

### R0E000010ACB00

R20UT0163EJ0101

Rev.1.01

Nov 12, 2010

### Hot-plug Adapter for the E1 Emulator

#### 1. Outline

The R0E000010ACB00 is used for the hot plug-in function of the E1 emulator. This product allows you to connect the E1 emulator to the running user system without turning off the power.

The availability of the hot plug-in function depends on the MCU and emulator debugger used. For the information of this function, be sure to read the latest edition of "E1/E20 Emulator Additional Document for User's Manual" supplied for each MCU group.

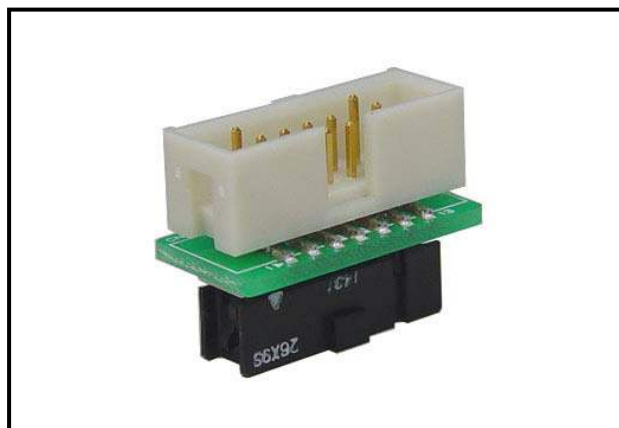


Figure 1 External View of the R0E000010ACB00

#### 2. Package Components

Before using this product, confirm that the R0E000010ACB00 package contains the following items.

Table 1 Package Components

	Item	Qty.
(1)	R0E000010ACB00	1
(2)	R0E000010ACB00 User's Manual (this document)	1
(3)	R0E000010ACB00 User's Manual (Japanese)	1

#### 3. Specifications

Table 2 Specifications

Item	Description
Upper connector (CN1)	ASP-151208-01 (manufactured by Samtec, Inc.)
	Guaranteed number of times for insertion and removal: 50
Lower connector (CN2)	XG4H-1431 (manufactured by Omron Corporation)
	Guaranteed number of times for insertion and removal: 50

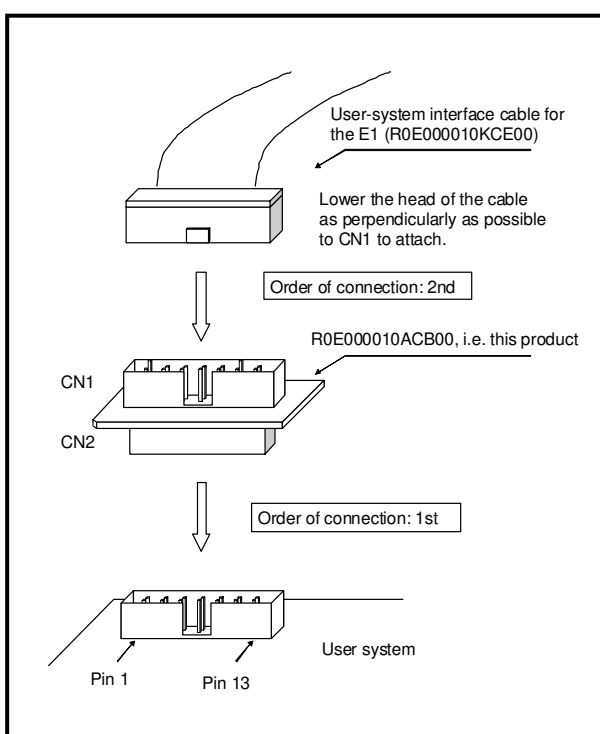


Figure 2 Usage of the R0E000010ACB00

#### 4. Usage (See Figure 2)

The R0E000010ACB00 is connected between the user-system interface cable (for the E1) and a 14-pin connector on the user system as shown in Figure 2.

- (1) Connect the adapter to the operating user system (while the power is ON).
- (2) Power on the E1 emulator, then launch the debugger. Enable hot plug-in when launching the debugger.
- (3) Attach the user-system interface cable (for the E1) to the adapter.

