To our customers,

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April 1st, 2010
Renesas Electronics Corporation

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

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M30290T-80FPD
Converter Board for 80-pin 0.5-mm-pitch LQFP

User’s Manual

Keep safety first in your circuit designs!

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1. Outline

The M30290T-80FPD is a converter board for connecting the emulation probe M30290T-EPB for M16C/26A, 28, 29 Groups and the compact emulator M30290T2-CPE to a foot pattern for M16C/28, 29 Group 80-pin 0.5-mm-pitch LQFP (80P6Q-A).

2. Package Components (See Figure 1)

(1) M30290T-80FPD (Base board M30290T-PTCB and 150-mm FFC cable included) 1 pc.
(2) YQPACK080SD (made by Tokyo Eletech Corporation) 1 pc.
(3) NQPACK080SD-ND (made by Tokyo Eletech Corporation) 1 pc.
(4) YQ-GUIDE (made by Tokyo Eletech Corporation) 4 pcs.
(5) M30290T-80FPD User’s Manual (This manual) 1 pc.

3. Specifications

Table 1 Specifications

<table>
<thead>
<tr>
<th>Applicable package</th>
<th>Insertion/removal iterations of connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>80P6Q-A (80-pin 0.5-mm-pitch LQFP)</td>
<td>Between M30290T-80FPD and YQPACK080SD: 100 times guaranteed</td>
</tr>
<tr>
<td></td>
<td>Between M30290T-EPB or M30290T2-CPE and M30290T-80FPD: 50 times guaranteed</td>
</tr>
</tbody>
</table>

4. Usage (See Figure 2)

The M30290T-80FPD can be used for debugging and board mounted evaluation in common by mounting the NQPACK080SD-ND on the user system.

(1) For debugging

Mount the NQPACK080SD-ND and YQPACK080SD 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 YQPACK080SD). After connecting the M30290T-EPB or M30290T2-CPE and M30290T-80FPD, connect the M30290T-80FPD to the YQPACK080SD.

(2) For on-board evaluation

Mount an M16C/28, 29 Group MCU and HQPACK080SD (separately available) in that order on the NQPACK080SD-ND on the user system. And fix them using screw included with the HQPACK080SD.

Before using the M30290T-80FPD, be sure to read “7. Precautions” on page 4 and the M30290T-EPB or M30290T2-CPE User’s Manual.
5. Connection Procedure (See Figure 3)

The procedure for connecting the M30290T-80FPD is shown below.

1. Mount the NQPACK080SD-ND on the user system.
2. Attach the YQPACK080SD on 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 M30290T-EPB or M30290T2-CPE and the M30290T-PTCB.
5. Attach the M30290T-80FPD to the NQPACK080SD-ND.

Figure 3 Connection procedure of the M30290T-80FPD

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

Figure 4 External dimensions and a sample foot pattern of the M30290T-80FPD
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 YQPACK080SD, be sure to use the included YQ-GUIDE's.
- Do not use the screws included with the YQPACK080SD to fix it.

IMPORTANT
Notes on This Product:
- We cannot accept any request for repair.
- For purchasing the NQPACK080SD-ND, YQPACK080SD and HQPACK080SD, 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/en/tools