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

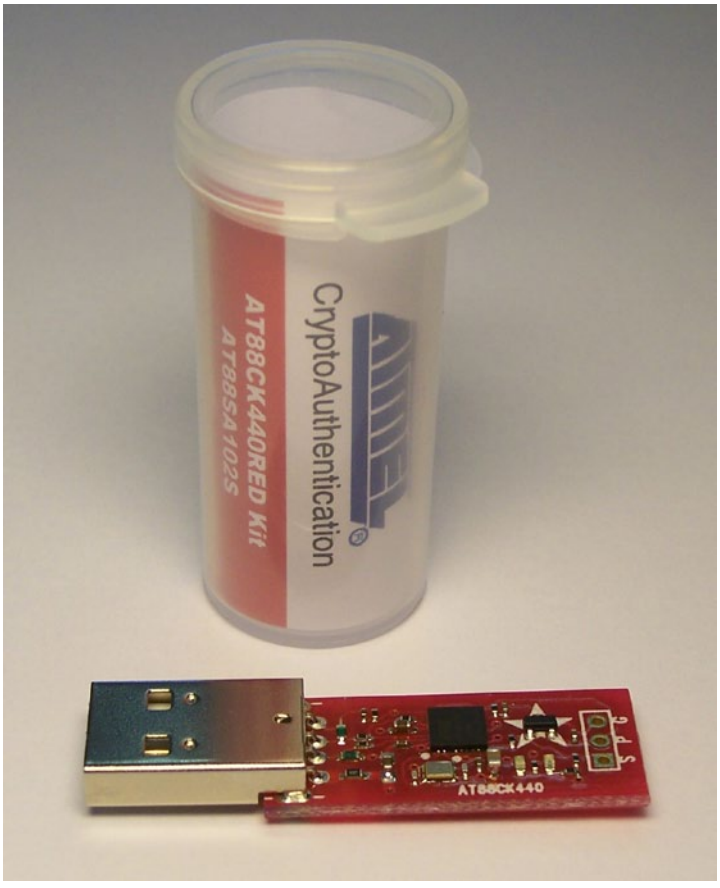
Contents

- 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

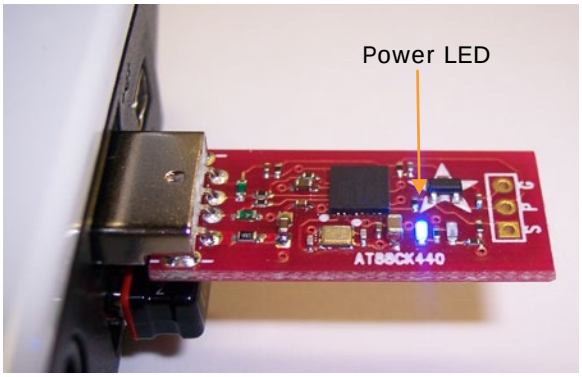
- Visit www.atmel.com/cryptokits to download and install the latest Atmel® CryptoAuthentication™ Utilities
- Scroll down the webpage to Software Files and select the software icon for: *CryptoAuthentication Firmware AT88CK440RED Version x.x*

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

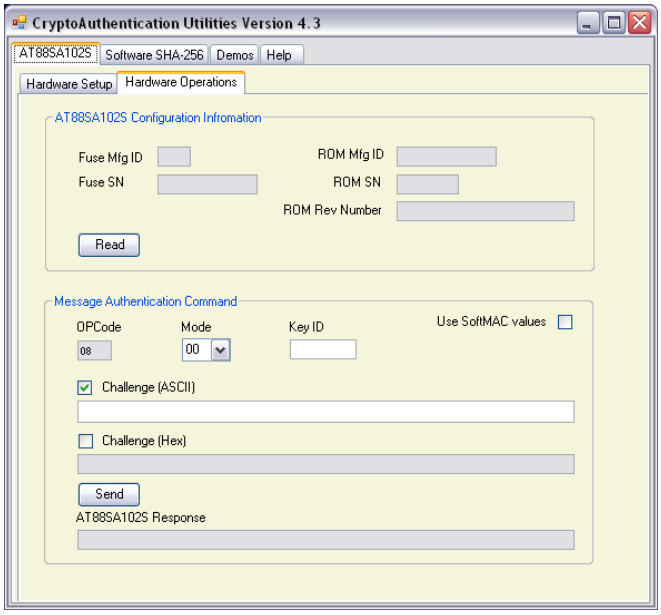
- Insert the Atmel AT88CK440RED into a USB port
- Launch the Atmel CryptoAuthentication Utilities
- Click *Start*, *All Programs*, *Atmel Crypto Solutions*, *CryptoAuthentication Utilities*

