



**Dear ATMEL AT88CK109STK3 customer,**

Thank you for selecting the AT88CK109STK3 evaluation kit. We hope this kit will be a useful platform as you explore the full potential of the CryptoAuthentication product family.

The AT88CK109STK3 is designed to be used with Atmel's JTAGICE mkII debugger, AVR Studio developer's suite and the ATMEL Crypto Evaluation Studio (ACES). This seamless toolchain provides a convenient and powerful environment for generating, debugging and testing your embedded software. For more information on these and other CryptoAuthentication development tools, visit [www.atmel.com/cryptokits](http://www.atmel.com/cryptokits).

#### **IMPORTANT MESSAGE!**

Atmel posts frequent updates to the AT88CK109STK3 software and documentation on our website. You may download the latest version for free from [www.atmel.com/cryptokits](http://www.atmel.com/cryptokits).

Should you experience problems with this kit, please ensure that you have downloaded and installed the latest software version before contacting an Atmel sales representative.

Thank you for your interest in ATMEL CryptoAuthentication products.

---

# AT88CK109STK3 Getting Started Guide

## Features

- Installing ACES (ATMEL CRYPTO EVALUATION STUDIO)
- Configuring the board
- Powering the board
- Reading the HOST (AT88SA10HS) and CLIENT (AT88SA102) devices

## 1 Introduction

AT88CK109STK3 is a CryptoAuthentication Starter Kit, which can be used as a reference design and development system for the AT88SA100, AT88SA102, and ATSA10HS products.

### Contents:

- AT88CK109BK3 modular CryptoAuthentication daughter board
- AT88Microbase for demos and development
- Common 10-PIN header for any Atmel STK and EVK
- CryptoAuthentication development library
- JTAG, LED, and buzzer for debug and feedback
- CryptoAuthentication device assortment and USB cable

Figure 1-1 AT88CK109SK3 Starter Kit



---

## CryptoAuthentication™ Starter Kit

---

## AT88CK109STK3 Getting Started Guide

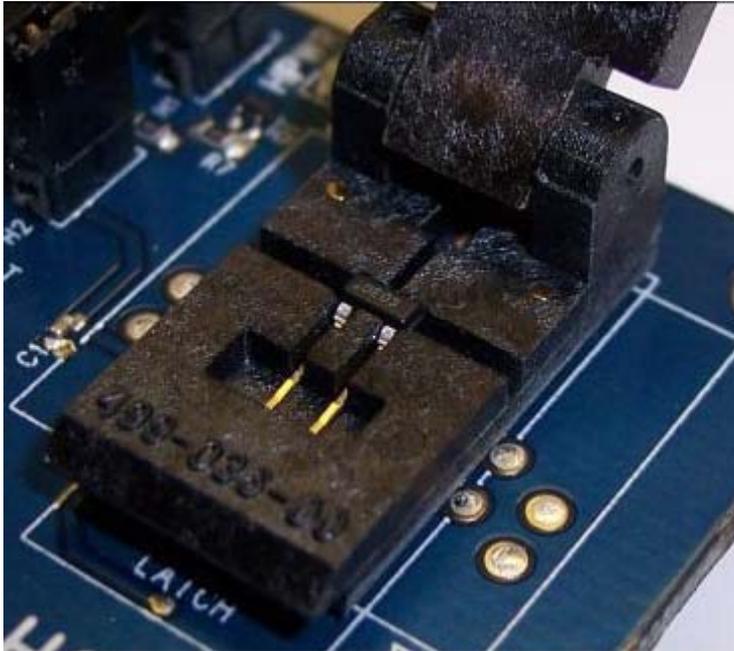


## 1. Installing ACES

Go to [www.atmel.com/cryptokits](http://www.atmel.com/cryptokits) to download and install the latest ACES.

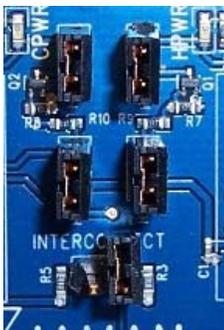
## 2. Configuring the board

Ensure there is a device in the HOST and CLIENT sockets.



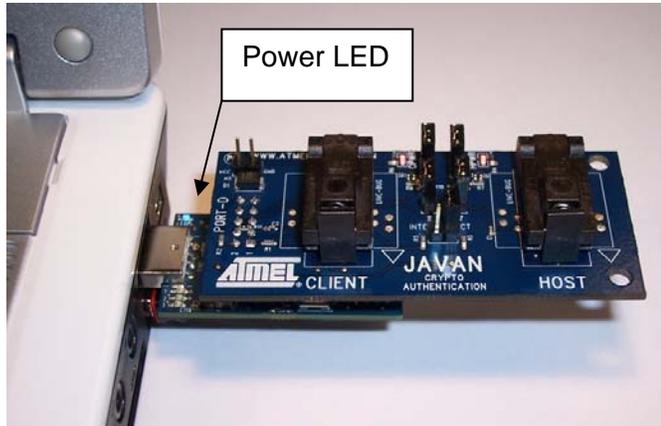
The kit is shipped with an AT88SA102 device in the CLIENT socket and an AT88SA10HS device in the HOST socket. To use this kit with the **CryptoAuthentication Utilities** software, the host and client devices must be in their respective sockets according to the texts on the PCB.

Also, ensure the jumpers are configured as follow.



### 3. Powering up the board

The AT88CK109STK3 is a USB powered device. The AT88Microbase can be directly inserted into the USB port or be used with the 6" USB cable provided.



