

RTE7701461CBF272T000R

R20UT3899EJ0110

Exchange Adapter for Connecting RH850/D1x Series in 272-pin 1.0-mm-pitch BGA

Rev. 1.10

Jul. 20, 2017

1. Outline

The RTE7701461CBF272T000R is an exchange adapter (EA) for connecting the RTE7701460EPA00000R emulator pod for the RH850/D1x (subsequently referred to as the pod) to pad patterns for a 272-pin 1.0-mm-pitch BGA (PRBG0272FA-A).

2. Package Components

Check to see if the RTE7701461CBF272T000R package has all the following contents with reference to Contents of the Package included in the package after purchasing this product.

- (1) RTE7701461CBF272T000R exchange adapter 1 pc.
- (2) Table of Toxic and Hazardous Substance and Elements 1 sh.

3. Specifications

Table 1 Specifications

Applicable package	PRBG0272FA-A (272-pin 1.0-mm-pitch BGA)
Insertion/removal iterations of connector	100 times guaranteed

4. Usage (See Figure 2)

The RTE7701461CBF272T000R can be used for debugging and on-board evaluation in common by mounting the TC on the target system.

(1) For debugging

Mount the TC on the pad pattern for the MCU on the target system board. In addition, connect the RTE7701461CBF272T000R to the pod, and then attach the RTE7701461CBF272T000R above the TC.

The height of the socket is adjustable by inserting the SA between the TC and the RTE7701461CBF272T000R if this is desired.

Before using the SA, be sure to read the precautions on page 5.

(2) For on-board evaluation

The TC on the user system is used to attach the MA after it has been fitted with an MCU that has flash ROM or a one-time PROM.



Figure 1 External View of the RTE7701461CBF272T000R

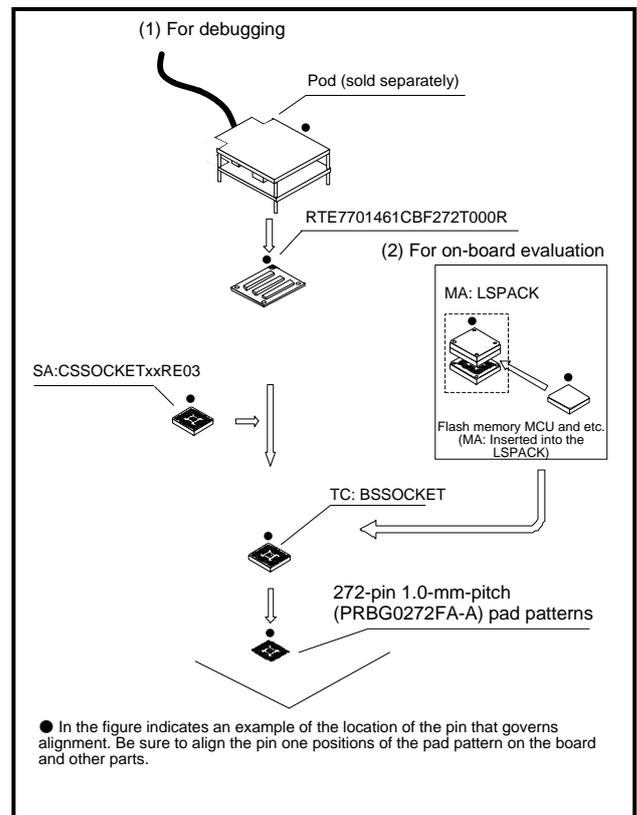


Figure 2 Usage of the RTE7701461CBF272T000R

SA: Space adapter (sold separately, product of Tokyo Eletech Corporation)
 Model Name: CSSOCKET272Z2021RE03

TC: Target connector (sold separately, product of Tokyo Eletech Corporation)
 Model name: BSSOCKET272Z2021RE21N

MA: Mounting adapter (sold separately, product of Tokyo Eletech Corporation)
 Model name: LSPACK272Z2021RE11 or LSPACK272Z2021RE12

Note: Contact Tokyo Eletech Corporation and select the adapter to use according to how you will be placing components on the target system.

