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April 1st, 2010
Renesas Electronics Corporation

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7542 Group

I/O Port (Key-on Wake-up)

1.0 Abstract

The following article introduces and shows an application example of key-on wake up of I/O port (key input interrupt).

2.0 Introduction

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

Applicable MCU: 7542 Group

3.0 Contents

3.1 Application Example of Key-on Wake Up (1)

Outline: The built-in pull-up resistor is used.

Specifications: System is returned from the wait mode when the key-on wakeup interrupt occurs by input of the falling edge to port P0 (i=0 to 2).

Note: Only the falling edge is active for the key-on wakeup interrupt.

Figure 1 shows an example of application circuit, and Figure 2 shows an example of control procedure.

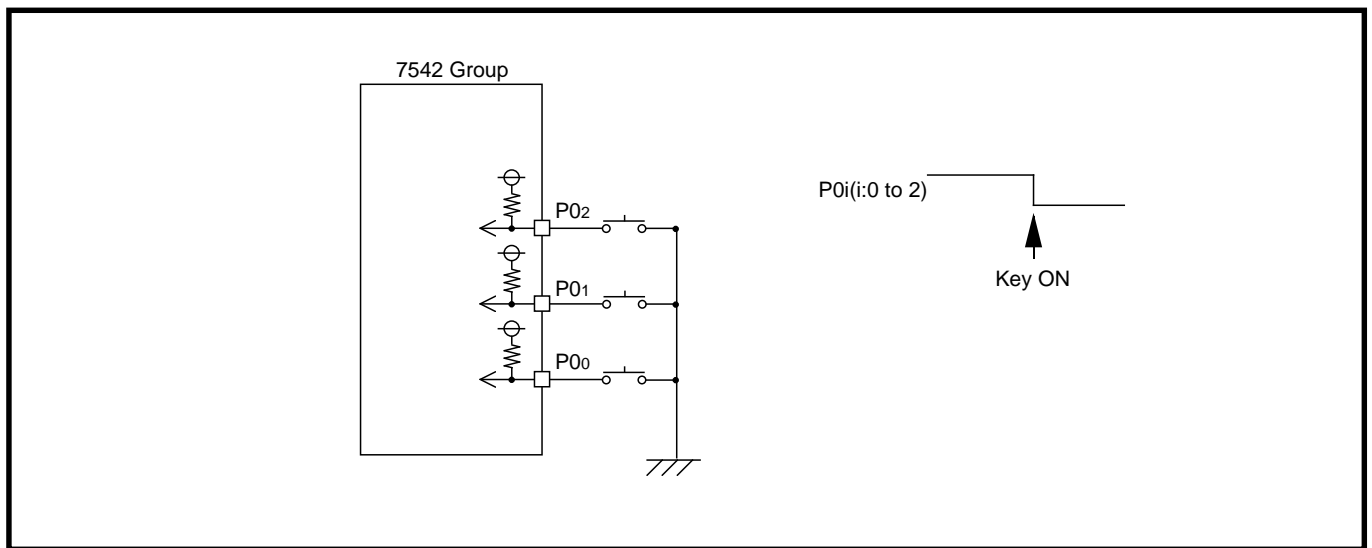


Figure 1 Example of application circuit

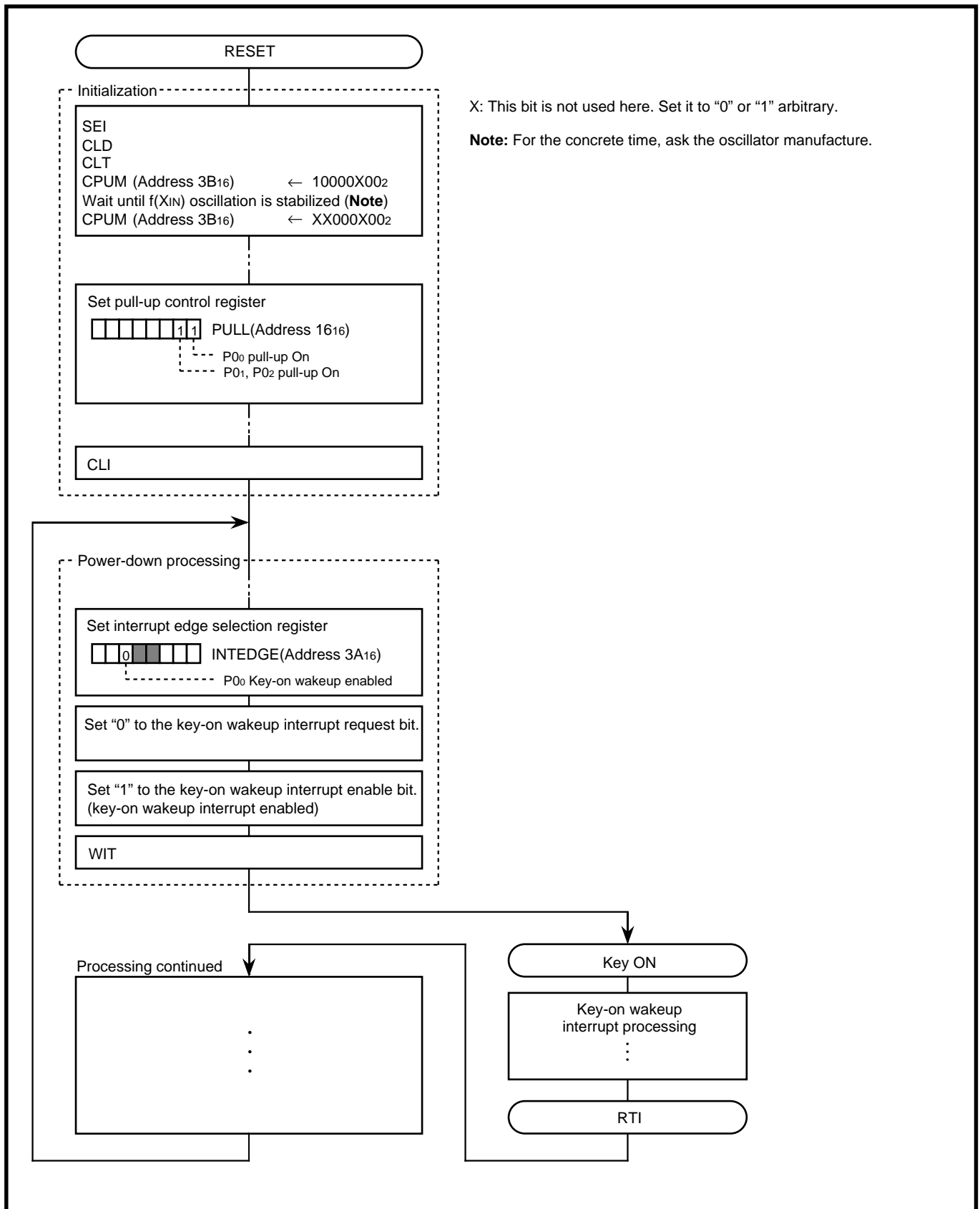


Figure 2 Example of control procedure (1)

3.2 Application Example of Key-on Wake Up (2)

Outline: The key-on wakeup interrupt is used as the normal external interrupt.

Specifications: The key-on wakeup interrupt occurs by input of the falling edge to port P0i (i=0 to 7).
If necessary, the built-in pull-up resistor is used.

Note: Only the falling edge is active for the key-on wakeup interrupt.

Figure 3 shows an example of control procedure.

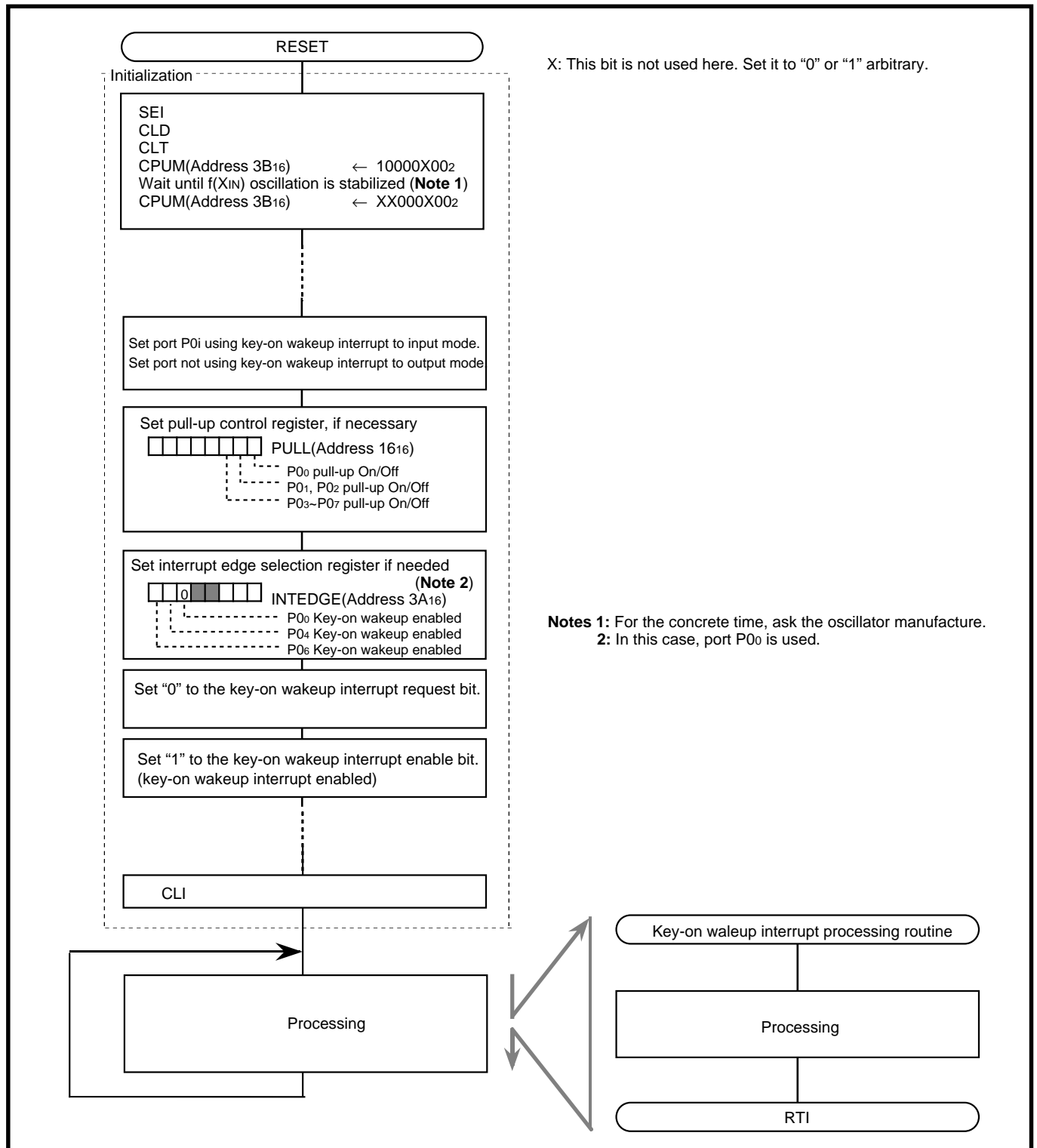


Figure 3 Example of control procedure (2)

4.0 Reference

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