

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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# M37515T-PTC

Converter Board for Connecting 64-core Flexible Board FLX64 or M3T-64DIP-DMS to 48-pin 0.5mm pitch LQFP for 7515 and 7516 Groups

## 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. Description

This product converts the 64-pin LCC package (64D0) for 7515 and 7516 Group MCUs to the pin assignments of the 48-pin 0.5mm pitch LQFP package (PLQP0048KB-A), and connects the emulator and target.

## 2. Package Components (see Figure 1)

- (1) M37515T-PTC converter board
- (2) TQSOCKET048SDP
- (3) TQPACK048SD
- (4) M37515T-PTC Instruction Manual (this manual)

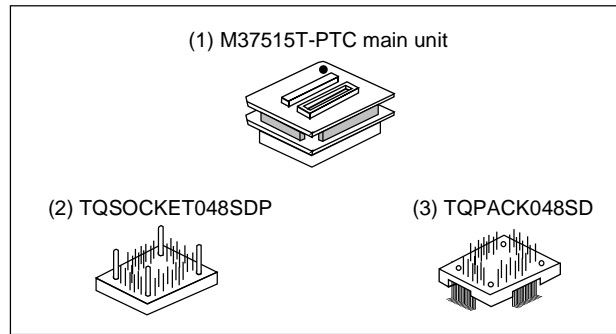


Figure 1 Package components of M37515T-PTC

## 3. Specifications

Table 1 Specifications

Item	Description
Package	PLQP0048KB-A (formerly: 48P6Q-A) (48-pin 0.5mm pitch LQFP)
Insertion/removal iterations of connector	20 times guaranteed

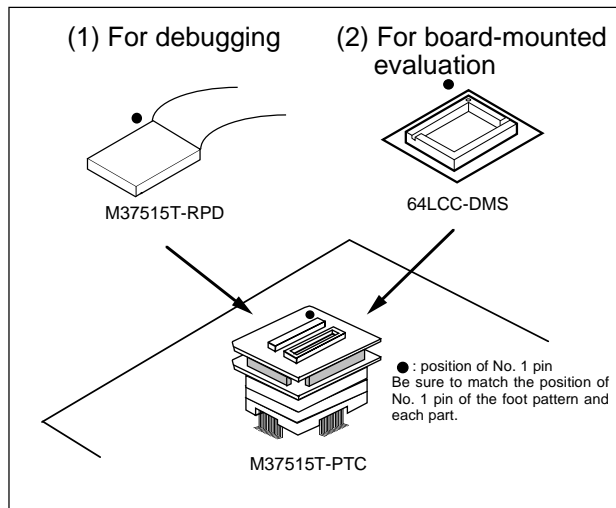


Figure 2 Usage of M37515T-PTC

## 4. Application (see Figure 2)

This product can be used during debugging and board-mounted evaluation in common.

### (1) For debugging

Mount TQPACK048SD on the target. On top of it, mount TQSOCKET048SDP and M37515T-PTC in that order. Then connect the probe of the emulation pod to the connector provided at the top of M37515T-PTC.

### (2) For board-mounted evaluation

Mount the 64-pin LCC MCU to 64LCC-DMS.

Before using M37530T-PTCB, be sure to read the precautions on page 4.

## 5. Connection Procedure (see Figure 3)

The connection procedure of M37515T-PTC is shown below.

- (1) Mount the TQPACK048SD.
- (2) Attach the TQSOCKET048SDP to the TQPACK048SD.
- (3) Attach the M37515T-PTC to the TQSOCKET048SDP.

