

To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

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HITACHI SEMICONDUCTOR TECHNICAL UPDATE

Classification of Production	Microprocessor		No	TN-SH7-425A/E	Rev	1
THEME	SH7727 usage notice on SIOF (2)	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	HD6417727 HD6417727B	Lot No.	Reference Documents	SH7727 Hardware Manual Rev.3.0 ADE-602-209B	Effective Date	
		All			Eternity	

HD6417727 and HD6417727B's SIOF module has the following usage notice.

1. When using the Control Data Interface (Slot Position)

1-1. Phenomenon :

In the following transmit operation that transmit data is mixed with control data in a frame, transmit data and control data may be lost.

- (1) At using external clock source SIOMCLK input signal as master clock in the Master mode
- (2) At Slave mode

1-2. Work around :

Use the following conditions

- (1) Master mode
- (2) Master clock : internal clock (PCLK)

2. When using the transmitting in Slave

2-1. Phenomenon :

When transmit enable bit is set in the condition to have written data in transmit FIFO in advance, one or two pieces of the first data may be lost.

2-2. Work around :

Do not write data in transmit FIFO before transmit enable bit is set.

3. When using the sending and receiving of control data continuously in the control data interface (secondary FS position).

3-1. Phenomenon :

Before transmit control data is sent out , TCRDY bit may become "1".

Consequently , at writing the following control data in the control data register when TCRDY bit is "1" before sending out transmit control data , it overwrites to the control data before sending and it erases.

Also, at this time, control sequence collapse, SIOF mistakes primary FS and secondary FS, sending and receiving of data and control data become that it isn't possible to do normally as a result.

3-2. Work around :

Write in the control data register after sending out transmit control data.

Example :

With referring to RCRDY and write Transmit Control Data Register(SITCR) when RCRDY is "1".

After writing transmit control data , always read the receive control register (SIRCR) and clear RCRDY bit.