5. Connection Procedure (See Figure 3)

The procedure for connecting the RTE7701461CBF272T000R is shown below.

- (1) Mount the TC on the user system.
- (2) Attach the RTE7701461CBF272T000R to the pod.
- (3) Attach the RTE7701461CBF272T000R to the TC.

Confirm that there are neither cracks nor bends on the contact pins of the RTE7701461CBF272T000R at the time it is attached.

- Adjusting the height of the socket
The height of the socket is adjustable by inserting an SA between the TC and the RTE7701461CBF272T000R.
For more information on the SA, contact Tokyo Eletech Corporation.

SA: Space adapter (sold separately, product of Tokyo Eletech Corporation) Model Name: CSSOCKET272Z2021RE03
TC: Target connector (sold separately, product of Tokyo Eletech Corporation) Model name: BSSOCKET272Z2021RE21N

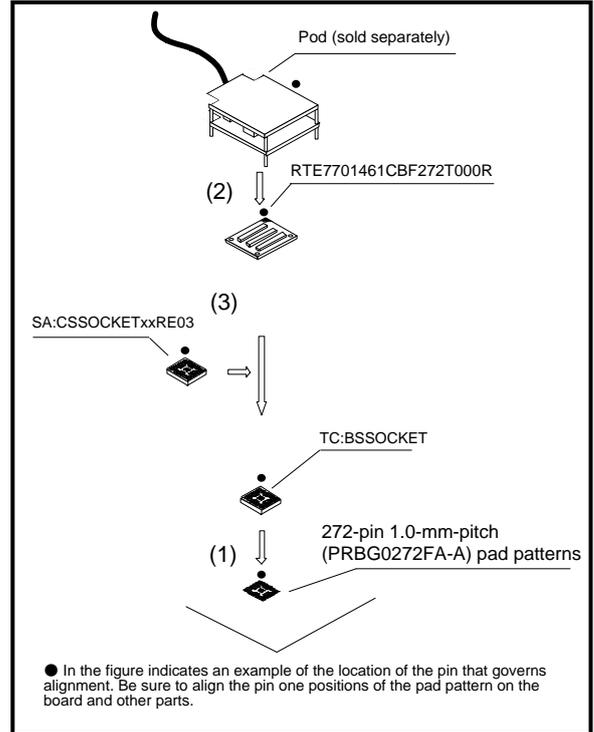


Figure 3 Procedure for Connecting the RTE7701461CBF272T000R

6. Configuration Switch



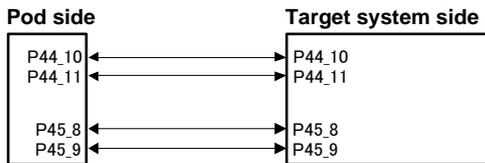
CAUTION

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

The RTE7701461CBF272T000R has a switch for turning on Open LVDS Display Interface (Open LDI) emulation. Set the switch to the side which has the "●" mark if you wish to use Open LDI as the video output. In normal operation, set the switch to the side which does not have the "●" mark.

The figures below show how the wiring is set up according to the position of the switch.

- (1) With the switch at the side without the "●" mark (normal operation)



- (2) With the switch at the side with the "●" mark (selecting Open LDI emulation) Attach the RTE7701461CBF272T000R to the pod.

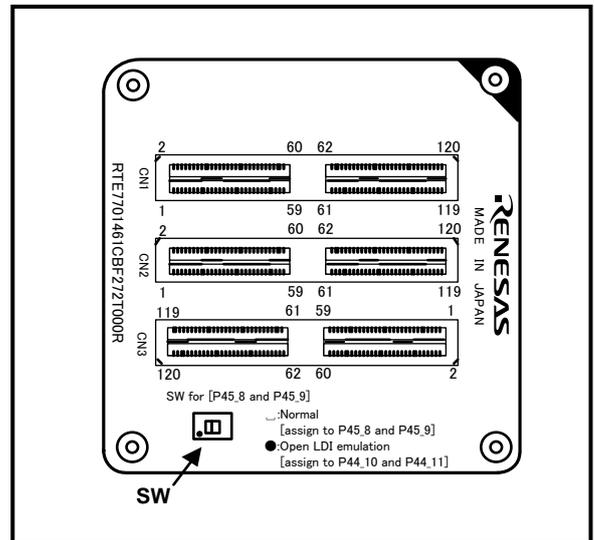
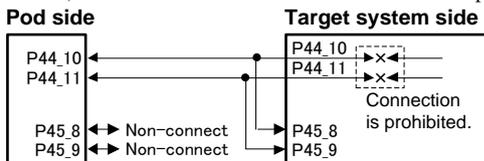


