

## AT32F4xx Simulates EEPROM For Communication via I2C

### Introduction

This sample code demonstrates that AT32F4xx MCU simulates EEPROM for communication through I2C. In slave mode, I2C can behave as if EEPROM or some I2C devices to write and read access to a single or several registers.

*Note: This sample code is written based on Artery's V2.x.x BSP. For other versions of BSP, users should pay attention to the differences in use.*

Applicable products:

Product series	AT32 all series
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List of major peripherals used:

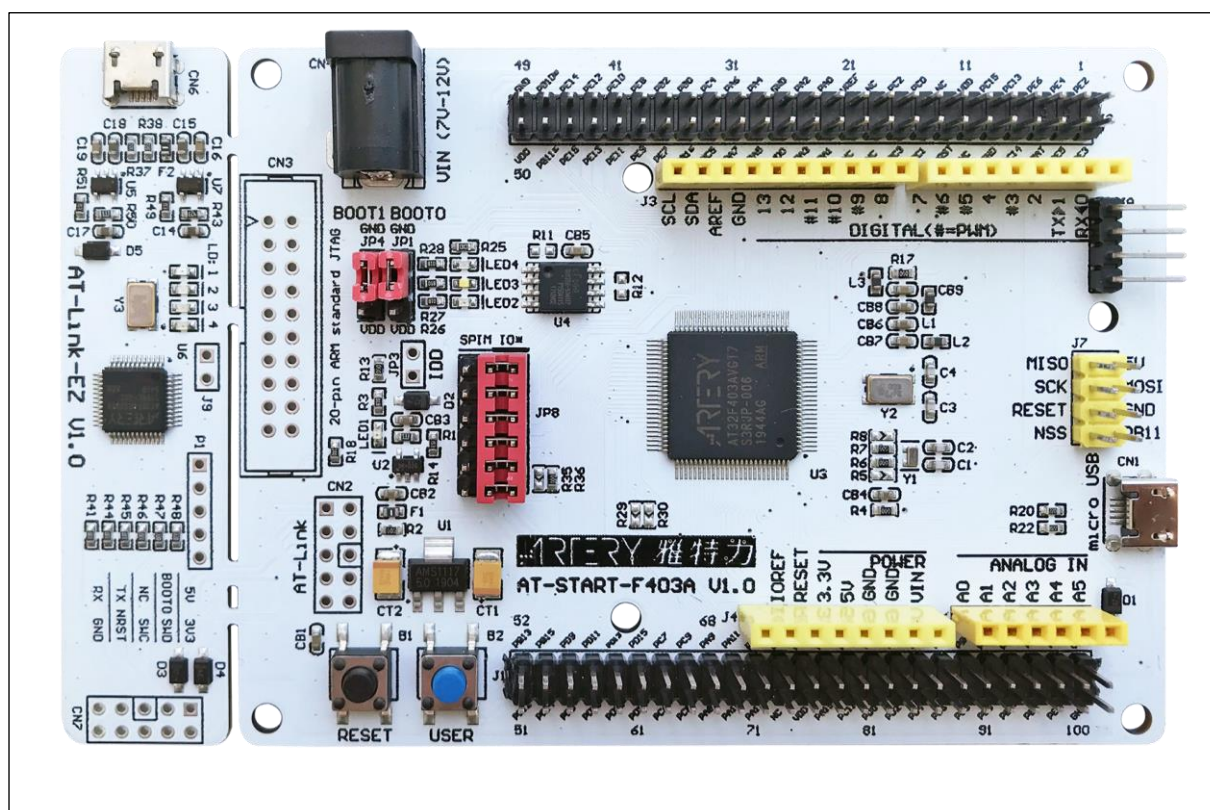
Peripherals	I2C
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## 1 Quick start

## 1.1 Hardware resources

- 1) AT-START-F403A V1.0 evaluation board (Use evaluation board corresponding to specific product series)
- 2) Serial interfaces: PA9, PA10

**Figure 1. AT-START-F403A V1.0 evaluation board**



## 1.2 Software resources

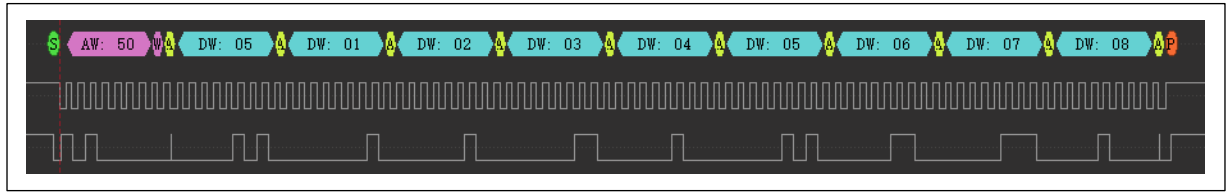
- 1) **SourceCode**
  - **simulates\_eeprom\_403a\_v2.0.0**  
Supports AT32F403A, F407, F403, F413, F415, F421 and WB415
  - **simulates\_eeprom\_435\_v2.0.0**  
Supports AT32F435, F437, F425, L021, F405 and F423

*Note: All of projects are built based on Keil 5. For the need to run them in other compiling environments, user can make simple adjustments according to AT32xxx\_Firmware\_Library\_V2.x\project\at\_start\_xxx\templates.*

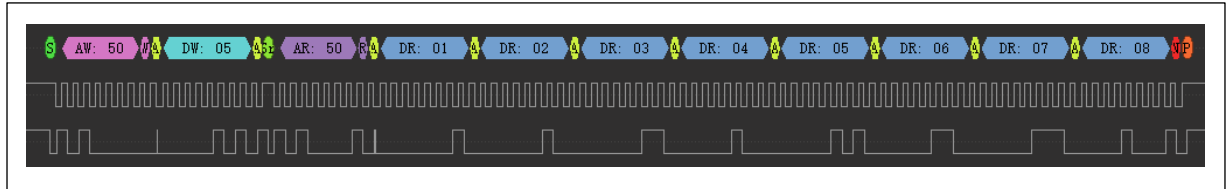
### 1.3 Example case

- 1) Open “simulates\_eeprom\_403a\_v2.0.0” source code, compile and download it to the board
- 2) View communication data via logic analyzer

**Figure 2. Communication data (write data)**



**Figure 3. Communication data (read data)**



## 2 Revision history

Table 1. Document revision history

Date	Revision	Changes
2022.08.24	2.0.0	Initial release

