

Introduction

This sample code demonstrates how to use SM3 algorithm.

Applicable products:

Product series	AT32L021 series
----------------	-----------------

1 Quick start

1.1 Hardware resources

- 1) AT-START evaluation board for AT32L021 series

1.2 Software resources

- 1) Source Code
 - sm3_demo
 - AT32 driver
- 2) Doc
 - SC0126_AT32L021_SM3_DEMO

Note: All of projects are built based on Keil 5. For the need to run in other compiling environments, user can make simple adjustments according to AT32xxx_Firmware_Library_V2.x.x\project\at_start_xxx\templates.

1.3 Get started

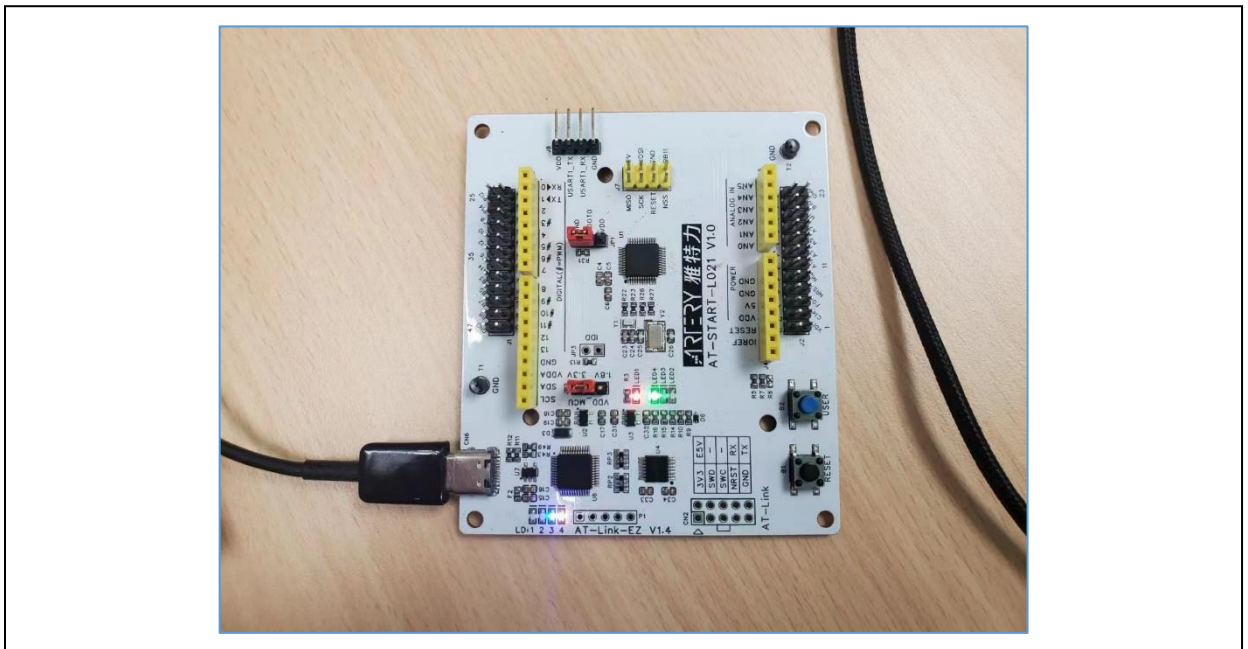
For software use:

Open “sm3_demo” project under utilities\at32l021_sm3_demo

Or open gmssl_sm3_demo project under utilities\at32l021_gmssl_sm3_demo

- Compile and download it to the board
- Connect the AT-Link-EZ USB interface with PC

Figure 1. Connect with USB interface on the evaluation board



1.4 Example case

1.4.1 at32l021_sm3_demo

SM3 source code in this example is located at [SMx/SM3 at master](#) • [NEWPLAN/SMx](#) • [GitHub](#)

This example demonstrates 9 different patterns of SM3 operation, and uses speed_sm3() function to evaluate operational performance.

1.4.2 at32l021_gmssl_sm3_demo

SM3 source code in this example is located at <https://github.com/guanzhi/GmSSL>

This example demonstrates 9 different patterns of SM3 operation, and uses speed_sm3() function to evaluate operational performance.

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
2024.9.26	2.0.0	Initial release

IMPORTANT NOTICE – PLEASE READ CAREFULLY

Purchasers are solely responsible for the selection and use of ARTERY's products and services, and ARTERY assumes no liability whatsoever relating to the choice, selection or use of the ARTERY products and services described herein

No license, express or implied, to any intellectual property rights is granted under this document. If any part of this document deals with any third party products or services, it shall not be deemed a license granted by ARTERY for the use of such third party products or services, or any intellectual property contained therein, or considered as a warranty regarding the use in any manner of such third party products or services or any intellectual property contained therein.

Unless otherwise specified in ARTERY's terms and conditions of sale, ARTERY provides no warranties, express or implied, regarding the use and/or sale of ARTERY products, including but not limited to any implied warranties of merchantability, fitness for a particular purpose (and their equivalents under the laws of any jurisdiction), or infringement on any patent, copyright or other intellectual property right.

Purchasers hereby agree that ARTERY's products are not designed or authorized for use in: (A) any application with special requirements of safety such as life support and active implantable device, or system with functional safety requirements; (B) any aircraft application; (C) any aerospace application or environment; (D) any weapon application, and/or (E) or other uses where the failure of the device or product could result in personal injury, death, property damage. Purchasers' unauthorized use of them in the aforementioned applications, even if with a written notice, is solely at purchasers' risk, and Purchasers are solely responsible for meeting all legal and regulatory requirements in such use.

Resale of ARTERY products with provisions different from the statements and/or technical characteristics stated in this document shall immediately void any warranty grant by ARTERY for ARTERY's products or services described herein and shall not create or expand any liability of ARTERY in any manner whatsoever.

© 2024 Artery Technology -All rights reserved