



## Troubleshooting

- Make sure the communication and antenna baseboard is well connected to the PC. Power LED, D4, should light up.
- Make sure SR90121 module board is well seated on connection sockets on communication and antenna baseboard.



## Ordering Code

- AT88SCRF-ADK1

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Yuma+ is intended for use for engineering development, demonstration and/or evaluation purposes only and is not considered by Atmel to be a finished end-product.

## Yuma+

*microcontroller on board*

## WELCOME AND QUICK START GUIDE

Dear Valued Customer,

Thank you for choosing CryptoRF® for your security needs. CryptoRF provides powerful security for wireless authentication and data storage in convenient and affordable passive RFID tags. The Yuma+ kit features 13.56 MHz RF reader technology from our market partner, Melexis Technologies, SA. To ensure you have the most current information and related resources, check the CryptoRF product website at [www.atmel.com/products/secureRF](http://www.atmel.com/products/secureRF). We wish you an exciting development experience and ask that you do not hesitate to contact us at [CryptoRF@atmel.com](mailto:CryptoRF@atmel.com) for any assistance we can provide.

Best regards,

Your Atmel Embedded Crypto Solutions Team

8524B-CRRF-06/08





## Package Contents

1. 1 Embedded Crypto Solutions CD
1. 1 Melexis SR90121 Crypto Design Kit
1. 1 USB Type-A, Mini-B cable
1. 1 Atmel CryptoRF Tag Assortment



## Product Overview

The Yuma+ is a complete CryptoRF development kit for CryptoRF application development. It features the SR90121 reader module from Atmel and Melexis to showcase ease of developing secure RFID applications. The module contains Atmel's ATmega168 microcontroller and Melexis' MLX90121 reader chip. The microcontroller implements all software requirements of CryptoRF and MLX90121 while exposing just a simple high level SPI API to ease application development. Application developers using the SR90121 module example only need to design a 50Ω antenna to fit their application needs. The SR90121 reader board mounts on a communications and antenna base board that has a USB interface for power and signaling with the PC.



## System Requirements

- Windows XP
- 200MB available disk space
- Available USB Port



## Software Installation

1. Insert CD into a PC running Microsoft Window XP
2. Follow on-screen directions to complete installation(s).



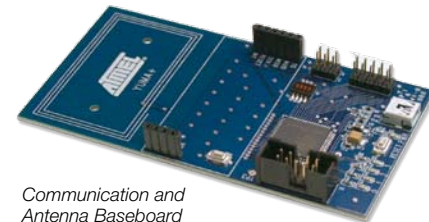
## Hardware Setup

- Connect SR90121 evaluation board to PC included USB cable



## Getting Started

1. Launch Embedded Crypto Solutions application
2. Select the CryptoRF application tab
3. Follow directions at bottom of screen
4. Click forward arrow to advance screens



Communication and Antenna Baseboard



SR90121 Module



Baseboard with SR90121 Module attached