

To our customers,

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## Old Company Name in Catalogs and Other Documents

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April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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# M30102T-PTC

Converter Board for M30102

## User's Manual

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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 M30102T-PTC is a converter board for M30102 Group for connecting the pod probe M30100T-PRB to the foot pattern for 48-pin 0.5-mm-pitch QFP (48P6Q-A).

## 2. Package Components (see Figure 1)

- (1) M30102T-PTC converter board
- (2) YQPACK048SD (made by Tokyo Eletech Corporation)
- (3) NQPACK048SD (made by Tokyo Eletech Corporation)
- (4) YQ-GUIDE (4 pieces)  
(made by Tokyo Eletech Corporation)
- (5) Screwdriver
- (6) M30102T-PTC User's Manual (This manual)

## 3. Specifications

Table 1 Specifications

|   |                                      |
|---|--------------------------------------|
| Applicable package                        | 48P6Q-A<br>(48-pin 0.5-mm-pitch QFP) |
| Insertion/removal iterations of connector | 20 times guaranteed                  |

## 4. Usage (see Figure 2)

The M30102T-PTC can be used for debugging and board mounted evaluation in common by mounting the NQPACK048SD on the target board.

### a. For debugging

Mount the NQPACK048SD and the YQPACK048SD in that order on the foot pattern of the target board. Then attach the YQ-GUIDE's to the YQPACK048SD to connect the M30102T-PTC. (Do not use the four screws included in the YQPACK048SD package.) Finally, connect the pod probe M30100T-PRB to the M30102T-PTC.

### b. For board-mounted evaluation

Mount the M30102 MCU and the HQPACK048SD (separately available) in that order on the NQPACK048SD on the target system. Then secure the screws.

Before using the M30102T-PTC, be sure to read "7. Precautions" (page 4).

