SC0006
Sample Code

AT32F403A IO Emulated I2C Communication with Slave

Introduction

The goal of this sample code is to demonstrate emulated I2C communication with slave through IO ports for the AT32F403A series MCUs.

Note: The corresponding code in this application note is developed on the basis of V2.x.x BSP provided by Artery. For other versions of BSP, please pay attention to the differences in usage.

Applicable products:

Part number	ARTERY AT32 family

List of peripherals:

Main peripheral	GPIO

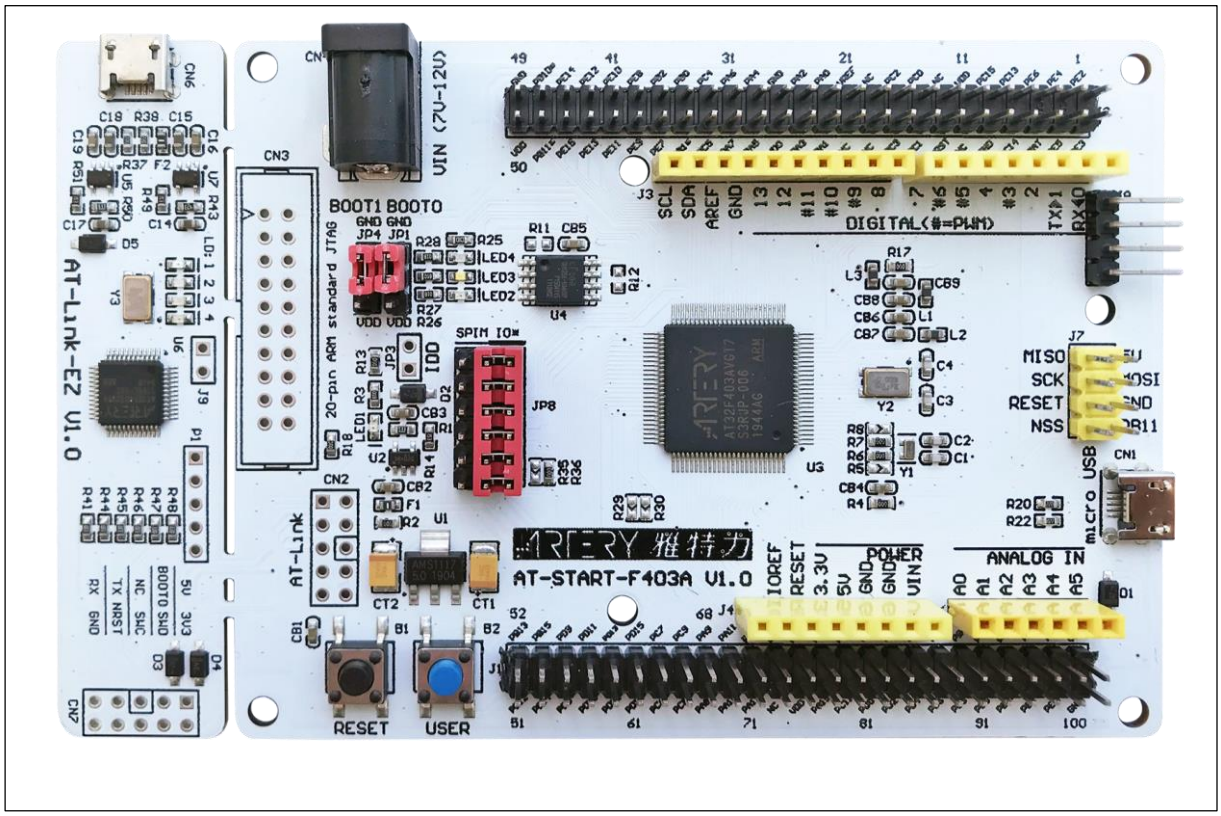
1 Application method

1.1 Hardware requirements

1) AT-START-F403A V1.0 evaluation board (or the corresponding evaluation board of other series)

2) Serial ports: PA9, PA10

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



1.2 Software requirements

1) SourceCode

- I2C_IO_Master

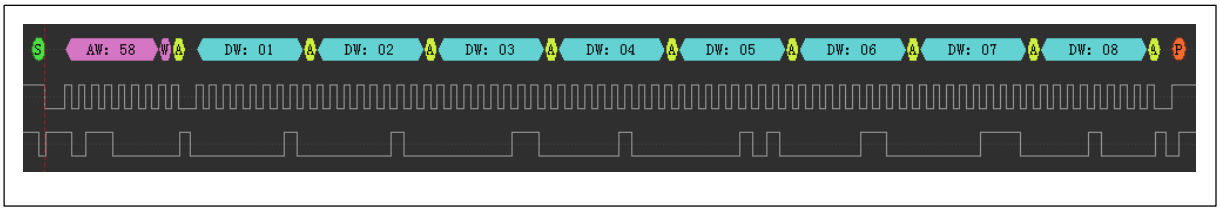
Note: All projects are built around keil 5. If users want to use them in other compiling environments, please refer to AT32xxx_Firmware_Library_V2.x.x\project\at_start_xxx\templates (such as IAR6/7, keil 4/5) for a simple change.

1.3 Example of application

1) Open and compile the source code, and then download to the evaluation board;

2) Check communication data with the logic analyzer.

Figure 2. Communication data



2 Revision history

Table 1. Document revision history

Date	Version	Revision note
2021.12.20	2.0.0	Initial release.

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