right half of the screen is displayed white, while the remainder displays normally.
- The display is inverted vertically.

While the Armadillo-800 EVA power supply (+5V) is disconnected, a weak voltage flows into the Armadillo-800 EVA from the HDMI monitor via the HDMI terminal +5V output pin. Due to this voltage the +3.3V switching regulator IC outputs an approximate +1V ripple voltage. When power (+5V) is applied to the Armadillo-800 EVA in this state, the power sequence of the LCD module cannot be followed and the operation of the LCD module becomes unstable.

Once the LCD screen is not displaying normally, the phenomenon cannot be stopped until power (+5V) to the Armadillo-800 EVA is cut.

### 3.3.2. Affected Revisions

This erratum occurs on the following revisions.

Product Revision A, B

### 3.3.3. Management

There are two possible measures that can be used to stop this phenomenon from occurring.

- Apply power to the Armadillo-800 EVA while the HDMI cable is disconnected from the HDMI terminal on the Armadillo-800 EVA.

- Apply power to the Armadillo-800 EVA while the HDMI monitor is powered off.

### 3.3.4. Correction Plans / Status

There are no plans to correct this problem.

### 3.3.5. Notes

None.

## 3.4. A800-EVA-ERRATUM #2: A Voltage over the HDMI Standard is Applied to the HDMI CEC Signal Line

### 3.4.1. Details

The HDMI CEC signal line is pulled up by 5V when it should be pulled up by 3.3V.

Because of this, a voltage (5V) over that specified in the HDMI standard is applied to the CEC line of external devices (display monitors etc) connected by the HDMI cable, which could in the worst case cause damage to the external device.

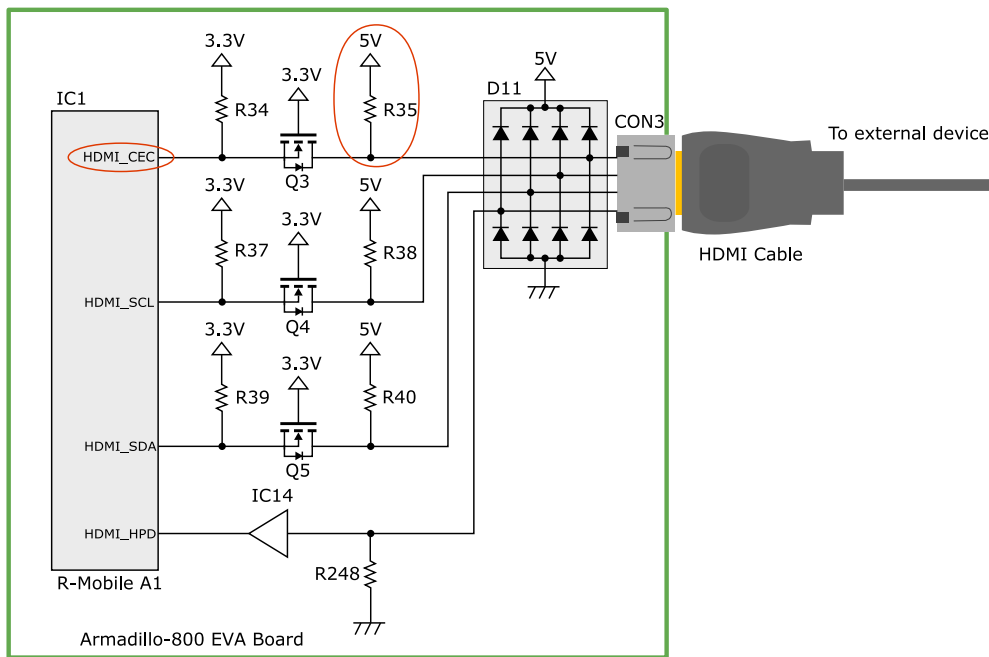


Figure 3.1. HDMI CEC Signal Line Peripheral Circuit

### 3.4.2. Affected Revisions

This erratum occurs on the following revisions.

