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April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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3823 Group

Timer 1 and Timer 2 Operation (250 ms Timer)

1. Abstract

The following article introduces and shows an example of how to use the Timer 1 and Timer 2 Operation (250 ms Timer) on the 3823 group device.

2. Introduction

The explanation of this issue is applied to the following conditions:

Applicable MCU: 3823 Group

Oscillation frequency: 4.19 MHz

This sample program may include operations of unused bit functions for the convenience of the SFR bit layout.
Set the values according to the operational conditions of the user system.

3. Contents

3.1 Generation of 250ms

Outline: The clock is divided by the timer so that the clock can count up at approximately 250ms intervals.

Specifications:

- The clock $f(XIN) = 4.19$ MHz is divided by timer 1 and timer 2.
- The clock is counted up in the timer 2 interrupt routine which occurs at approximately 250ms intervals.

Figure 3.1 shows the Timers Connection and Division Ratios, Figure 3.2 shows the Relevant Register Settings, and Figure 3.3 shows the Control Procedure.

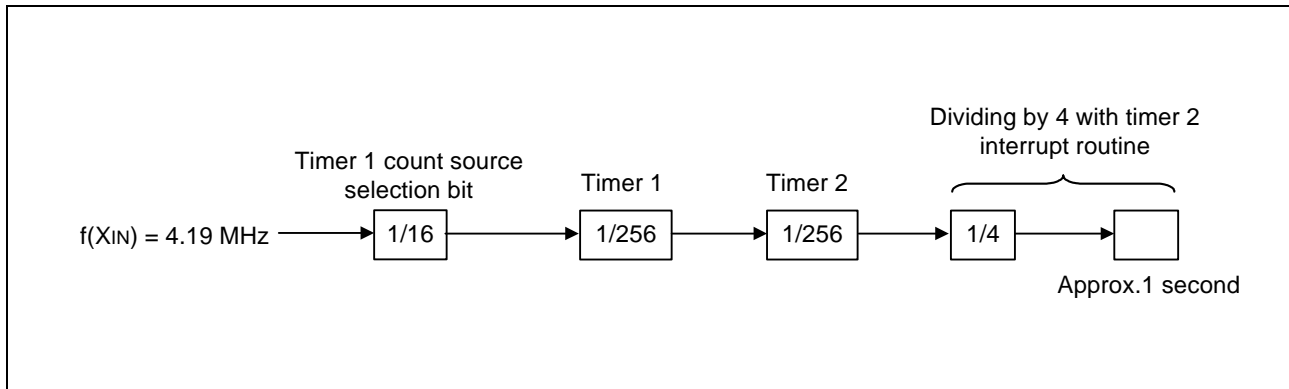


Figure 3.1 Timers Connection and Division Ratios

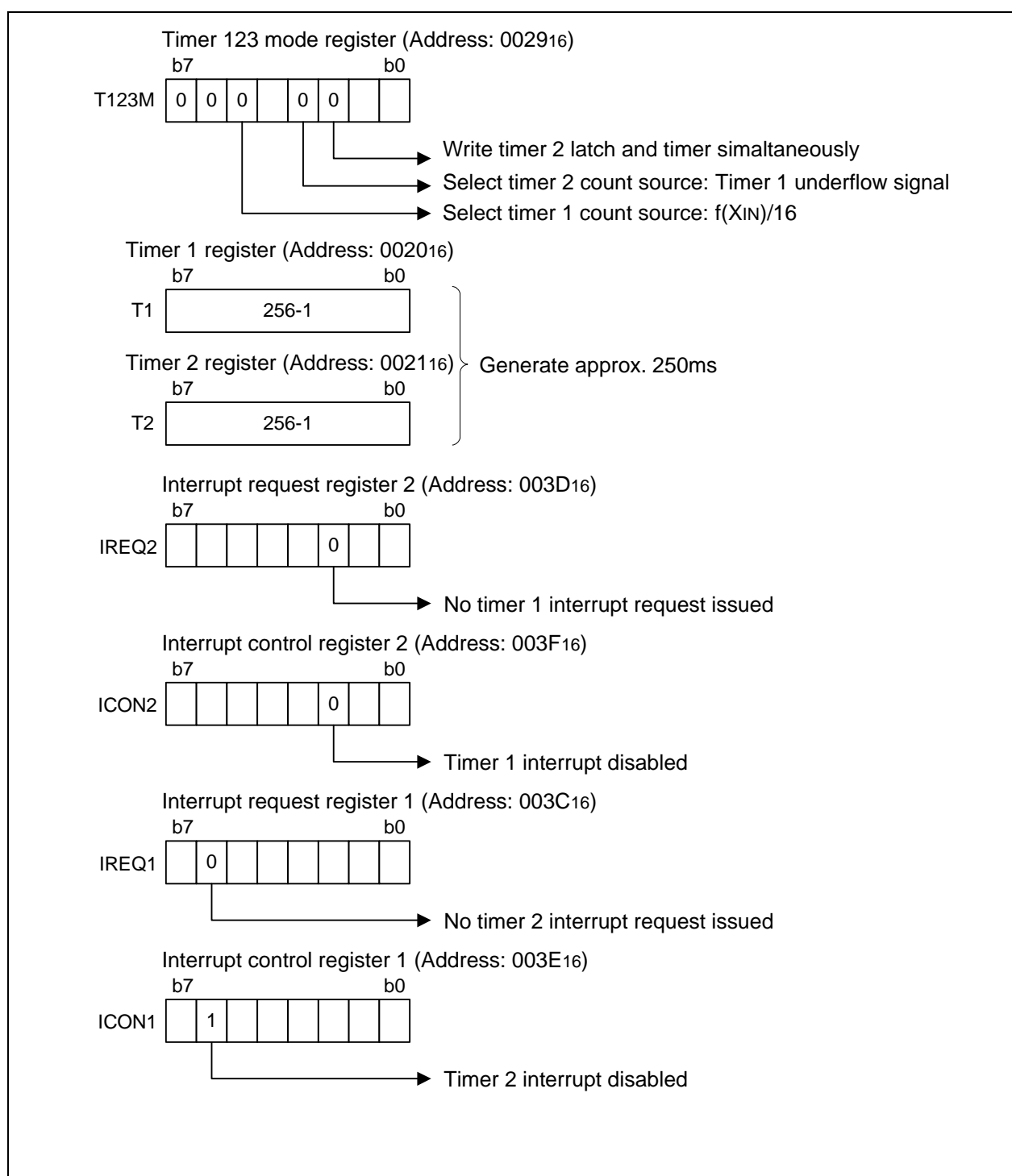


Figure 3.2 Relevant Register Settings

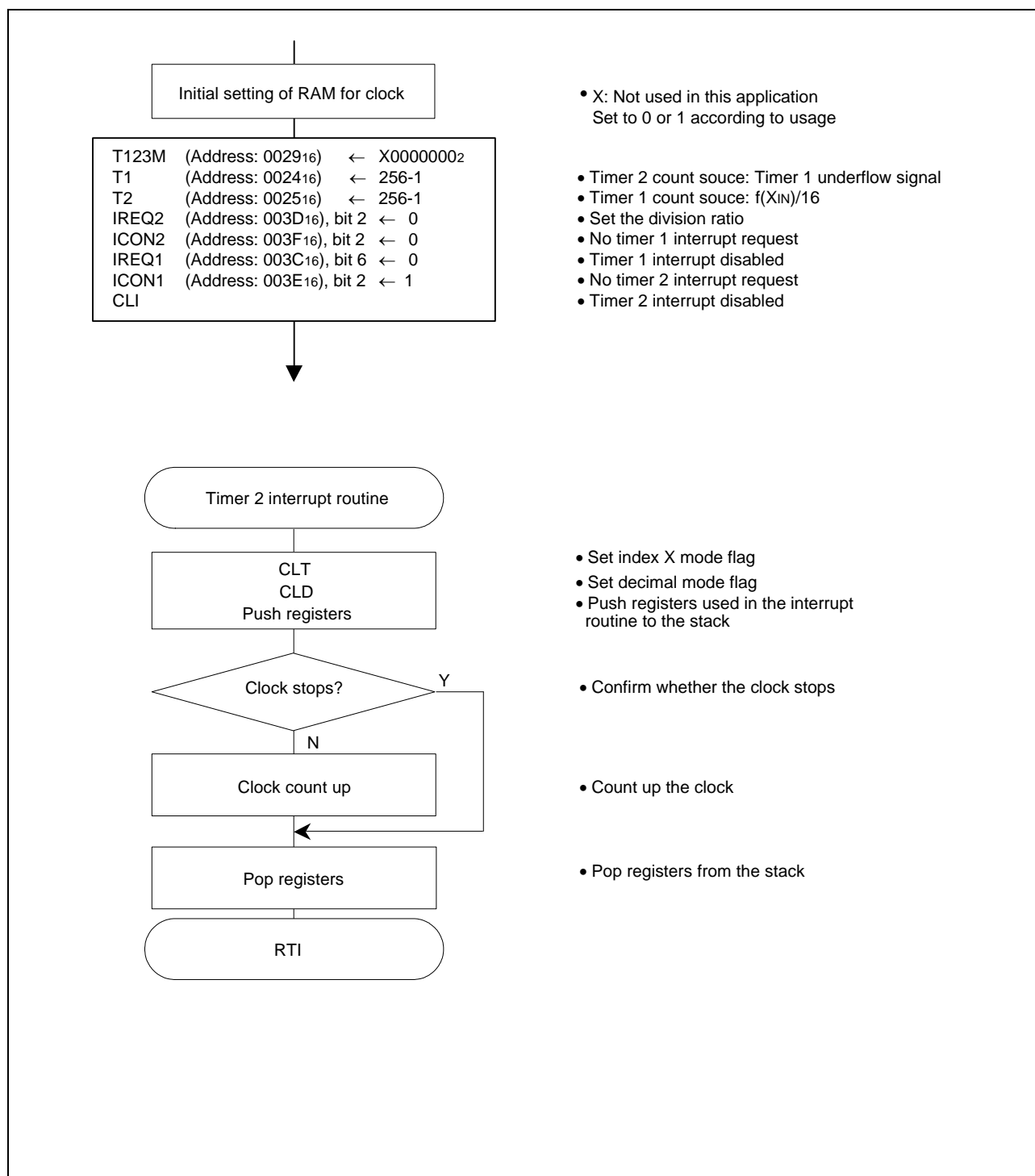


Figure 3.3 Control Procedure

4. Sample Programming Code

Download a sample program from the Renesas Technology website.
To download, click "Application Notes" in the left side menu on the page of the 3823 Group.

5. Reference Document

Datasheet
3823 Group Data sheet
Download the latest version from the Renesas Technology website.

Technical News/Technical Update
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| REVISION HISTORY | 3823 Group Timer 1 and Timer 2 Operation (250 ms Timer) |
|------------------|---|

| Rev. | Date | Description | |
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| | | Page | Summary |
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