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Renesas Electronics website: <http://www.renesas.com>

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Renesas Electronics Corporation

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M3T-FLX-120NSE

Converter Board for Connecting 160-core Flexible Board FLX160 to 120-pin 0.4-mm-pitch LQFP

User's Manual

Keep safety first in your circuit designs!

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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-FLX-120NSE is a converter board for connecting the 160-core flexible cable FLX160 to a foot pattern for 120-pin 0.4-mm-pitch LQFP (120P6R-A).

2. Package Components (See Figure 1)

- (1) M3T-FLX-120NSE converter board
- (2) YQPACK120SE (made by Tokyo Eletech Corporation)
- (3) NQPACK120SE (made by Tokyo Eletech Corporation)
- (4) YQ-GUIDE (4 pieces) (made by Tokyo Eletech Corporation)
- (5) M3T-FLX-120NSE User's Manual (This manual)

3. Specifications

Table 1 Specifications

Applicable package	120P6R-A (120-pin 0.4-mm-pitch LQFP)
Insertion/removal iterations of connector	50 times guaranteed

4. Usage (See Figure 2)

The M3T-FLX-120NSE can be used for debugging and board mounted evaluation in common by mounting the NQPACK120SE on the target board.

- (1) For debugging
Mount the NQPACK120SE and YQPACK120SE on the foot pattern of the target board in that order. And connect the probe of the emulation pod to the upper connector of the M3T-FLX-120NSE. Then connect the YQPACK120SE and the M3T-FLX-120NSE.
- (2) For onboard evaluation
Mount an MCU with on-chip flash memory or one-time PROM and the HQPACK120SE (separately available) in that order on the NQPACK120SE on the target system.

Before using the M3T-FLX-120NSE, be sure to read "7. Precautions" on page 4.

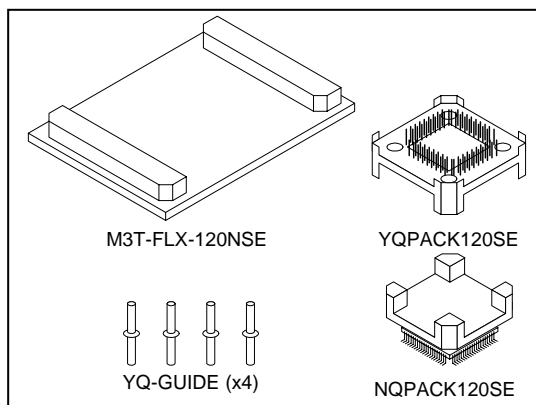


Figure 1 Package components of the M3T-FLX-120NSE

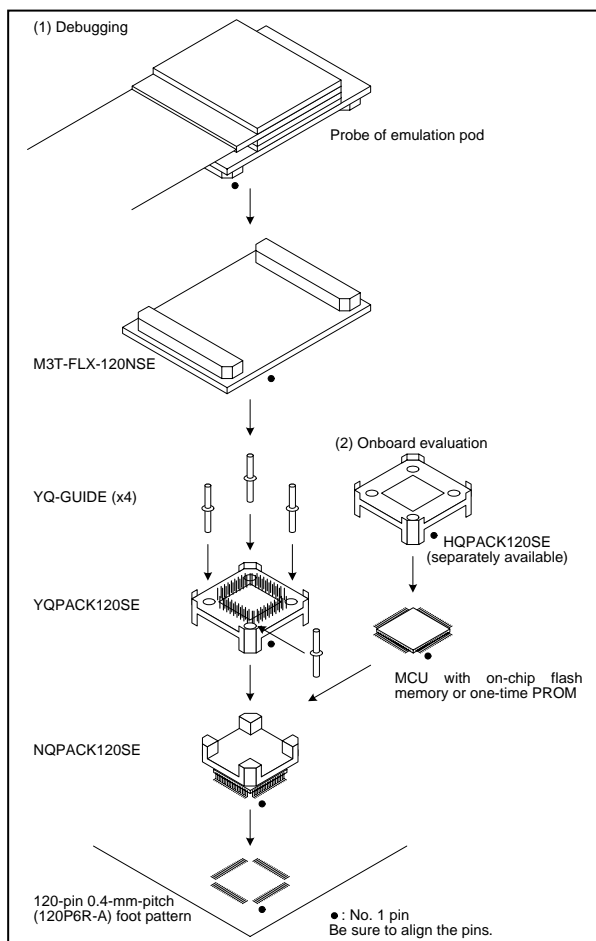


Figure 2 Usage of the M3T-FLX-120NSE

5. Connection Procedure (See Figure 3)

The procedure for connecting the M3T-FLX-120NSE is shown below.

