

To our customers,

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## Old Company Name in Catalogs and Other Documents

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On April 1<sup>st</sup>, 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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# HITACHI SEMICONDUCTOR TECHNICAL UPDATE

Classification of Production	Development environment		No	TN-EML-108A/E	Rev.	1
THEME	Notes on Usage of Software Breaks		Classification of Information	1. Spec change 2. Supplement of Documents ③ Limitation of Use		4. Change of Mask 5. Change of Production Line
PRODUCT NAME	E10A/E8000/E8000S emulators corresponding to the products that employs the SH7750/SH7750S/SH7750R/SH7751/SH7751R/SH-4 core	Lot No.	Reference Documents	SH7750 series hardware manual Rev 6.0 (ADE-602-124E)		Effective Date
		All lots		Hitachi Semiconductor Technical Update No.TN-SH7-456A/E, The notes on use of TRAPA instruction/SLEEP instruction/Undefined instruction (H'FFFD)		Permanent

## 1. Summary

- (1) Incorrect data may be written to the cache memory when a software break condition is satisfied.
- (2) The ITLB hit judgment may be incorrect when a software break condition is satisfied, and an ITLB multi-hit exception may be generated after re-registration.
- (3) Incorrect data may be written to the FPU registers or the MACH and MACL registers when a software break condition is satisfied.

## 2. Conditions

Same as those listed in the Hitachi Semiconductor Technical Update No.TN-SH7-456A/E, The notes on use of TRAPA instruction/SLEEP instruction/Undefined instruction (H'FFFD). Read this document by replacing the description 'TRAPA instruction is executed' with 'a software break condition is satisfied'.

## 3. Workaround

Do not set software breakpoints at the addresses that may cause a problem. When you do not know if a problem may arise, use hardware breakpoints (on-chip break) instead.