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## Atmel CryptoAuthentication Evaluation Kit

### Atmel AT88CK440RED Getting Started Guide

#### Features

- Installing Atmel CryptoAuthentication Utilities
- Powering the board
- Reading the Device Configuration Information  
Atmel AT88SA102S device

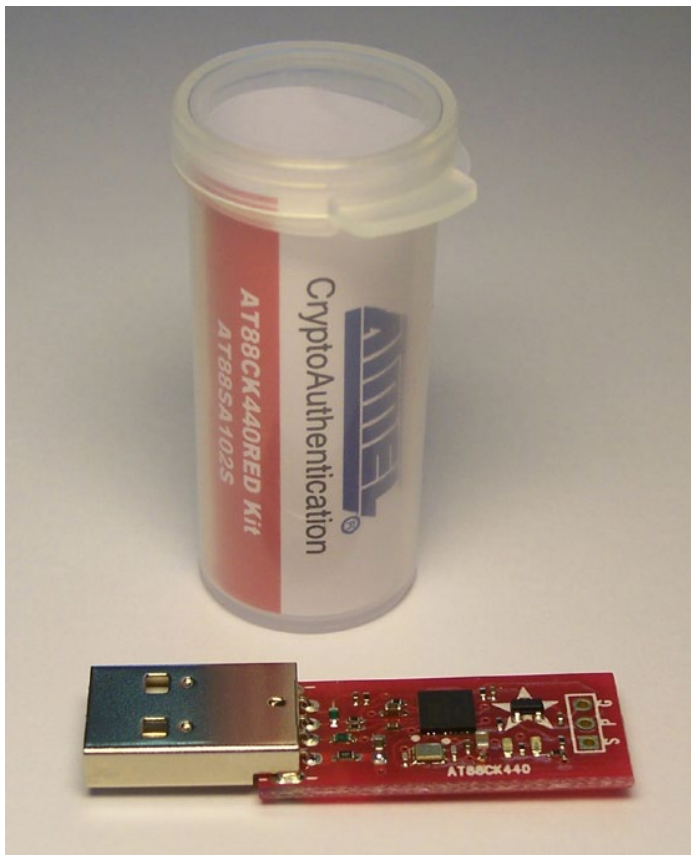
#### Contents

- Atmel AT88CK440RED USB Dongle
- Quick Start Guide

#### Introduction

Atmel® AT88CK440RED is an Atmel CryptoAuthentication™ Evaluation Kit, which can be used as a reference design for an USB application requiring the Atmel CryptoAuthentication product family.

Figure 0-1. Atmel AT88CK440RED Evaluation Kit





## 1. Install the Atmel CryptoAuthentication Utilities

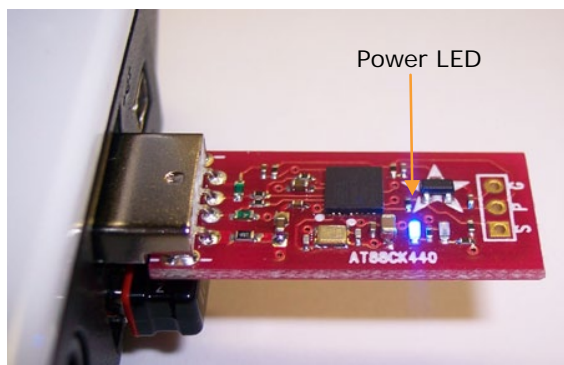
- Visit [www.atmel.com/cryptokits](http://www.atmel.com/cryptokits) to download and install the latest Atmel® CryptoAuthentication™ Utilities
- Scroll down the webpage to Software Files and select the software icon for:  
*CryptoAuthentication Firmware AT88CK440RED Version x.x*

## 2. Powering up the board

The Atmel AT88CK440RED is a USB powered Device.

- Simply insert the board into an open USB port

Figure 2-1. Atmel AT88CK440RED USB device



## 3. Reading the Device Configuration Information

- Insert the Atmel AT88CK440RED into a USB port
- Launch the Atmel CryptoAuthentication Utilities
- Click *Start, All Programs, Atmel Crypto Solutions, CryptoAuthentication Utilities*

