

Features

- 8-lead SOIC socket
- Supports the Atmel ATSHA204 CryptoAuthentication IC
- Supports communication protocols
 - I²C
 - SWI (Single wire interface)
- Power LED
- Test points header

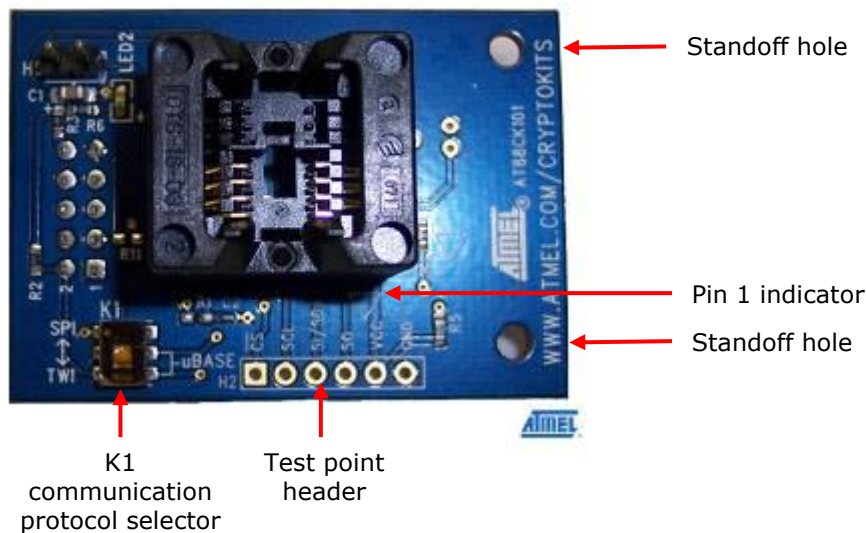
Contents

- Atmel AT88CK101BK8 daughterboard

1. Introduction

Atmel® AT88CK101BK8 is a daughterboard that interfaces with a mcu board via a 10-pin header. The daughterboard has a single 8-pin SOIC socket which can support the Atmel ATSHA204. 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 AT88CK101BK8 also provides a test point header for the I²C, SWI, and SPI signals. The AT88CK101BK8 is sold with the Atmel AT88Microbase module to form the Atmel AT88CK101STK8 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 AT88CK101BK8 Crypto daughterboard





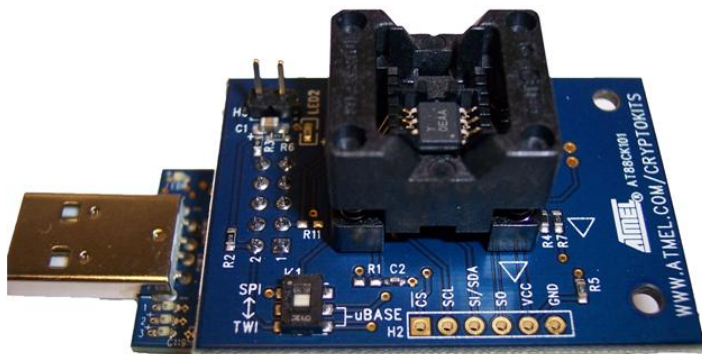
1.1. Atmel AT88CK101STK8 starter kit

The AT88CK101BK8 is sold with the Atmel AT88Microbase module to form the Atmel **AT88CK101STK8** starter kit. For additional information on the AT88Microbase, See Atmel doc8723A, [Atmel AT88Microbase Hardware User Guide](#).

Figure 1-2. Atmel AT88CK101STK8 starter kit



Figure 1-3. The Atmel AT88CK101BK8 daughterboard 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	MISO	MOSI	SDA/SCLK	SCL /CS

Note: I²C Pins: SCL, SDA
 SPI Pins: /CS, SCLK, MOSI, MISO

2.2. 6-pin test header

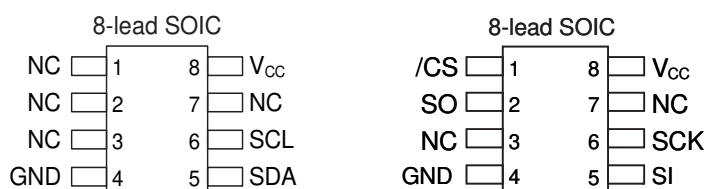
Table 2-2. 6-pin test header

/CS	SCL	SI/SDA	SO	VCC	GND
SPI chip select	SPI-CLK	MOSI/SDA	MISO	VCC	GND

Note: I²C Pins: SCL, SDA
 SPI Pins: /CS, SCLK, MOSI, MISO

2.3. Supports 8-lead SOIC and SPI interfaces with the following pinout

Figure 2-1. Pinout configurations





2.4. Configurations

Table 2-3 describes the how to configure the AT88CK101BK8 with respect to the AT88Microbase and the STK/EVK development platforms.