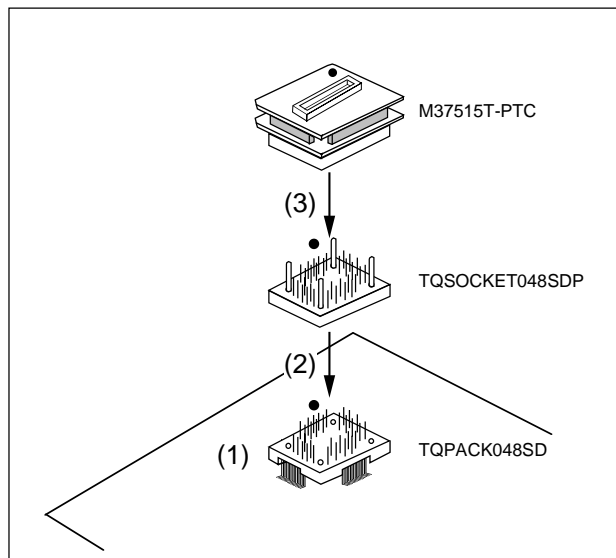


Figure 3 Connection procedure of M37515T-PTC

## 6. External Dimensions of M37515T-PTC

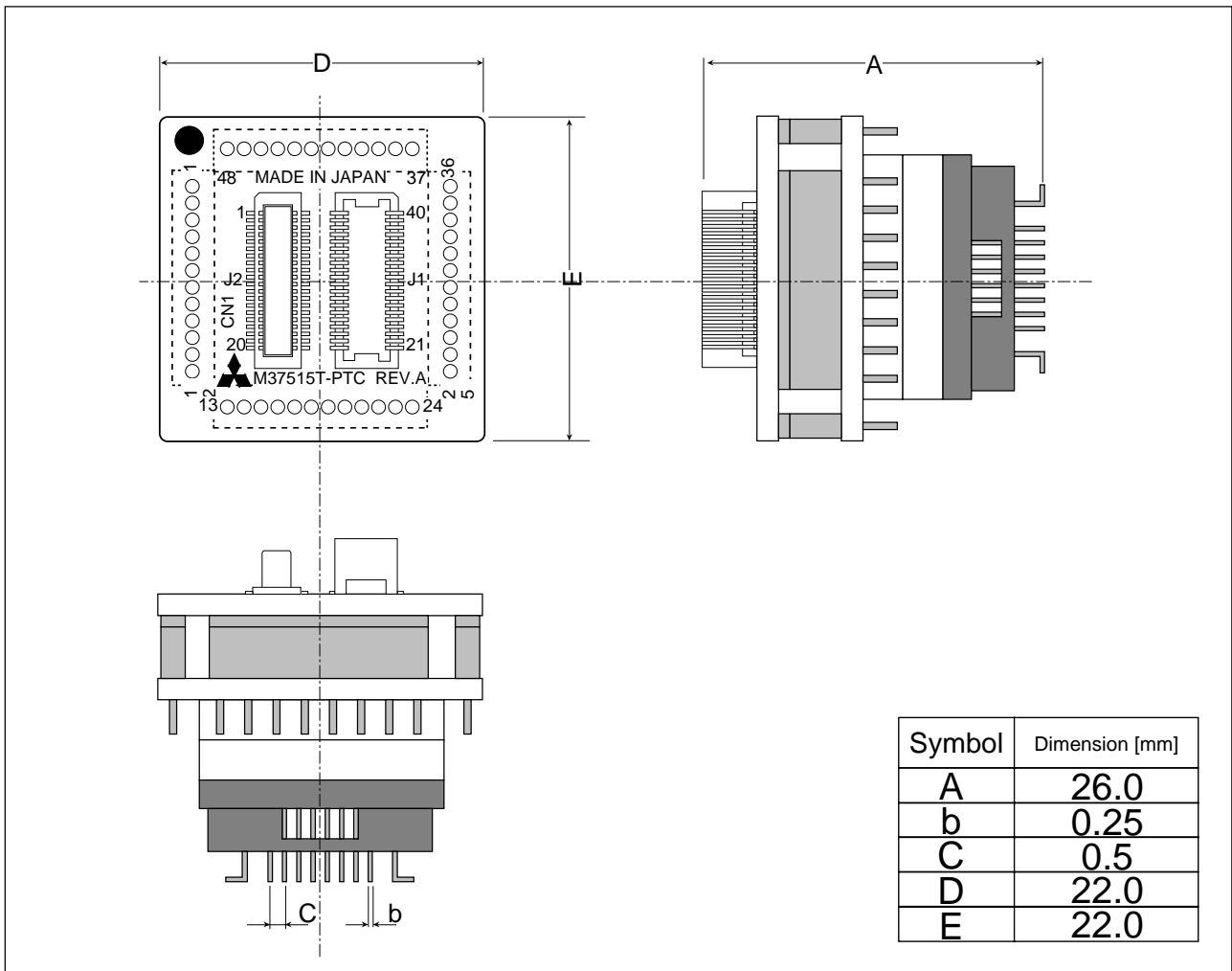


Figure 4 External dimensions of M37515T-PTC

## 7. Target Foot Pattern

Figure 5 shows the foot pattern for TQPACK made by Tokyo Eletech Corporation.

