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

RENESAS

HITACHI SEMICONDUCTOR TECHNICAL UPDATE

Classification of Production	Microcomputer			No	TN-SH7-470A/E	Rev	1
THEME	SH7055F Hardware Manual ATU CH6, CH7 PWM output function		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	HD64F7055R HD64E7055	Lot No.	Reference Documents	SH-2E SH7055F-ZTAT Hardware Manual ADE-602-155C Rev.4.0	Effective Date
		All lots			Eternal

Regarding ATU chapter of SH7055F Hardware Manual, description of ch6 and ch7 PWM output will be revised as following.

When H'0000 is set to DTR to set the duty 0% and when DTR and BFR are reset to H'0000 (by CPU) during pin output is H, pin output will be fixed to H and duty will be 100%. When duty 0% is desired, set BFR to H'0000 and have H'0000 forwarded to DTR when TCNT and CYLR matches.

P.336

11.2.22 Cycle Register (CYLR)

(1) Cycle Register (CYLR6A - D, CYLR7A - D)

Before Correction:

At the same time, the buffer register (BFR) value is transferred to the duty register (DTR).

After Correction:

At the same time, the buffer register (BFR) value is transferred to the duty register (DTR).

Output pin (TO6A - D,TO7A- D) of corresponding channel will be 0 when H'0000 of BFR is 0 output and otherwise will be 1.

P356

11.3 Operation

11.3.1Overview

(5)Channel6,7

Before Correction:

Do not set a value in DTR that will result in the condition DTR>CYLR

After Correction:

Do not set a value in DTR that will result in the condition DTR>CYLR When H'0000 is set to DTR, do not have DTR directly read H'0000. Set BFR to H'0000 and set H'0000 by forwarding from BFR to DTR. If H'0000 is directly set to DTR, duty may not be 0%.

P.367

11.3 Operation

11.3.9 PWM Timer Function

Before Correction::

If the DTR value is H'0000, the output does not change (0%duty).

After Correction:

If the DTR value is H'0000, the output does not change (0%duty). However, when H'0000 is set to DTR, do not directly write H'0000 to DTR. Set H'0000 to BFR and forward it from BFR to DTR. If H'0000 is directly set to DTR, duty may not be 0%.