

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>

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Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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HITACHI SEMICONDUCTOR TECHNICAL UPDATE

Classification of Production	Microprocessor		No	TN-SH7-428A/E	Rev	1
THEME	SH7727B product code change due to bug fixing		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	HD6417727B	Lot No.	Reference Documents	SH7727 Hardware Manual Rev.3.0 ADE-602-209B	Effective Date	
		All			Eternity	

1. Improvement detail

As for HD6417727B, the following points are improved from HD6417727.

(1) Phenomenon of SIOF module

(HITACHI SEMICONDUCTOR TECHNICAL UPDATE[TN-SH7-405A/E])

- ① [HD6417727] During transmit operation with DMA transfer, DMA transfer request signal is stopped to output unexpectedly from SIOF and underflow error occurs.

[HD6417727B] Transmit operation with DMA transfer works correctly.

- ② [HD6417727] During receive operation with DMA internal peripheral module request mode, some data may be lost, due to overflow error caused on the manner that only one data transfer request exceeding watermark of receive FIFO.

[HD6417727B] It becomes possible to submit transfer request to all of the data which exceeded watermark.

- ③ [HD6417727] During receive operation, some data may be lost when the writing occurs in the reading from receive FIFO.

[HD6417727B] Receive data lost does not occur.

(2) Phenomenon of GPIO module

[HD6417727] Port G is controlled by bit 3,0 (PG1MD1, PG0MD0) of Port Control Register(PGCR).

[HD6417727B] It is possible to control by bit1,0 (PG0MD1, PG0MD0) correctly.

2. Model name change

"B" is added to the end (but, pre-position of "V") of the type code.

Previous code	Updated code	Comment
HD6417727F100 HD6417727F160	HD6417727F100B HD6417727F160B	HQFP-3232-240 (Non Pb free solder)
HD6417727F100V HD6417727F160V	HD6417727F100BV HD6417727F160BV	HQFP-3232-240 (Pb free solder)
HD6417727BP100 HD6417727BP160	HD6417727BP100B HD6417727BP160B	CSP-240 (Non Pb free ball)
HD6417727BP100V HD6417727BP160V	HD6417727BP100BV HD6417727BP160BV	CSP-240 (Pb free ball)

3.Mark example

3.1 HQPF-240 package

HD6417727B

Previous mark

6417727	
SH3-DSP	100
HITACHI	0124
BF80128	JAPAN

New mark

6417727	
SH3-DSP	100
HITACHI	B 0124
BF80128	JAPAN

“B” will be added

3.2 CSP-240 package

HD6417727B

Previous mark

6417727BP
100
BF80128
0124 JAPAN

New mark

6417727BP
100
B
BF80128
0124 JAPAN

“B” will be added