

AT32F4xx I2C Master Transmission and Slave Reception with DMA

Introduction

This sample code demonstrates how to use AT32F4xx I2C DMA to perform master transmission and slave reception.

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	AT32F403xx
	AT32F403Axx
	AT32F407xx
	AT32F413xx
	AT32F415xx
	AT32F421xx

List of major peripherals used:

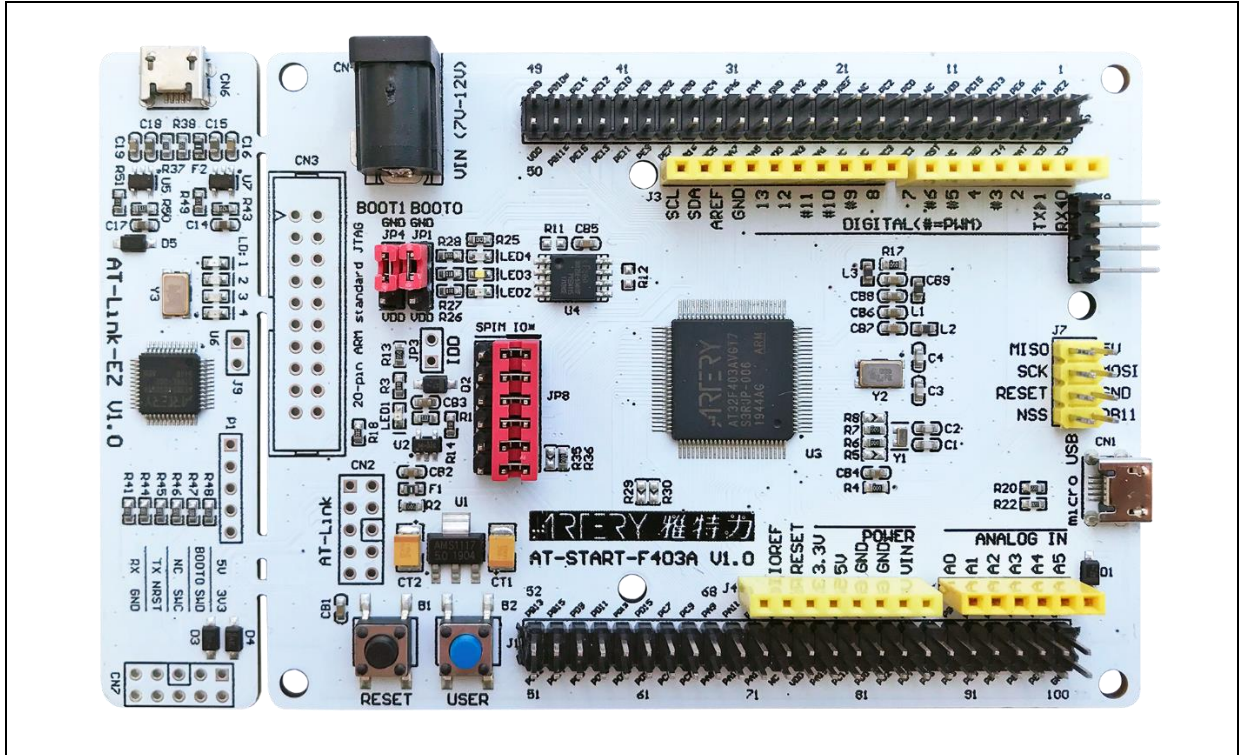
Peripherals	I2C
	DMA

1 Quick start

1.1 Hardware resources

- 1) AT-START-F403A V1.0 evaluation board (select evaluation board according to the corresponding MCU series)
- 2) Serial output PA9 and PA10

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



1.2 Software resources

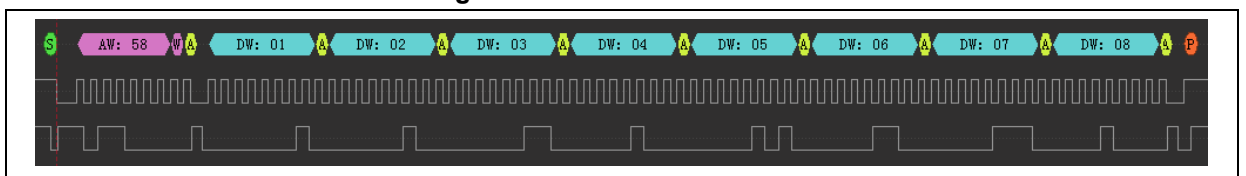
- 1) Source code
 - DMA_MA_TX&SLA_RX

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 Example case

- 1) Open DMA_MA_TX&SLA_RX, compile and download it to the evaluation board
- 2) View data using logical analyzer

Figure 2. Communication data



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
2021.12.20	2.0.0	Initial release
2022.03.25	2.0.1	Updated document format

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