APM32F003x6

Errata Sheet

Version: V 2.1

Contents

1 Introduction

This Manual mainly introduces the limitations of the APM32F003x6 series products during use. If you encounter the application scenarios described in the manual during the use of the product, please use the product according to the solutions provided in the manual; if no solution is provided, please avoid this application scenario.

2 Errata List

Table 1 Errata List

Category	Introduction	Product version
		B
GPIO	GPIO configuration conflict	•
ADC	Cannot enter low-power mode directly during continuous ADC conversion	•
I2C	I2C communication exception	•
USART	Use of USART	•
Tool	Burning	•

Note: "●" indicates that this errata description is involved in this version; the 'X' indicates that it is not involved in this version.

3 GPIO

3.1 GPIO configuration conflict

Problem description

There is a conflict between the main function configuration and interrupt configuration of GPIO. It is specifically manifested as continuously configuring PD6 in the while of the main program, enabling timed interrupts, flipping PD3 during interrupt, and encountering PD3 flipping exception after running.

Solutions

Choose either of the following solutions:

- Use variables as the mutual exclusion flag to avoid;
- In the interrupt function, only make marking, and execute the GPIO value assignment in the while task of the main.

4 ADC

4.1 Cannot enter low-power mode directly during continuous ADC conversion

Problem description

If the system enters low-power mode directly during continuous ADC conversion, the ADC will fail to function properly after exiting low-power mode.

Solutions

Set the ADC to single conversion mode before entering low-power mode.

5 I2C

5.1 I2C communication exception

Problem description

During hardware I2C communication, GPIO is initialized first, then I2C is initialized, and I2C communication may be abnormal in the first communication. Specifically, when the BUSYF flag is set to 1, the hardware cannot be cleared to zero, and the bus is busy and cannot be released.

Solutions

Choose either of the following solutions:

- Before enabling I2C, configure PB4 and PB5 to open-drain output 1 (i.e. set 1 first, then configure open drain), and then configure BUSY=0. After I2C is enabled, the BUSY flag is not affected and the communication is normal.
- Simulate I2C stop signal (stop signal), clear the hardware to zero and release the bus.

6 USART

6.1 Use of USART

Problem description

If USART2 is turned on, TMR1A_CH1 (PD1) cannot output PWM;

If USART3 is turned on, TMR2_CH (PA3) cannot output PWM;

Solutions

Avoid the above usage.

7 Tool

7.1 Programing

Problem description

F003 is easy to enter a self-locking state when debugging and burning through JLink or ST-LINK.

Usually, users will operate OB themselves in the main function, and if the OB operation is interrupted or incomplete, the chip will be locked easily because there are configuration bits for read protection and write protection on the OB address. In addition, abnormal changes in the OB value may also lead to abnormal program operation or system crash.

Solutions

The latest programmer host software on the Geehy official website helps configure OB.

8 Revision history

Table2 Document Revision History

Date	Version	Revision History
August 2024	1.0	● Initial release
April 2026	2.1	● Delete Chapter 2: Product Version and Silk Screen Printing Instructions ● Update Chapter 4.1 ● Update Chapter 7.1

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8. Scope of Application

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