Table 2-3. Atmel AT88CK101STK8 starter kit configuration guide

Atmel AT88CK101STK8 starter kit configuration guide			
Communication interface	Atmel AT88Microbase (K1 switch)	Atmel AT88CK101BK8 (K1 switch)	Atmel AT88CK101BK8 jumper (H5)
TWI	TWI	uBase	Open
SPI	SPI	uBase	Mounted
SWI (UART)	—	SPI	Mounted
SWI (GPIO)	SPI	uBase	Open
Atmel AT88CK101BK8+ STK/EVK platforms configuration guide			
Communication interface	—	Atmel AT88CK101BK8 (K1 switch)	Atmel AT88CK101BK8 jumper (H5)
TWI	—	TWI	Open
SPI	—	SPI	Open
SWI (UART)	—	SPI	Mounted
SWI (GPIO)	—	TWI Signal on Px1 (x-denotes the port)	Open

Note: X = Don't care

Figure 2-2. Atmel AT88CK101BK8 adapter board mounted to STK600



2.5. AT88CK301ADP adapter kit

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

Figure 2-3. Atmel AT88CK301ADP adapter kit



Figure 2-4. Atmel AT88CK101BK8 and Atmel AT88CK301ADP with the Atmel AT91SAM7S-EK board

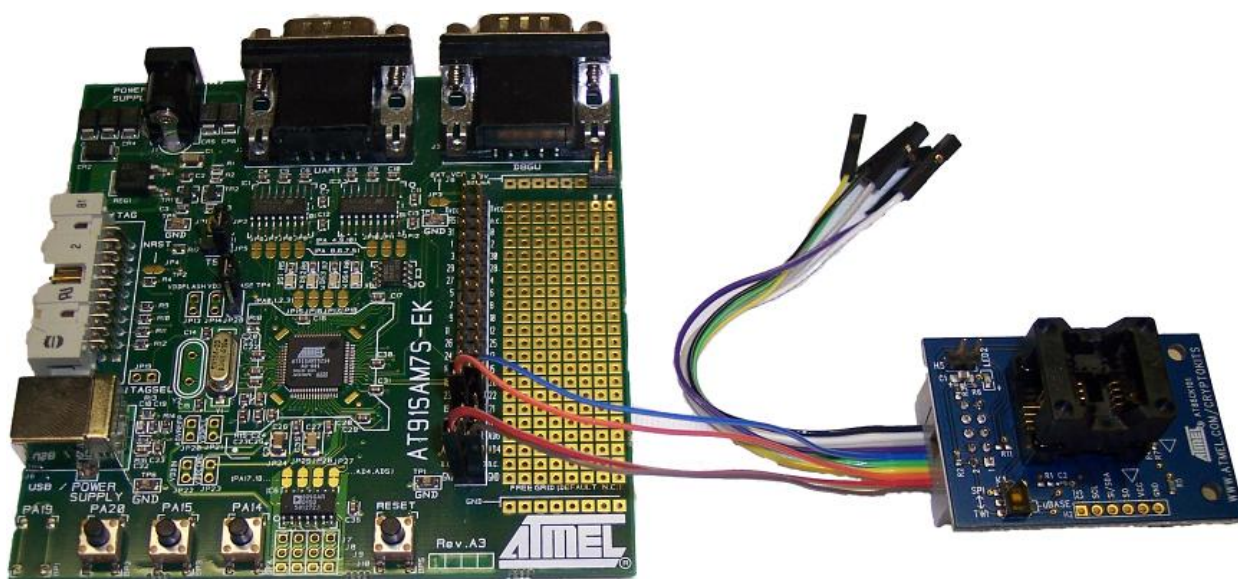


Table 2-4. 10 pin squid cable

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 is conveniently downloadable from the Atmel website at 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.

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