- (1) Mount the NQPACK120SE on the target system.
- (2) Attach the YQPACK120SE on the NQPACK120SE.
- (3) Secure the four corners of the YQPACK120SE with the YQ-GUIDE's.

- Do not use the screws included with the YQPACK120SE for fixing the YQPACK120SE.
- The screwdriver included with the NQPACK120SE is used for fixing the HQPACK120SE. Do not use it for fixing the YQ-GUIDE's.

- (4) Connect the probe of the emulation pod to the M3T-FLX-120NSE.
- (5) Attach the M3T-FLX-120NSE on the YQPACK120SE.

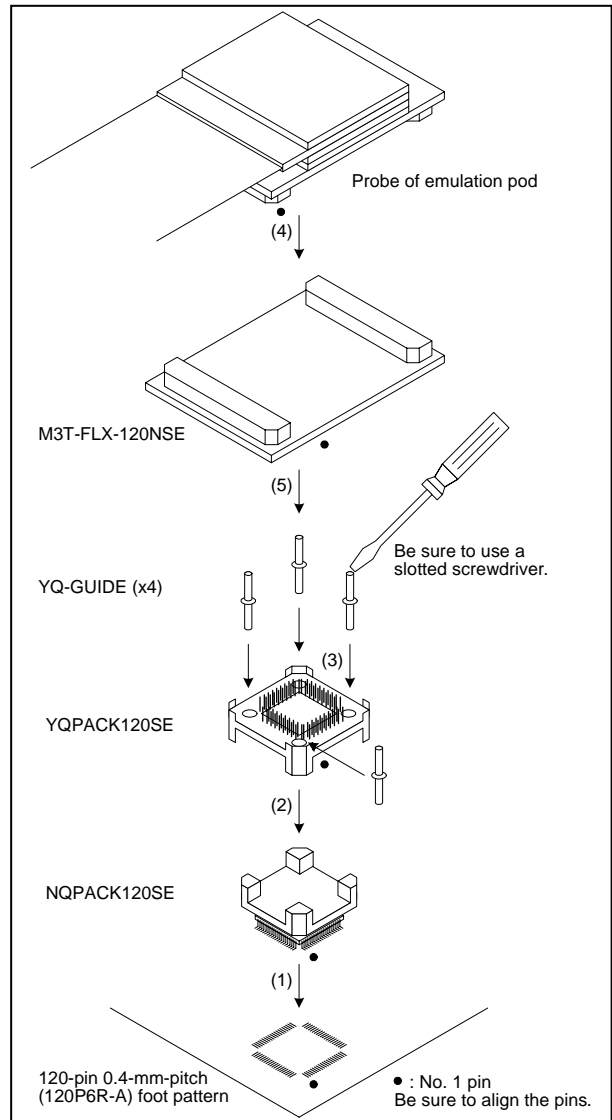


Figure 3 Connection procedure of the M3T-FLX-120NSE

6. External Dimensions and a Sample Foot Pattern

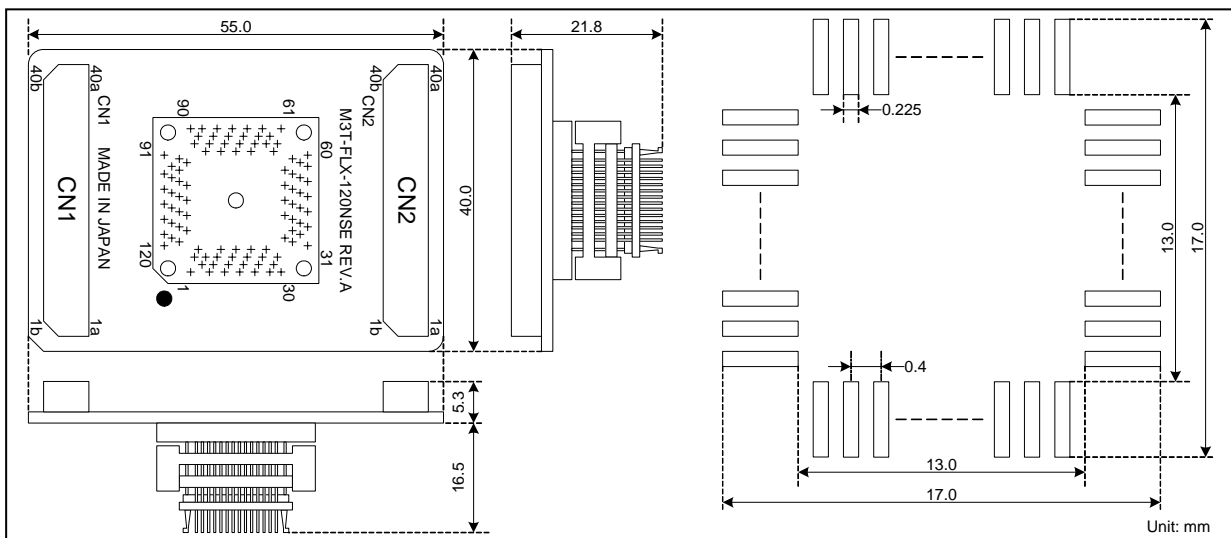


Figure 4 External dimensions and a sample foot pattern of the M3T-FLX-120NSE

7. Precautions

⚠ CAUTION

Caution to Be Taken for This Product:



- To connect the YQPACK120SE, be sure to use the included YQ-GUIDE's.
- Do not use the screws included with the YQPACK120SE to fix it.

IMPORTANT

Notes on This Product:

- We cannot accept any request for repair.
- For purchasing the NQPACK120SE, YQPACK120SE and HQPACK120SE, contact the following:

Daimaru Kogyo Ltd.	http://www.daimarukogyo.co.jp/
Tokyo Eletech Corporation	http://www.tetc.co.jp/e_tet.htm
- For inquiries about the product or the contents of this manual, contact your local distributor.

