

Note on Using Renesas Peripheral Driver Libraries and Peripheral Driver Generator V2 --With Serial Peripheral Interface (RSPI)--

When using Renesas Peripheral Driver Libraries and Peripheral Driver Generator V2, take note of the following problem:

- With data transmission through the serial peripheral interface (RSPI)
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1. Products and Versions Concerned

- RX62N Group, RX621 Group Renesas Peripheral Driver Library V.1.02
- RX62T Group Renesas Peripheral Driver Library V.1.01
- Peripheral Driver Generator V.2.01 and later

2. Description

In codes created by using any of the products concerned, if data transmission is performed through RSPI by using the RSPI transmit buffer empty interrupt, a redundant data may be transmitted by 1 byte.

3. Conditions

3.1 In Renesas Peripheral Driver Libraries

This problem arises if a Callback function is passed as an argument to the R_SPI_Transfer function in Renesas Peripheral Driver Libraries

3.2 In Peripheral Driver Generator

This problem arises if the following conditions are both satisfied:

- (1) Any MCU of the RX62N or RX62T group is used.
- (2) In the settings of RSPI, "Notify the transfer completion and

the error detection by function call" is selected from the transfer method list.

4. Workaround

While the transmit buffer empty interrupt is handled, disable this interrupt before writing send data into the RSPI data register (SPDR). We have taken the above measure in the problem-fixed Interrupt_SPI.c file, which we provide for you. How to obtain this file and substitute it for the existing file are as follows:

(1) Depending on MCU groups, download either of the following zip. files from the Web pages shown below:

File for 62N group (3 KB) at:

<http://tool-support.renesas.com/autoupdate/support/eng/120601/rx62n.zip>

File for 62T group (3 KB) at:

<http://tool-support.renesas.com/autoupdate/support/eng/120601/rx62t.zip>

(2) Decompress the downloaded zip. file to obtain the problem-fixed Interrupt_SPI.c file.

(3) Replace the existing Interrupt_SPI.c file with the file obtained in (2) as follows:

- In Renesas Peripheral Driver Libraries:

Replace the file included in the libraries with the problem-fixed one.

- In Peripheral Driver Generator:

Depending on MCU groups, replace either of the following files with the problem-fixed one:

- source¥RX¥RX62N¥i_src¥Interrupt_SPI.c: for RX62N group

- source¥RX¥RX62T¥i_src¥Interrupt_SPI.c: for RX62T group

5. Schedule of Fixing Problem

We are going to fix this problem at a later revision of the product.

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