

To our customers,

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## Old Company Name in Catalogs and Other Documents

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April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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# R0E5212BACFK00

Converter Board for 64-pin 0.5mm pitch LQFP

## User's Manual

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### Keep safety first in your circuit designs!

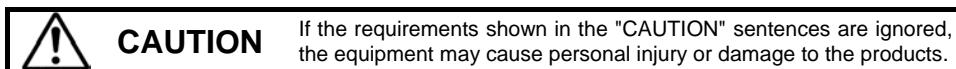
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Renesas Tools Homepage <http://www.renesas.com/tools>

# 1. Outline

The R0E5212BACFK00 is a converter board for connecting the emulation probe R0E521000EPB00 and the compact emulator R0E521000CPE00 for R8C/Tiny Series to a foot pattern for 64-pin 0.5mm pitch LQFP (PLQP0064KB-A, previous code: 64P6Q-A) of R8C/2A and 2B Groups.

# 2. Package Components (See Figure 1)

Table 1 Package Components

Item	Quantity
R0E5212BACFK00 (Slave chip mounting board R0E521DAEPBS0 and 150mm FFC cable included)	1 pc.
YQPACK064SD (made by Tokyo Eletech Corporation)	1 pc.
NQPACK064SD-ND (made by Tokyo Eletech Corporation)	1 pc.
YQ-GUIDE (made by Tokyo Eletech Corporation)	4 pcs.
R0E5212BACFK00 User's Manual (This manual)	1 pc.

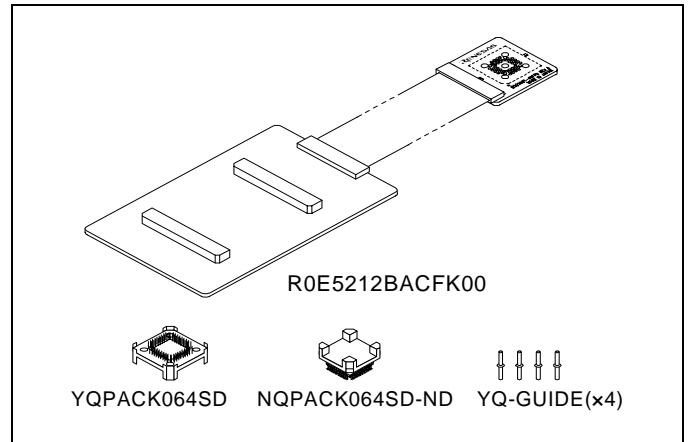


Figure 1 Package components of the R0E5212BACFK00

# 3. Specifications

Table 2 Specifications

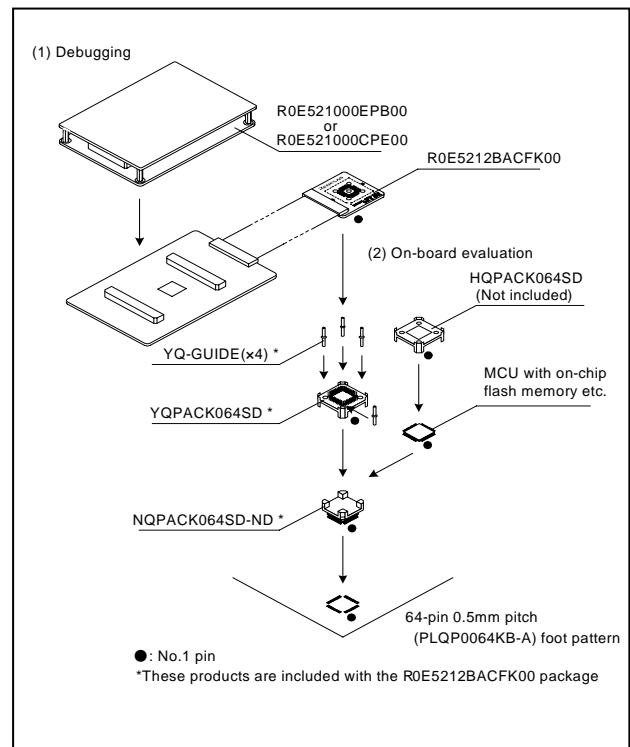
Applicable package	PLQP0064KB-A (64-pin 0.5mm pitch LQFP)
Insertion/removal iterations of connector	Between R0E5212BACFK00 and YQPACK064SD: 100 times guaranteed
	Between R0E521000EPB00 or R0E521000CPE00 and R0E5212BACFK00: 50 times guaranteed

