

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

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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# M3T-DUMMY80

Dummy IC for 80-pin 0.8-mm-pitch QFP

## 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.

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

## 1. Outline

The M3T-DUMMY80 is an accessory tool product which connects the emulator probe and target system. Its dimensions are the same as those of an 80-pin 0.8-mm-pitch QFP (20 x 14 mm) IC package (80P6N-A).

## 2. Package Components (See Figure 1)

- |                                 |     |
|---------------------------------|-----|
| (1) M3T-DUMMY80 main unit       | x 1 |
| (2) Socket main unit            | x 1 |
| (3) Socket frame (for 80P6N-A)  | x 2 |
| (4) User's manual (This manual) | x 1 |
| (5) User's manual (Japanese)    | x 1 |

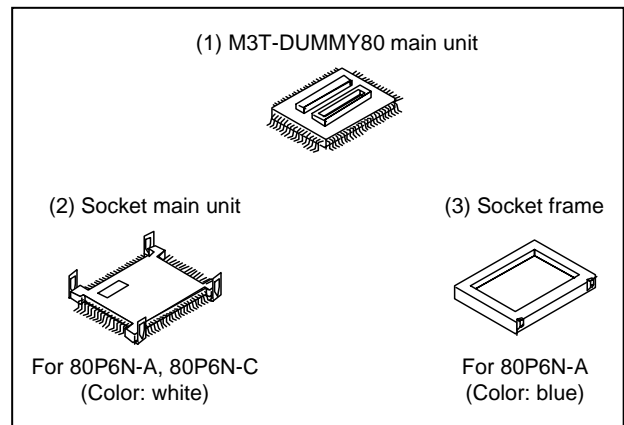


Figure 1 Package components

## 3. Applicable Sockets

The M3T-DUMMY80 has been tested with the following IC sockets made by Matsushita Electric Works, Ltd. Be sure to use them.

Socket main unit + socket frame (1 set):  
AXS4803M195C (for 80P6N-A)

Socket frame for repair (200 pieces):  
AXS4802M1 (for 80P6N-A)

