

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-DIRECT100S

Direct Dummy IC for 100-pin 0.65-mm-pitch QFP

## User's Manual

Keep safety first in your circuit designs!

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



### 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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Renesas Technology

[www.renesas.com](http://www.renesas.com)

## 1. Outline

The M3T-DIRECT100S is an accessory tool for connecting an emulator probe and the target. Its dimensions are the same as those of the 100-pin 0.65-mm-pitch QFP (23 x 17 mm) IC packages (100P6S-A and 100P6S-E).

## 2. Package Components (See Figure 1)

- (1) M3T-DIRECT100S main unit.....x1
- (2) M3T-DIRECT100S User's Manual (This manual)

## 3. Specifications

Table 1 Specifications

Applicable package	100P6S-A 100P6P-E (formerly 100P6S-E) (100-pin 0.65-mm-pitch QFP)
Max. permissible current	200 mA, 5V
Insertion/removal iterations of connector	20 times guaranteed
Insulation resistance	100M $\Omega$ or more

## 4. Usage (See Figure 2)

The M3T-DIRECT100S can be used for debugging by mounting it on the target system and connecting to an emulator. Before using the M3T-DIRECT100S, be sure to read "8. Precautions" on page 4.

## 5. External Dimensions of the M3T-DIRECT100S

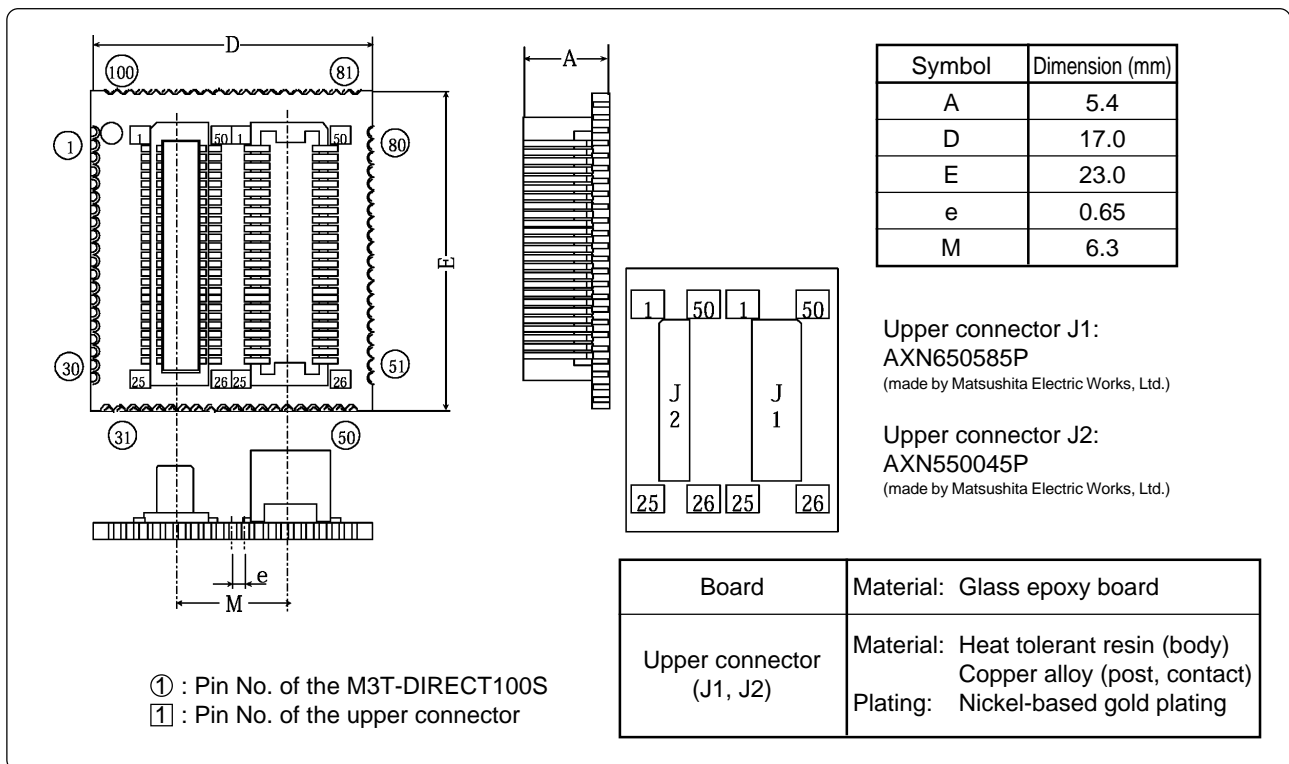


Figure 3 External dimensions of the M3T-DIRECT100S

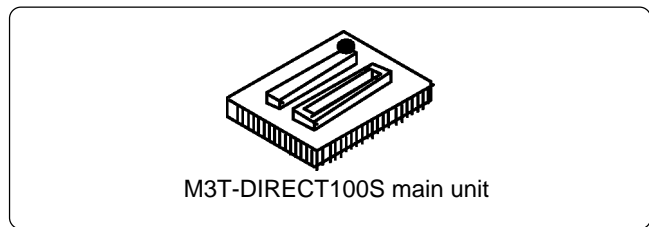


Figure 1 Package component

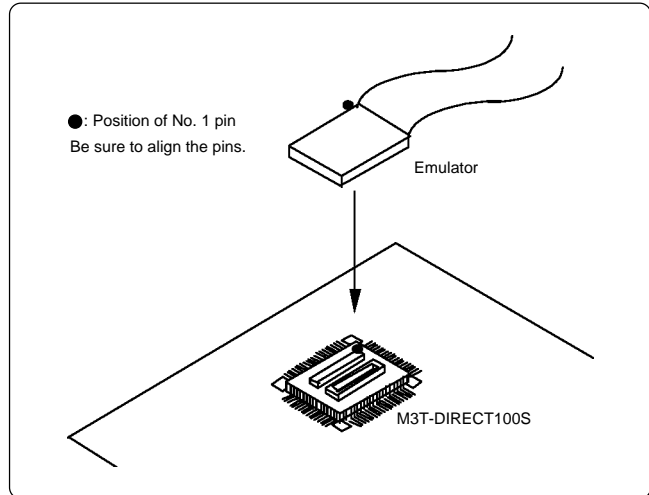


Figure 2 Usage

## 6. Target Foot Pattern

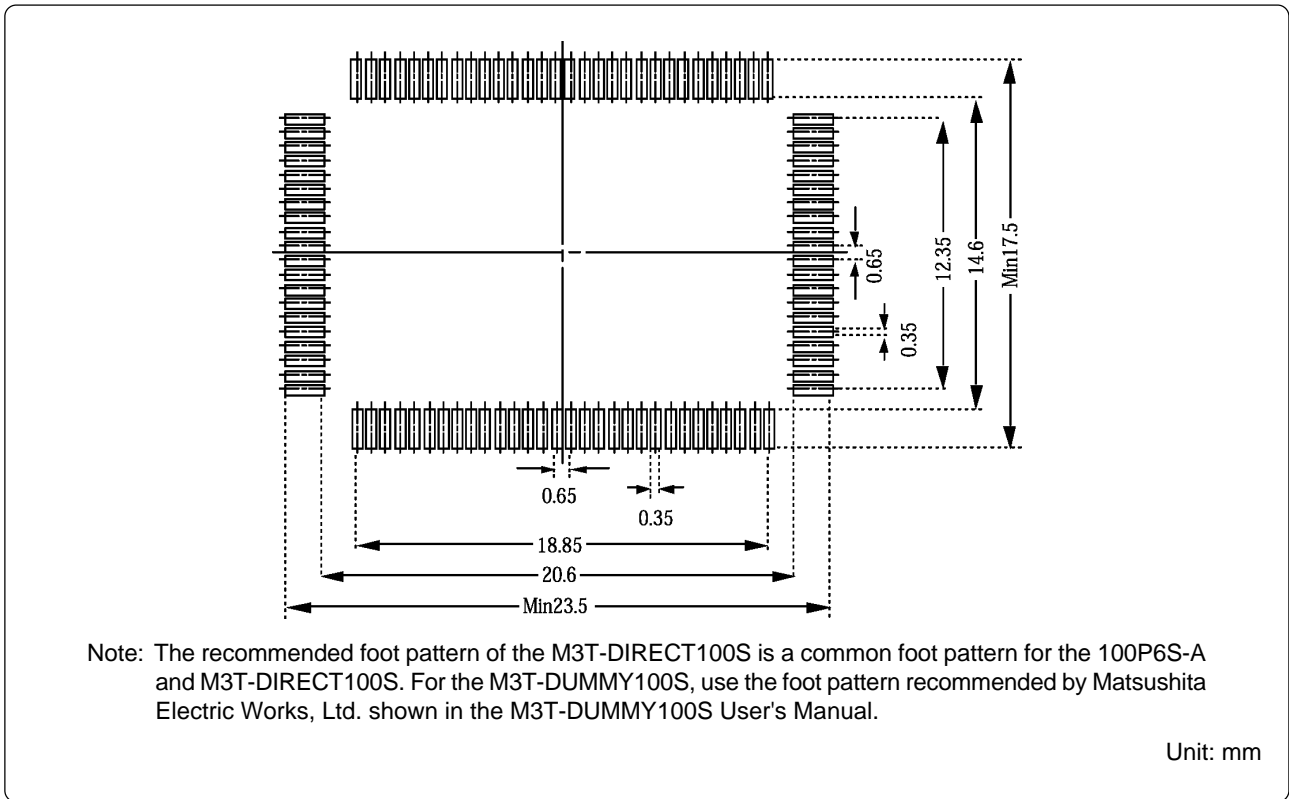


Figure 4 Target foot pattern