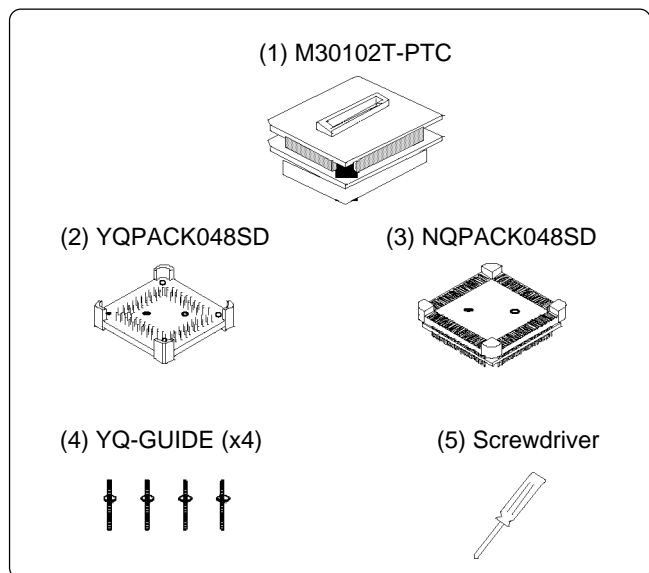


Figure 1 Package components of the M30102T-PTC

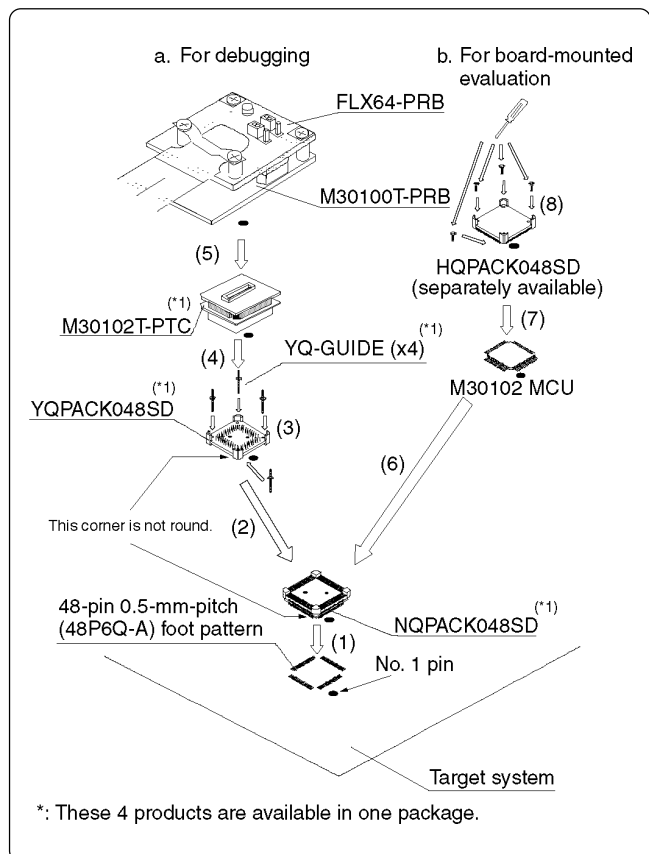


Figure 2 Usage of the M30102T-PTC

## 5. Connection Procedure (see Figure 3)

- (1) Mount the NQPACK048SD.
- (2) Mount the YQPACK048SD on the NQPACK048SD.
- (3) Secure the four corners of the YQPACK048SD with the YQ-GUIDE's. (Do not use the four screws included in the YQPACK048SD package.)
- (4) Attach the M30102T-PTC to the YQPACK048SD.
- (5) Connect the probe of the emulation pod to the M30102T-PTC.

Before using the M30102T-PTC, be sure to read "7. Precautions" (page 4).