## 4. Specifications

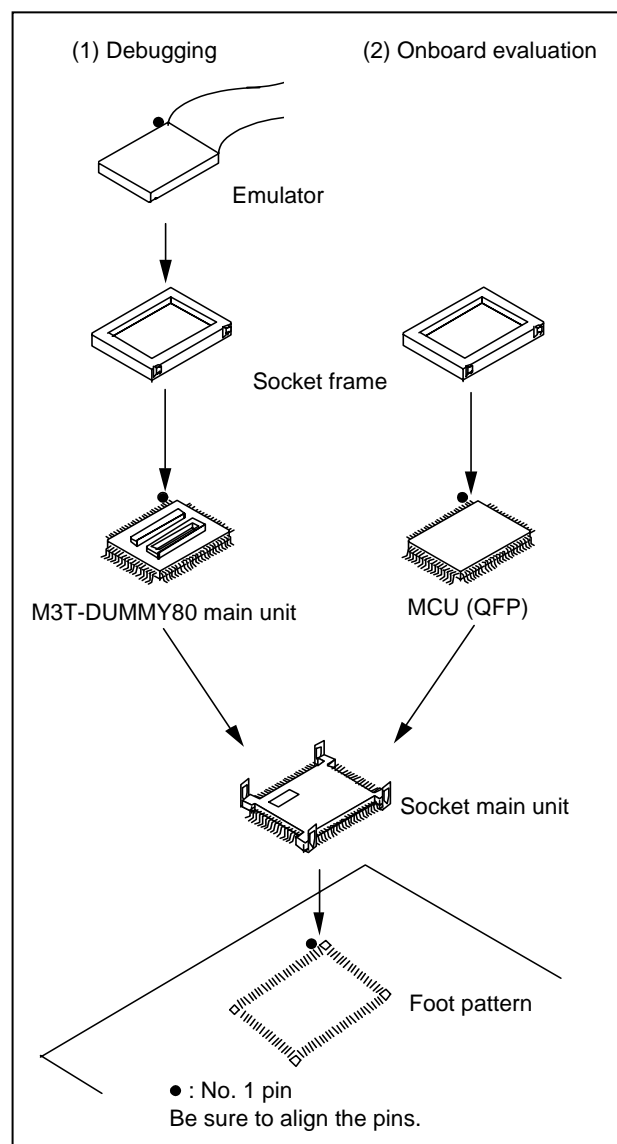
Table 1 Specifications

Applicable package	80P6N-A, 80P6N-C (80-pin 0.8-mm-pitch QFP)
Max. permissible current	200 mA at 5 V
Insertion/removal iterations of connector	20 times guaranteed
Insulation resistance	100M $\Omega$ or more

## 5. Usage (See Figure 2)

The M3T-DUMMY80 can be used for debugging and onboard evaluation in common by mounting the socket main unit on the target board.

- (1) For debugging  
Mount the socket main unit on the foot pattern of the target board. And mount the M3T-DUMMY80 and socket frame on it. Then attach the connector of the emulator.
- (2) For onboard evaluation  
Mount the socket main unit on the foot pattern of the target board. Mount an MCU with on-chip flash memory or one-time PROM on it. Then attach the socket frame on it.



(3) Figure 2 Usage of the M3T-DUMMY80

Before using the M3T-DUMMY80, be sure to read "8. Precautions" on page 4.