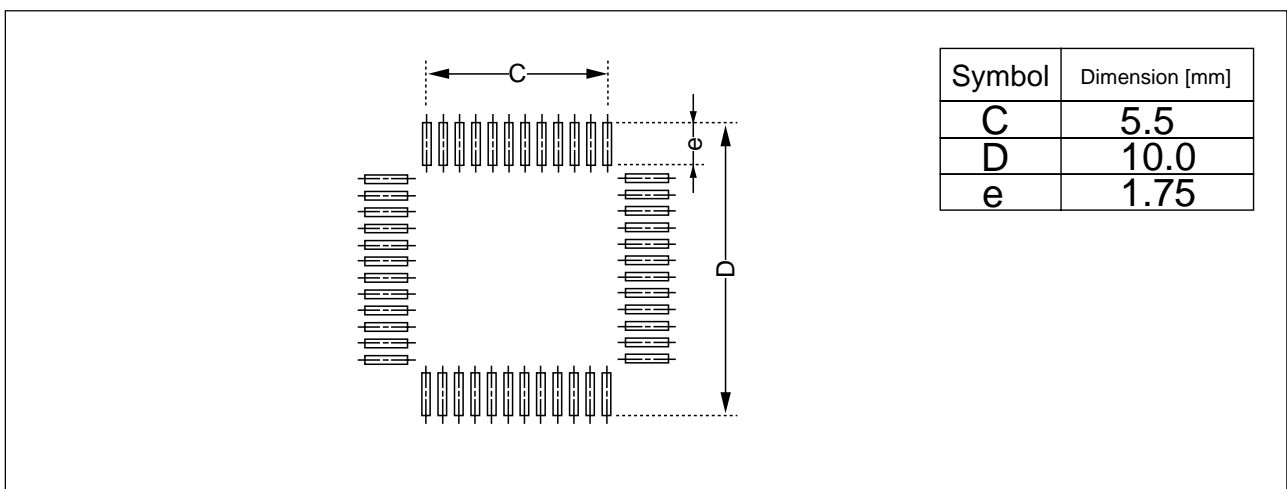



Figure 5 External dimensions of target system

## 8. Precautions

### CAUTION

Cautions To Be Taken for This Product:

-  • We cannot accept any request for repair.
- For purchasing TQPACK048SD and TQSOCKET048SDP, contact the following.

Tokyo Eletech Corporation

Phone: +81-3-5295-1661 Fax: +81-3-5295-1663

E-mail: info@tetc.co.jp URL: <http://www.tetc.co.jp/>

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

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

## 9. Correspondence of Connectors J1, J2 and CN1

Table 2 lists the correspondence of connectors J1, J2 and CN1.

Table 2 Correspondence of connectors J1, J2 and CN1

Connector pin No.	CN1 pin No.	Connector pin No.	CN1 pin No.	Connector pin No.	CN1 pin No.	Connector pin No.	CN1 pin No.
J1-1	NC	J1-21	NC	J2-1	NC	J2-21	NC
J1-2	NC	J1-22	NC	J2-2	NC	J2-22	NC
J1-3	NC	J1-23	NC	J2-3	NC	J2-23	NC
J1-4	NC	J1-24	24	J2-4	NC	J2-24	NC
J1-5	37	J1-25	25	J2-5	2	J2-25	NC
J1-6	38	J1-26	26	J2-6	3	J2-26	14
J1-7	39	J1-27	27	J2-7	4	J2-27	15
J1-8	40	J1-28	28	J2-8	5	J2-28	16
J1-9	41	J1-29	29	J2-9	6	J2-29	17
J1-10	42	J1-30	30	J2-10	7	J2-30	18
J1-11	19	J1-31	31	J2-11	8	J2-31	43
J1-12	20	J1-32	32	J2-12	9	J2-32	44
J1-13	21	J1-33	33	J2-13	10	J2-33	45
J1-14	22	J1-34	34	J2-14	11	J2-34	46
J1-15	23	J1-35	35	J2-15	12	J2-35	47
J1-16	NC	J1-36	36	J2-16	13	J2-36	48
J1-17	NC	J1-37	NC	J2-17	NC	J2-37	1
J1-18	NC	J1-38	NC	J2-18	NC	J2-38	NC
J1-19	NC	J1-39	NC	J2-19	NC	J2-39	NC
J1-20	NC	J1-40	NC	J2-20	NC	J2-40	NC

(NC: not connected)

Note:

Some part numbers in this user's manual can be referred to as the following.

In this manual      Actual part number

64LCC-DMS   ->   M3T-64LCC-DMS