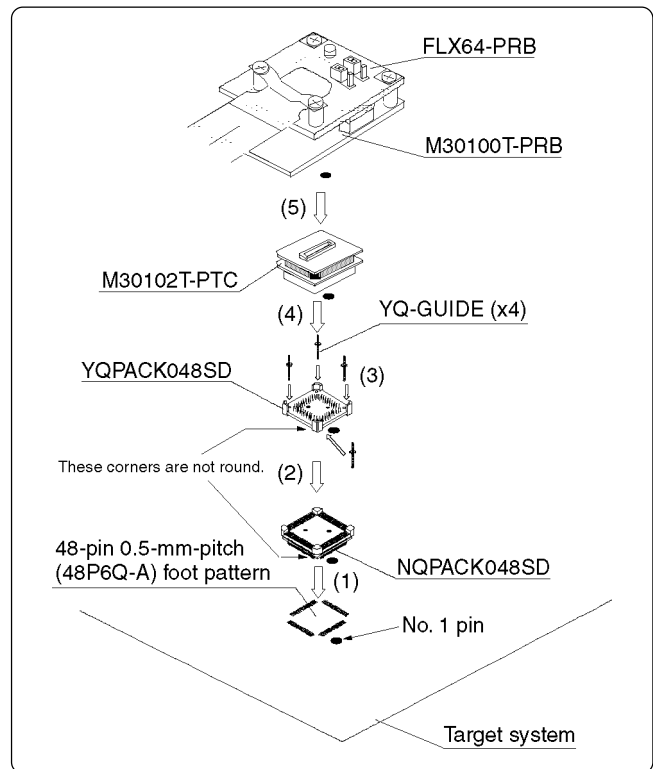


Figure 3 Connection procedure of the M30102T-PTC

## 6. External Dimensions of the M30102T-PTC and a Sample Foot Pattern (see Figure 4)

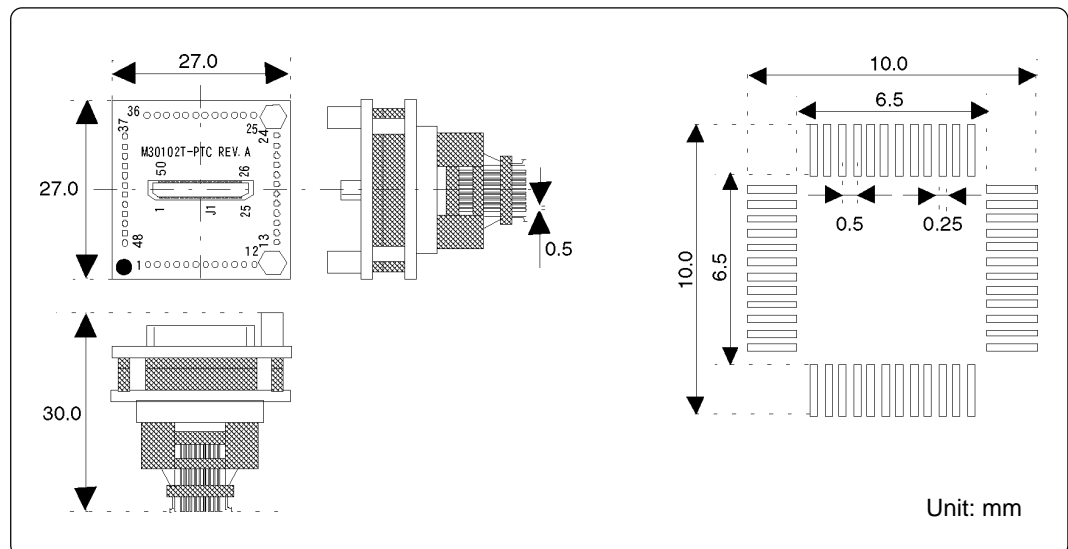


Figure 4 External dimensions of M30102T-PTC and sample foot pattern

## 7. Precautions

### CAUTION

#### Caution to Be Taken for This Product:



- When connecting the M30102T-PTC, be sure to use the included YQ-GUIDE's.

### IMPORTANT

#### Notes for This Product:

- We cannot accept any request for repair.
- For purchasing the NQPACK048SD, YQPACK048SD and HQPACK048SD, contact the following:

Daimaru Kogyo Ltd. <http://www.daimarukogyo.co.jp/>  
 Tokyo Eletech Corporation [http://www.tetc.co.jp/e\\_tet.htm](http://www.tetc.co.jp/e_tet.htm)

- For inquiries about the product or the contents of this manual, contact your local distributor.

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## 8. J1 Connectors and Pins of NQPACK

Table 2 lists the connections of the J1 connectors and the pins of the NQPACK.

Table 2 Connections of the J1 connectors and the pins of the NQPACK

| Connector No. | NQPACK | Connector No. | NQPACK |
|---------------|--------|---------------|--------|
| J1-1          | -      | J1-26         | -      |
| J1-2          | 43     | J1-27         | 19     |
| J1-3          | 44     | J1-28         | 20     |
| J1-4          | 45     | J1-29         | 21     |
| J1-5          | 46     | J1-30         | 22     |
| J1-6          | 47     | J1-31         | 23     |
| J1-7          | 48     | J1-32         | 24     |
| J1-8          | 1      | J1-33         | 25     |
| J1-9          | 2      | J1-34         | 26     |
| J1-10         | 3      | J1-35         | 27     |
| J1-11         | 4      | J1-36         | 28     |
| J1-12         | 5      | J1-37         | 29     |
| J1-13         | 6      | J1-38         | 30     |
| J1-14         | 7      | J1-39         | 31     |
| J1-15         | 8      | J1-40         | 32     |
| J1-16         | 9      | J1-41         | 33     |
| J1-17         | 10     | J1-42         | 34     |
| J1-18         | 11     | J1-43         | 35     |
| J1-19         | 12     | J1-44         | 36     |
| J1-20         | 13     | J1-45         | 37     |
| J1-21         | 14     | J1-46         | 38     |
| J1-22         | 15     | J1-47         | 39     |
| J1-23         | 16     | J1-48         | 40     |
| J1-24         | 17     | J1-49         | 41     |
| J1-25         | 18     | J1-50         | 42     |