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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

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

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R0E5212BACFG00

Converter Board for 64-pin 0.8mm pitch LQFP

User's Manual

* NQPACK, YQPACK, YQ-GUIDE and HQPACK are trademarks of Tokyo Eletech Corporation.

Keep safety first in your circuit designs!

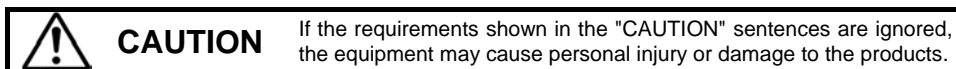
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Renesas Tools Homepage <http://www.renesas.com/tools>

1. Outline

The R0E5212BACFG00 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 0.8mm pitch LQFP (PLQP0064GA-A, previous code: 64P6U-A) of R8C/2A and 2B Groups.

2. Package Components (See Figure 1)

Table 1 Package Components

Item	Quantity
R0E5212BACFG00 (Slave chip mounting board R0E521DAEPBS0 and 150mm FFC cable included)	1 pc.
YQPACK064SA (made by Tokyo Eletech Corporation)	1 pc.
NQPACK064SA160 (made by Tokyo Eletech Corporation)	1 pc.
YQ-GUIDE (made by Tokyo Eletech Corporation)	4 pcs.
R0E5212BACFG00 User's Manual (This manual)	1 pc.

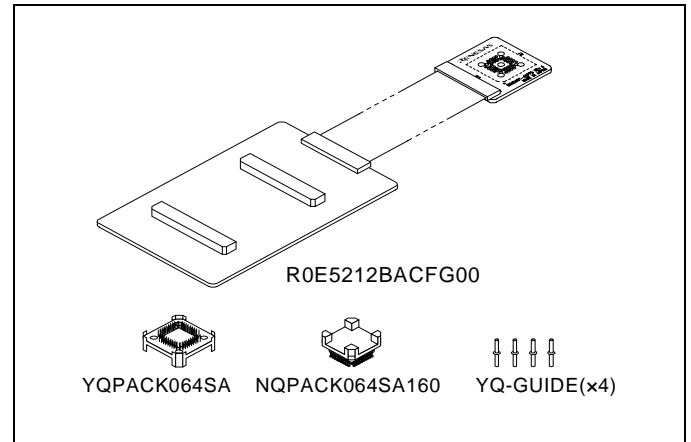


Figure 1 Package components of the R0E5212BACFG00

3. Specifications

Table 2 Specifications

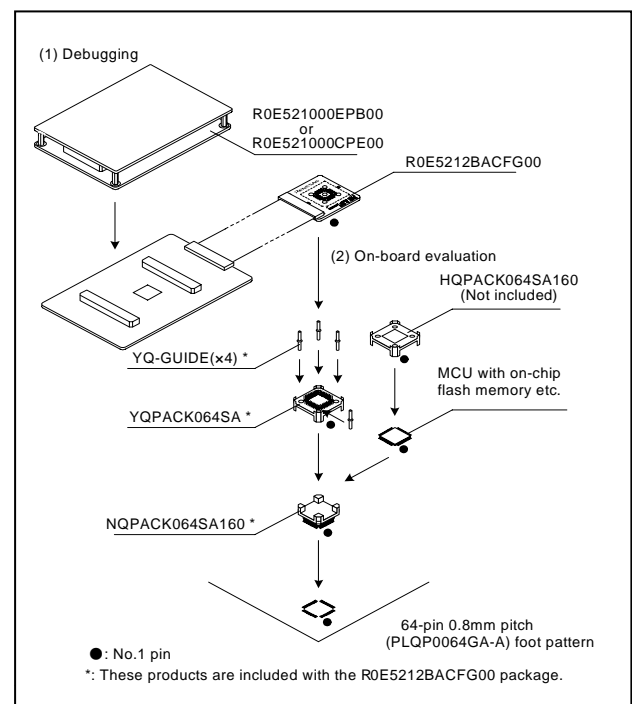
Applicable package	PLQP0064GA-A (64-pin 0.8mm pitch LQFP)
Insertion/removal iterations of connector	Between R0E5212BACFG00 and YQPACK064SA: 100 times guaranteed
	Between R0E521000EPB00 or R0E521000CPE00 and R0E5212BACFG00: 50 times guaranteed

4. Usage (See Figure 2)

The R0E5212BACFG00 can be used for debugging and on-board evaluation in common by mounting the NQPACK064SA160 on the user system.

- (1) For debugging
Mount the NQPACK064SA160 on the foot pattern of the user system. Mount the YQPACK064SA on the NQPACK064SA160, and fix them with the YQ-GUIDE's (do not use the screws included with the YQPACK064SA). After connecting the R0E521000EPB00 or R0E521000CPE00 to the R0E5212BACFG00, connect the R0E5212BACFG00 to the YQPACK064SA.
- (2) For on-board evaluation
Mount an R8C/2A or 2B Group MCU and HQPACK064SA160 (separately available) in that order on the NQPACK064SA160 on the user system. And fix them using a screw included with the HQPACK064SA160.

Before using the R0E5212BACFG00, 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 R0E5212BACFG00 is shown below.

- (1) Mount the NQPACK064SA160 on the user system.
- (2) Attach the YQPACK064SA to the NQPACK064SA160.
- (3) Secure the four corners of the YQPACK064SA with the YQ-GUIDE's.

- Do not use the screws included with the YQPACK064SA for fixing the YQPACK064SA.
- The screwdriver included with the NQPACK064SA160 is used for fixing the YQPACK064SA. Do not use it for fixing the YQ-GUIDE's.

