[New Release]

New Full-Spec Emulator IE850A for RH850 Family

Outline

A new full-spec emulator IE850A for the RH850 family has been released.

1. Overview

The IE850A is a full-spec emulator that supports the G4MH core of the RH850 family. While the E2 on-chip debugging emulator (E2) had been the only emulator available for the G4MH core of the RH850 family, this new full-spec emulator has a memory for program execution history of 9GB, which is approximately x140,000 that of the E2, enabling to save longer execution history of programs for later checking.

2. Features

- Collect long program execution history

  Having the memory size of 9GB for collecting the program execution history, such as branches and data accesses, the emulator can collect up to 1GB trace frames to save and check longer execution history of programs.

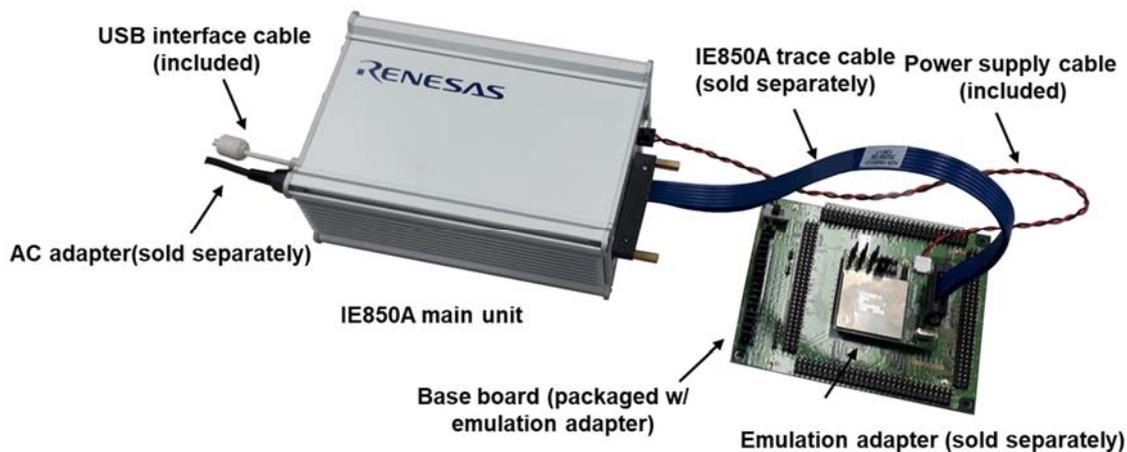- Use IE850A and E2 emulator on the same user system

  The IE850A emulator supports devices equipped with the Aurora trace interface that is scalable and lightweight link layer protocol for high-speed serial communications. Having a 34-pin connector for Aurora protocol communication on the target side, the IE850A can be used to collect longer execution history of programs for defect analysis.

  By using the conversion adapter, the E2 can be connected to the user system as well. You can now use the E2 for standard debugging and the IE850A for debugging that requires trace analysis.

  The IE850A can be operated by using the existing CS+ integrated development environment from Renesas or the MULTI integrated development environment from Green Hills Software, LLC.

- Start development early

  Before the target system is completed, you can start debugging a program using the base board packaged with the emulation adapter (sold separately) as shown in the figure below, enabling you to start developing in the early stage.

3. Specifications

Item	Description
User interface	IE850A trace cable (sold separately) Cable length: approx. 300mm SAMTEC, Inc.: ASP-137973-01 connector (34pin)
Communication interface	LPD 4-pin
Trace interface	Supported lanes: 1Lane/4Lane(max) Communication rate: 6.25 Gbps/Lane (max)
PC interface	USB 2.0 (high speed/full speed)
Power voltage for emulator	AC adapter (15 V, 4 A) *1
Supported user system voltage	1.8 V to 5.0 V, and in the range of the MCU operating power supply voltage
External dimensions (main unit)	165.1 mm x 115.7 mm x 67 mm
Weight	Approx. 800 g
Operating temperature	5 to 35°C (no condensation)
Storage temperature	-10 to 60°C (no condensation)
EMC standard	EU: EN 55032 Class A, EN 55024 USA: FCC part 15 Class A

*1: The same AC adapter for the IE850 can be used. For details about the AC adapter, see the following URL.
https://www.renesas.com/ie850

4. Integrated Development Environment and Compiler

(1) Integrated development environment

The following IDEs support the IE850A.

➢ From Renesas Electronics Corporation
CS+ Integrated Development Environment: V8.01.00 or later

➢ From Green Hills Software, LLC [Note]
MULTI Integrated Development Environment

(2) Compiler

The following compilers are supported.

➢ From Renesas Electronics Corporation
C compiler package (with IDE) for the RH850 Family (CC-RH)

➢ From Green Hills Software, LLC [Note]
MULTI Integrated Development Environment

Note: For details of the products from our partners, refer to the URL below:

Green Hills Software, LLC https://www.ghs.com/

5. Purchasing a Product

To order a product, contact your local Renesas Electronics sales office or distributor with a product name and orderable part number.

For product pricing, contact us in the same manner.

Product name	Orderable part number
IE850A main unit	RTE0T0850AKCT00000J
IE850A trace cable	RTE0T0850AKCAC0000J
AC adapter	QB-V850E2-PW-XX*1
Emulation adapter*2	RTE7702012EAB00000J

*1: XX: JP (Japan), EE (Europe), EA (USA), CN (China), HK (Hong Kong), KR (Korea), SG (Singapore)
    The specifications differ depending on the region. Use the AC adapter for your region.
*2: If you wish to purchase the product, contact your local Renesas Electronics sales office or distributor.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Feb. 16, 2019	-	First edition issued

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Renesas Electronics Corporation

■Inquiry

https://www.renesas.com/contact/

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