RENESAS Tool News

The E1 On-Chip Debugging Emulator Supports the V850 Family of MCUs

To develop systems designed with MCUs of the V850 family, you can use the E1 on-chip debugging emulator.
For details of the E1, see:
  http://www.renesas.com/e1
The content of the above Web site will be updated on February 21, 2011, according to this item of news.

1. Description

Systems designed with MCUs fabricated with any of the following CPU cores, which are members of the V850 family, can be evaluated and debugged by using the E1 on-chip debugging emulator:
- V850E1
- V850ES
- V850E2M

To debug those systems, you need to run the E1 on the integrated development platform CubeSuite. For details of the software tool products necessary to debugging, see Section 2.

2. Software Tool Products Necessary to Debugging

Integrated development platform CubeSuite V.1.40 or later
The CubeSuite package contains the software tool products used for all the processes from coding to programming: integrated development environment, compiler, assembler, debugger, and so on.

Host OS :
  The 32-bit edition of Windows(R) XP or Windows Vista(R), or
  the 32-bit or 64-bit edition of Windows(R) 7

For details, see:
  http://www.renesas.com/products/tools/ide/ide_cubesuite/index.jsp
If you have not already purchased CubeSuite V.1.40 or later, you can

use free-tool editions of CubeSuite. For how to obtain free-tool editions, see Section 4.

3. Specifications of E1 on Using MCUs of The V850 Family

(1) Main debugging functions
- Software and hardware breaking
- Reading memory during RUN operation (RRM)
- Writing memory during RUN operation (DMM)
- Performance measurement

(2) User interface
2.54-mm-pitched 14-pin connecter

On the user board debugged with the MINICUBE2 on-chip debugging emulator is mounted a 16-pin connecter. On the other hand, on that with the E1, a 14-pin connecter.
By using the optional QB-F14T16-01 converter adapter (under development), you can connect the E1 to the user board for the MINICUBE2.

(3) Connection methods
- JTAG, UART, or CSI when V850E1 or V850ES used.
- Nexus when V850E2M used.

(4) Flash ROM programming
The programming function of CubeSuite used.

4. How to Obtain Free-Tool Editions of CubeSuite

The free-tool edition of CubeSuite V.1.40 and later are downloadable online from:
http://www.renesas.com/products/tools/ide/ide_cubesuite_plus/downloads.jsp
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5. How to Purchase the E1 Emulator

Place the order for the E1 to your local Renesas Electronics sales office or distributor with the following items of information:

Product type: E1
Type name: R0E000010KCE00

For the price of the product, also contact the above sales office or distributor.

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