

Note on Using Renesas Peripheral Driver Library for RX210 Groups and Peripheral Driver Generator -- With Using Multi-Function Timer Pulse Unit 2 (MTU2), the 8-bit Timer (TMR), and the Serial Communications Interface (SCI) of Products in 145-pin and 144-pin Packages --

When using Renesas Peripheral Driver Library for the RX210 groups and Peripheral Driver Generator, take note of the following problem:

- With using multi-function timer pulse unit 2 (MTU2), the 8-bit timer (TMR), and the serial communications interface (SCI) of products in 145-pin and 144-pin packages

1. Products and Versions Concerned

- RX210 Group Renesas Peripheral Driver Library V.2.00
- Peripheral Driver Generator V.2.08

2. Description

The multi-function pin controller (MPC) of products in 145-pin and 144-pin packages does not support the switching of some pins to certain pin functions. For more information, refer to the table below.

For example, the MTIOC3B pin function for channel 3 of the multi-function timer pulse unit 2 (MTU2) cannot be assigned to pin P80, which is shared by multiple pin functions.

When a function is assigned to a non-supported pin by using the peripheral driver generator, source files can be generated but building cannot proceed.

Table: List of pin-function assignments which are not supported by the MPC of products in 145-pin and 144-pin packages

		Pin	Pin to which
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Module/Function	Channel	function	assignment is not supported
Multi-Function Timer Pulse Unit 2 (MTU2)	3	MTIOC3B	P80
	3	MTIOC3C	P56
	3	MTIOC3D	P81
	4	MTIOC4A	P82
	4	MTIOC4C	P83
8-Bit Timer (TMR)	0	TMRI0	P00
	0	TMCI0	P01
	1	TMCI1	P02
Serial Communications Interface (SCI)	6	TXD6	P00
	6	RXD6	P01
	6	SCK6	P02

3. Workaround

3.1 In Renesas Peripheral Driver Library

When calling the R_xxx_Set function (see NOTE) of the Renesas Peripheral Driver Library to select pins for use by MTU2, TMR, and SCI, do not specify a pin that is not supported by the MPC (for example, PDL_MTU2_PIN_3B_P80).

When setting a pin for MTU2 or TMR that is not supported by the MPC, set the MPC and port-related registers directly by using the I/O register. When using SCI6, do not assign the pins listed in the table.

NOTE: xxx indicates a name of a peripheral function.

3.2 In Peripheral Driver Generator

In the pin-function pane of the Peripheral Driver Generator, do not select the combinations of I/O pins for peripheral functions which are listed in the table.

When setting a pin for MTU2 or TMR that is not supported by the MPC, set the MPC and port-related registers directly by using the I/O register. When using SCI6, do not assign the pins listed in the table.

4. Schedule for Fixing the Problem

This problem will be fixed in a later revision of the product.

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