

Peripheral Driver Generator Revised to V.2.09

We have revised Peripheral Driver Generator from V.2.08 to V.2.09. This utility program aids to create on-chip peripheral I/O drivers. Peripheral Driver Generator V.2 is specific to the RX family of MCUs.

For an overview of Peripheral Driver Generator, see:

<https://www.renesas.com/pdg>

1. Descriptions of Revision

1.1 Supported MCUs Increased

In the RX63N, RX631, and RX63T groups of MCUs, supported MCUs have been added.

The type names of these MCUs are as follows:

(1) RX63N group (see NOTE)

Type names:

- R5F563NFHDFC, R5F563NFDDFC, R5F563NKDDFC, R5F563NACDLJ, R5F563NADDLJ, R5F563NYHDFC, R5F563NYDDFC, R5F563NWHDFC, R5F563NWDDFC, R5F563NFHDFB, R5F563NFDDFB, R5F563NKDDFB, R5F563NYHDFB, R5F563NYDDFB, R5F563NWHDFB, R5F563NWDDFB, R5F563NFHDFP, R5F563NFDDFP, R5F563NKDDFP, R5F563NECDLJ, R5F563NEDDLJ, R5F563NDCDLJ, R5F563NDDDLJ, R5F563NYHDFP, R5F563NYDDFP, R5F563NWHDFP, R5F563NWDDFP, R5F563NBCDLJ, R5F563NBDDLJ, R5F563NACDLJ, and R5F563NADDLJ

(2) RX631 group (see NOTE)

Type names:

- R5F56318CDLC, R5F56318DDLJ, R5F56317CDLC, R5F56317DDLJ, R5F56316CDLC, R5F56316DDLJ, R5F5631FHDFC, R5F5631FDDFC, R5F5631KDDFC, R5F5631YHDFC, R5F5631YDDFC, R5F5631WHDFC, R5F5631WDDFC, R5F56318CDBG, R5F56318DDBG, R5F56318CDFC, R5F56318DDFC, R5F56317CDBG, R5F56317DDBG, R5F56317CDFC, R5F56317DDFC, R5F56316CDBG, R5F56316DDBG, R5F56316CDFC, R5F56316DDFC, R5F56318CDLK, R5F56318DDLK, R5F56317CDLK, R5F56317DDLK, R5F56316CDLK, R5F56316DDLK, R5F5631FHDFB, R5F5631FDDFB, R5F5631KDDFB, R5F5631JDDFB, R5F5631GDDFB,

R5F5631YHDFB, R5F5631YDDFB, R5F5631WHDFB, R5F5631WDDFB, R5F56318CDFB, R5F56318DDFB, R5F56316CDFB, R5F56316DDFB, R5F56317CDFB, R5F56317DDFB, R5F5631FHDFP, R5F5631FDDFP, R5F5631KDDFP, R5F5631ECDLJ, R5F5631EDDLJ, R5F5631JDDFP, R5F5631GDGDFP, R5F5631DCDLJ, R5F5631DDDLJ, R5F5631YHDFP, R5F5631YDDFP, R5F5631WHDFP, R5F5631WDDFP, R5F5631BCDLJ, R5F5631BDDLJ, R5F5631ACDLJ, R5F5631ADDLJ, R5F56318CDLJ, R5F56318DDLJ, R5F56318CDFP, R5F56318DDFP, R5F56317CDLJ, R5F56317DDLJ, R5F56317CDFP, R5F56317DDFP, R5F56316CDLJ, R5F56316DDLJ, R5F56316CDFP, R5F56316DDFP, R5F5631PCDFM, R5F5631PDDFM, R5F5631NCDFM, R5F5631NDDFM, R5F5631MCDFM, R5F5631MDDFM, R5F5631PCDFL, R5F5631PDDFL, R5F5631NCDFL, R5F5631NDDFL, R5F5631MCDFL, R5F5631MDDFL, R5F56318SDLC, R5F56317SDLC, R5F56316SDLC, R5F56318SDBG, R5F56317SDBG, R5F56316SDBG, R5F56318SDFC, R5F56317SDFC, R5F56316SDFC, R5F56318SDLK, R5F56317SDLK, R5F56316SDLK, R5F56318SDFB, R5F56317SDFB, and R5F56316SDFB

(3) RX63T group (see NOTE)

Type names:

- R5F563TEAGFB, R5F563TEAGFA, R5F563TEAGFH, R5F563TEAGFP, R5F563TCAGFB, R5F563TCAGFA, R5F563TCAGFH, R5F563TCAGFP, R5F563TBAGFB, R5F563TBAGFA, R5F563TBAGFH, R5F563TBAGFP, R5F563TEBGFB, R5F563TEBGFA, R5F563TEBGFH, R5F563TEBGFP, R5F563TCBGFB, R5F563TCBGFA, R5F563TCBGFH, R5F563TCBGFP, R5F563TBBGFB, R5F563TBBGFA, R5F563TBBGFH, R5F563TBBGFP, R5F563T6EGFM, R5F563T5EGFM, R5F563T4EGFM, R5F563T6EGFL, R5F563T5EGFL, and R5F563T4EGFL

NOTE:

The above list includes the type names of MCUs in the planning or development stage.

For details, please consult your local Renesas Electronics marketing office or distributor.