**IMPORTANT**

## Notes on Using the Hot Plug-in Function:

- Hot plug-in is a function to connect the emulator to the running user system. Hot plug-in can be used only with the emulator debugger that supports this function. For the information of this function, refer to the latest edition of "E1/E20 Emulator Additional Document for User's Manual".
- Be sure to follow the connecting sequence instructions in the "Usage" part of this document. Failure to follow the correct steps will result in unsuccessful hot plug-in.
- If the hot plug-in function is to be used, a capacitor of about 0.1uF needs to be connected between the RESET pin and GND on the user system. Pin handling may vary depending on the MCU used. Refer to your "E1/E20 Emulator Additional Document for User's Manual" for details.

**5. To Contact Us****IMPORTANT**

## Notes on This Product:

- We cannot accept any request for repair.
- For inquiries about the product or the contents of this manual, contact your local distributor.  
<http://www.renesas.com/inquiry>

**6. Preparations**

Figure 3 shows the limit on the heights of components mounted around the connector on the user system (the connector for the adapter). Take this limit into account when designing your own system.

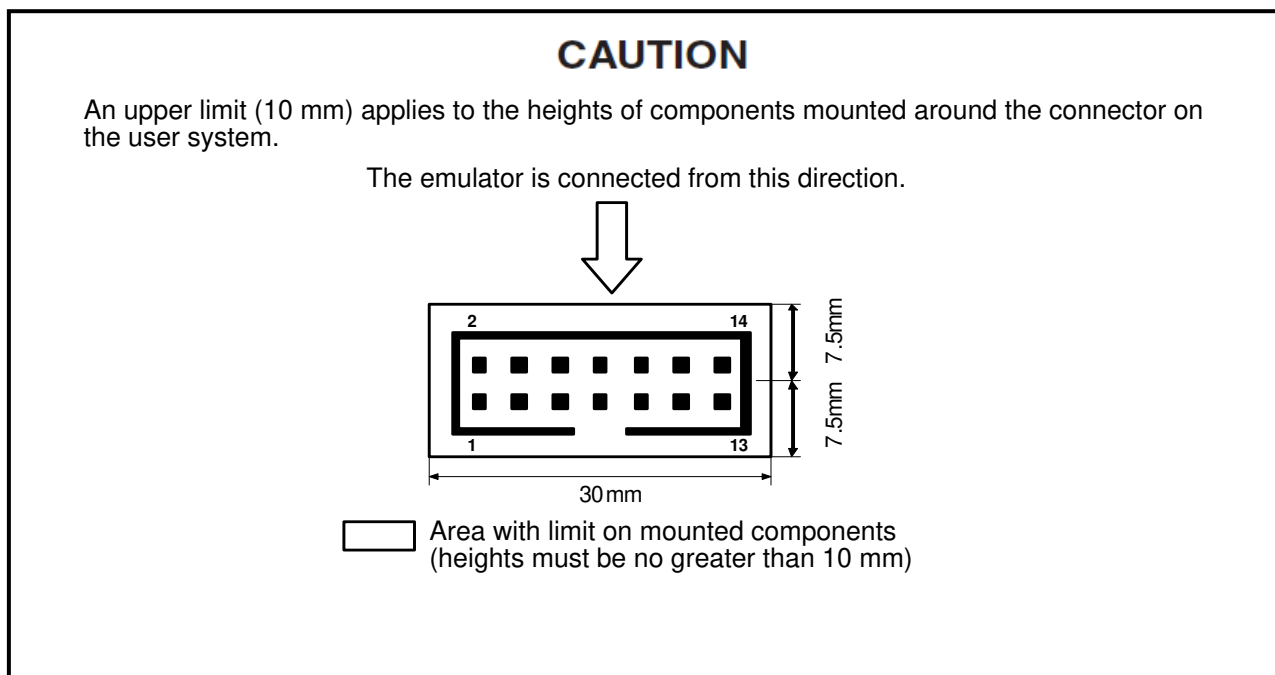


Figure 3 Limit on Height of Components Mounted around the Connector on the User System (the Connector for the Adapter)

**Regulatory Compliance Notices**

European Union regulatory notices

This product complies with the following EU Directive. (This directive is only valid in the European Union.)

