

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>)

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

RENESAS TECHNICAL UPDATE

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Product Category	MPU&MCU		Document No.	TN-SH7-A622A/E	Rev.	1.00
Title	Underflow will occur when SSI is disabled during slave transmission		Information Category	Technical notification		
Applicable Product	R5S77640P300BG R5S77640D300BG R5S77640N300BG R5S77641P300BG R5S77641D300BG R5S77641N300BG	Lot No.	Reference Document	SH7764 Hardware Manual (REJ09B0360-0100)		
		All lots				

We would like to inform valued customers on a SSI underflow problem as described below.

- Note -

Problem

When SSI is disabled by clearing SSICR:EN bit during slave transmission using SSI_DMAC, underflow will occur in next slave transmission.

Workaround

To stop ongoing slave transmission using SSI_DMAC, disable DMA request first by clearing SSICR:DMEN bit and wait until transmission buffer gets empty (SSISR:DIRQ=1), then disable SSI by clearing SSICR:EN bit and wait until idle mode status flag becomes 1 (SSISR:IDST=1).

Hardware manual correction

In order to prevent this problem, figure 18.19 "Transmission Using SSI_DMAC0 and SSI_DMAC1" (Page 692) in the hardware manual is corrected. Please refer to next two pages.

Original programming flowchart

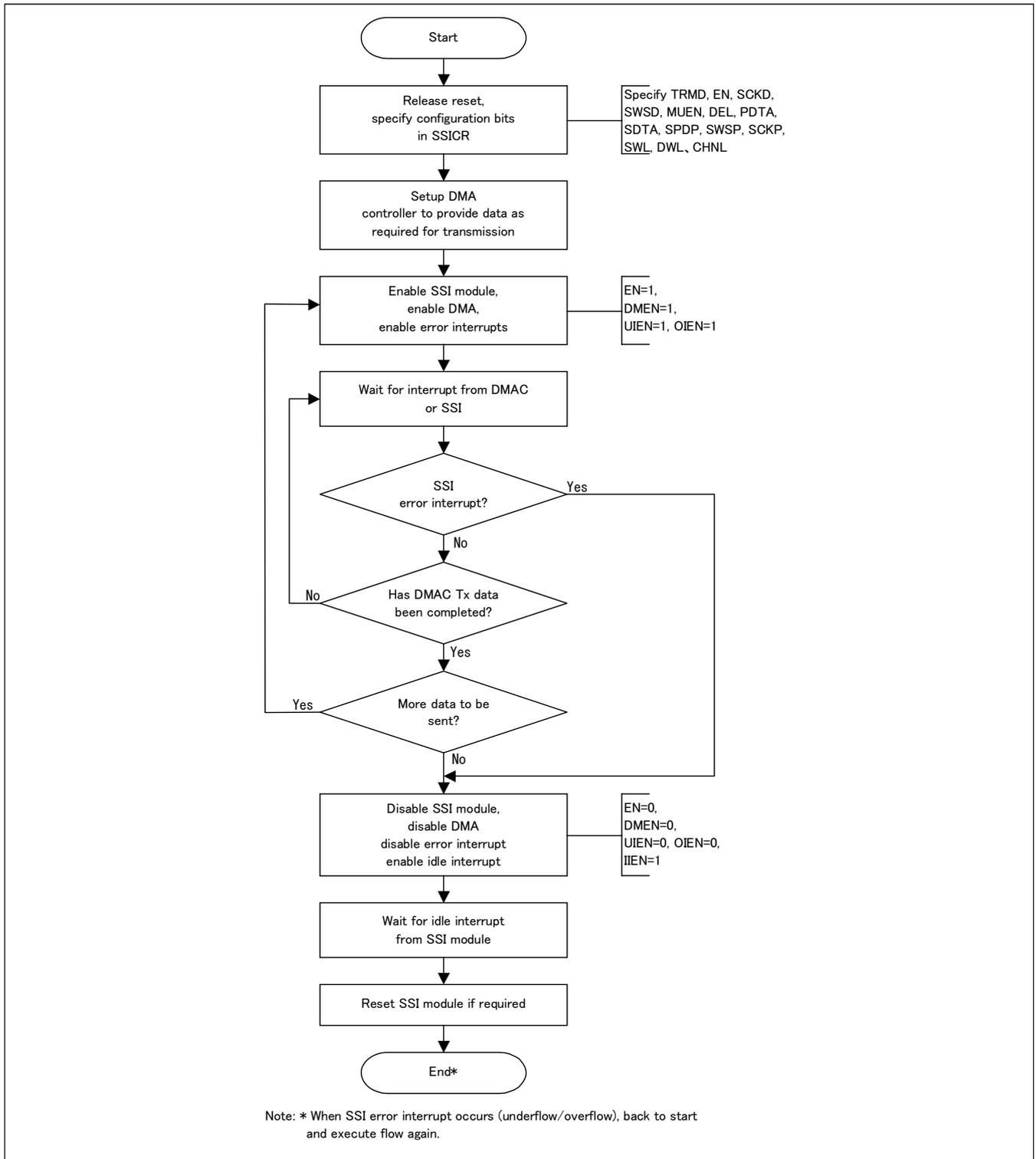


Figure 18.19 Transmission Using SSI_DMAC0 and SSI_DMAC1 (Original programming flowchart)

