

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>)

Send any inquiries to <http://www.renesas.com/inquiry>.

RENESAS TECHNICAL UPDATE

Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Renesas Technology Corp.

Product Category	MPU & MCU		Document No.	TN-16C-A166A/E	Rev.	1.00
Title	R8C/Tiny Series Notes on I ² C bus Interface in Master Receive Mode		Information Category	Technical Notification		
Applicable Product	See below	Lot No.	Reference Document			
		--				

1. Notes

The following point should be noted to use the I²C bus interface in master receive mode: The applicable MCUs including the I²C bus interface are listed below.

In master receive mode, if the 8th clock falls while the RDRF bit is set to 1, SCL is fixed "L" until the ICDRR register is read. However, if the ICDRR register is read around the falling edge of the 8th clock, only the period between the 8th clock and the 9th clock of the next received data is fixed "L" for one clock. After that, even when the ICDRR register is not read, the SCL will be released from the fixed state and the 9th clock will be output, overwriting the received data.

2. Action

Either of the following actions should be performed:

- 1) In master receive mode while the RDRF bit is set to 1, read the ICDRR before the rising edge of the 8th clock.
- 2) In master receive mode, set the RCVD bit to 1 to perform 1-byte communications.

3. Applicable MCUs

R8C/16 Group, R8C/17 Group, R8C/1A Group, R8C/1B Group,
R8C/20 Group, R8C/21 Group, R8C/22 Group, R8C/23 Group,
R8C/24 Group, R8C/25 Group, R8C/26 Group, R8C/27 Group,
R8C/28 Group, R8C/29 Group, R8C/2A Group, R8C/2B Group,
R8C/2C Group, R8C/2D Group