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

RENESAS TECHNICAL UPDATE

Classification of Production	MPU&MCU			No	TN-SH7-474B/E	Rev	2
THEME	Usage notices of the SH-3 and 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.		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	term of validity
		ALL				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 long-word access to any 16 bit bus width area (area 0 to 6) or word/long-word access to any 8 bit bus width area (area 0 to 6)

[Phenomena]

On the above condition, if the external bus access request conflicts with the auto-refresh request ,self-refresh request or bus release request in the LSI, SDRAM all bank precharge may not be executed properly at the first cycle in the refresh or bus release cycles. In this case, selected bank precharge is executed instead of the all bank precharge.

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