



## **AT88SC-DK1 WELCOME AND QUICK START GUIDE**

Dear Valued Customer,

Thank you for choosing CryptoMemory® for your security needs. As you may already know, CryptoMemory provides low-cost powerful security for your product authentication and secure data storage needs. To ensure you have the most current information, we ask that you check the CryptoMemory product website at [www.atmel.com/products/SecureMem](http://www.atmel.com/products/SecureMem) for any recent updates. We wish you an exciting development experience and ask that you do not hesitate to contact us at [cryptomemory@atmel.com](mailto:cryptomemory@atmel.com) for any assistance we can provide.

Best regards,

Your Atmel CryptoMemory Team





### Package Contents

1. 1 AT88SC-DK1 CD
2. 1 CryptoMemory adaptor board
3. 1 tube of CryptoMemory samples
4. 1 Black-Red patch cord
5. 1 Green-Yellow patch cord



### ADAPTING AT88SC-DK1 TO YOUR DEVELOPMENT SYSTEM



#### System Requirements:

- 1 GPIO header pin for TWI clock, SCL.
- 1 GPIO header pin for TWI data, SDA.
- 1 header pin for power, VCC.
- 1 header pin for ground, GND.



#### Software Setup

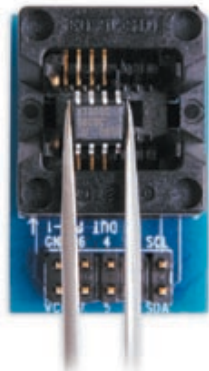
1. Install contents of AT88SC-DK1 CD into your PC
2. Check the README file for information on CryptoMemory Library Integration and Reference.



## Hardware Setup

### STEP 1:

Insert a CryptoMemory device into the SOIC socket



Align PIN 0 of the SOIC package towards the header-pins side of the adaptor board.

### STEP 2:

Connect Power and Ground wires



#### Use Black-Red patch cord

1. Connect the double-header end of the Green-Yellow patch cord to the SCL-SDA header pins of the adaptor board. Align such that Green connects to SCL and Yellow connects to SDA.
2. Connect the Green cord to your system TWI clock.
3. Connect the Yellow cord to your system TWI data.

### STEP 3:

Connect Clock and Data wires



#### Use Green-Yellow patch cord

1. Connect the double-header end of the Green-Yellow patch cord to the SCL-SDA header pins of the adaptor board. Align such that Green connects to SCL and Yellow connects to SDA.
2. Connect the Green cord to your system TWI clock.
3. Connect the Yellow cord to your system TWI data.



## Troubleshooting

1. Make sure CryptoMemory is properly inserted and aligned in the SOIC socket. The correct orientation places PIN 0 of the SOIC package towards the adaptor board header pins. When correctly oriented, holding the adaptor board with header pins towards self should present the marking texts on the CryptoMemory package right side up.
2. Verify your hardware setup for accurate signal and power connections.
3. Make sure VCC is connected to a high-drive power supply.
4. Make sure your system meets pull-up resistor requirements on signal lines as defined in CryptoMemory datasheets
5. Make sure to include noise filtering capacitors between Vcc and GND at the device level, if working with a noisy system.
6. Read and Write CryptoMemory's Memory Test Zone (MTZ) field to verify connectivity. MTZ is free of all security requirements at all times.

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