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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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R0E5212L4CFG00

Converter Board for 32-pin 0.8mm pitch LQFP

User's Manual

Notes regarding these materials

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

1. Outline

The R0E5212L4CFG00 is a converter board for connecting the emulation probe R0E521000EPB00 and the compact emulator R0E521000CPE00 for R8C/Tiny Series to a foot pattern for 32-pin 0.8mm pitch LQFP (PLQP0032GB-A, formerly 32P6U-A) of R8C/2K and 2L Groups.

2. Package Components (See Figure 1)

Check to see if the R0E5212L4CFG00 package has all the following contents before using this product.

Table 1 Package Components

Item	Quantity
R0E5212L4CFG00 (Base board R0E521000CIF00 and 150mm FFC cable included)	1 pc.
YQPACK032SA (made by Tokyo Eletech Corporation)	1 pc.
NQPACK032SA (made by Tokyo Eletech Corporation)	1 pc.
YQ-GUIDE (made by Tokyo Eletech Corporation)	4 pcs.
R0E5212L4CFG00 User's Manual (This manual)	1 pc.

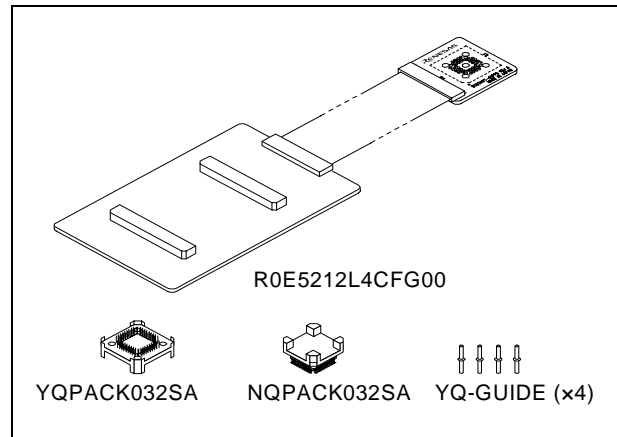


Figure 1 Package components of the R0E5212L4CFG00

3. Specifications

Table 2 Specifications

Applicable package	PLQP0032GB-A (32-pin 0.8mm pitch LQFP)
Insertion/removal iterations of connector	Between R0E5212L4CFG00 and YQPACK032SA: 100 times guaranteed
	Between R0E521000EPB00 or R0E521000CPE00 and R0E5212L4CFG00: 50 times guaranteed

4. Usage (See Figure 2)

The R0E5212L4CFG00 can be used for debugging and board mounted evaluation in common by mounting the NQPACK032SA on the user system.

- (1) For debugging
Mount the NQPACK032SA and YQPACK032SA on the foot pattern of the user system in that order. And fix them with the YQ-GUIDE's (do not use the screws included with the YQPACK032SA).
After connecting the R0E521000EPB00 or R0E521000CPE00 and R0E5212L4CFG00, connect the R0E5212L4CFG00 to the YQPACK032SA.
- (2) For onboard evaluation
Mount an R8C/2K and 2L Group MCU and HQPACK032SA (not included) in that order on the NQPACK032SA on the user system. And fix them using a screw included with the HQPACK032SA.

Before using the R0E5212L4CFG00, be sure to read "7. Precautions" on page 4 and the R0E521000EPB00 or R0E521000CPE00 User's Manual.

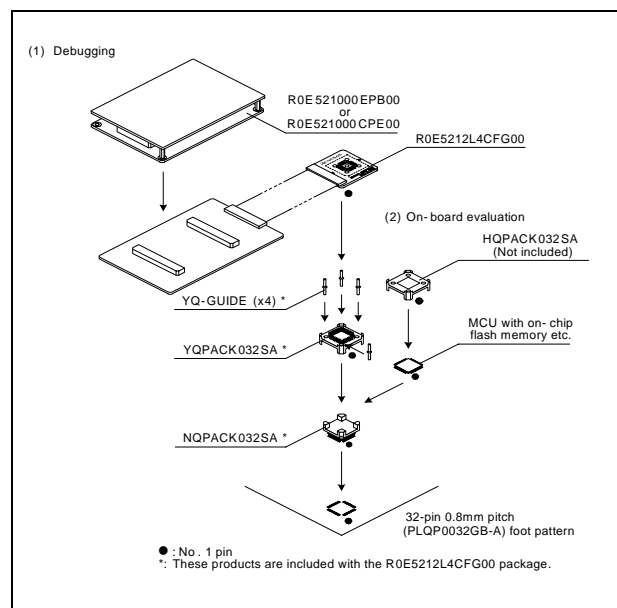


Figure 2 Usage of the R0E5212L4CFG00

5. Connection Procedure (See Figure 3)

The procedure for connecting the R0E5212L4CFG00 is shown below.

- (1) Mount the NQPACK032SA on the user system.
- (2) Attach the YQPACK032SA on the NQPACK032SA.
- (3) Secure the four corners of the YQPACK032SA with the YQ-GUIDE's.

- Do not use the screws included with the YQPACK032SA for fixing the YQPACK032SA.
- The screwdriver included with the NQPACK032SA is used for fixing the HQPACK032SA. Do not use it for fixing the YQ-GUIDE's.

- (4) Attach the R0E521000EPB00 or R0E521000CPE00 to the R0E5212L4CFG00.
- (5) Attach the R0E5212L4CFG00 to the YQPACK032SA.

