

M3T-DIRECT80S

Direct Dummy IC for 80-pin 0.65mm 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. Description

This accessory tool connects an emulation pod and the target. It can be mounted on the same foot pattern as the MCU housed in the 80-pin 0.65mm pitch QFP. It is applicable to the M16C and 740 Family, etc.

2. Package Components (see Figure 1)

- (1) DIRECT80S main unit (16.8x16.8mm)
- (2) DIRECT80S User's Manual (this manual)

3. Specifications

Table 1 Specifications

Item	Description
Package	PRQP0080JA-A (formerly: 80P6S-A) (80-pin 0.65mm-pitch QFP)
Max. current	200mA, 5V
Insertion/removal iterations of connector	20 times guaranteed
Insulation resistance	100MΩ or over

4. Application (see Figure 2)

Mount this dummy IC on the foot pattern on the target. Then connect the emulation pod at the top of dummy IC. Before using M3T-DIRECT80S, be sure to read the precautions on page 3.

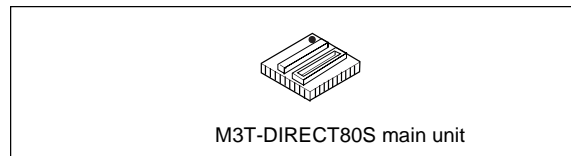


Figure 1 Package components of M3T-DIRECT80S

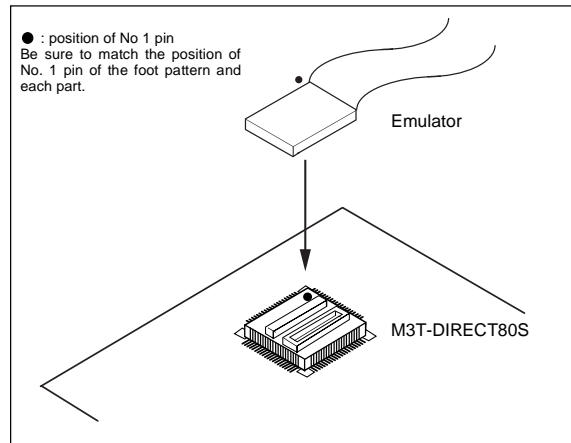


Figure 2 Usage of M3T-DIRECT80S

5. Target Foot Pattern

Figure 3 shows the recommended foot pattern of M3T-DIRECT80S.