Renesas Tools Homepage	http://www.renesas.com/en/tools
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8. Correspondence of Connectors CN1 and CN2

Table 2 Correspondence of the Connectors

CN1	IC1	CN1	IC1	CN2	IC1	CN2	IC1
1a	NC	1b	15	1a	NC	1b	16
2a	14	2b	13	2a	17	2b	18
3a	12	3b	11	3a	19	3b	20
4a	10	4b	NC	4a	21	4b	22
5a	9	5b	NC	5a	23	5b	24
6a	8	6b	NC	6a	25	6b	26
7a	7	7b	6	7a	27	7b	28
8a	5	8b	4	8a	NC	8b	NC
9a	3	9b	2	9a	NC	9b	NC
10a	1	10b	NC	10a	29	10b	NC
11a	NC	11b	NC	11a	NC	11b	30
12a	120	12b	119	12a	31	12b	32
13a	118	13b	117	13a	33	13b	34
14a	116	14b	NC	14a	NC	14b	NC
15a	NC	15b	115	15a	35	15b	36
16a	114	16b	113	16a	37	16b	38
17a	112	17b	111	17a	39	17b	40
18a	110	18b	109	18a	NC	18b	NC
19a	108	19b	107	19a	NC	19b	41
20a	NC	20b	NC	20a	42	20b	NC
21a	NC	21b	NC	21a	NC	21b	NC
22a	106	22b	105	22a	43	22b	44
23a	104	23b	103	23a	45	23b	46
24a	102	24b	101	24a	47	24b	48
25a	100	25b	99	25a	49	25b	50
26a	98	26b	97	26a	51	26b	52
27a	96	27b	95	27a	53	27b	54
28a	94	28b	93	28a	55	28b	56
29a	92	29b	91	29a	57	29b	58
30a	90	30b	NC	30a	59	30b	NC
31a	NC	31b	89	31a	NC	31b	60
32a	NC	32b	NC	32a	61	32b	62
33a	NC	33b	NC	33a	63	33b	64
34a	88	34b	87	34a	65	34b	66
35a	86	35b	85	35a	67	35b	68
36a	84	36b	83	36a	69	36b	70
37a	82	37b	81	37a	71	37b	72
38a	80	38b	79	38a	NC	38b	NC
39a	78	39b	77	39a	73	39b	74
40a	76	40b	NC	40a	75	40b	NC

(NC: No connection)