

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>.

HITACHI MICROCOMPUTER TECHNICAL UPDATE

DATE	25 January 2001	No.	TN-SH7-272A/E
THEME	Bug of a serial data reception of the multiprocessor communication function at SCI		
CLASSIFICATION	<input type="checkbox"/> Spec change <input checked="" type="checkbox"/> Limitation on Use <input type="checkbox"/> Supplement of Documents		
PRODUCT NAME	HD6417750 ,HD6417750S ,HD6417751	Lot	Lot #All
REFERENCE DOCUMENTS	SH7750 series Hardware Manual	Rev.	Effective Date
	SH7751 Hardware Manual		Eternity

Notice

There is a restriction at using the multiprocessor communication function.
Please take care when using the multiprocessor communication function.

1. Bug

- (1) SCSSR1.RDRF flag is set to 1 in the multiprocessor serial data reception after received a frame of data for another station even if SCSCR1.MPIE bit equals 1(the multiprocessor interrupt enabled).
- (2) The value of SCSSR1.MPB bit is not correct.
- (3) The flags, FER and ORER, can be set to 1 even if SCSCR1.MPIE bit equals 1.

2. Workaround

Use the following procedure for a serial data reception of the multiprocessor communication function.

- (1) The procedure to distinguish the multiprocessor interrupt from the SCI interrupt

Please check the value of SCSCR1.MPIE bit in the interrupt handler, when a SCI interrupt request occurs on the multiprocessor serial data reception.

Case 1: SCSCR1.MPIE bit equals 1

A received data should be ignored.

Although the received data is for another station's (MPB=0), SCSSR1.RDRF flag is set to 1.

Please clear SCSSR1.RDRF flag to 0 in the RXI interrupt handler.

Case 2: SCSCR1.MPIE bit equals 0

This case is the multiprocessor interrupt request or the RXI interrupt for a reception of this station's data.

- (2) The procedure to distinguish the received data is "ID" or "data".

Don't use SCSSR1.MPB bit for the processing of software.

In the processing of software to distinguish a receive data between this station's ID (MPB=1) and a valid data (MPB=0), please create a user's defined flag on a memory which indicates information about starting a serial data reception.

A sample of a flowchart of a multiprocessor serial data reception is shown in the following.

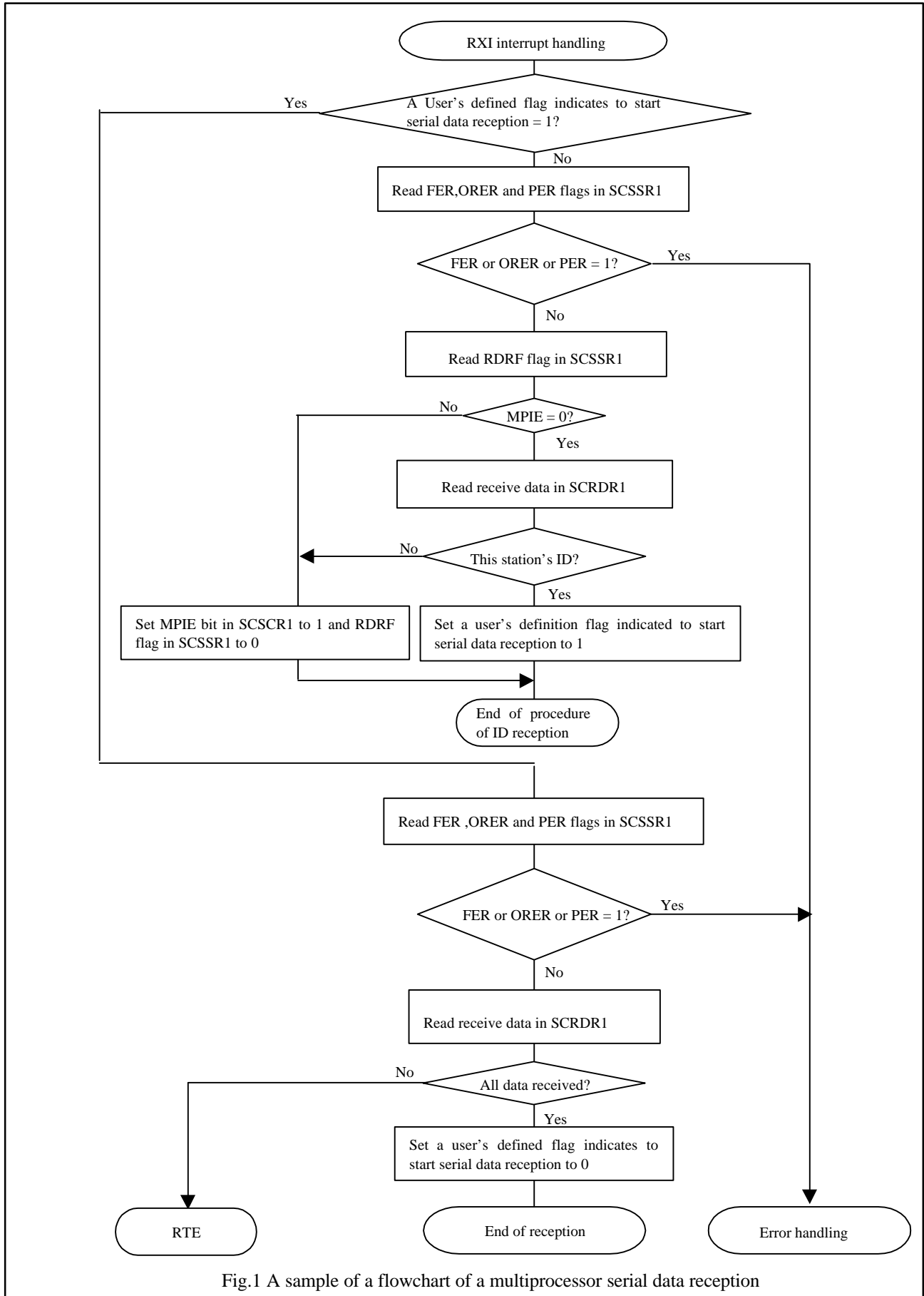


Fig.1 A sample of a flowchart of a multiprocessor serial data reception