M3T-DUMMY64

Dummy IC for 64-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.

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1. Outline

The M3T-DUMMY64 is an accessory tool product which connects the probe of an emulation pod and a target system. Its dimensions are the same as those of 64-pin 0.8-mm-pitch QFP (14 x 14 mm) IC packages (64P6N-A).

2. Package Components (see Figure 1)

(1) M3T-DUMMY64 main unit x1
(2) Socket main unit x1
(3) Socket frame (for 64P6N-A) x2
(4) M3T-DUMMY64 User's Manual (This manual)

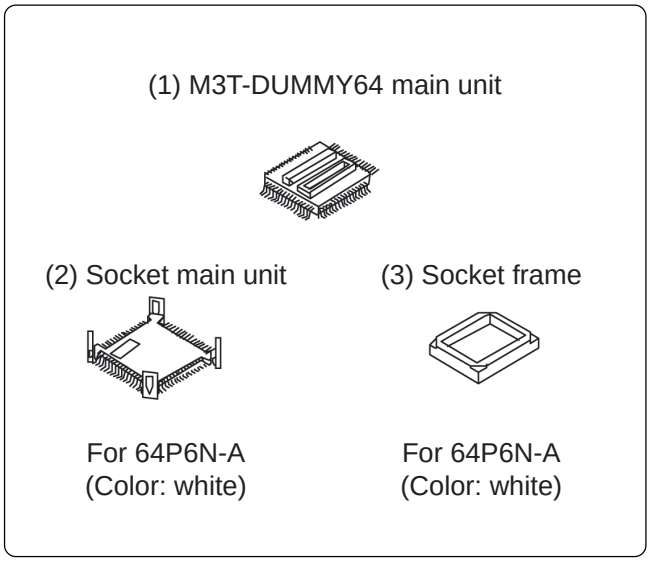


Figure 1 Package components of the M3T-DUMMY64

3. Applicable Sockets

The M3T-DUMMY64 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):
AXS4643R195C (for 64P6N-A)

Socket frame for repair (200 pieces):
AXS4642R1 (for 64P6N-A)

4. Specifications

Table 1 Specifications

Applicable package	64P6N-A (64-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 Ω or more

5. Usage (see Figure 2)

The M3T-DUMMY64 can be used for debugging and on-board 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-DUMMY64 and the 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.

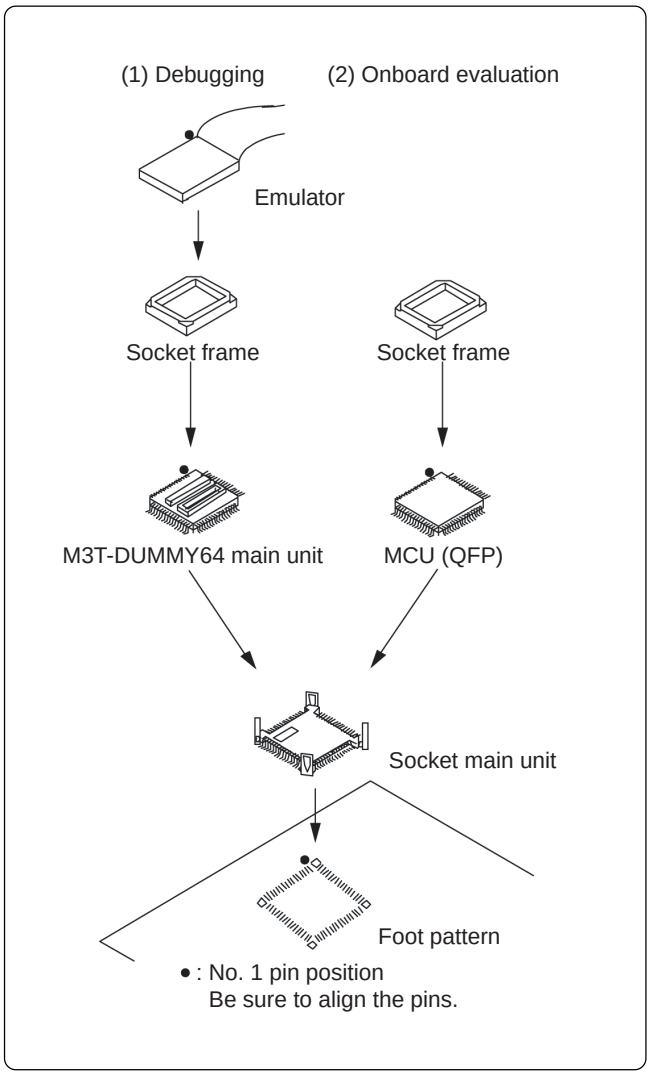
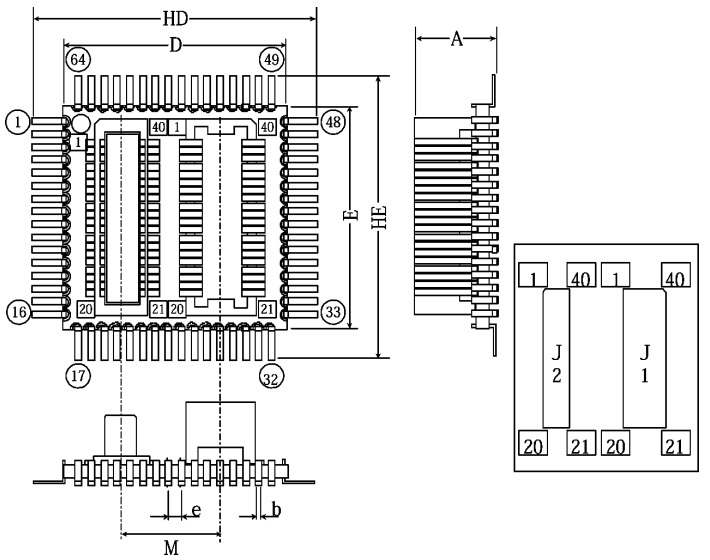


Figure 2 Usage of the M3T-DUMMY64

Before using the M3T-DUMMY64, be sure to read "8. Precautions" on page 4.