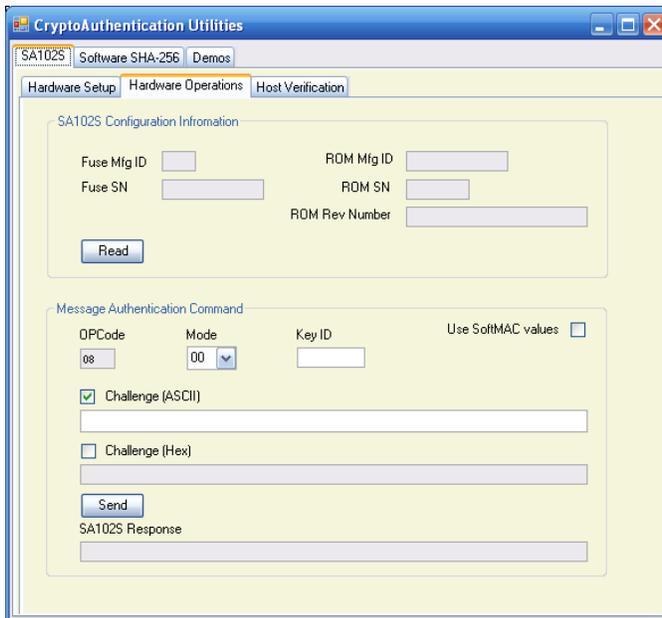
Upon receiving power, the blue power LED “LEDP” will light.

### 4. Reading the Device Configuration Information

- Insert the AT88CK109STK3 into a USB port (Section 2)
- Launch the **CryptoAuthentication Utilities**  
Start / All Programs / Atmel Crypto Solutions / CryptoAuthentication Utilities

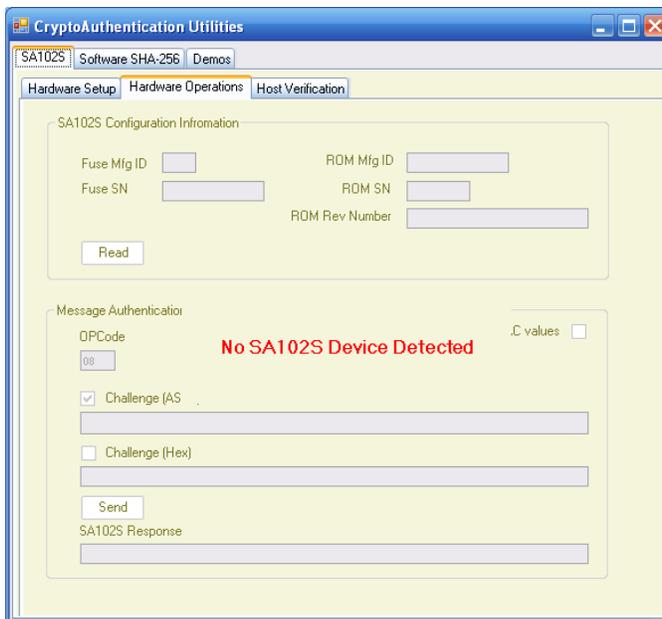


- The CryptoAuthentication Utilities will open to the **SA102 / Hardware Operation** tab.

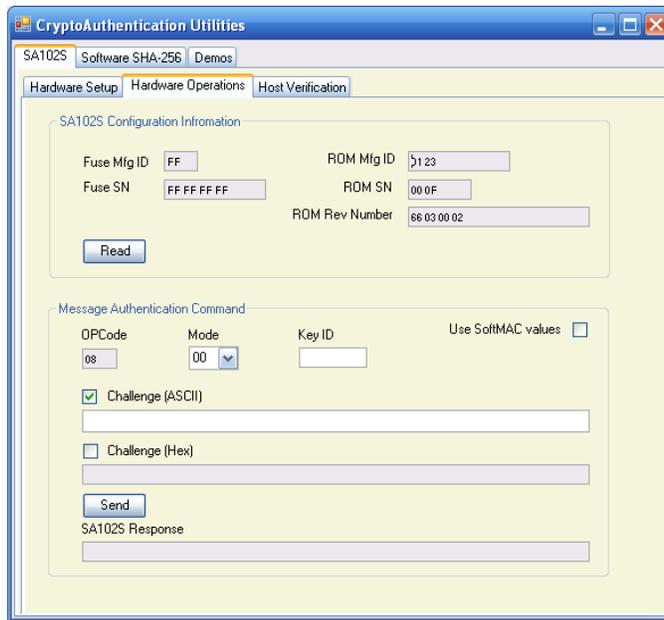


If the following screen appears, then 1 of 3 problems exists.

1. No device in the socket
2. The wrong device is in the socket
3. The device is not seated properly



- Click the **Read** button in the **SA102S Configuration Information** section. The section will populate.



- Click the **Host Verification** tab
- Click the **Read** button in the **SA10HS Host Values** section. The section will populate.
- **Congratulation**, your AT88CK109STK3 is up and running.
- See **CryptoAuthentication Help** shortcut on your desktop for additional information

## 5. References and further information

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



## 6. EVALUATION BOARD/KIT IMPORTANT NOTICE

This evaluation board/kit is intended for use for **FURTHER ENGINEERING, DEVELOPMENT, DEMONSTRATION, OR EVAL 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.

EXCEPT TO THE EXTENT OF INDEMNITY SET FORTH ABOVE, NEITHER USER NOR ATMEL SHALL BE LIABLE TO EACH OTHER FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

No license is granted under any patent right or other intellectual property right of Atmel covering or relating to any machine, process, or combination in which such Atmel product or services might be or are used.

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