Figure 3-1. Atmel CryptoAuthentication Utilities



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

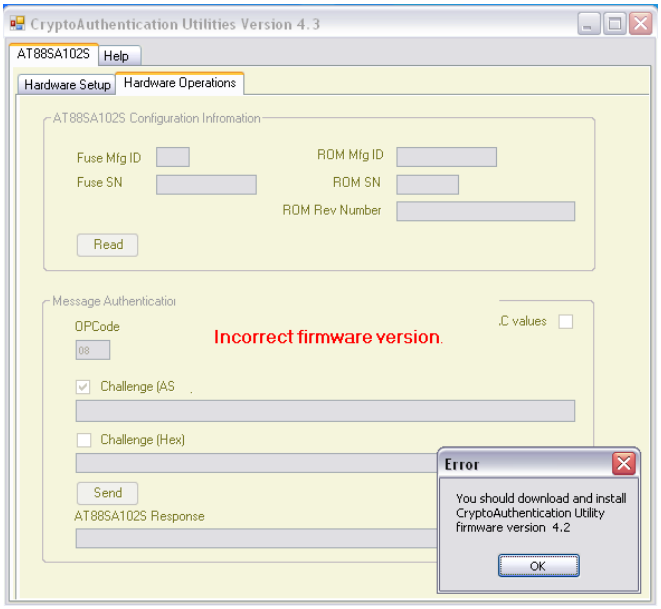
Figure 3-2. Hardware Operations Tab



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

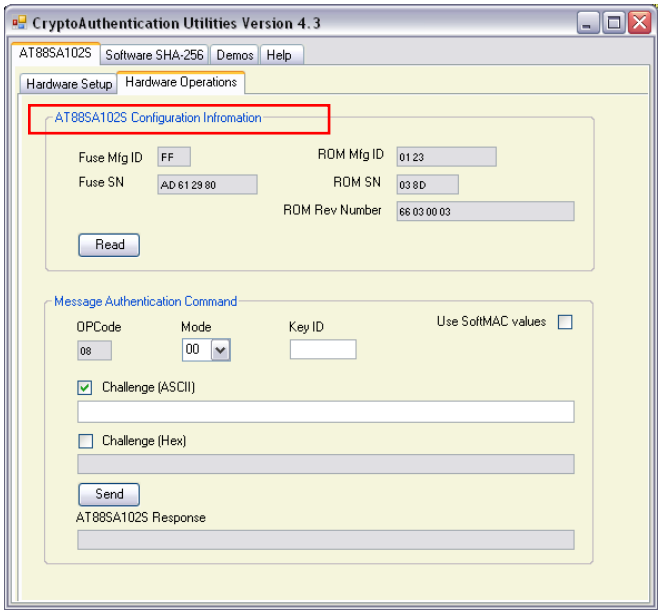
1. Atmel AT88CK440RED has not been inserted into a USB port
   – The enumeration process must be completed prior to launching the utility
2. The firmware is outdated
   – See Section 4, “Firmware Upgrade”

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

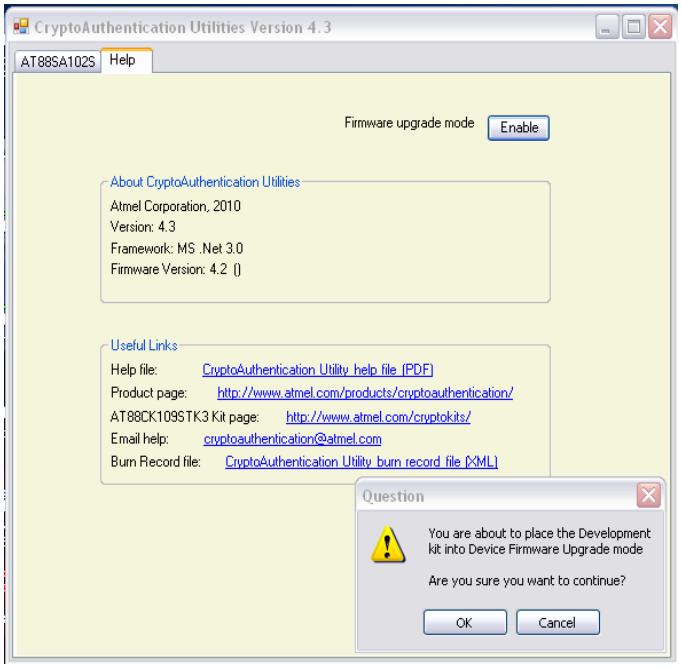
4. Firmware Upgrade

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
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.

6. EVALUATION BOARD/KIT IMPORTANT NOTICE

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