6. External Dimensions of the M3T-DUMMY64



Symbol	Dimension [mm]
A	5.0
b	0.3
D	14.0
E	14.0
e	0.8
HD	18.0
HE	18.0
M	6.3

Upper connector J1: AXN640545P
(made by Matsushita Electric Works, Ltd.)
Upper connector J2: AXN540045P
(made by Matsushita Electric Works, Ltd.)

Board	Material: Glass epoxy board
Pin	Material: Bronze phosphide Plating: Solder plating
Upper connectors (J1, J2)	Material: Heat tolerant resin (body) Copper alloy (post, contact) Plating: Nickel-based gold plating

① : Pin number of the M3T-DUMMY64
1 : Pin number of the upper connectors

Figure 3 External dimensions of the M3T-DUMMY64

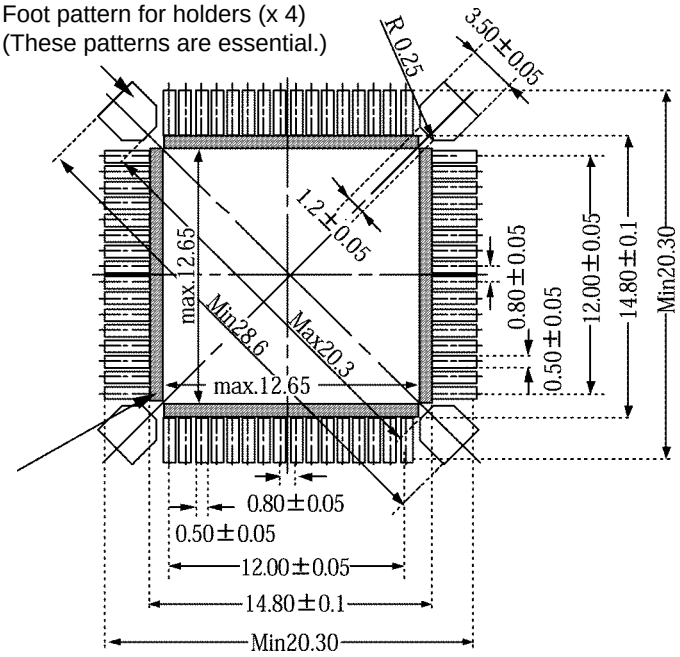
7. Sample Foot Pattern of a Target System

Foot pattern recommended by Matsushita Electric Works, Ltd.

Note:
Be sure to set up foot patterns for the holders. Make the thickness and the area of the solder-print screen thicker and larger than the foot patterns recommended so as to secure a sufficient amount of solder applied.
(In carrying out manual soldering, an amount of solder sufficient for forming a larger fillet than that formed at the time of reflow is required.)

As the contacts of the IC socket body touch the PC board, thus be sure to give special consideration to the patterns of traces so that no other pins touch the PC board.
(Through-hole mounting is not permitted.)

Foot pattern for holders (x 4)
(These patterns are essential.)



Unit: mm

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-DUMMY64 main unit directly on a target board. Be sure to use the included socket.
- Before mounting the M3T-DUMMY64, 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-DUMMY64, refer to the supplementary document "Mounting the Socket Included with the M3T-DUMMY64" and "Notes on Handling the M3T-DUMMY64".
- Do not apply an unnecessary stress to the M3T-DUMMY64.
- Do not touch the pins of the M3T-DUMMY64.
- Store the M3T-DUMMY64 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 AXY8564R1 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 inquiries about this product or the contents of this manual, contact your local distributor.

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9. Correspondence of Connectors J1, J2

Table 2 Correspondence of the connectors

Pin No. of connector	Pin No. of M3T-DUMMY64	Pin No. of connector	Pin No. of M3T-DUMMY64	Pin No. of connector	Pin No. of M3T-DUMMY64	Pin No. of connector	Pin No. of M3T-DUMMY64
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	49	J1-23	33	J2-3	1	J2-23	17
J1-4	50	J1-24	34	J2-4	2	J2-24	18
J1-5	51	J1-25	35	J2-5	3	J2-25	19
J1-6	52	J1-26	36	J2-6	4	J2-26	20
J1-7	53	J1-27	37	J2-7	5	J2-27	21
J1-8	54	J1-28	38	J2-8	6	J2-28	22
J1-9	55	J1-29	39	J2-9	7	J2-29	23
J1-10	56	J1-30	40	J2-10	8	J2-30	24
J1-11	25	J1-31	41	J2-11	9	J2-31	57
J1-12	26	J1-32	42	J2-12	10	J2-32	58
J1-13	27	J1-33	43	J2-13	11	J2-33	59
J1-14	28	J1-34	44	J2-14	12	J2-34	60
J1-15	29	J1-35	45	J2-15	13	J2-35	61
J1-16	30	J1-36	46	J2-16	14	J2-36	62
J1-17	31	J1-37	47	J2-17	15	J2-37	63
J1-18	32	J1-38	48	J2-18	16	J2-38	64
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: No connection)