To our customers,

Old Company Name in Catalogs and Other Documents

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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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This is a development supporting unit for use in your program development and evaluation stages. In mass-producing your program you have finished developing, be sure to make a judgment on your own risk that it can be put to practical use by performing integration test, evaluation, or some experiment else.

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This product has been developed by assuming its use for program development and evaluation in laboratories. Therefore, it does not fall under the application of Electrical Appliance and Material Safety Law and protection against electromagnetic interference when used in Japan.

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

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

Renesas Technology
www.renesas.com

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(1/4)
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>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>R0E5212BACFG00 (Slave chip mounting board R0E521DAEPBS0 and 150mm FFC cable included)</td>
<td>1 pc.</td>
</tr>
<tr>
<td>YQPACK064SA (made by Tokyo Eletech Corporation)</td>
<td>1 pc.</td>
</tr>
<tr>
<td>NQPACK064SA160 (made by Tokyo Eletech Corporation)</td>
<td>1 pc.</td>
</tr>
<tr>
<td>YQ-GUIDE (made by Tokyo Eletech Corporation)</td>
<td>4 pcs.</td>
</tr>
<tr>
<td>R0E5212BACFG00 User’s Manual (This manual)</td>
<td>1 pc.</td>
</tr>
</tbody>
</table>

3. Specifications

<table>
<thead>
<tr>
<th>Applicable package</th>
<th>PLQP0064GA-A (64-pin 0.8mm pitch LQFP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion/removal iterations of connector</td>
<td>Between R0E5212BACFG00 and YQPACK064SA: 100 times guaranteed</td>
</tr>
<tr>
<td></td>
<td>Between R0E521000EPB00 or R0E521000CPE00 and R0E5212BACFG00: 50 times guaranteed</td>
</tr>
</tbody>
</table>

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 HQPACK064SA160. 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.

![Connection procedure of the R0E5212BACFG00](image)

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

![External dimensions and a sample foot pattern of the R0E5212BACFG00](image)
7. Precautions

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cautions to Be Taken for This Product:</strong></td>
</tr>
<tr>
<td>- Do not pull or excessively flex the cable. The cable may cause a break.</td>
</tr>
<tr>
<td>- When connecting the YQPACK064SA, be sure to use the included YQ-GUIDE's.</td>
</tr>
<tr>
<td>- Do not use the screws included with the YQPACK064SA to fix it.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMPORTANT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Notes on This Product:</strong></td>
</tr>
<tr>
<td>- We cannot accept any request for repair.</td>
</tr>
<tr>
<td>- For purchasing the NQPACK064SA160, YQPACK064SA and HQPACK064SA160, contact the following:</td>
</tr>
</tbody>
</table>
  - 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 |