## 6. External Dimensions of the M3T-DUMMY80

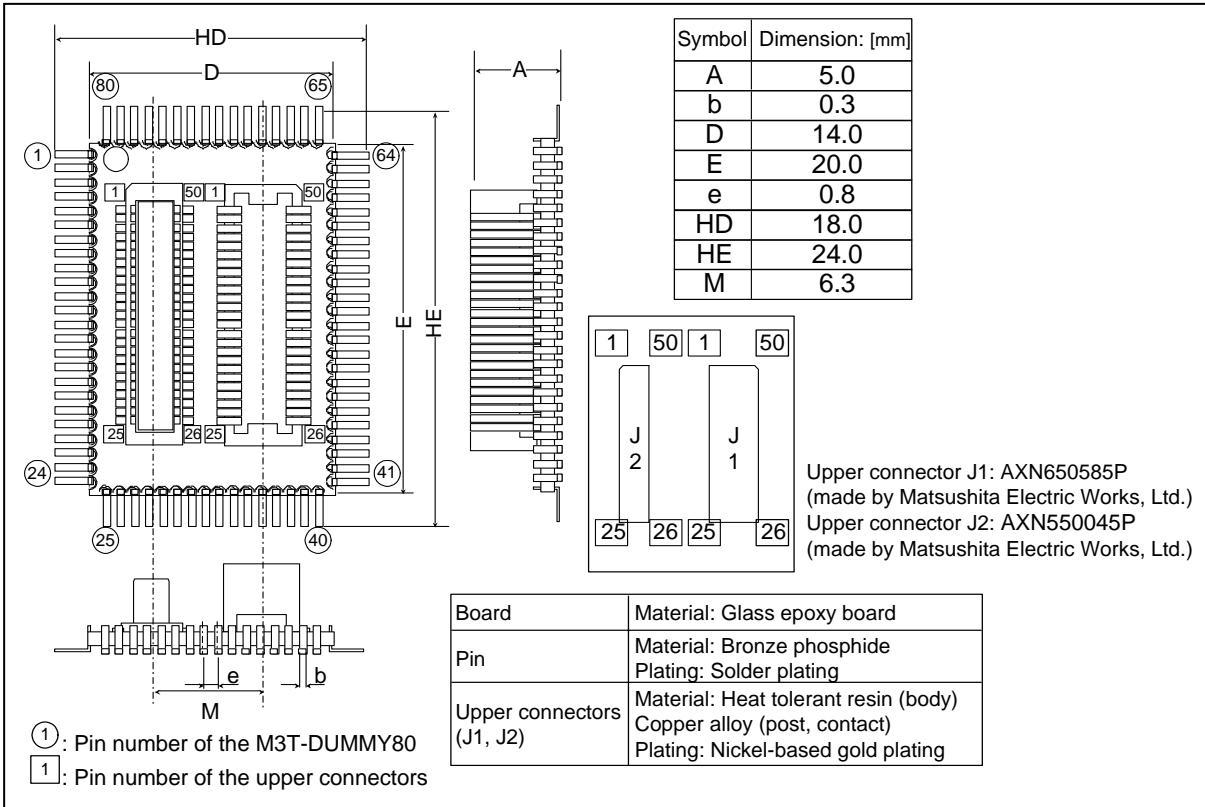


Figure 3 External dimensions of the M3T-DUMMY80

## 7. Sample Foot Pattern of the Target System

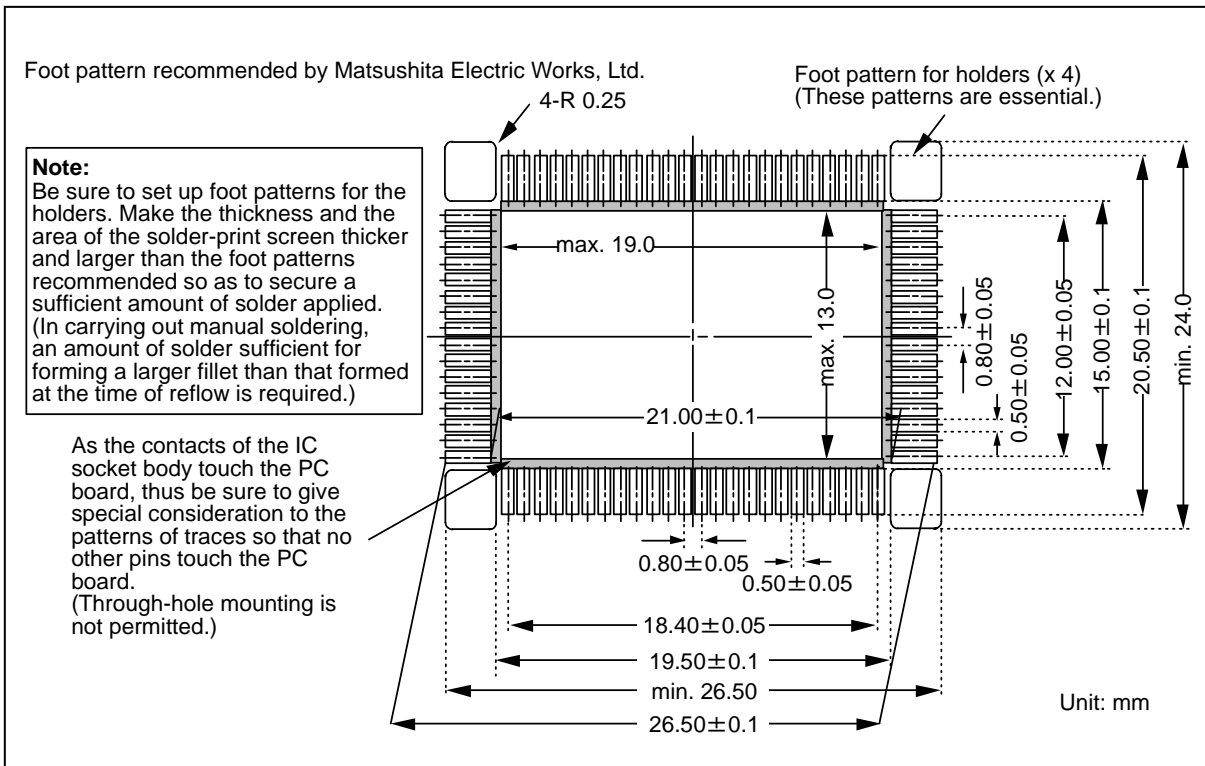


Figure 4 Dimensions of a target foot pattern (Quoted from the specifications of IC socket for QFP by Matsushita Electric Works, Ltd.)

