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April 1st, 2010
Renesas Electronics Corporation

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

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M3T-FLX-64NSA

Converter Board for Connecting FLX100 to 64-pin 0.8-mm-pitch QFP (64P6N-A)/LQFP (64P6U-A)

User's Manual

Keep safety first in your circuit designs!

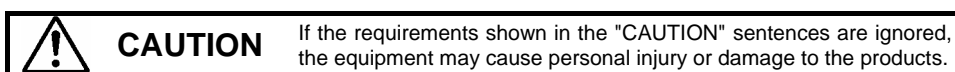
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1. Outline

The M3T-FLX-64NSA is a converter board for connecting the 100-core flexible cable FLX100 to a foot pattern for 64-pin 0.8-mm-pitch QFP (64P6N-A) or LQFP (64P6U-A).

2. Package Components (See Figure 1)

- (1) M3T-FLX-64NSA converter board..... 1 pc.
- (2) YQPACK064SA (made by Tokyo Eletech Corporation) 1 pc.
- (3) NQPACK064SA160 (made by Tokyo Eletech Corporation) . 1 pc.
- (4) YQ-GUIDE 4 pcs.
- (5) M3T-FLX-64NSA User's Manual (This manual)

3. Specifications

Table 1 Specifications

Applicable package	64P6N-A (64-pin 0.8-mm-pitch QFP) or 64P6U-A (64-pin 0.8-mm-pitch LQFP)
Insertion/removal iterations of connector	20 times guaranteed

4. Usage (See Figure 2)

The M3T-FLX-64NSA can be used for debugging and board mounted evaluation in common by mounting the NQPACK064SA160 on the target system.

- (1) For debugging
Mount the NQPACK064SA160 and YQPACK064SA on the foot pattern of the target system in that order. And connect the probe of the emulation pod to the upper connector of the M3T-FLX-64NSA. Then connect the YQPACK064SA and the M3T-FLX-64NSA.
- (2) For onboard evaluation
Mount an MCU with on-chip flash memory or one-time PROM and the HQPACK064SA (for 64P6N-A, separately available) or HQPACK064SA160 (for 64P6U-A, separately available) in that order on the NQPACK064SA160 on the target system.

Before using the M3T-FLX-64NSA, be sure to read "7. Precautions" on page 4.

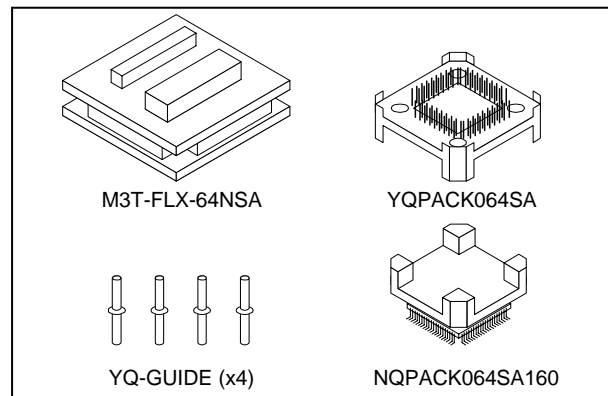


Figure 1 Package components of the M3T-FLX-64NSA

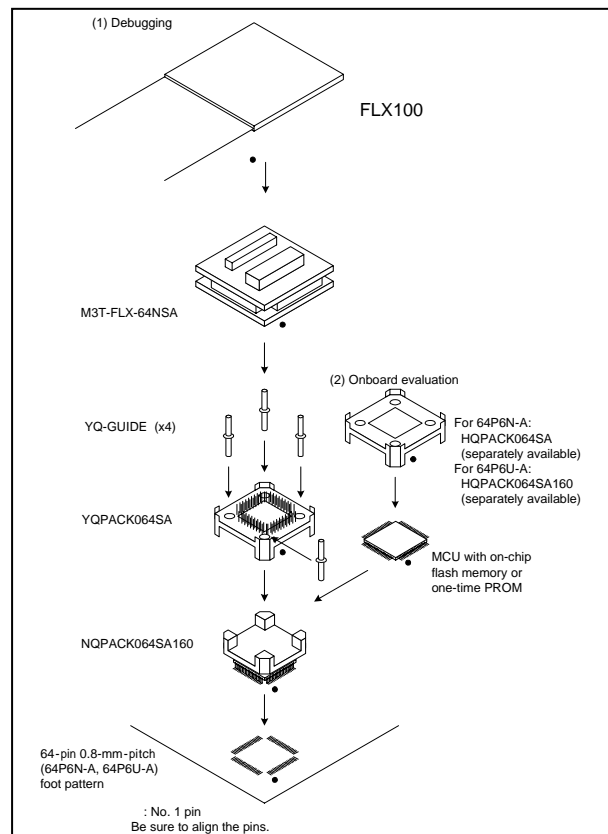


Figure 2 Usage of the M3T-FLX-64NSA

5. Connection Procedure (See Figure 3)

The procedure for connecting the M3T-FLX-64NSA is shown below.

- (1) Mount the NQPACK064SA160 on the target board.
- (2) Attach the YQPACK064SA on the NQPACK064SA160.
- (3) Secure the four corners of the YQPACK064SA with the YQ-GUIDE's.

- Do not use the screws included with the YQPACK064SA for fixing the YQPACK064SA.
- The screwdriver included with the NQPACK064SA160 is used for fixing the HQPACK064SA or HQPACK064SA160. Do not use if for fixing the YQ-GUIDE's.

- (4) Attach the M3T-FLX-64NSA on the YQPACK064SA.
- (5) Connect the probe of the emulation pod to the M3T-FLX-64NSA.

