



Atmel AT88CK109BK8 Hardware User Guide

## **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® AT88CK101BK8 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 | Р3 | P2  | P1  |
|-----|-----|----|----|----|----|----|----|-----|-----|
| VCC | GND | NC | NC | NC | NC | NC | NC | SDA | SCL |

Note: I2C Pins: SCL, SDA

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

Figure 2-1. Pinout configuration

| 8-lead SOIC  |   |   |                   |  |  |  |
|--------------|---|---|-------------------|--|--|--|
| NC 🗀         | 1 | 8 | □ V <sub>cc</sub> |  |  |  |
| NC $\square$ | 2 | 7 | □ NC              |  |  |  |
| NC 🗀         | 3 | 6 | SCL               |  |  |  |
| GND 🗀        | 4 | 5 | SDA               |  |  |  |

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## 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     | Р3     | 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 <a href="https://www.atmel.com/cryptokits">www.atmel.com/cryptokits</a>.

## 4. EVALUATION BOARD/KIT IMPORTANT NOTICE

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