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

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RENESAS TECHNICAL UPDATE

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Product Category	MPU&MCU			Document No.	TN-SH7-A688A/E	Rev.	1.00
Title	Notice on Use of SH7780 DMAC Flag Bit			Information Category	Technical Notification		
Applicable Product	SH7780 Group	Lot No.		Reference Document	SH7780 Hardware Manual Rev.1.00 Dec.13.2005 (REJ09B0158-0100)		
		All lots					

The HE, TE, AE and NMIF flags of the SH7780 DMAC have the following note.

[Summary]

As for the half end flag and transfer end flag in channel control register (CHCRm.HE and CHCRn.TE, m=0 to 3, 6 to 9, n=0 to 11) and the address error flag and NMI flag in DMA operation register (DMAOR0/1.AE and DMAOR01.NMIF) in the SH7780 DMAC, when reading these flags while they are just setting to 1, the read out value of the corresponding flag is 0, but the internal state of this operation may become same as read out 1. If writing 0 to the corresponding flag after this case, it is equivalent to write 0 after reading the corresponding flag is 1, as a result, the corresponding flag is cleared to 0 unintentionally.

[Workaround]

When using corresponding flag, not to clear the flag unintentionally, it is necessary to read and write by the following procedure. When writing register that has the corresponding flags, write 1 to the flag bit except clearing the flag explicitly. Clearing the corresponding flag explicitly, write 0 to the flag bit after reading out 1. Writing 1 to the corresponding bit does not affect the value of the flag.

Note that, when not using corresponding flag, it is no problem to write always 0 (Clearing the corresponding flag explicitly, write 0 to the flag bit after reading out 1).

- End of Text -

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