To our customers,

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**Old Company Name in Catalogs and Other Documents**

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Renesas Electronics website: [http://www.renesas.com](http://www.renesas.com)

April 1st, 2010
Renesas Electronics Corporation

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Issued by: Renesas Electronics Corporation ([http://www.renesas.com](http://www.renesas.com))

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

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

3. Specifications

Table 2 Specifications

<table>
<thead>
<tr>
<th>Applicable package</th>
<th>PLQP0064KB-A (64-pin 0.5mm pitch LQFP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion/removal iterations of connector</td>
<td>Between R0E5212BACFK00 and YQPACK064SD: 100 times guaranteed</td>
</tr>
<tr>
<td></td>
<td>Between R0E521000EPB00 or R0E521000CPE00 and R0E5212BACFK00: 50 times guaranteed</td>
</tr>
</tbody>
</table>

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 HQPACK064SD. 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.

![Diagram of connection procedure](image)

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

![Diagram of external dimensions and sample foot pattern](image)

Figure 3 Connection procedure of the R0E5212BACFK00

Figure 4 External dimensions and a sample foot pattern of the R0E5212BACFK00
### 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 YQPACK064SD, be sure to use the included YQ-GUIDE's.</td>
</tr>
<tr>
<td>⚠️ Do not use the screws included with the YQPACK064SD 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 NQPACK064SD-ND, YQPACK064SD and HQPACK064SD-ND, contact the following:</td>
</tr>
<tr>
<td>Tokyo Eleotech Corporation</td>
</tr>
<tr>
<td>⚠️ For inquiries about the product or the contents of this manual, contact your local distributor.</td>
</tr>
<tr>
<td>Renesas Tools Homepage</td>
</tr>
</tbody>
</table>