## 8. Precautions

### ⚠ CAUTION

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



- Do not solder the M3T-DUMMY80 main unit directly on the target board. Be sure to use the included socket.
- Before mounting the M3T-DUMMY80, be sure to check the pin positions.
- Holder patterns are required at each of the four corners of the target foot pattern. (see Figure 4).
- Be sure to solder the holders of the socket. An insufficient amount of solder applied to the holders may cause a poor contact, so be careful.
- For soldering the socket and mounting the M3T-DUMMY80, refer to the supplementary document “Mounting the Socket Included with the M3T-DUMMY80” and “Notes on Handling the M3T-DUMMY80”.
- Do not apply unnecessary stress to the M3T-DUMMY80.
- Do not touch the pins of the M3T-DUMMY80.
- Store the M3T-DUMMY80 in the dedicated case.

### IMPORTANT

#### Notes on This Product:

- We cannot accept any request for repair.
- To remove the socket frame, use the dedicated tool AXY8580N1 made by Matsushita Electric Works, Ltd. To purchase this product and the socket frame for repair, contact Matsushita Electric Works, Ltd. (<http://www.mew.co.jp/e-index.html>)
- For onboard evaluation, choose an appropriate socket frame by Matsushita Electric Works, Ltd. listed below.  
For 80P6N-A package: Socket frame AXS4802M1 (included)  
For 80P6N-C package: Socket frame AXS4802N1 (not included)
- For inquiries about this product or the contents of this manual, contact your local distributor.  
Renesas Tools Homepage <http://www.renesas.com/en/tools>

## 9. Correspondence of Connectors J1, J2

Table 2 Correspondence of the M3T-DUMMY80 and connectors J1, J2

Pin No. of connector	Pin No. of M3T-DUMMY80	Pin No. of connector	Pin No. of M3T-DUMMY80	Pin No. of connector	Pin No. of M3T-DUMMY80	Pin No. of connector	Pin No. of M3T-DUMMY80
J1-1	65	J1-26	NC	J2-1	1	J2-26	25
J1-2	66	J1-27	41	J2-2	2	J2-27	26
J1-3	67	J1-28	42	J2-3	3	J2-28	27
J1-4	68	J1-29	43	J2-4	4	J2-29	28
J1-5	69	J1-30	44	J2-5	5	J2-30	29
J1-6	70	J1-31	45	J2-6	6	J2-31	30
J1-7	71	J1-32	46	J2-7	7	J2-32	31
J1-8	72	J1-33	47	J2-8	8	J2-33	32
J1-9	NC	J1-34	48	J2-9	9	J2-34	NC
J1-10	NC	J1-35	49	J2-10	10	J2-35	NC
J1-11	NC	J1-36	50	J2-11	11	J2-36	NC
J1-12	NC	J1-37	51	J2-12	12	J2-37	NC
J1-13	NC	J1-38	52	J2-13	13	J2-38	NC
J1-14	NC	J1-39	53	J2-14	14	J2-39	NC
J1-15	NC	J1-40	54	J2-15	15	J2-40	NC
J1-16	NC	J1-41	55	J2-16	16	J2-41	NC
J1-17	NC	J1-42	56	J2-17	17	J2-42	NC
J1-18	33	J1-43	57	J2-18	18	J2-43	73
J1-19	34	J1-44	58	J2-19	19	J2-44	74
J1-20	35	J1-45	59	J2-20	20	J2-45	75
J1-21	36	J1-46	60	J2-21	21	J2-46	76
J1-22	37	J1-47	61	J2-22	22	J2-47	77
J1-23	38	J1-48	62	J2-23	23	J2-48	78
J1-24	39	J1-49	63	J2-24	24	J2-49	79
J1-25	40	J1-50	64	J2-25	NC	J2-50	80

(NC: No connection)