Figure 4 Arrangement of Configuration Switch

CAUTION

Notes on the Configuration Switch:



- Before using this product, make switch settings to suit the specifications of the user-created system.
- During Open LDI emulation, make sure that P44_10 and P44_11 are disconnected on the target system. Connection of these pins may lead to smoke emission, fire, or breakage of the target system or pod due to conflicting signal levels.

7. Drawing of the Socket Assembly, Drawing with Dimensions, and Pad Pattern for Reference

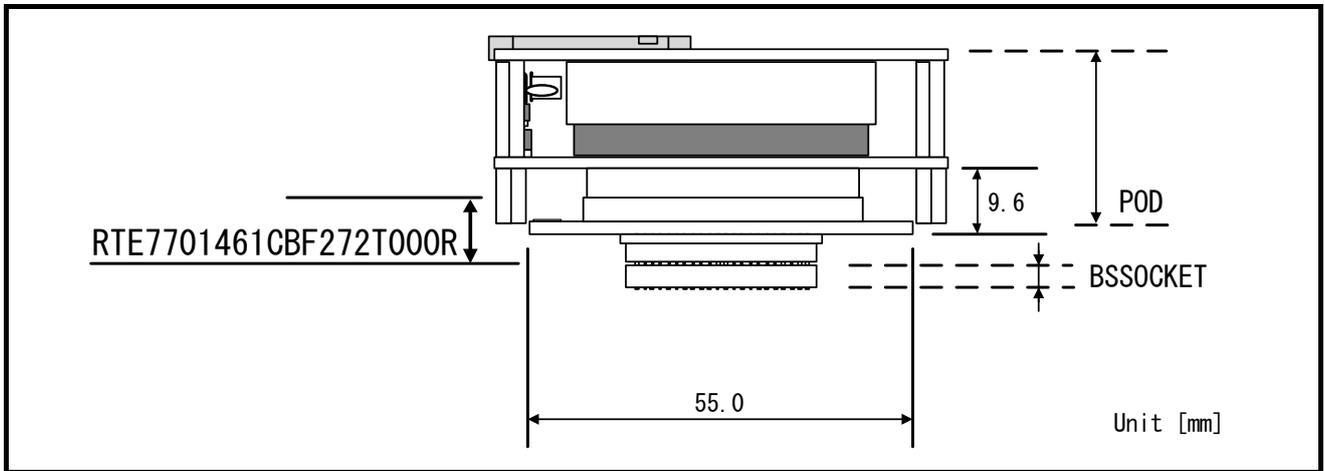


Figure 5 Drawing of the Socket Assembly

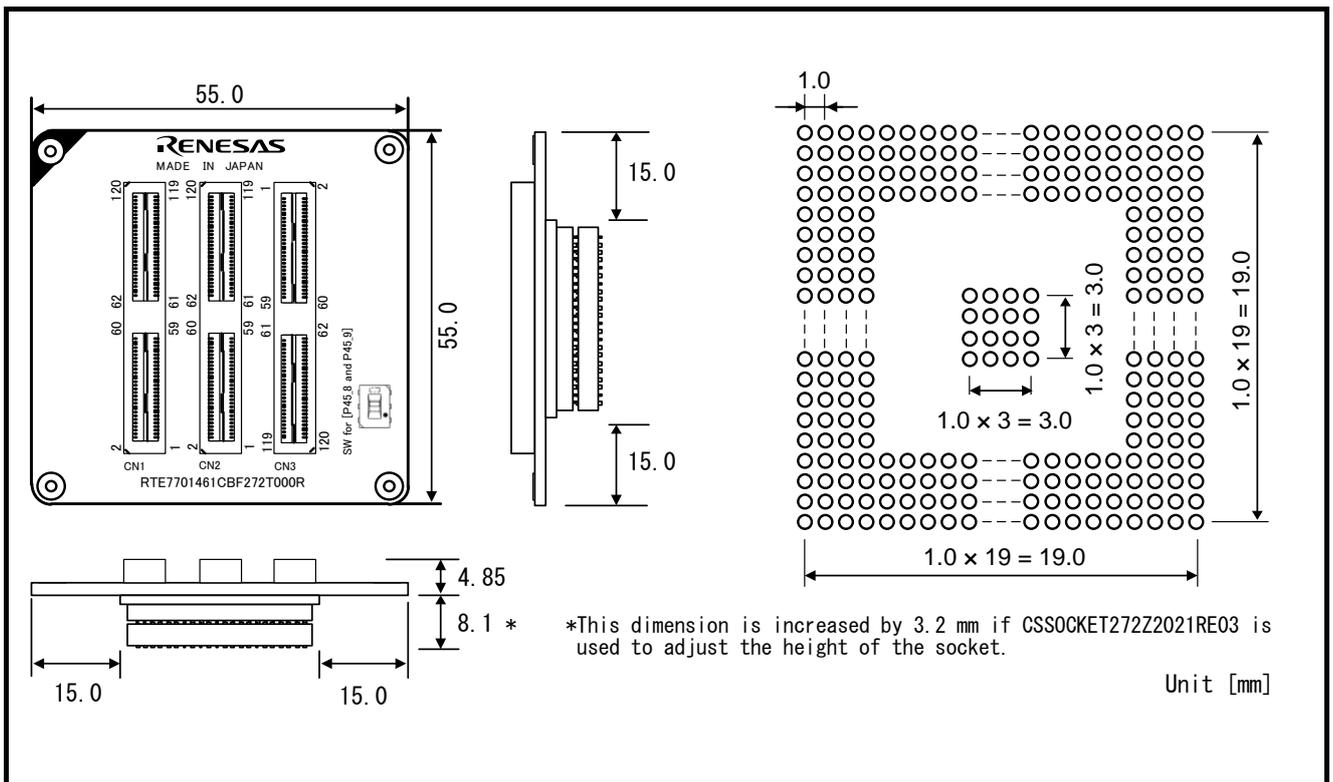


Figure 6 Drawing with Dimensions and a Pad Pattern for Reference

8. Characteristics of Target Interface

The various equivalent circuits below apply to the target interface of this product.

