

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>)

Send any inquiries to <http://www.renesas.com/inquiry>.

RENESAS TECHNICAL UPDATE

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Product Category	MPU&MCU		Document No.	TN-H8*-A301A/E	Rev.	1.0
Title	Usage Restriction on clearing the USB interrupt flag registers to 0		Information Category	Technical Notification		
Applicable Product	H8S/2215 Group, H8S/2218 Group, and H8S/2212 Group	Lot No.	Reference Document	H8S/2215 Group Hardware Manual (REJ09B0140-0500O Rev.5.00) H8S/2218, H8S/2212 Group Hardware Manual (REJ09B0074-0400O Rev.4.00)		
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Thank you for your consistent patronage of Renesas semiconductor products.

We would like to inform you of the following restrictions on the USB module in the H8S/2215 Group, H8S/2218 Group, and H8S/2212 Group.

1. Restriction

The bit-clear instruction cannot be used to clear a flag in some USB interrupt flag registers to 0. These registers have flags which are cleared to 0 by writing 0 and to which writing 1 is ignored. The concerning registers are USB interrupt flag registers 0 to 3 (UIFR0 to UIFR3) in the H8S/2215 Group and USB interrupt flag registers 0, 1, and 3 in the H8S/2218 Group and H8S/2212 Group.

A single bit-clear instruction actually executes reading the value of a register, modifying the read value, and writing the modified value. When clearing a flag with the bit-clear instruction, if a source which will set another flag is activated between reading and writing, the flag is unintentionally cleared to 0. Therefore, the bit-clear instruction cannot be used.

To clear these flags, write 0 to a flag which should be cleared and write 1 to other flags with the MOVE instruction. For example, to clear only bit 7, write H'7F and to clear bits 6 and 7, write H'3F.

2. Concerning Registers

USB interrupt flag registers 0 to 3 (UIFR0 to UIFR3) in the H8S/2215 Group

USB interrupt flag registers 0, 1, and 3 in the H8S/2218 Group and H8S/2212 Group