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

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GRADE A

RENESAS TECHNICAL NEWS

No.M16C-98-0308

M32C/81, M32C/82 and M32C/83 groups

Precaution on the DMAII Bit in the RLVL Register

Classification	Concerned Products
√ Corrections and supplementary explanation of document	M32C/81 group
Notes	M32C/82 group
Knowhow	M32C/83 group
Others	

1. Precautionary Note

If a hardware reset occurs while the INT0IC register (address $09E_{16}$) or the RLVL register (address $09F_{16}$)*1 is being read, the DMAII bit in the RLVL register may be set to “1” (interrupt priority level 7 used for the DMAII transfer) after reset.

Notes:

*1. These includes reading the INT0IC register or the RLVL register with read-modify-write instructions such as bit handling instructions (i.e. BEST, BCLR, etc.) or logic operation instructions (i.e. AND, OR, etc.).

2. Countermeasure

To solve this issue, set the interrupt control register after setting the DMAII bit to “0” (interrupt priority level 7 used for an interrupt).

However, no action for the resolution is required if any of the followings occurred:

- the DMAII bit was set to “1” (interrupt priority level 7 used for the DMAII transfer)
- the ILVL2 to ILVL0 bits in the interrupt control register were set to a value other than “111” (interrupt priority level 7)
- neither the RLVL register nor the INT0IC register was read
  (Use the workaround if both the RLVL and INT0IC registers were read or if either the RLVL or the INT0IC register was read.)