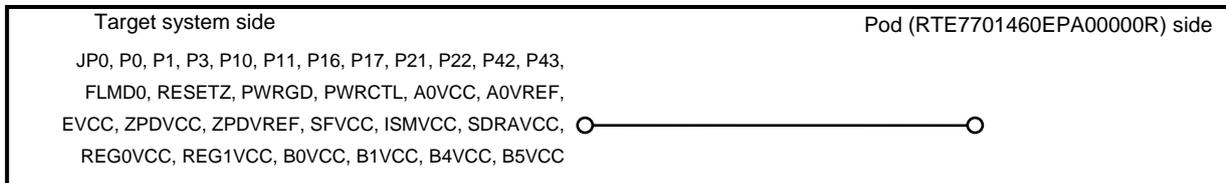


Figure 7 Equivalent Circuit A

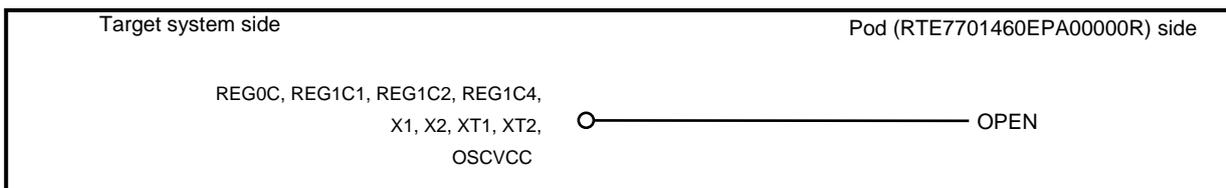


Figure 8 Equivalent Circuit B

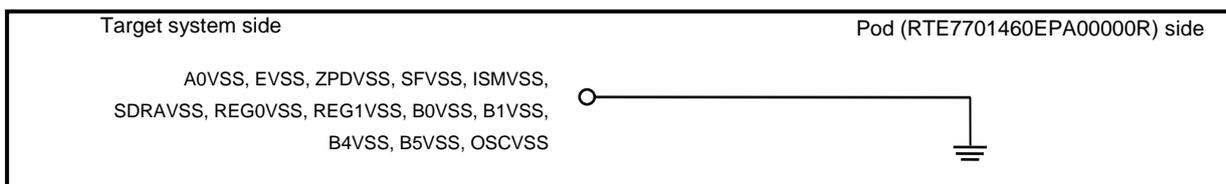


Figure 9 Equivalent Circuit C

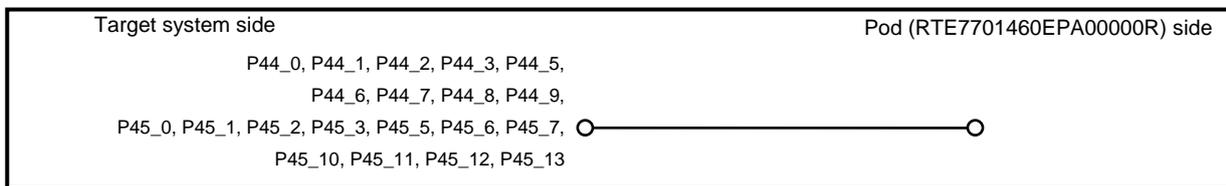


Figure 10 Equivalent Circuit D

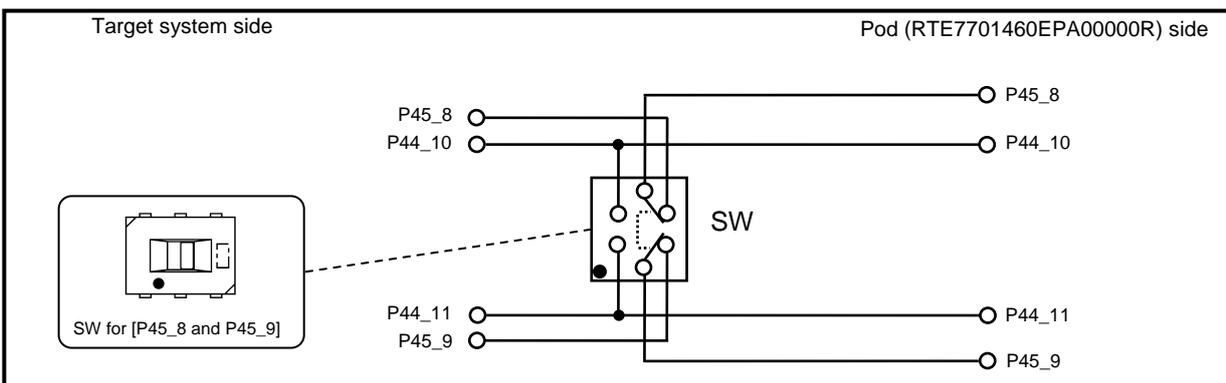


Figure 11 Equivalent Circuit E

9. Precautions and WEEE Directive



CAUTION

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

⚠ CAUTION

Cautions to be Taken for This Product:



- Inquiries regarding the combination of CSSOCKET272Z2021RE03 used for adjusting the height of the assembly, please send an email to the address below.

Tokyo Eletech Corporation http://www.tetc.co.jp/e_index.htm

IMPORTANT

Note on This Product:

- This product is not reparable.
- Inquiries regarding the purchase of BSSOCKET272Z2021RE21N, CSSOCKET272Z2021RE03, LSPACK272Z2021RE11, and LSPACK272Z2021RE12, please send an email to the address below.

Tokyo Eletech Corporation http://www.tetc.co.jp/e_index.htm

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