## 7. Recommended Procedure for Soldering the M3T-DIRECT100S

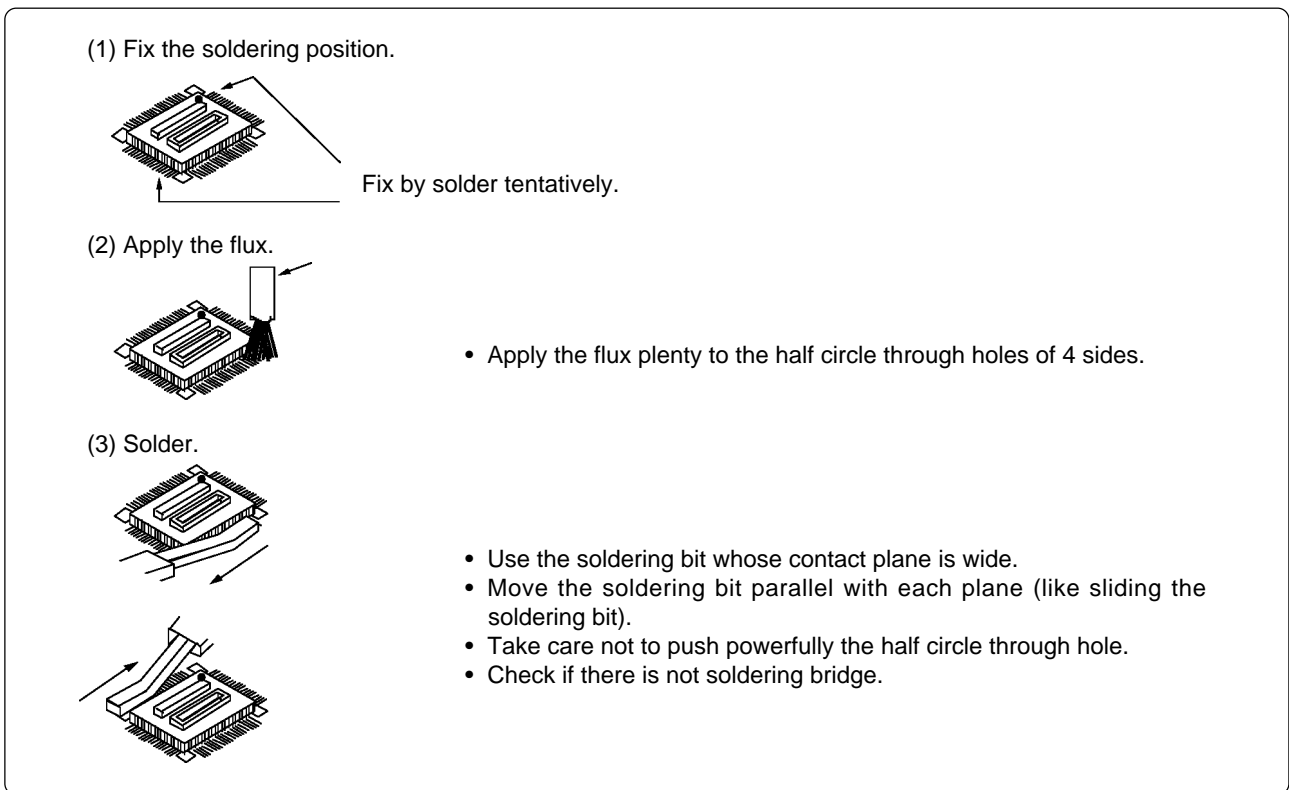


Figure 5 Recommended procedure for soldering the M3T-DIRECT100S

## 8. Precautions

### CAUTION

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



- Before mounting this product, be sure to check the pin positions.

### IMPORTANT

#### Notes on This Product:

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

Renesas Tools Homepage  
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## 9. Correspondence of Connectors J1, J2

Table 2 Correspondence of the connectors

Pin No. of connector	Pin No. of M3T-DIRECT100S	Pin No. of connector	Pin No. of M3T-DIRECT100S	Pin No. of connector	Pin No. of M3T-DIRECT100S	Pin No. of connector	Pin No. of M3T-DIRECT100S
J1-1	79	J1-26	53	J2-1	3	J2-26	29
J1-2	77	J1-27	54	J2-2	5	J2-27	30