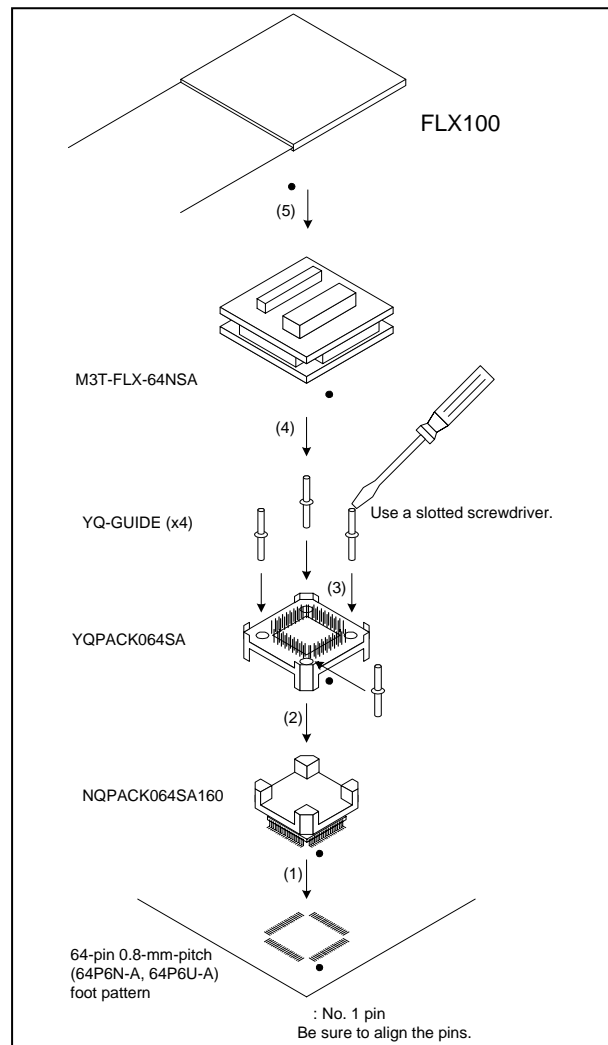


Figure 3 Connection procedure of the M3T-FLX-64NSA

6. External Dimensions and a Sample Foot Pattern

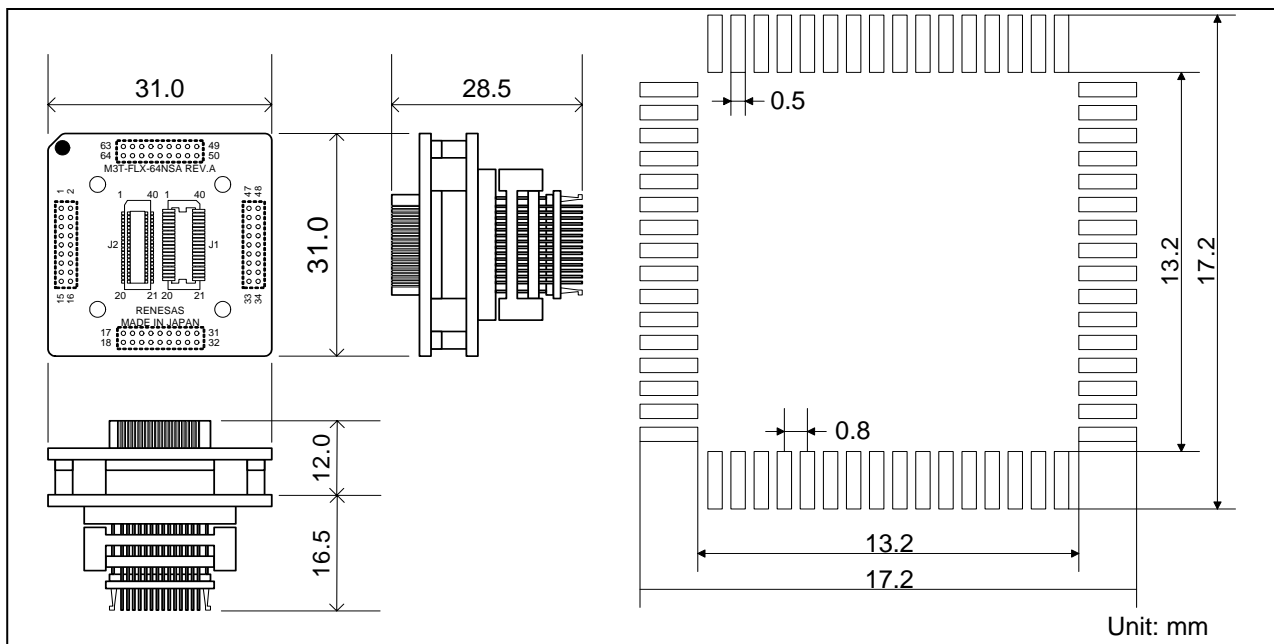


Figure 4 External dimensions and a sample foot pattern of the M3T-FLX-64NSA

7. Precautions

⚠ CAUTION

Caution to Be Taken for This Product:



- When connecting the YQPACK064SA, be sure to use the included YQ-GUIDE's.
- Do not use the screws included with the YQPACK064SA to fix it.
- The HQPACK which is used for on-board evaluation varies with the product package. Use the HQPACK064SA (separately available) and HQPACK064SA160 (separately available) for 64P6N-A package and 64P6U-A package, respectively.

IMPORTANT

Notes on This Product:

- We cannot accept any request for repair.
- For purchasing the NQPACK064SA160, YQPACK064SA, HQPACK064SA and HQPACK064SA160, 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 J1 and J2

Table 2 Correspondence of the connectors

Pin No. of connector	IC1	Pin No. of connector	IC1	Pin No. of connector	IC1	Pin No. of connector	IC1
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)