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	MPU			No	TN-SH7-446A/E	Rev	1

THEME	SH7615/SH7616 limitation of set to Transmit FIFO Threshold Register.	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	HD6417615 series
	HD6417616 series
		Lot No.
		
		ALL
			Reference Documents	SH7615 Hardware Manual
				  ADE-602-198 Rev.1.0
				SH7616 Hardware Manual
				  ADE-602-243 Rev.1.0
					Effective Date
					
					Permanent

There is the following restriction matter about the setting value of TFTR (Transmit FIFO Threshold Register) of SH7615/SH7616.

I ask you to use it well after considering this content.

[Restriction matter]

When transfer rate is 10Mbps (TX-CLK clock input frequency = 2.5MHz) and the value of Transmit FIFO Threshold bit 10 to 0 (TFT10 to TFT0) of TFTR is set as either of H'001 (4 bytes) to H'00C (48 bytes), transmitting operation of Ethernet Controller (EtherC) may not be performed.

Therefore, when transfer rate is 10Mbps, please use it with the value of H'000 (Store-and-forward mode) or more than H'00D (52 bytes). (Refer to the following figure.)

When transfer rate is 100Mbps (TX-CLK clock input frequency = 25MHz), there is none of this restriction.

SH7615

TFT	Description
H'000	Store-and-forward mode (Initial value)
H'001	4 bytes
H'002	8 bytes
H'003	12 bytes
H'004	16 bytes
H'005	20 bytes
H'006	24 bytes
H'007	28 bytes
H'008	32 bytes
H'009	36 bytes
H'00A	40 bytes
H'00B	44 bytes
H'00C	48 bytes
H'00D	52 bytes
H'00E	56 bytes
H'00F	60 bytes
—	—
—	—
H'01F	124 bytes
H'020	128 bytes
—	—
—	—
H'03F	252 bytes
H'040	256 bytes
—	—
—	—
H'07F	508 bytes
H'080	512 bytes

Error range: H'001 to H'00C

SH7616

TFT	Description
H'000	Store-and-forward mode (Initial value)
H'001	4 bytes
H'002	8 bytes
H'003	12 bytes
H'004	16 bytes
H'005	20 bytes
H'006	24 bytes
H'007	28 bytes
H'008	32 bytes
H'009	36 bytes
H'00A	40 bytes
H'00B	44 bytes
H'00C	48 bytes
H'00D	52 bytes
H'00E	56 bytes
H'00F	60 bytes
—	—
—	—
H'01F	124 bytes
H'020	128 bytes
—	—
—	—
H'03F	252 bytes
H'040	256 bytes
—	—
—	—
H'07F	508 bytes
H'080	512 bytes
—	—
—	—
H'0FF	1023 bytes
H'100	1024 bytes
—	—
—	—
H'1FF	2047 bytes
H'200	2048 bytes

Error range: H'001 to H'00C