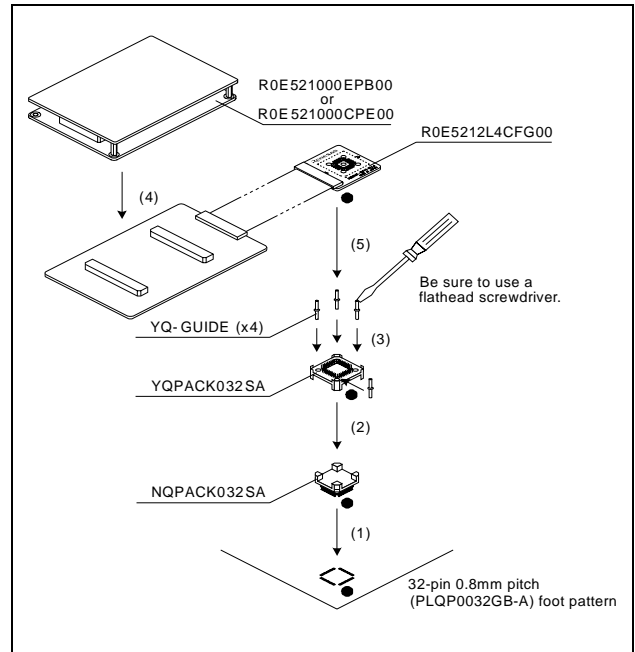


Figure 3 Connection procedure of the R0E5212L4CFG00

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

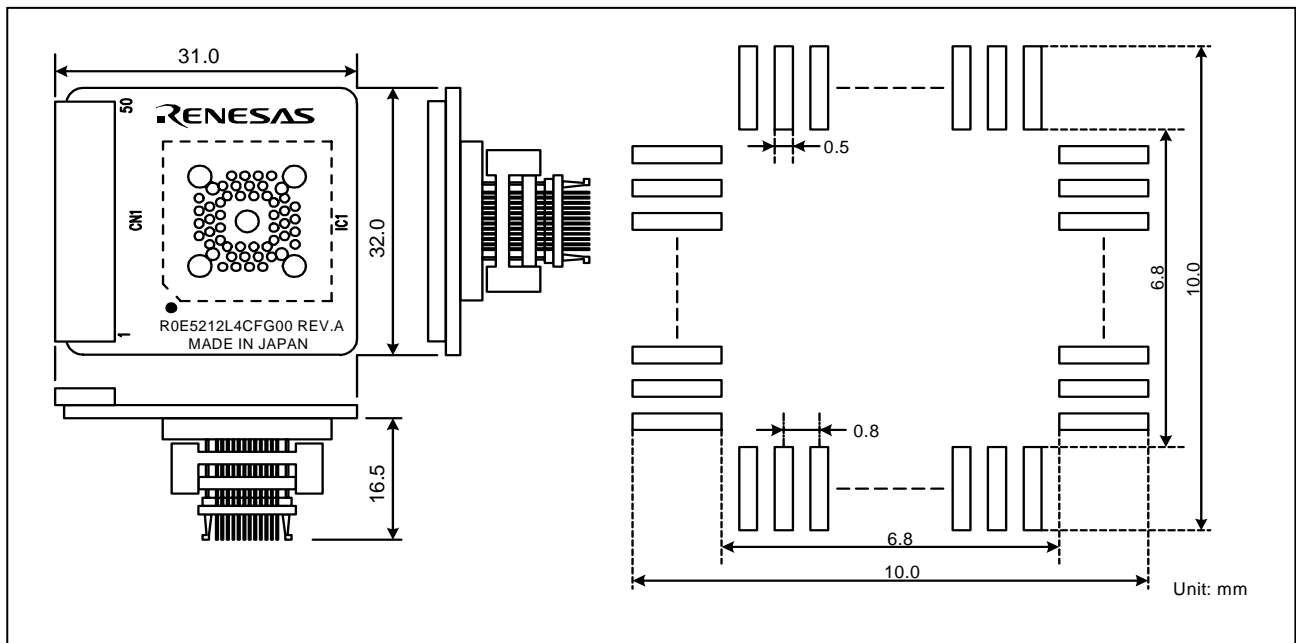


Figure 4 External dimensions and a sample foot pattern of the R0E5212L4CFG00

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 YQPACK032SA, be sure to use the included YQ-GUIDE's.
- Do not use the screws included with the YQPACK032SA to fix it.

IMPORTANT

Notes on This Product:

- We cannot accept any request for repair.
- For purchasing the NQPACK032SA, YQPACK032SA and HQPACK032SA, contact the following:
Tokyo Eletech Corporation http://www.tetc.co.jp/e_tet.htm
- For inquiries about the product or the contents of this manual, contact your local distributor.
Renesas Tools Homepage <http://www.renesas.com/tools>

8. Adding an MCU file

If you cannot select the MCU file for the R8C/2K and /2L Groups when the emulator debugger is launched, follow as below to add the MCU file.

- (1) Download the MCU file installer for the emulator to be used from the following download site.

http://tool-support.renesas.com/eng/toolnews/download/r8c2k_2l.htm

- When using with the compact emulator R0E521000CPE00
MCU file installer name: MCU_Files_install_cpe_R8C_2K-2L.exe
- When using with the emulation probe R0E521000EPB00
MCU file installer name: MCU_Files_install_epb_R8C_2K-2L.exe

- (2) Start the downloaded installer to add the MCU file.