To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

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

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RENESAS TECHNICAL UPDATE

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RenesasTechnology Corp.

Product Category	MPU&MCU		Document No.	TN-16C-121A/EA	Rev.	1.00
Title	M16C/60 Series Precautions for changing SI/O3,4 SI/O port select bit		Information Category	Usage Limitation		
Applicable Product	M16C/62 Group(inc./62T), M16C/62A Group M16C/62M Group, M16C/62N Group (inc. M3062GF8N), M16C /62P Group (inc. /62PT), M16C/6H Group, M16C/6K Group, M16C/6N Group, M16C/6S Group, M16C/28 Group, M16C/29 Group	Lot No. ---	Reference Document			

1. Precautions

Under the following conditions, the SOUTi (i=3,4) may be driven for about 10ns before going into a high-impedance state.

   a. when the SMi2 bit in the SiC(i=3,4) register = "0" (SOUTi output),

   b. SMi6 bit = "1" (internal clock),

   c. SMi3 bit is changed from "0" (I/O port) to "1" (SOUTi output, CLK function).

Figure 1 shows an example of the SOUTi state when SOUTi = input port (high-impedance), SMi2 bit = "0", SMi6 bit= "1", SMi7 bit = "1" ("H" output) and SMi3 bit is changed from "0" to "1".
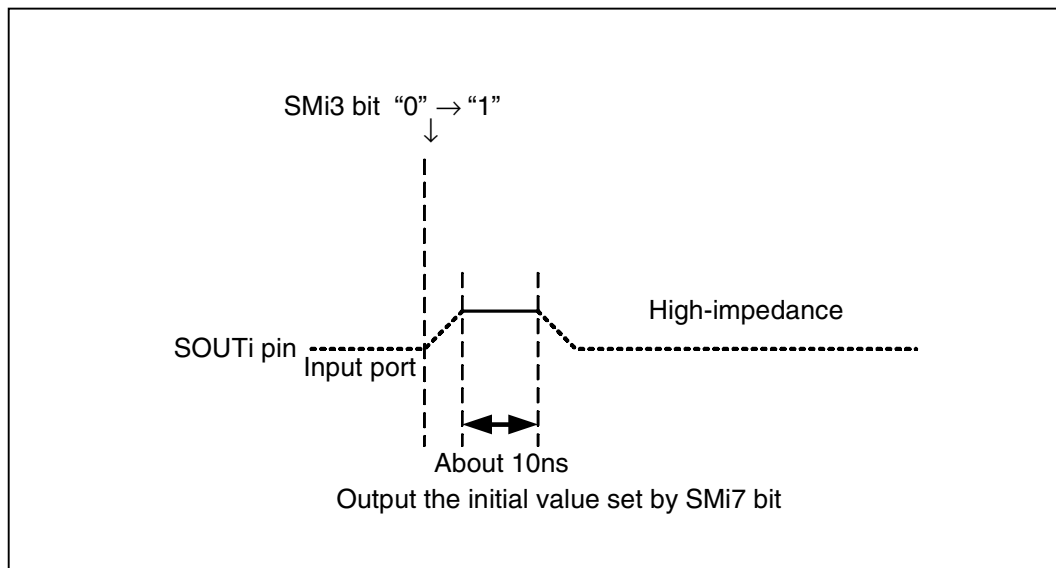

Figure 1. Example of the SOUTi state when SMi3 bit is changed from "0" to "1"

2. Countermeasures

If having this 10ns driven SOUTi output poses a problem when SMi3 bit is changed from "0" to "1", set SMi7 bit to the desired initial value of the SOUTi output level prior to changing the SMi3 bit. As a note, SMi7 bit defaults to "0" after reset, i.e. low is output.

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