To our customers,

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

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April 1\(^{st}\), 2010
Renesas Electronics Corporation

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

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R0E5212DACFK00
Converter Board for 80-pin 0.5mm pitch LQFP
User’s Manual

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- Renesas Solutions Corporation strives to renovate or provide a workaround for product malfunction at some charge or without charge. However, this does not necessarily mean that Renesas Solutions Corporation guarantees the renovation or the provision under any circumstances.
- 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

Rev.1.00
Jan. 16, 2007
REJ10J1366-0100
1. Outline

The R0E5212DACFK00 is a converter board for connecting the emulation probe R0E521000EPB00 and the compact emulator R0E521000CPE00 for R8C/Tiny Series to a foot pattern for 80-pin 0.5mm pitch LQFP (PLQP0080KB-A, previous code: 80P6Q-A) of R8C/2C and 2D 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>R0E5212DACFK00 (Slave chip mounting board R0E521DAEPBS0 and 150mm FFC cable included)</td>
<td>1 pc.</td>
</tr>
<tr>
<td>YQPACK080SD (made by Tokyo Eletech Corporation)</td>
<td>1 pc.</td>
</tr>
<tr>
<td>NQPACK080SD-ND (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>R0E5212DACFK00 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>PLQP0080KB-A (80-pin 0.5mm pitch LQFP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion/removal</td>
<td>Between R0E5212DACFK00 and YQPACK080SD: 100 times guaranteed</td>
</tr>
<tr>
<td>iterations of</td>
<td>Between R0E521000EPB00 or R0E521000CPE00 and R0E5212DACFK00: 50 times guaranteed</td>
</tr>
<tr>
<td>connector</td>
<td></td>
</tr>
</tbody>
</table>

4. Usage (See Figure 2)

The R0E5212DACFK00 can be used for debugging and on-board evaluation in common by mounting the NQPACK080SD-ND on the user system.

(1) For debugging

Mount the NQPACK080SD-ND on the foot pattern of the user system. Mount the YQPACK080SD on the NQPACK080SD-ND, and fix them with the YQ-GUIDE’s (do not use the screws included with the YQPACK080SD). After connecting the R0E521000EPB00 or R0E521000CPE00 to the R0E5212DACFK00, connect the R0E5212DACFK00 to the YQPACK080SD.

(2) For on-board evaluation

Mount an R8C/2C or 2D Group MCU and HQPACK080SD (separately available) in that order on the NQPACK080SD-ND on the user system. And fix them using a screw included with the HQPACK080SD.

Before using the R0E5212DACFK00, 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 R0E5212DACFK00 is shown below.

(1) Mount the NQPACK080SD-ND on the user system.
(2) Attach the YQPACK080SD to the NQPACK080SD-ND.
(3) Secure the four corners of the YQPACK080SD with the YQ-GUIDE’s.
- Do not use the screws included with the YQPACK080SD for fixing the YQPACK080SD.
- The screwdriver included with the NQPACK080SD-ND is used for fixing the HQPACK080SD. Do not use it for fixing the YQ-GUIDE’s.
(4) Attach the R0E521000EPB00 or R0E521000CPE00 to the R0E5212DACFK00.
(5) Attach the R0E5212DACFK00 to the YQPACK080SD.

Figure 3 Connection procedure of the R0E5212DACFK00

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

Figure 4 External dimensions and a sample foot pattern of the R0E5212DACFK00
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 YQPACK080SD, be sure to use the included YQ-GUIDE’s.</td>
</tr>
<tr>
<td>• Do not use the screws included with the YQPACK080SD 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 NQPCK080SD-ND, YQPACK080SD and HQPACK080SD, contact the following:</td>
</tr>
<tr>
<td>Tokyo Eletech 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>