



### Features

- Two 8-lead SOIC sockets
- Supports the Atmel ATSHA204 CryptoAuthentication IC
- Supports communication protocols
  - I<sup>2</sup>C
  - SWI (Single wire interface)
- Power LEDs

### Contents

- Atmel AT88CK109BK8 daughterboard

## 1. Introduction

Atmel® AT88CK109BK8 is a daughterboard that interfaces with a mcu board via a 10-pin header. The daughterboard has two 8-pin SOIC sockets which can support HOST and CLIENT development with an Atmel ATSHA204 device. This kit uses a modular approach, enabling the daughterboard to connect directly to an STK series AVR development platform to easily add security to applications. An optional adapter kit is also available when the 10-pin header on the daughterboard requires a different pinout. The AT88CK109BK8 is sold with the Atmel AT88Microbase to form the Atmel AT88CK109STK8 starter kit. The AT88Microbase AVR base board comes with a USB interface that lets designers learn and experiment on their PCs.

Figure 1-1. Atmel AT88CK109BK8 daughterboard

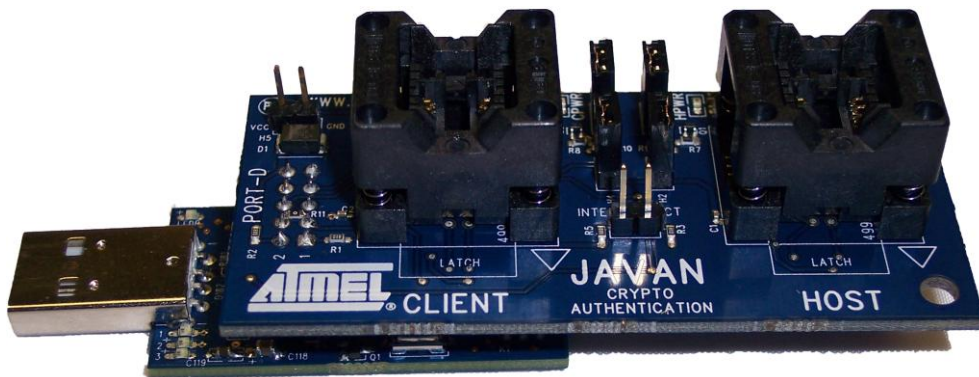




## 1.2. Atmel AT88CK109STK8 starter kit

The AT88CK109BK8 is sold with the AT88Microbase to form the AT88CK109STK8 starter kit. For additional information on the AT88Microbase, see Atmel doc8723A, [AT88Microbase Hardware User Guide](#).

Figure 1-2. The AT88CK109BK8 adaptor board with the Atmel AT88Microbase



## 2. Board configuration

### 2.1. 10-pin interface header

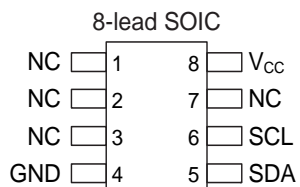
Table 2-1. 10-pin interface header

P10	P9	P8	P7	P6	P5	P4	P3	P2	P1
VCC	GND	NC	NC	NC	NC	NC	NC	SDA	SCL

Note: I<sup>2</sup>C Pins: SCL, SDA

### 2.2. Supports 8-lead SOIC interface with the following pinout

Figure 2-1. Pinout configuration



## 2.3. AT88CK301ADP adapter kit

An optional adapter kit is also available when the 10-pin header on the daughterboard requires a different pinout.

Figure 2-2. Atmel AT88CK301ADP adapter kit



Table 2-2. 10-pin squid cable

10-pin squid cable									
P10	P9	P8	P7	P6	P5	P4	P3	P2	P1
black	white	gray	purple	blue	green	yellow	orange	red	brown



### 3. References and further information

Schematics, Gerber files, bill of materials (BOM), development and demonstration software are conveniently downloadable from the Atmel website at [www.atmel.com/cryptokits](http://www.atmel.com/cryptokits).

### 4. 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.

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

**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

© 2011 Atmel Corporation. All rights reserved. / Rev.: 8742A-CRYPTO-3/11

Atmel®, logo and combinations thereof, CryptoAuthentication™ and others are registered trademarks or trademarks of Atmel Corporation or its subsidiaries. Other terms and product names may be trademarks of others.

Disclaimer: The information in this document is provided in connection with Atmel products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Atmel products. EXCEPT AS SET FORTH IN THE ATMEL TERMS AND CONDITIONS OF SALES LOCATED ON THE ATMEL WEBSITE, ATMEL ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL ATMEL BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS AND PROFITS, BUSINESS INTERRUPTION, OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF ATMEL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Atmel makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and products descriptions at any time without notice. Atmel does not make any commitment to update the information contained herein. Unless specifically provided otherwise, Atmel products are not suitable for, and shall not be used in, automotive applications. Atmel products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Microchip:](#)

[AT88CK301ADP](#)