J1-3	80	J1-28	55	J2-3	6	J2-28	31
J1-4	81	J1-29	56	J2-4	7	J2-29	32
J1-5	82	J1-30	57	J2-5	8	J2-30	33
J1-6	83	J1-31	58	J2-6	9	J2-31	34
J1-7	84	J1-32	59	J2-7	10	J2-32	35
J1-8	85	J1-33	60	J2-8	11	J2-33	36
J1-9	86	J1-34	61	J2-9	12	J2-34	37
J1-10	87	J1-35	62	J2-10	13	J2-35	38
J1-11	88	J1-36	63	J2-11	14	J2-36	39
J1-12	89	J1-37	64	J2-12	15	J2-37	40
J1-13	90	J1-38	65	J2-13	16	J2-38	91
J1-14	41	J1-39	66	J2-14	17	J2-39	92
J1-15	42	J1-40	67	J2-15	18	J2-40	93
J1-16	43	J1-41	68	J2-16	19	J2-41	94
J1-17	44	J1-42	69	J2-17	20	J2-42	95
J1-18	45	J1-43	70	J2-18	21	J2-43	96
J1-19	46	J1-44	71	J2-19	22	J2-44	97
J1-20	47	J1-45	72	J2-20	23	J2-45	98
J1-21	48	J1-46	73	J2-21	24	J2-46	99
J1-22	49	J1-47	74	J2-22	25	J2-47	100
J1-23	50	J1-48	75	J2-23	26	J2-48	1
J1-24	51	J1-49	76	J2-24	27	J2-49	4
J1-25	52	J1-50	78	J2-25	28	J2-50	2

(NC: No connection)