Environmental Compliance and Certifications:

- Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC

WEEE Marking Notice (European Union Only)



Renesas development tools and products are directly covered by the European Union's Waste Electrical and Electronic Equipment, (WEEE), Directive 2002/96/EC. As a result, this equipment, including all accessories, must not be disposed of as household waste but through your locally recognized recycling or disposal schemes. As part of our commitment to environmental responsibility Renesas also offers to take back the equipment and has implemented a Tools Product Recycling Program for customers in Europe. This allows you to return equipment to Renesas for disposal through our approved Producer Compliance Scheme. To register for the program, click here "<http://www.renesas.com/weee>".

## Notice

1. All information included in this document is current as of the date this document is issued. Such information, however, is subject to change without any prior notice. Before purchasing or using any Renesas Electronics products listed herein, please confirm the latest product information with a Renesas Electronics sales office. Also, please pay regular and careful attention to additional and different information to be disclosed by Renesas Electronics such as that disclosed through our website.
2. Renesas Electronics does not assume any liability for infringement of patents, copyrights, or other intellectual property rights of third parties by or arising from the use of Renesas Electronics products or technical information described in this document. No license, express, implied or otherwise, is granted hereby under any patents, copyrights or other intellectual property rights of Renesas Electronics or others.
3. You should not alter, modify, copy, or otherwise misappropriate any Renesas Electronics product, whether in whole or in part.
4. Descriptions of circuits, software and other related information in this document are provided only to illustrate the operation of semiconductor products and application examples. You are fully responsible for the incorporation of these circuits, software, and information in the design of your equipment. Renesas Electronics assumes no responsibility for any losses incurred by you or third parties arising from the use of these circuits, software, or information.
5. When exporting the products or technology described in this document, you should comply with the applicable export control laws and regulations and follow the procedures required by such laws and regulations. You should not use Renesas Electronics products or the technology described in this document for any purpose relating to military applications or use by the military, including but not limited to the development of weapons of mass destruction. Renesas Electronics products and technology may not be used for or incorporated into any products or systems whose manufacture, use, or sale is prohibited under any applicable domestic or foreign laws or regulations.
6. Renesas Electronics has used reasonable care in preparing the information included in this document, but Renesas Electronics does not warrant that such information is error free. Renesas Electronics assumes no liability whatsoever for any damages incurred by you resulting from errors in or omissions from the information included herein.
7. Renesas Electronics products are classified according to the following three quality grades: "Standard", "High Quality", and "Specific". The recommended applications for each Renesas Electronics product depends on the product's quality grade, as indicated below. You must check the quality grade of each Renesas Electronics product before using it in a particular application. You may not use any Renesas Electronics product for any application categorized as "Specific" without the prior written consent of Renesas Electronics. Further, you may not use any Renesas Electronics product for any application for which it is not intended without the prior written consent of Renesas Electronics. Renesas Electronics shall not be in any way liable for any damages or losses incurred by you or third parties arising from the use of any Renesas Electronics product for an application categorized as "Specific" or for which the product is not intended where you have failed to obtain the prior written consent of Renesas Electronics. The quality grade of each Renesas Electronics product is "Standard" unless otherwise expressly specified in a Renesas Electronics data sheets or data books, etc.  
"Standard": Computers; office equipment; communications equipment; test and measurement equipment; audio and visual equipment; home electronic appliances; machine tools; personal electronic equipment; and industrial robots.  
"High Quality": Transportation equipment (automobiles, trains, ships, etc.); traffic control systems; anti-disaster systems; anti-crime systems; safety equipment; and medical equipment not specifically designed for life support.  
"Specific": Aircraft; aerospace equipment; submersible repeaters; nuclear reactor control systems; medical equipment or systems for life support (e.g. artificial life support devices or systems), surgical implantations, or healthcare intervention (e.g. excision, etc.), and any other applications or purposes that pose a direct threat to human life.
8. You should use the Renesas Electronics products described in this document within the range specified by Renesas Electronics, especially with respect to the maximum rating, operating supply voltage range, movement power voltage range, heat radiation characteristics, installation and other product characteristics. Renesas Electronics shall have no liability for malfunctions or damages arising out of the use of Renesas Electronics products beyond such specified ranges.
9. Although Renesas Electronics endeavors to improve the quality and reliability of its products, semiconductor products have specific characteristics such as the occurrence of failure at a certain rate and malfunctions under certain use conditions. Further, Renesas Electronics products are not subject to radiation resistance design. Please be sure to implement safety measures to guard them against the possibility of physical injury, and injury or damage caused by fire in the event of the failure of a Renesas Electronics product, such as safety design for hardware and software including but not limited to redundancy, fire control and malfunction prevention, appropriate treatment for aging degradation or any other appropriate measures. Because the evaluation of microcomputer software alone is very difficult, please evaluate the safety of the final products or system manufactured by you.
10. Please contact a Renesas Electronics sales office for details as to environmental matters such as the environmental compatibility of each Renesas Electronics product. Please use Renesas Electronics products in compliance with all applicable laws and regulations that regulate the inclusion or use of controlled substances, including without limitation, the EU RoHS Directive. Renesas Electronics assumes no liability for damages or losses occurring as a result of your noncompliance with applicable laws and regulations.
11. This document may not be reproduced or duplicated, in any form, in whole or in part, without prior written consent of Renesas Electronics.
12. Please contact a Renesas Electronics sales office if you have any questions regarding the information contained in this document or Renesas Electronics products, or if you have any other inquiries.

