[Notes]

CS+ Code Generator for RX, e^2 studio Code Generator Plug-in, AP4 Coding Assistance Tool for RX

R20TS0733ES0100
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Outline

When using the products in the title, note the following points.

1. When using RSPI2 as resource in SPI operation (four-wire method) or in Clock synchronous operation (three-wire method)

1. When using RSPI2 as resource in SPI Operation (four-wire method) or in Clock synchronous operation (three-wire method)

1.1 Applicable Products

- CS+ Code Generator for RX V1.00.00 (CS+ for CC V1.11.00) and later versions
- Code Generator plug-in V1.00.00 (e^2 studio V5.2.0) and later versions
- AP4 for RX V1.10.00 and later versions

1.2 Applicable Devices

- RX family:
  RX651, RX65N Groups

1.3 Details

1.3.1 The generated code for enabling SPI2 idle interrupt (SPII2) is wrong

The generated code for enabling SPII2 interrupt should be “ICU.GENAL0.BIT.EN20 = 1U” in the “void R_RSPI2_Create(void)” initialization API, but the actual generated code is “ICU.GENAL0.BIT.EN20 = 0U” instead, thus SPII2 interrupt will not be triggered and r_rspi2_callback_transmitend function will not be executed after data transfer completion even it is configured to be used on the settings GUI tab.

The affected function setting and operation mode are shown in **Figure 1.**

- Affected function setting: SPI Operation (four-wire method) or Clock synchronous operation (three-wire method).
- Affected Operation mode: All Master mode with transmit function.

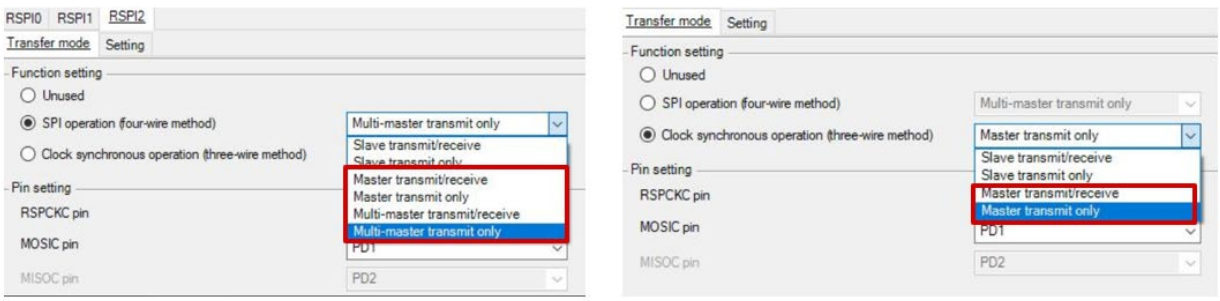

Figure 1: Affected function setting and operation mode

1.3.2 The generated code for enabling SPI2 error interrupt (SPEI2) is wrong

The generated code for enabling SPEI2 interrupt should be “ICU.GENAL0.BIT.EN21 = 1U” in the “void R_RSPI2_Create(void)” initialization API, but the actual generated code is “ICU.GENAL0.BIT.EN21 = 0U” instead, thus SPEI2 interrupt will not be triggered and r_rspi2_callback_error function will not be executed when error occurs during data transmission even they are configured to be used on the settings GUI tab.

The affected function setting and operation mode are shown in **Figure 2**.

- Affected function setting: SPI Operation (four-wire method) or in Clock synchronous operation (three-wire method).
- Affected Operation Mode: All operation mode except Master transmit mode only.

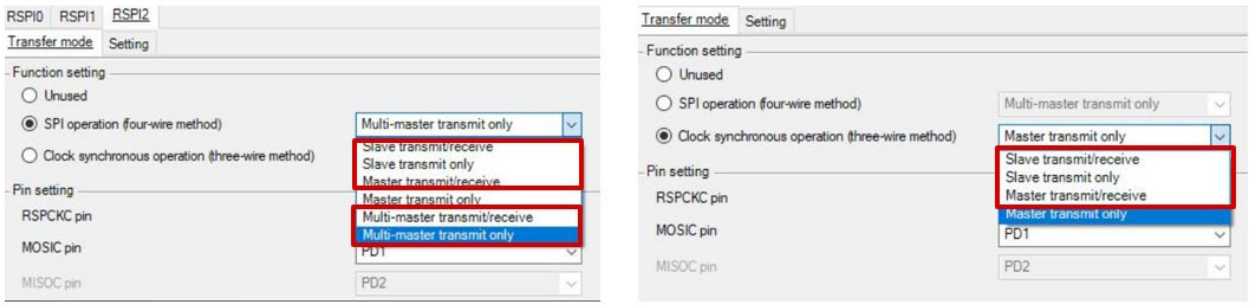

Figure 2: Affected function setting and operation mode

1.4 Condition

The problem occurs when using RSPI2 as resource in SPI operation (four-wire method) or in Clock synchronous operation (three-wire method).

1.5 Workaround

The development of CS+ Code Generator for RX is completed. Kindly switch to the new tools Smart Configurator for your development.

- Smart Configurator: https://www.renesas.com/software-tool/smart-configurator
- RX Smart Configurator e2 studio user guide: https://www.renesas.com/document/mat/rx-smart-configurator-users-guide-e-studio
- RX Smart Configurator CS+ user guide: https://www.renesas.com/document/mat/rx-smart-configurator-users-guide-cs
- RX Smart Configurator IAR user guide: https://www.renesas.com/document/mat/rx-smart-configurator-users-guide-iarew

1.6 Schedule for Fixing the Problem

There is no schedule for fixing this problem.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Aug.01.21	-	First edition issued

Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
Koto-ku, Tokyo 135-0061, Japan
www.renesas.com

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Contact information

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