

[Notification]

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Renesas On-Chip Debugging Emulator for RH850 MCUs with Next-Generation G4MH Core

Outline

This document provides details about the Renesas on-chip debugging emulator that supports RH850 MCUs with the next-generation G4MH core (which were announced in a news release of March 27, 2018).

1. On-Chip Debugging Emulator for RH850 MCUs with the Next-Generation G4MH Core

The Renesas on-chip debugging emulator for RH850 MCUs (such as the RH850/E2M group) that have the next-generation G4MH core is an E2 emulator. The E1 emulator cannot be used with RH850 MCUs that have the G4MH core.

For details about the E2 emulator, see the URL below:

<https://www.renesas.com/e2>



2. Advantages of Using the E2 Emulator for the RH850 Family

- The E2 emulator supports the next-generation G4MH core in addition to existing G3M, G3K, G3MH, and G3KH cores for RH850 MCUs.
- High-speed download up to twice as fast as the E1 emulator
- Will support upcoming extended functions to help reduce development time

- ✓ CAN communication time measurement solution

You can easily measure response times, which are important for CAN communications. You can also specify settings to stop a program if the response time exceeds a design value. By doing so, you can check trace data and the history of CAN communications after the program has been stopped. This allows for easy identification of problems in early development.

We are planning to support more extended functions to further improve efficiency in debugging.

- Acquisition of software trace instructions with the internal memory of the E2 emulator

The E2 emulator allows for acquiring software trace instructions with its internal memory when you use RH850 MCUs without internal trace memory. This helps you identify problems in the early stages of development.

- External trigger I/O function

The E2 emulator has two channels for each of input and output for external triggers. This allows you to stop a program at detection of input signals from an external trigger and output signals to the external trigger when an event occurs at execution of the program.

- Hot plug-in function (requires no separately sold adapter)
- Compatibility with the E1

The E2 emulator can be connected to the user system that was designed for the E1 emulator because the pin arrangement to be connected to the user system has compatibility with the E1 emulator.

3. Remarks

The E2 emulator also supports the RL78 and RX family MCUs.

For details about the supported MCUs, see the web page of the E2 emulator.

<https://www.renesas.com/e2>

Revision History

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		Page	Summary
1.00	Apr. 16, 2018	-	First edition issued

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