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Renesas Electronics website: <http://www.renesas.com>

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Renesas Electronics Corporation

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R0E521000CPE00 Release Notes for R8C/2K and /2L Groups - Read this before using this product -

Renesas Solutions Corp.

This document contains the information necessary to debug and evaluate the R8C/2K and /2L Group MCUs with the compact emulator R0E521000CPE00 for R8C/Tiny series. Be sure to read this before using the product.

Introduction

When debugging and evaluating the R8C/2K and /2L Group MCUs using the R0E521000CPE00, use the following converter board with the emulator.

- R0E5212L4CFG00: 32-pin 0.8mm pitch LQFP converter board for R8C/2K and /2L Groups

The MCU file containing the specific information of the target MCU is required. Install the MCU file to the emulator debugger by executing the MCU file installer (MCU_Files_Installer_cpe_R8C_2K-2L.exe) downloaded with this release notes.

Installing the MCU File

Install the M16C R8C Compact Emulator Debugger before the MCU file. Otherwise, this file cannot be installed.

Execute "MCU_Files_Installer_cpe_R8C_2K-2L.exe" to start installing the files.

Notes on Using This Product (R8C/2K and /2L Groups)

Before debugging and evaluating the R8C/2K and /2L Group MCUs, be sure to read the user's manuals for the R0E521000CPE00 and related products carefully.

The following describes the precautions to be observed for the R8C/2K and /2L Group MCUs to be debugged or evaluated. The functions that cannot be debugged with this product should be debugged and evaluated with the on-chip debugging emulator E8a or the actual MCU.

- (1) Note on Port, XIN-XOUT switch bit (CM13)
After changing the bit 3 (CM13) of the system clock control register 1 (CM1 at address 00007h) to "1" (XIN-XOUT pin), do not set it to "0" (input ports, P4_6, P4_7). Otherwise, the emulator cannot be operated normally.
- (2) High-Speed On-Chip Oscillator Control Register 6 (FRA6)
This product does not support High-Speed On-Chip Oscillator Control Register 6 (FRA6 at address 0002Bh). If you read FRA6 register, an undefined value is read in. Do not transfer the value to FRA1 register.

- (3) Note on the voltage monitor 0 reset
This product does not support the voltage monitor 0 reset and the voltage monitor 0 circuit control register (VW0C at address 00038h). Do not access to the voltage monitor 0 circuit control register.
- (4) Note on the voltage monitor 1 interrupt
This product supports only voltage monitor 1 reset, and does not support the voltage monitor 1 interrupt. Therefore, when setting bit 0 (voltage monitor 1 interrupt/reset enable bit: VW1C0) of the voltage monitor 1 circuit control register (VW1C at address 00036h) to 1 (= enable), always make sure that bit 6 (voltage monitor 1 circuit mode select bit: VW1C6) is also set to 1 (= voltage monitor 1 circuit reset mode).
- (5) Note on the Port P2 Drive Capacity Control Register (P2DRR)
Be aware that the Port P2 drive capacity control register (P2DRR at address 000F4h) in this product is subject to limitations that although the drive capability of the n-channel (Low side) output transistor can be increased, that of the p-channel (High side) output transistor cannot be increased.
- (6) Note on the voltage detection 0 circuit start bit (LVD0ON)
The function of bit 5 (LVD0ON) in the option function select register (OFS at address 0FFFFh) cannot be used. When writing to this register, always be sure to set LVD0ON to 1.
- (7) Note on changing the count source protect mode after reset select bit (CSPROINI)
When you change the bit 7 (CSPROINI) of the option function select register (OFS at address 0FFFFh), by rewriting directly in the memory window or downloading, the reset operation from the emulator debugger should be done twice or more. Otherwise, the alteration may not be reflected.
- (8) Note on access to the SFR area from the emulator debugger
In the memory window, ASM watch window and script window of the emulator debugger, if you reference or modify the SFR area in word unit, all the areas will be accessed by byte except for some areas of the timer RC related registers (00126h--0012Fh).
Note that the SFR area can be accessed from the user program, as specified in the program.

To Contact Us

For technical questions about the products, fill in the text file which is downloaded from the following URL, then send the information to your local distributor.

<http://tool-support.renesas.com/eng/toolnews/registration/support.txt>

We cannot answer any technical question about evaluation version of the C compiler package M3T-NC30WA.