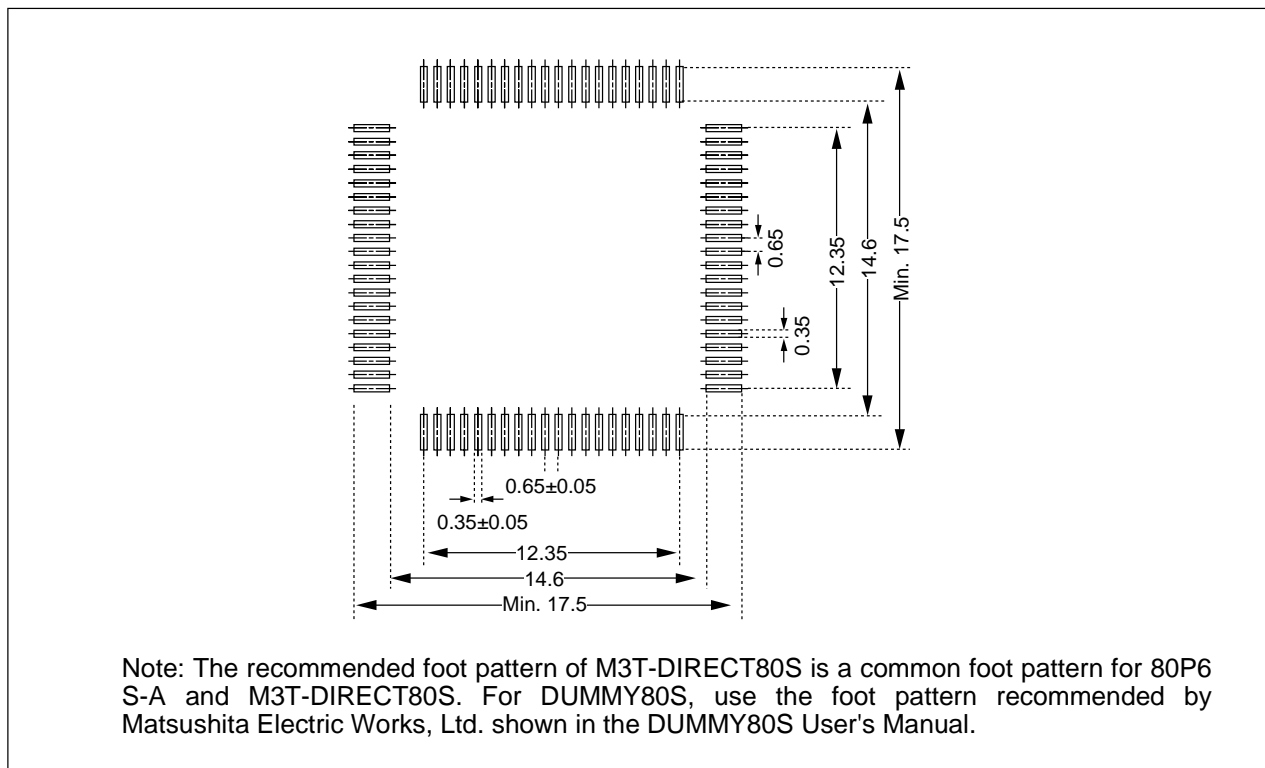


Figure 3 Recommended foot pattern of M3T-DIRECT80S

6. Precautions

⚠ CAUTION

Caution To Be Taken for This Product:

- ⚠ • Before mounting the M3T-DIRECT80S, be sure to check the pin positions.

IMPORTANT

Notes for This Product:

- We cannot accept any request for repair.
- For inquiries about the product or the contents of this manual, contact your local distributor.

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7. External Dimensions of M3T-DIRECT80S