# 4. Usage (See Figure 2)

The R0E5212BACFK00 can be used for debugging and on-board evaluation in common by mounting the NQPACK064SD-ND on the user system.

- (1) For debugging  
Mount the NQPACK064SD-ND on the foot pattern of the user system. Mount the YQPACK064SD on the NQPACK064SD-ND, and fix them with the YQ-GUIDE's (do not use the screws included with the YQPACK064SD). After connecting the R0E521000EPB00 or R0E521000CPE00 to the R0E5212BACFK00, connect the R0E5212BACFK00 to the YQPACK064SD.
- (2) For on-board evaluation  
Mount an R8C/2A or 2B Group MCU and HQPACK064SD (separately available) in that order on the NQPACK064SD-ND on the user system. And fix them using a screw included with the HQPACK064SD.

Before using the R0E5212BACFK00, be sure to read "7. Precautions" on page 4 and the R0E521000EPB00 or R0E521000CPE00 User's Manual.



## 5. Connection Procedure (See Figure 3)

The procedure for connecting the R0E5212BACFK00 is shown below.

- (1) Mount the NQPACK064SD-ND on the user system.
- (2) Attach the YQPACK064SD to the NQPACK064SD-ND.
- (3) Secure the four corners of the YQPACK064SD with the YQ-GUIDE's.

- Do not use the screws included with the YQPACK064SD for fixing the YQPACK064SD.
- The screwdriver included with the NQPACK064SD-ND is used for fixing the YQPACK064SD. Do not use it for fixing the YQ-GUIDE's.

- (4) Attach the R0E521000EPB00 or R0E521000CPE00 to the R0E5212BACFK00.
- (5) Attach the R0E5212BACFK00 to the YQPACK064SD.

