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.

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Renesas Electronics Corporation

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HITACHI MICROCOMPUTER TECHNICAL UPDATE

DATE	23 August 2000	No.	TN-SH7-247A/E
THEME	SH-4 Handling of Reserved Pin and CA pin		
CLASSIFICATION	☐ Spec change ☐ Limitation on Use ■ Supplement of Documents		
PRODUCTNAME	HD6417750, HD6417750S, HD6417751	Lot No.etc.	All
REFERENCE DOCUMENTS	SH7750 series Hardware Manual SH7751 Hardware Manual	Rev. 1 - 4	EffectiveDate Eternity From

1. Contents

Reserved pin of the SH7750 must be pulled up to 3.3V as described in Pin functions table in Section 22. Reserved pin should be pulled up by the individual pull up resistance to reduce the effect from other signals.

When the CA pin of the SH7750S or SH7751 is pulled up, the individual pull up resistance should be used to reduce the effect from other signals.

Table. Pin name and Pin number of Reserved pin and CA pin

Product name	Package	Pin name	Pin number
HD6417750	BGA	Reserved	D17
HD6417750	QFP	Reserved	161
HD6417750S	BGA	CA	D17
HD6417750S	QFP	CA	161
HD6417751	QFP	CA	197

HITACHI MICROCOMPUTER TECHNICAL UPDATE

DATE	4 September 2000	No.	TN-SH7-249A/E
THEME	SH7751 AC characteristics of CKIO		
CLASSIFICATION	☐ Spec change ☐ Limitation on Use ■ Supplement of Documents		
PRODUCTNAME	HD6417751	Lot No.etc.	All
REFERENCE DOCUMENTS	SH7751 Hardware Manual	Rev. 1	EffectiveDate Eternity From

1. Contents

Two new AC parameters are added to SH7751 AC characteristics.

One is CKIO clock output high-level pulse width 2 (tCKOH2) and the other is CKIO clock output low-level pulse width 2 (tCKOL2) .

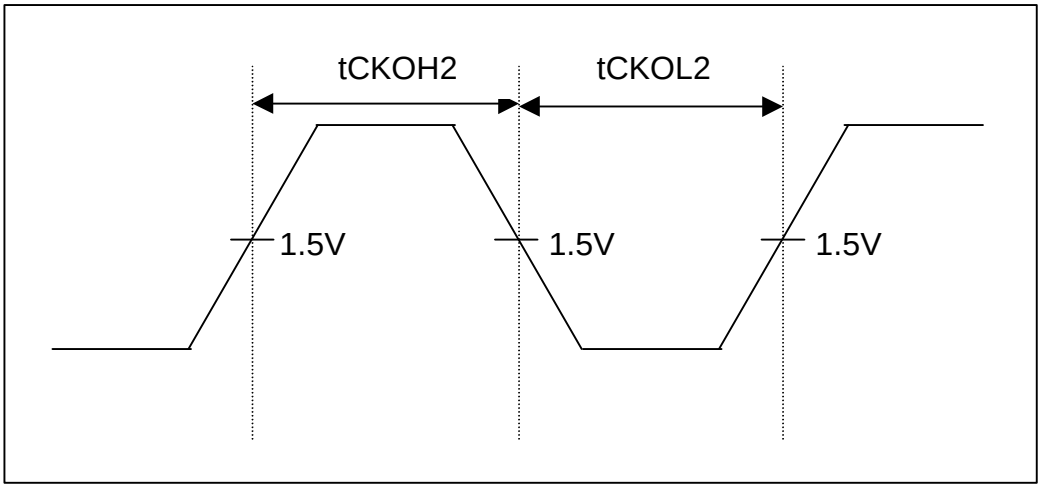

Figure 1. CKIO output Timing

Table 1. Clock Signal Timing

Product Name	Package	tCKOL2		tCKOH2		Unit
		Min.	Max.	Min.	Max.	
HD6417751	QFP	3	-	3	-	ns

[Note]. HD6417751F167 : Vddq = 3.0 to 3.6V, Vdd=1.8V typ, Ta=-20 to 75ºC , CL=30pF
HD6417751F167I : Vddq = 3.0 to 3.6V, Vdd=1.8V typ, Ta=-40 to 85ºC , CL=30pF
HD6417751VF133 : Vddq = 3.0 to 3.6V, Vdd=1.5V typ, Ta=-20 to 75ºC , CL=30pF