Old Company Name in Catalogs and Other Documents

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HITACHI MICROCOMPUTER TECHNICAL UPDATE

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	Rev	/.	Effective Date	Eternity	
		1 -	4	From		

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 (BCR1.PSHR = 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.