

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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Renesas Electronics Corporation

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# HITACHI SEMICONDUCTOR TECHNICAL UPDATE

DATE	December 14, 1999	No.	TN-SH7-200A/E
THEME	DMAC DDT mode usage notice		
CLASSIFICATION	<input type="checkbox"/> Spec. change <span style="float: right;"><input type="checkbox"/> Limitation on Use</span> <input checked="" type="checkbox"/> Supplement of Documents		
PRODUCT NAME	HD6417750BP200, HD6417750F167, HD6417750VF128, HD6417750BP200M, HD6417750F167I		
REFERENCE DOCUMENTS	SH7750 Hardware Manual	Effective Date:	Eternity
		Lot#:	All

1. Following hardware manual notification of SH7750(DDT Module) is changed.

1-1 14.5.1 Operation

3.Handshake protocol using the data bus(valid for channel 0 only)

This mode is only valid for channel 0.

After the initial settings have been made in the DMAC channel 0 control register,the DDT module asserts a data transfer request for the DMAC by setting the DTR format ID=00 ,MD=00 and SZ≠101,110,and driving the DTR format.

1-2 14.5.2 Pins in DDT Mode

Data Transfer Request Format

Bits 63 to 61:Transmit Size(SZ2-SZ0)

- 101:Setting prohibited

Additional note:

6. When transferring the DTR format, it must be set to DTR.ID=00, DTR.MD=00, DTR and DTR.SZ≠101,110. Operation is not guranteed, if the DTR format data setting are DTR.ID=00,DTR.MD=00,DTR≠101,110.

1-3 14.5.4 Notes on Use of DDT Module

3.Handshake protocol using the data bus(valid for channel 0 only)

- a. The handshake protocol using the data bus applies only to channel 0

(The DTR format must be set to DTR.ID=00,DTR.MD=00,DTR.SZ≠101,110.

Operation is not guaranteed,if the DTR format data setting are DTR.ID=00,DTR.MD=00,DTR.SZ≠101,110.)

- b. If a request is asserted for a channel other than channel 0 during execution with the handshake protocol using the data bus,and setting of DTR.ID=00,DTR.MD=00 and DTR.SZ≠101,110 are sent by an external device with the handshake protocol using the data bus after DMA transfer has been executed on that channel,a request to channel 0 is asserted.

7.The DDT module uses the following procedure to process ID,MD,and SZ:

When ID=00

- a. MD=00,SZ≠101,110:Handshake with data bus