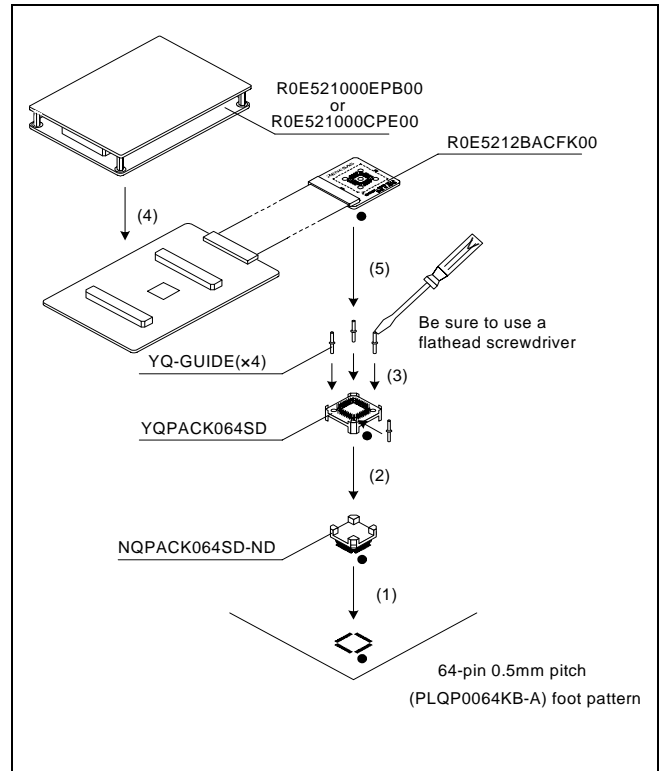


Figure 3 Connection procedure of the R0E5212BACFK00

## 6. External Dimensions and a Sample Foot Pattern (See Figure 4)

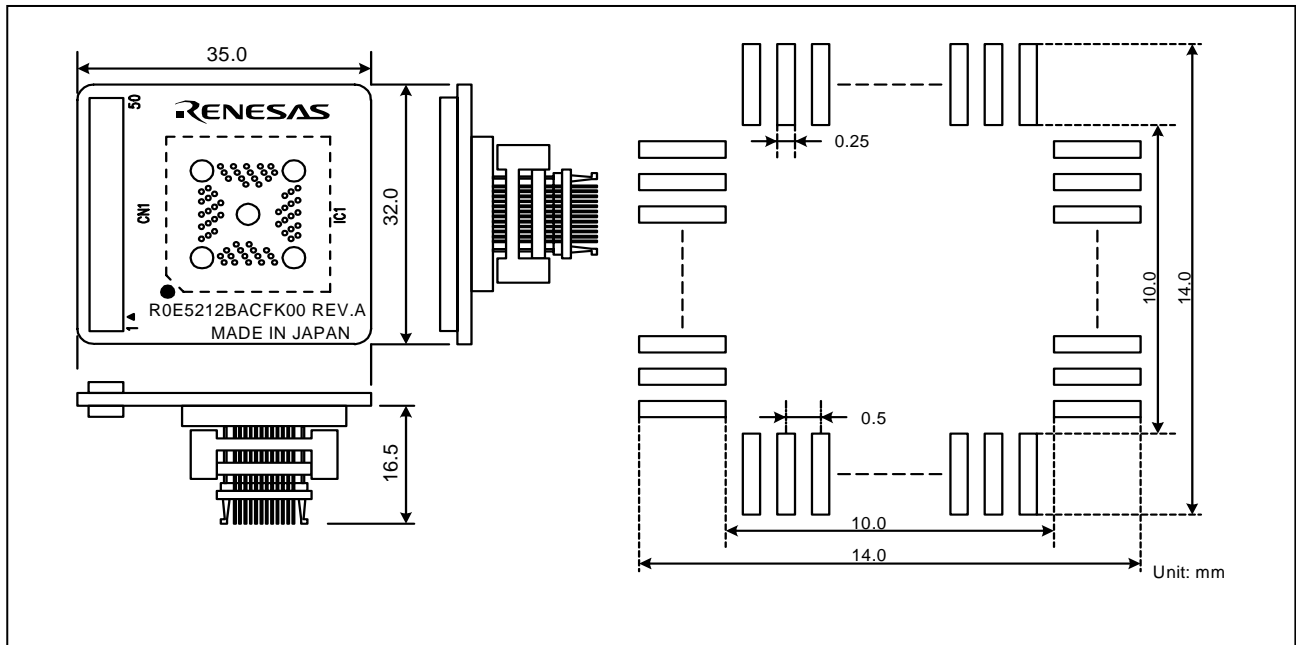


Figure 4 External dimensions and a sample foot pattern of the R0E5212BACFK00

## 7. Precautions

### CAUTION

#### Cautions to Be Taken for This Product:



- Do not pull or excessively flex the cable. The cable may cause a break.
- When connecting the YQPACK064SD, be sure to use the included YQ-GUIDE's.
- Do not use the screws included with the YQPACK064SD to fix it.

### IMPORTANT

#### Notes on This Product:

- We cannot accept any request for repair.
- For purchasing the NQPACK064SD-ND, YQPACK064SD and HQPACK064SD-ND, contact the following:  
Tokyo Eletech Corporation      [http://www.tetc.co.jp/e\\_index.htm](http://www.tetc.co.jp/e_index.htm)
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Renesas Tools Homepage      <http://www.renesas.com/tools>