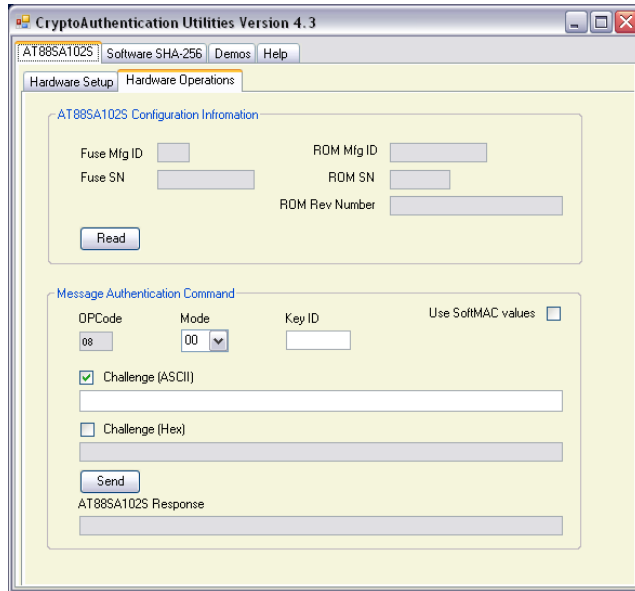
Figure 3-1. Atmel CryptoAuthentication Utilities





The Atmel® CryptoAuthentication™ Utilities will open to the *AT88SA102S / Hardware Operation* tab.

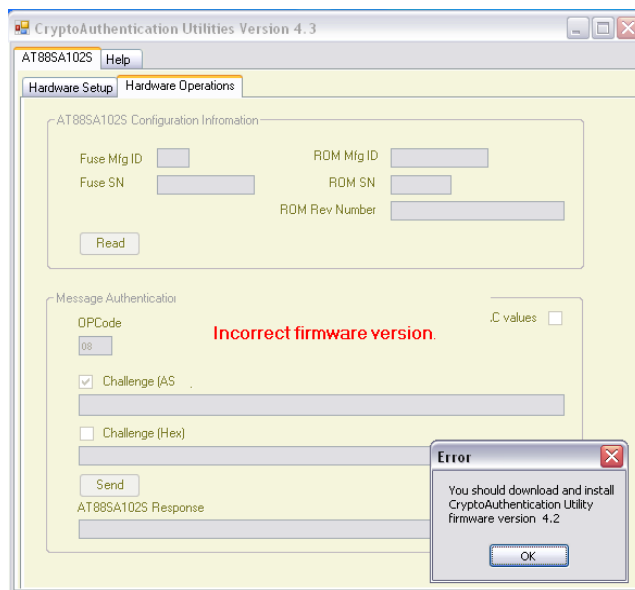
Figure 3-2. Hardware Operations Tab



If the following screen appears, then one of two problems exists.

1. Atmel AT88CK440RED has not been inserted into a USB port
  - The enumeration process must be completed prior to launching the utility
2. The firmware is outdated
  - See Section 4, “Firmware Upgrade”

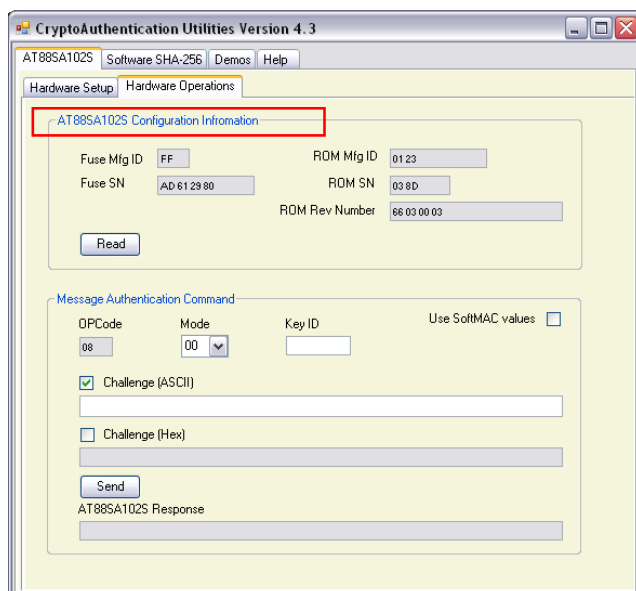
Figure 3-3. Incorrect Firmware Version Error Message





- Click the *Read* button in the *AT88SA102S Configuration Information* section  
 The section will populate

Figure 3-4. Atmel AT88SA102S Configuration Information populated



Congratulations, your Atmel AT88CK440RED is up and running.

See the *CryptoAuthentication Help* shortcut on your desktop for additional information.

