

# Atmel CryptoAuthentication Starter Kit

# 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

### 1. Introduction

Atmel<sup>®</sup> 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



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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

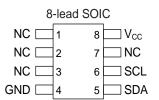
Table 2-1. 10-pin interface header

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

# 4. EVALUATION BOARD/KIT IMPORTANT NOTICE

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