1.2 Problems Fixed

The following problems have been fixed:

(1) With using SCI5, SCI6, and SCI12 of the RX210 group of MCUs

For details of the problem, see RENESAS TOOL NEWS Document No. 120601/tn9 at:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=120601tn9>

(2) With setting the USB clock (UCLK) of the RX630 group of MCUs

For details of the problem, see RENESAS TOOL NEWS Document No. 120916/tn1 at:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=120916tn1>

- (3) With setting the real-time clock (RTC) of the RX63N and RX630 groups of MCUs

For details of the problem, see RENESAS TOOL NEWS Document No. 120916/tn3 at:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=120916tn3>

- (4) With setting the system clock of the RX210 group of MCUs

For details of the problem, see RENESAS TOOL NEWS Document No. 121201/tn4 at:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=121201tn4>

- (5) With making the settings of fast interrupts of the RX210 and RX630 groups of MCUs

For details of the problem, see RENESAS TOOL NEWS Document No. 130216/tn1 at:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=130216tn1>

- (6) With making changes to alarm setting of real-time clock (RTC) in the RX210 and RX630 groups of MCUs (see NOTE)

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>

NOTE:

The problem with the RX210 had been fixed in V.2.08.

In V.2.09, the problem with the RX630 was fixed.

- (7) With dividing "BCLK pin output" clock of the RX210 and RX630 groups of MCUs

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>

- (8) With using the main clock as the system clock of the RX210 and RX630 groups of MCUs

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>

- (9) With using an external clock in the 16-bit timer pulse unit (TPUa) in the RX630, RX63N, RX631, and RX210 groups of MCUs

For details of the problem, see RENESAS TOOL NEWS Document No. 130901/tn3 at:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=130901tn3>

(10) With setting privileged instruction exception and access exception interrupts of the RX63N and RX631 groups of MCUs

For details of the problem, see RENESAS TOOL NEWS Document No. 130401/tn5 at:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=130401tn5>

(11) With external bus settings for the RX62N group of MCUs

For details of the problem, see RENESAS TOOL NEWS Document No. 140116/tn3 at:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=140116tn3>

(12) 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 of the RX210 group of MCUs

For details of the problem, see RENESAS TOOL NEWS Document No. 140116/tn4 at:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=140116tn4>

Note that regarding the problem in (12), some content has not yet been fixed in this version. For details, refer to the table below. It will be fixed in a later version of the product.

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

Module/Function	Channel	Pin function	Pin to which assignment is not supported
Multi-Function Timer Pulse Unit 2 (MTU2)	3	MTIOC3C	P56
	3	MTIOC3D	P81
	4	MTIOC4A	P82
	4	MTIOC4C	P83

1.3 Restrictions Lifted

The following restrictions have been lifted:

(1) A Note on Selecting Address/Data Multiplexed Bus for CS0 area in the RX630 group of MCUs

For details of the restriction, see Section 2.1 in the Peripheral

Driver Generator V.2.08 Release Note from [HERE](#).

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ut3012>

(2) A Note on Setting Single Write Strobe Mode for External Bus of the RX630 group of MCUs

For details of the restriction, see Section 2.2 in the Peripheral Driver Generator V.2.08 Release Note from [HERE](#).

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ut3012>

(3) A Note on Selecting TMR Clock for SCI Transfer Clock in the RX62N, RX210, RX630, RX63N, RX631, and RX220 groups of MCUs

For details of the restriction, see Section 2.3 in the Peripheral Driver Generator V.2.08 Release Note from [HERE](#).

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ut3012>

(4) A Note on Setting Peripheral Module Clock (PCLK) of the RX62T group of MCUs

For details of the restriction, see Section 2.4 in the Peripheral Driver Generator V.2.08 Release Note from [HERE](#).

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ut3012>

(5) A Note on Disabling Sub-clock Oscillation in the RX630, RX63N, RX631, and RX220 groups of MCUs

For details of the restriction, see Section 2.5 in the Peripheral Driver Generator V.2.08 Release Note from [HERE](#).

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ut3012>

1.4 Renesas Peripheral Driver Library Updated

We have updated to the following versions of the Renesas Peripheral Driver Library included with the Peripheral Driver Generator.

- RX630 Group Renesas Peripheral Driver Library V.1.20
- RX63N, RX631 Group Renesas Peripheral Driver Library V.1.20
- RX63T Group Renesas Peripheral Driver Library V.2.10
- RX62G, RX62T Group Renesas Peripheral Driver Library V.1.10
- RX210 Group Renesas Peripheral Driver Library V.2.10
- RX220 Group Renesas Peripheral Driver Library V.1.10

1.5 Options Added

- (1) The temperature sensor facility of the RX210 group of MCUs has been added.
- (2) The synchronous start facility has been added to the TPU start function for the RX630, RX63N, RX631, and RX210 groups of MCUs.
- (3) The access exception facility has been added to the exception notification function for the RX630, RX62G, and RX62T groups of MCUs.
- (4) The delay generation facility has been added to the GPT control function for the RX63T group of MCUs.
- (5) The binary mode support facility has been added to the RTC control function for the RX220 group of MCUs.

(6) The warm start support facility has been added to the RTC control function for the RX630, RX63N, RX631, RX210, and RX220 groups of MCUs.

1.6 Addition of Integrated Development Environment

A facility for registering generated source files with a project of integrated development environment "e2 studio" has been added. V3.0 and later versions of e2 studio support this facility.

2. Host System Requirements

Computer: IBM PC/AT or compatible

OS: Windows Vista, Windows 7, Windows 8, or Windows 8.1

All other necessary software environments:

- .NET Framework 3.5 SP1 (Windows 8 and Windows 8.1 excluded)
- Microsoft Visual C++ 2008 SP1 runtime library

3. Precaution

Some known problems reside in Peripheral Driver Generator V.2.09.

You can refer to the details of those that are yet to be fixed on the following web page.

<https://www.renesas.com/search/keyword-search.html#genre=document&toollayer=300616&documenttype=531>

In addition, read through the release note.

4. How to Update Your Product

Update in either of the following ways:

(1) Use Auto Update Utility.

(2) Download the installer of the product from the following URL:

https://www.renesas.com/pdg_download

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