For additional samples, go to: [http://www.atmel.com/forms/Samples.asp?family\\_id=699](http://www.atmel.com/forms/Samples.asp?family_id=699)



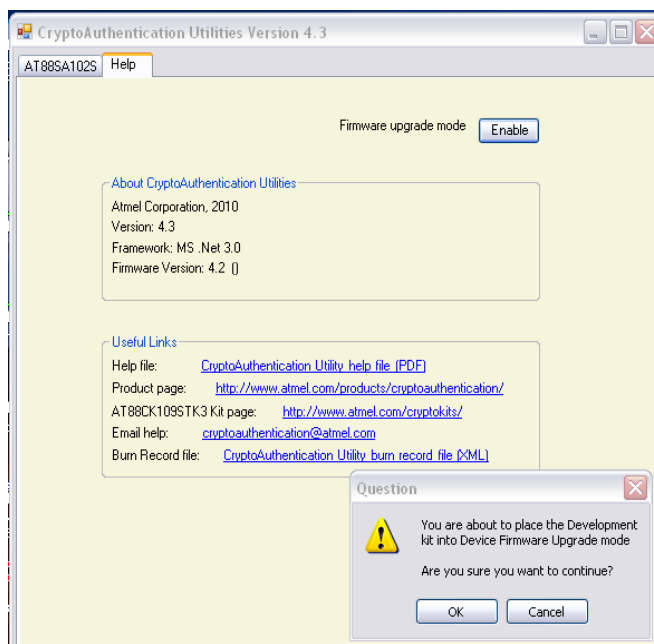
## 4. Firmware Upgrade

To upgrade the firmware, click the *Help* tab and complete steps one through six.

The following steps enable the DFU mode:

1. Load the Atmel FLIP (FLexible In-System) Programming utility
2. [http://www.atmel.com/dyn/products/tools\\_card\\_v2.asp?tool\\_id=3886](http://www.atmel.com/dyn/products/tools_card_v2.asp?tool_id=3886)
3. Click the Firmware upgrade mode *Enable* button
4. Click *OK* in the popup box
5. Both LEDs will light indicating the board is in DFU mode
6. Launch FLIP to load the new firmware

Figure 4-1. Device Firmware Upgrade Mode





## 5. References and further information

A complete reference design including schematics, Gerber files, bill of materials (BOM), Hardware User Guide and development and demonstration software is conveniently downloadable from the Atmel® website at [www.atmel.com/cryptokits](http://www.atmel.com/cryptokits).

## 6. EVALUATION BOARD/KIT IMPORTANT NOTICE

This evaluation board/kit is intended for **ENGINEERING, DEVELOPMENT, DEMONSTRATION or EVALUATION PURPOSE ONLY**. It is not a finished product and may not (yet) comply with some or any technical or legal requirements that are applicable to finished products, including, without limitations, directives regarding electromagnetic compatibility, recycling (WEEE), FCC, CE or UL (except as may be otherwise noted on the board/kit). Atmel® supplied this board/kit "AS IS," without any warranties, with all faults, at the buyer's and further users' sole risk. The user assumes all responsibility and liability for proper and safe handling of goods. Further, the user indemnifies Atmel from claims arising from the handling or use of goods. Due to open construction of the product, it is the user's responsibility to take any and all appropriate precautions with regard to electrostatic discharge and any other technical or legal concerns.

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Mailing Address: Atmel Corporation  
2325 Orchard Parkway  
San Jose, CA 95131



## Product Contact

Product Line  
[securememories@atmel.com](mailto:securememories@atmel.com)

Sales Contact  
[www.atmel.com/contacts](http://www.atmel.com/contacts)

### Atmel Corporation

2325 Orchard Parkway  
San Jose, CA 95131  
USA

Tel: (+1)(408) 441-0311

Fax: (+1)(408) 487-2600

[www.atmel.com](http://www.atmel.com)

### Atmel Asia Limited

Unit 01-5 & 16, 19F  
BEA Tower, Millennium City 5  
418 Kwun Tong Road  
Kwun Tong, Kowloon  
HONG KONG

Tel: (+852) 2245-6100

Fax: (+852) 2722-1369

### Atmel Munich GmbH

Business Campus  
Parkring 4  
D-85748 Garching b. Munich  
GERMANY

Tel: (+49) 89-31970-0

Fax: (+49) 89-3194621

### Atmel Japan

9F, Tonetsu Shinkawa Bldg.  
1-24-8 Shinkawa  
Chuo-ku, Tokyo 104-0033  
JAPAN

Tel: (+81)(3) 3523-3551

Fax: (+81)(3) 3523-7581

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