# RENESAS Tool News

**RENESAS TOOL NEWS on July 1, 2013: 130701/tn7**

## Renesas Peripheral Driver Library for RX210 Group Revised to V.2.00

We have revised Renesas Peripheral Driver Library for RX210 Group from V.1.01 to V.2.00.
For the overview of the product, go to:
https://www.renesas.com/driver/rpdl
The above URL is one of our global sites.

### 1. Descriptions of Revision

#### 1.1 Conformed to user's manual Rev.1.40 for RX210 Group of MCUs

The library functions have been updated conforming to the specifications of the latest user's manual Rev.1.40.

#### 1.2 Newly supported MCU packages and chip versions

The 48-pin, 144-pin, and 145-pin packages of RX210 Group of MCUs have been supported.
Chip versions B and C have also been supported.

#### 1.3 Newly supported peripheral function

The 16-bit timer pulse unit (TPU) has been newly supported by the 144-pin and 145-pin library for RX210 Group of MCUs.

#### 1.4 Options and functions added

(1) Addition of an option for assigning IRQ4 Interruption Input Function to PF5 pin to Interrupt Control Unit (ICU)
The "PDL_INTC_IRQ4_PORT_F_5" option has been added to the first argument ("Pin selection") of the external interrupt select function (R_INTC_SetExtInterrupt function).

(2) Addition of options for selecting middle-speed operating mode 2A and 2B to Low Power Consumption Function (LPC)
The "PDL_LPC_MIDDLE_SPEED_MODE_2A" and "PDL_LPC_MIDDLE_SPEED_MODE_2B" options have been added to the first argument ("Operating power control") of the LPC control

function (R_LPC_Control function).

(3) Addition of an option for controlling protection of Voltage Regulator Control Register (VRCR) to Register Write Protection Function (RWP)
The "PDL_RWP_ENABLE_VRCR_WRITE" and "PDL_RWP_DISABLE_VRCR_WRITE" options have been added to the first argument ("Register write control") of the RWP control function (R_RWP_Control function).

(4) Addition of options for selecting DMA Controller (DMAC) trigger
The following trigger sources have been added to the third arguments ("Trigger selection") of the DMAC configuration function (R_DMAC_Create function).
- DMA trigger sources (such as "PDL_DMAC_TRIGGER_SCI1_RX") for the serial communications interface (SCI) channels that have been added in the 144-pin and 145-pin products
- DMA trigger sources (such as "PDL_DMAC_TRIGGER_TPU0") for the TPU

(5) Addition of an option for stopping Realtime Clock (RTC) when it is not used
The "RTC use control" option has been added to the first argument of the RTC configuration function (R_RTC_Create function).

(6) Addition of 8 Hz option as a frequency of RTC periodic interrupts
The "PDL_RTC_PERIODIC_8_HZ" option has been added to the eleventh arguments ("Periodic interrupt selection") of the RTC control function (R_RTC_Control function).

(7) Addition of Continuous Receive Mode Option in asynchronous communications using Serial Communications Interface (SCI)
The continuous receive option (Continuous receive mode) has been added to the second arguments of the SCI receive function (R_SCI_Receive function).

(8) Addition of TPU as a 12-bit AD converter (S12AD) activation trigger
The "PDL_ADC_12_GP_TRIGGER_TPU_TRGAN1" and "PDL_ADC_12_GP_TRIGGER_TPU_TRG4ABN1" options have been added to the third and fourth arguments ("Trigger source selection") of the S12AD configuration function (R_ADC_12_CreateUnit function).

(9) Addition of TPU control functions
The following functions have been added to control the TPU.
- R_TPU_Set function
- R_TPU_Create function

- R_TPU_Destroy function
- R_TPU_Control function
- R_TPU_Read function

### 1.5 Problems fixed

The following five problems have been fixed.

(1) With Reading Current Time and Date from Real-Time Clock (RTC)
For details of the problem, see RENESAS TOOL NEWS Document No.130401/tn6 at:
https://www.renesas.com/search/keyword-search.html#genre=document&q=130401tn6

(2) With Using Main Clock as System Clock
For details of the problem, see RENESAS TOOL NEWS Document No.130401/tn4 at:
https://www.renesas.com/search/keyword-search.html#genre=document&q=130401tn4

(3) With Making Changes to Alarm Settings of Real-Time Clock (RTC)
For details of the problem, see RENESAS TOOL NEWS Document No.130401/tn2 at:
https://www.renesas.com/search/keyword-search.html#genre=document&q=130401tn2

(4) With Dividing BCLK Pin Output Clock
For details of the problem, see RENESAS TOOL NEWS Document No.130401/tn3 at:
https://www.renesas.com/search/keyword-search.html#genre=document&q=130401tn3

(5) With Using Callback Function for I2C Bus Interface (RIIC) to Send Slave Address
For details of the problem, see RENESAS TOOL NEWS Document No.130701/tn6 at:
https://www.renesas.com/search/keyword-search.html#genre=document&q=130701tn6
This page will be opened on July 8.

Note that the problems in (2) to (5) above have not been fixed in Peripheral Driver Generator yet.

### 1.6 Other changes

For the other changes, refer to the Revision History in the Renesas Peripheral Driver Library User's Manual.

## 2. Obtaining Library

Download the sample program of Renesas Peripheral Driver Library for RX210 Group from the following Web page:
https://www.renesas.com/mw/rpdl_app_notes
Document Title: RX210 Group Renesas Peripheral Driver Library

The above URL is one of our global sites.

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