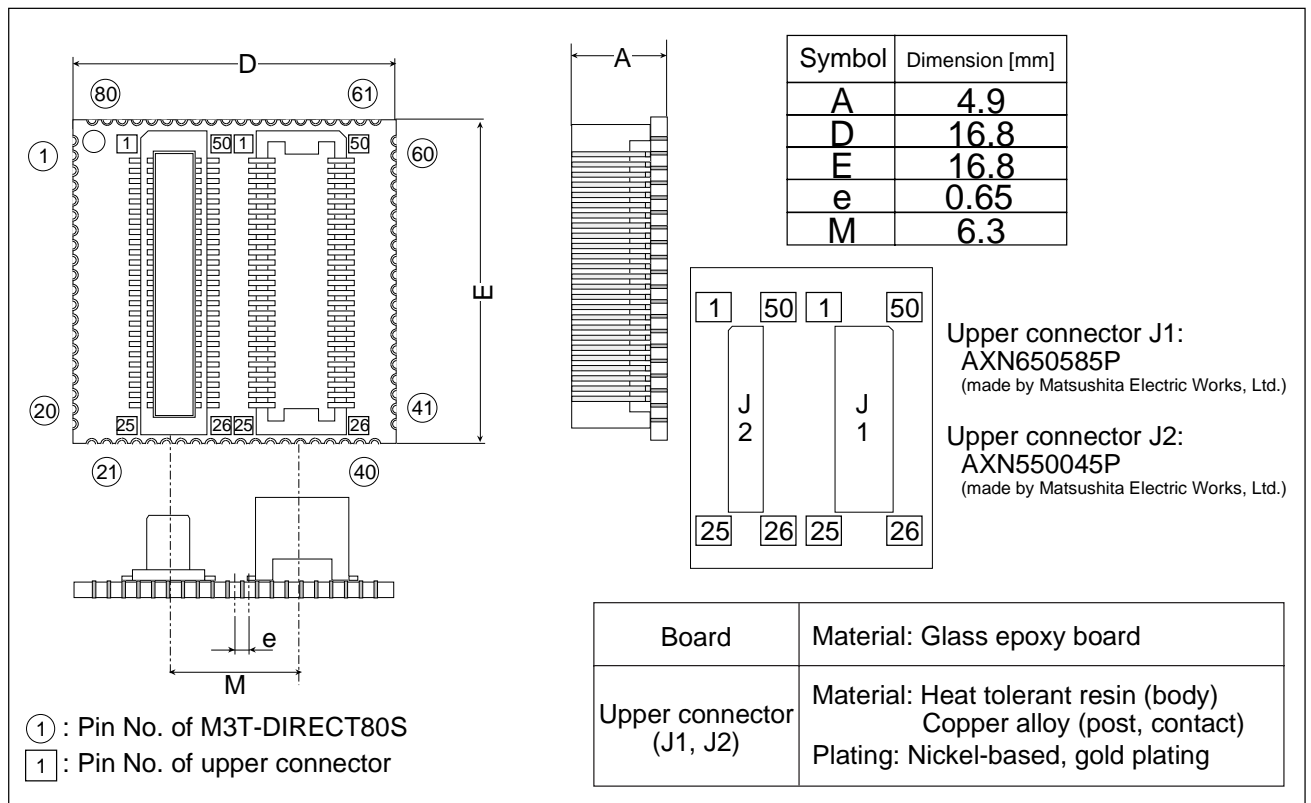


Figure 4 External dimensions of M3T-DIRECT80S

Note:

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

In this manual Actual part number

DIRECT80S -> M3T-DIRECT80S

8. Correspondence of Connectors J1 and J2

Table 2 lists the correspondence of M3T-DIRECT80S and connectors J1, J2.

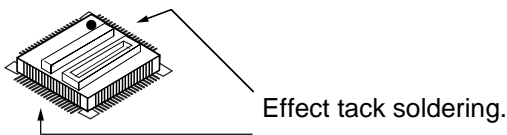
Table 2 Correspondence of M3T-DIRECT80S and connectors J1, J2

Connector pin No.	DIRECT80S pin No.	Connector pin No.	DIRECT80S pin No.	Connector pin No.	DIRECT80S pin No.	Connector pin No.	DIRECT80S pin No.
J1-1	63	J1-26	NC	J2-1	79	J2-26	23
J1-2	64	J1-27	39	J2-2	80	J2-27	24
J1-3	65	J1-28	40	J2-3	1	J2-28	25
J1-4	66	J1-29	41	J2-4	2	J2-29	26
J1-5	67	J1-30	42	J2-5	3	J2-30	27
J1-6	68	J1-31	43	J2-6	4	J2-31	28
J1-7	69	J1-32	44	J2-7	5	J2-32	29
J1-8	70	J1-33	45	J2-8	6	J2-33	30
J1-9	NC	J1-34	46	J2-9	7	J2-34	NC
J1-10	NC	J1-35	47	J2-10	8	J2-35	NC
J1-11	NC	J1-36	48	J2-11	9	J2-36	NC
J1-12	NC	J1-37	49	J2-12	10	J2-37	NC
J1-13	NC	J1-38	50	J2-13	11	J2-38	NC
J1-14	NC	J1-39	51	J2-14	12	J2-39	NC
J1-15	NC	J1-40	52	J2-15	13	J2-40	NC
J1-16	NC	J1-41	53	J2-16	14	J2-41	NC
J1-17	NC	J1-42	54	J2-17	15	J2-42	NC
J1-18	31	J1-43	55	J2-18	16	J2-43	71
J1-19	32	J1-44	56	J2-19	17	J2-44	72
J1-20	33	J1-45	57	J2-20	18	J2-45	73
J1-21	34	J1-46	58	J2-21	19	J2-46	74
J1-22	35	J1-47	59	J2-22	20	J2-47	75
J1-23	36	J1-48	60	J2-23	21	J2-48	76
J1-24	37	J1-49	61	J2-24	22	J2-49	77
J1-25	38	J1-50	62	J2-25	NC	J2-50	78

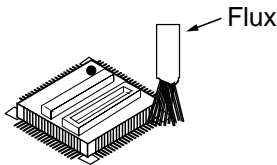
(NC: not connected)

9. Recommended Procedure for Soldering M3T-DIRECT80S

(1) Fix the soldering position

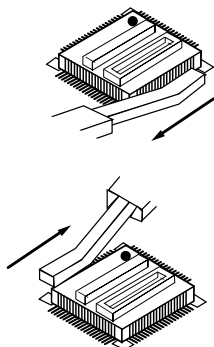


(2) Apply the flux



- Apply flux to the semicircular through holes on the four sides.

(3) Solder



- Use a soldering iron having a large contact surface.
- Move the soldering iron in parallel with each surface (with a feeling of causing the solder to flow).
- Pressing the semicircular through holes hard may cause them to get crushed, so be careful.
- Make certain that no solder bridges are present.