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

HITACHI SEMICONDUCTOR TECHNICAL UPDATE

Classification of Production	Microprocessor			No	TN-SH7-474A/E	Rev	1
THEME	Usage notices of the SH-3, SH3-DSP SDRAM bank active mode	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	HD6417709S HD6417729R HD6417706	Lot No.				Effective Date	
		ALL	Reference Documents	SH7709S Hardware manual Rev.3.0 ADE-602-250B SH7729R Hardware manual Rev.3.0 ADE-602-229B SH7706 Hardware manual Rev.2.0 ADE-602-235A		Eternity	

SH7709S/SH7729R/SH7706 SDRAM bank active mode has following usage notes.

[Condition]

- Setting the RASD bit in Individual Memory Control Register(MCR)

    (Setting bank active mode)

and

- Executing longword access to any area (area 0 to 6) or word/longword access to

    any area (area 0 to 6)

[Phenomena]

On the above condition, if the external bus access request signal conflicts with the auto-refresh request signal or self-refresh request signal in LSI, SDRAM all bank precharge which should be executed in the first cycle in the refresh cycles may not be executed and be changed to selected bank precharge.

[Workaround]

- Please use SDRAM auto precharge mode.
- When the bus width of each area is 32 bit, this malfunction is not occurred.