(Note 1) "Renesas Electronics" as used in this document means Renesas Electronics Corporation and also includes its majority-owned subsidiaries.

(Note 2) "Renesas Electronics product(s)" means any product developed or manufactured by or for Renesas Electronics.



Renesas Electronics Corporation

SALES OFFICES

<http://www.renesas.com>

Refer to "<http://www.renesas.com/>" for the latest and detailed information.

Renesas Electronics America Inc.  
2880 Scott Boulevard Santa Clara, CA 95050-2554, U.S.A.  
Tel: +1-408-588-6000, Fax: +1-408-588-6130

Renesas Electronics Canada Limited  
1101 Nicholson Road, Newmarket, Ontario L3Y 9C3, Canada  
Tel: +1-905-898-5441, Fax: +1-905-898-3220

Renesas Electronics Europe Limited  
Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K  
Tel: +44-1628-585-100, Fax: +44-1628-585-900

Renesas Electronics Europe GmbH  
Arcadiastrasse 10, 40472 Düsseldorf, Germany  
Tel: +49-211-65030, Fax: +49-211-6503-1327

Renesas Electronics (China) Co., Ltd.  
7th Floor, Quantum Plaza, No.27 ZhiChunLu Haidian District, Beijing 100083, P.R.China  
Tel: +86-10-8235-1155, Fax: +86-10-8235-7679

Renesas Electronics (Shanghai) Co., Ltd.  
Unit 204, 205, AZIA Center, No.1233 Lujiazui Ring Rd., Pudong District, Shanghai 200120, China  
Tel: +86-21-5877-1818, Fax: +86-21-6887-7858 / -7898

Renesas Electronics Hong Kong Limited  
Unit 1601-1613, 16/F, Tower 2, Grand Century Place, 193 Prince Edward Road West, Mongkok, Kowloon, Hong Kong  
Tel: +852-2886-9318, Fax: +852 2886-9022/9044

Renesas Electronics Taiwan Co., Ltd.  
7F, No. 363 Fu Shing North Road Taipei, Taiwan  
Tel: +886-2-8175-9600, Fax: +886 2-8175-9670

Renesas Electronics Singapore Pte. Ltd.  
1 harbourFront Avenue, #06-10, Keppel Bay Tower, Singapore 098632  
Tel: +65-6213-0200, Fax: +65-6278-8001

Renesas Electronics Malaysia Sdn.Bhd.  
Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No. 18, Jln Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia  
Tel: +60-3-7955-9390, Fax: +60-3-7955-9510

Renesas Electronics Korea Co., Ltd.  
11F, Samik Laviel' or Bldg., 720-2 Yeoksam-Dong, Kangnam-Ku, Seoul 135-080, Korea  
Tel: +82-2-558-3737, Fax: +82-2-558-5141



**CAUTION**

If the requirements shown in the "CAUTION" sentences are ignored, the equipment may cause personal injury or damage to the products.

Renesas Tools Website <http://www.renesas.com/tools>  
All trademarks and registered trademarks are the property of their respective owners.