

RENESAS TOOL NEWS on June 1, 2007: 070601/tn6

## A Compact Emulator--M30850T3-CPE--for the M32C/80, M32C/84, M32C/85, M32C/86, and M32C/8A MCU Groups Released

We inform you that we have released a compact emulator--M30850T3-CPE--for the M32C/80, M32C/84, M32C/85, M32C/86, and M32C/8A groups, M32C/80 series of MCUs. According to the release of the M30850T3-CPE, we have discontinued shipping the compact emulator--M30850T2-CPE--for the M32C/84, M32C/85, and M32C/86 groups. For details of overseas marketing, see section 4 (2) below.

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### 1. Outline

The M30850T3-CPE, used for the M32C/80, M32C/84, M32C/85, M32C/86, and M32C/8A groups, is a compact emulator provided with real-time trace capabilities. It supports MCUs operating at frequencies up to 32 MHz maximum.

With the product package are included such software tools as an integrated development environment, a C compiler (evaluation version), an emulator debugger, so you can start developing and debugging your application programs immediately after getting and unpacking the product.

The features of the product are as follows:

- (1) Fundamental debugging capabilities much enhanced.
- (2) Debugging in single-chip, memory expansion, and microprocessor\* modes supported.
- (3) Real-time trace capabilities provided.
- (4) Compactly designed in size.
- (5) Economical-priced.
- (6) Software tools for programming and debugging included.
- (7) USB 1.1 (full-speed) supported as the interface with the PC.  
(Also can be connected to host machines equipped with the USB 2.0

interface.)

\* For debugging programs in microprocessor mode, an optional emulation memory board R0E330850MSRC0 is necessary. Using the emulation memory (a capacity of 4 MB) as an external area of the MCU (the area for the MCU accessing external memory) allows you to debug programs in this mode. If you are going to place an order for the emulation memory board, see Section 3.2 below.

## 2. The Contents of the Product Package

- (1) A compact emulator--M30850T3-CPE
- (2) An evaluation MCU (already mounted)
- (3) A USB-interface cable (1.8 m)
- (4) A power cable (30 cm; no power supply included)
- (5) Two oscillator boards
  - OSC-3 for a main clock of 32 MHz (already mounted)
  - OSC-2 for another main clock
- (6) A user's manual
- (7) Two software tools in a CD-ROM disc
  - The M32C compact emulator debugger
  - The M3T-NC308WA C-compiler (evaluation version)

### NOTICE:

No such services as technical support, problem-fixing and program-updating are provided for the evaluation version of the M3T-NC308WA C-compiler.

For details of the specifications of the product, see its datasheets on the Web site at

[http://www.renesas.com/m30850t3\\_cpe](http://www.renesas.com/m30850t3_cpe)

The above URLs are that of our global site (in English).

### NOTICE:

In this package are not included the M30800T-PTC package converter board and the IC61-1004-051 IC socket, which have been included in the previous M30850T2-CPE.

For the accessory parts necessary to connect the emulator with your target, search the Options menu in the above datasheets; then purchase them additionally.

## 3. Ordering Information

If you place an order for the product, please supply the following items of information to your local Renesas Technology sales office or distributor (for the price of the product, also contact them).

### 3.1 Type Name of the M30850T3-CPE Compact Emulator

Product Type: M30850T3-CPE

Type Name: As above

### 3.2 Type Name of the R0E330850MSRC0 Emulation Memory Board

Product Type: R0E330850MSRC0

Type Name: As above

## 4. Notices

- (1) The maximum operating frequency of the target MCU at the emulation by this emulator may be different from that of the actual MCU depending on the supply voltages to the target system and whether the emulation memory board is connected or not as follows:

Setting of Supply voltages	Emulation Memory Board	Maximum Operating Frequency
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VCC1 = VCC2	Not Connected	Same as actual MCU
	-----	
	Connected	Restricted (Ex. 1)
-----		
VCC1 > VCC2 (VCC1=5.0±0.2 V)	Not Connected	Restricted (Ex. 2) if VCC2 < 4.2 V
	-----	
	Connected	Restricted (Ex. 1)

Ex. 1: When the emulation memory board connected, and the intelligent I/O used in 1wait Read Access in the user program, the maximum operating frequency is restricted to 24 MHz at 3.0 V ≤ VCC2 ≤ 5.5 V.

Ex. 2: When the emulation memory board not connected, and VCC1 > VCC2, the maximum operating frequency is restricted to 30 MHz at 3.3 V ≤ VCC2 < 4.2 V.

For details see Chapter 4, "Hardware Specifications", in the user's manual of the M30850T3-CPE. This user's manual can be downloaded from the Web page.

- (2) After starting marketing of the M30850T3-CPE, we have discontinued marketing of the M30850T2-CPE. So, for the customers who are using it, we are going to upgrade it to an equivalent of the M30850T3-CPE (supported by the optional emulation memory board) with additional charge.

For details see RENESAS TOOL NEWS Document No. 070601/tn7.

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