Product Revision A

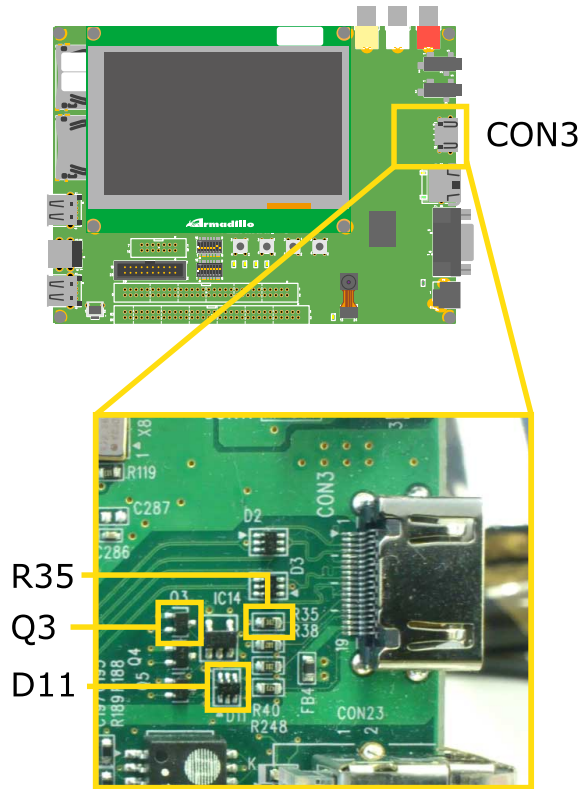
### 3.4.3. Management

Remove the part below so that the over-voltage is not applied.

- R35

Because there is a possibility that external devices which use CEC may malfunction, it is recommended to remove the parts below.

- Q3
- D11



**Figure 3.2. Position of Parts to Remove**

### 3.4.4. Correction Plans / Status

This erratum was fixed in product revision B as shown below.

- R35, Q3 and D11 are not mounted.

### 3.4.5. Notes

We will carry out the corrections if the board can be returned to us. For details, please refer to the news on our home page: To "Armadillo-800 EVA Evaluation Set" Customers - Armadillo-800 EVA Circuit Defect Announcement and Correction Request.

While it is not currently possible to evaluate CEC on Armadillo-800 EVA because of this erratum, it will be possible with some modifications. The method required to carry out evaluation is planned to be published on the Armadillo Site.

# Chapter 4. Armadillo-800 EVA Board: Revision History

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## 4.1. From Product Revision A to B

These are the changes from product revision A to product revision B.

### 4.1.1. R35, Q3 and D11 Changed to Unmounted

#### 4.1.1.1. Details

R35, Q3 and D11 were changed to unmounted due to A800-EVA-ERRATUM #2. For details, please refer to Section 3.4, “A800-EVA-ERRATUM #2: A Voltage over the HDMI Standard is Applied to the HDMI CEC Signal Line”.

#### 4.1.1.2. Notes

With this change, while a voltage over that specified in the HDMI standard is no longer applied to the HDMI CEC signal line, the HDMI CEC signal line can no longer be used.

# Chapter 5. Armadillo-800 EVA LCD Expansion Board: Errata

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## 5.1. Product Revision A

There are no known errata for product revision A.

# Chapter 6. Armadillo-800 EVA LCD Expansion Board: Revision History

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There have been no changes to the Armadillo-800 EVA LCD expansion board.

**Revision History**

<b>Revision</b>	<b>Date</b>	<b>Description</b>
1.0.0	12/28/2011	<ul style="list-style-type: none"><li>• Initial Release</li></ul>
1.1.0	02/10/2012	<ul style="list-style-type: none"><li>• Added Section 3.3, "A800-EVA-ERRATUM #1: LCD Screen Does Not Display Correctly When HDMI Monitor is Connected"</li><li>• Added Section 3.4, "A800-EVA-ERRATUM #2: A Voltage over the HDMI Standard is Applied to the HDMI CEC Signal Line"</li><li>• Added Section 4.1, "From Product Revision A to B"</li></ul>

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