Corrected programming flowchart

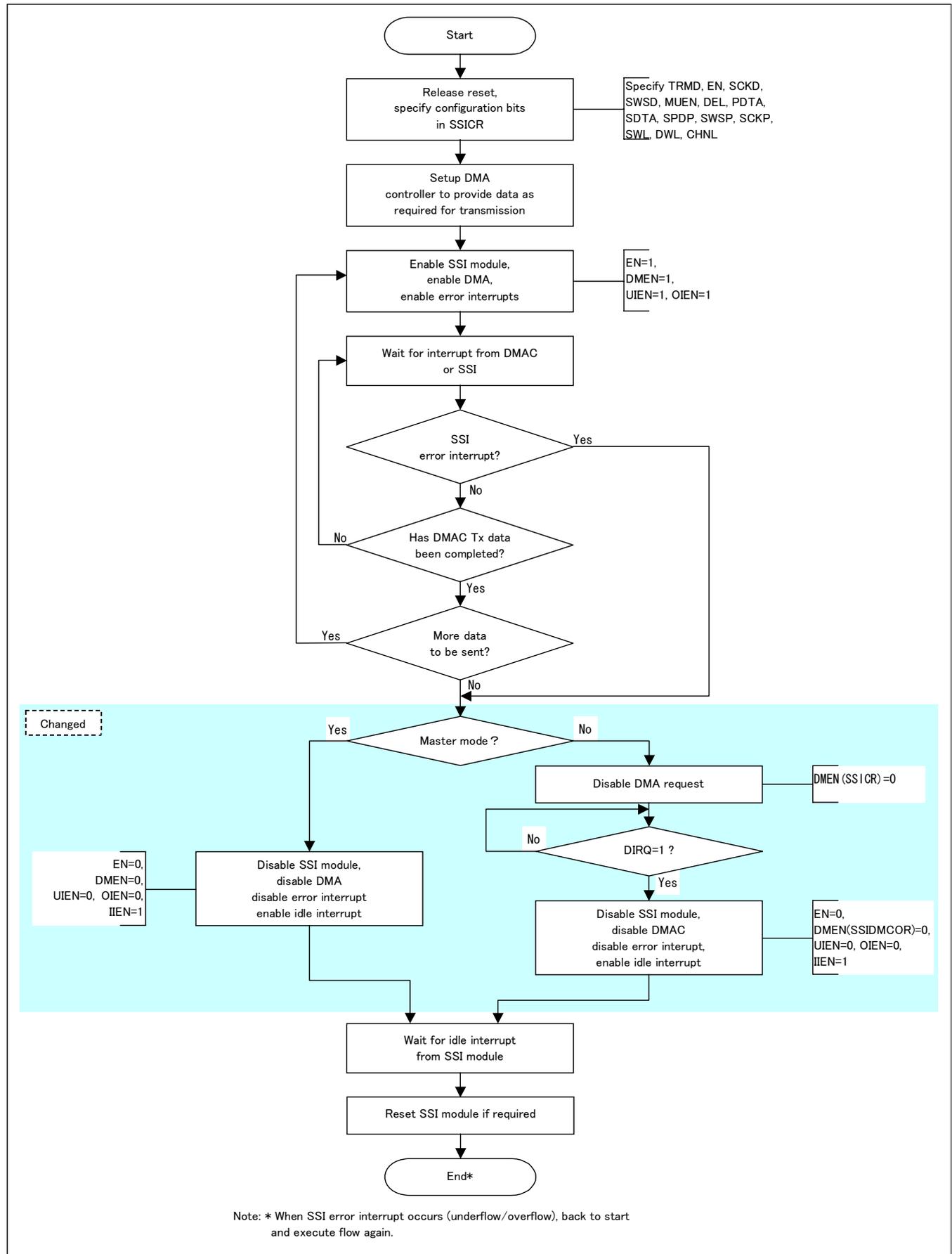


Figure 18.19 Transmission Using SSI_DMAC0 and SSI_DMAC1 (Corrected programming flowchart)