- (4) Attach the R0E521000EPB00 or R0E521000CPE00 to the R0E5212BACFG00.
- (5) Attach the R0E5212BACFG00 to the YQPACK064SA.

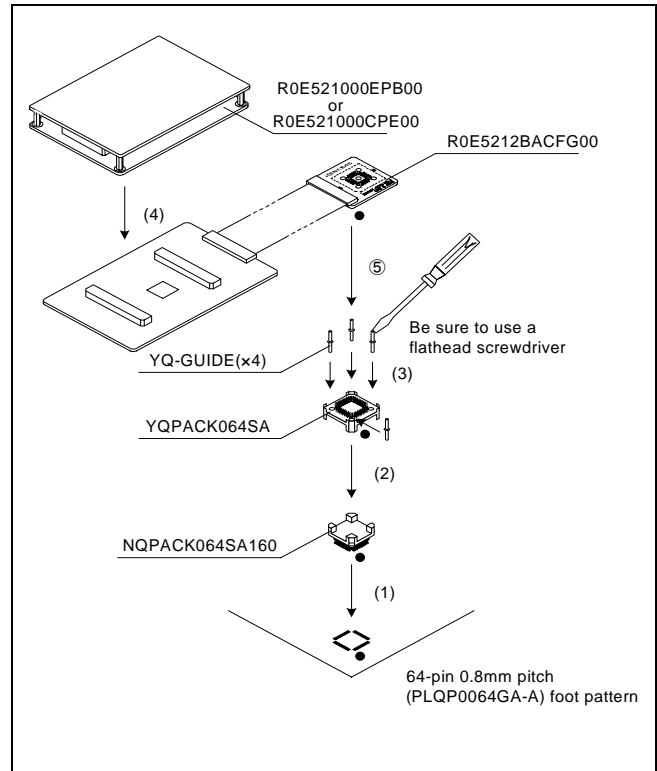


Figure 3 Connection procedure of the R0E5212BACFG00

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

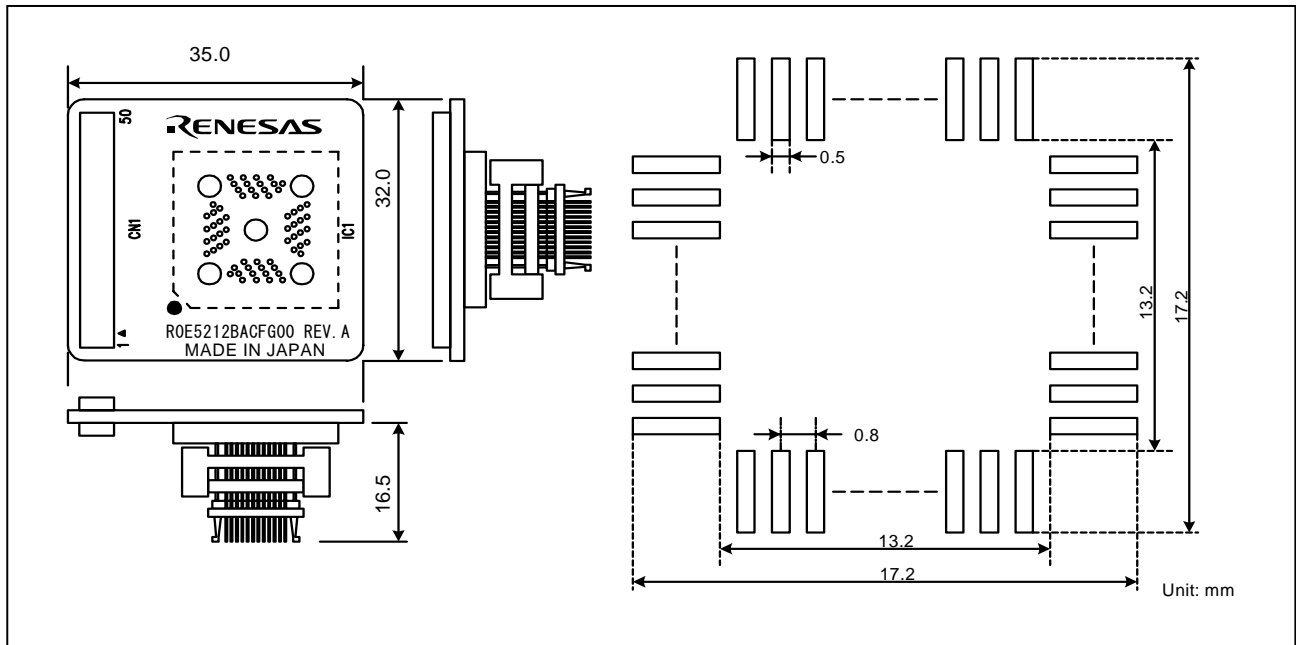


Figure 4 External dimensions and a sample foot pattern of the R0E5212BACFG00

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 YQPACK064SA, be sure to use the included YQ-GUIDE's.
- Do not use the screws included with the YQPACK064SA to fix it.

IMPORTANT

Notes on This Product:

- We cannot accept any request for repair.
- For purchasing the NQPACK064SA160, YQPACK064SA and HQPACK064SA160, contact the following:
Tokyo Eletech Corporation http://www.tetc.co.jp/e_index.htm
- For inquiries about the product or the contents of this manual, contact your local distributor.
Renesas Tools Homepage <http://www.renesas.com/tools>