HITACHI MICROCOMPUTER TECHNICAL UPDATE

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DATE	4 September 2000	No.		TN-SH7-250A/E
THEME	SH7750 About BSREQ# in Partial-sharing master mode			
CLASSIFICATION	☐ Spec change ☐ Limitation on Use ☐ Supplement of Documents			
PRODUCTNAME	HD6417750, HD6417750S			Lot No.etc. All
REFERENCE DOCUMENTS	SH7750 Series Hardware Manual	Re	eV.	Effective Date Eternity
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1. Contents In partial-sharing master mode, BSREQ# is asserted unnecessarily and issues a bus release request to the master mode device. It may lower the bus access performance of the master mode device. The condition that BSREQ# is asserted although there is no access request to area2 is as follows: (a) Setting to partial-sharing master mode (BCR_IPSHR = 1), (b) Setting to auto-refresh to area 3(MCR_RFSH=1, MCR_RMODE=0), (c) There is no access to external bus except refresh after access to shared area (area2), (d) Setting value except 0 to MCR_TRC (MCR_TRC[2:0] != 000). The period of BSREQ# asserted is 3 – 21 CKIO-cycles according to above (d) MCR_TRC setting. 2. Example When refresh cycle is 4096/64ms, refresh is executed once per 15us. The bus access performance of master device may be decreased 3-21 CKIO-cycles per 15us. 3. Workaround (1) Setting MCR_TRC[2:0] to 000. or (2) To execute dummy access to except for area2(area0, 1, 3-6) just after area2 access.				