

M3T-FLX-100NSD

Converter Board for Connecting FLX100 to 100-pin 0.5-mm-pitch LQFP

User's Manual

Keep safety first in your circuit designs!

- Renesas Technology Corporation and Renesas Solutions Corporation put the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

Notes regarding these materials

- These materials are intended as a reference to assist our customers in the selection of the Renesas Technology product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Renesas Technology Corporation, Renesas Solutions Corporation or a third party.
- Renesas Technology Corporation and Renesas Solutions Corporation assume no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.
- All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Renesas Technology Corporation and Renesas Solutions Corporation without notice due to product improvements or other reasons. It is therefore recommended that customers contact Renesas Technology Corporation, Renesas Solutions Corporation or an authorized Renesas Technology product distributor for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Renesas Technology Corporation and Renesas Solutions Corporation assume no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Renesas Technology Corporation and Renesas Solutions Corporation by various means, including the Renesas home page (<http://www.renesas.com>).
- When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Renesas Technology Corporation and Renesas Solutions Corporation assume no responsibility for any damage, liability or other loss resulting from the information contained herein.
- Renesas Technology semiconductors are not designed or manufactured for use in a device or system that is used under circumstances in which human life is potentially at stake. Please contact Renesas Technology Corporation, Renesas Solutions Corporation or an authorized Renesas Technology product distributor when considering the use of a product contained herein for any specific purposes, such as apparatus or systems for transportation, vehicular, medical, aerospace, nuclear, or undersea repeater use.
- The prior written approval of Renesas Technology Corporation and Renesas Solutions Corporation is necessary to reprint or reproduce in whole or in part these materials.
- If these products or technologies are subject to the Japanese export control restrictions, they must be exported under a license from the Japanese government and cannot be imported into a country other than the approved destination. Any diversion or reexport contrary to the export control laws and regulations of Japan and/or the country of destination is prohibited.
- Please contact Renesas Technology Corporation or Renesas Solutions Corporation for further details on these materials or the products contained therein.

Precautions to be taken when using this product

- This product is a development supporting unit for use in your program development and evaluation stages. In mass-producing your program you have finished developing, be sure to make a judgment on your own risk that it can be put to practical use by performing integration test, evaluation, or some experiment else.
- In no event shall Renesas Solutions Corporation be liable for any consequence arising from the use of this product.
- Renesas Solutions Corporation strives to renovate or provide a workaround for product malfunction at some charge or without charge. However, this does not necessarily mean that Renesas Solutions Corporation guarantees the renovation or the provision under any circumstances.
- This product has been developed by assuming its use for program development and evaluation in laboratories. Therefore, it does not fall under the application of Electrical Appliance and Material Safety Law and protection against electromagnetic interference when used in Japan.



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-100NSD is a converter board for connecting the 160-core flexible cable FLX100 to a foot pattern for 100-pin 0.5-mm-pitch LQFP (100P6Q-A).

2. Package Components (See Figure 1)

- (1) M3T-FLX-100NSD converter board..... 1 pc.
- (2) YQPACK100SD (made by Tokyo Eletech Corporation) 1 pc.
- (3) NQPACK100SD-ND (made by Tokyo Eletech Corporation) 1 pc.
- (4) YQ-GUIDE'S (made by Tokyo Eletech Corporation)4 pcs.
- (5) M3T-FLX-100NSD User's Manual (This manual)

3. Specifications

Table 1 Specifications

Applicable package	100P6Q-A (100-pin 0.5-mm-pitch LQFP)
Insertion/removal iterations of connector	20 times guaranteed

4. Usage (See Figure 2)

The M3T-FLX-100NSD can be used for debugging and board-mounted evaluation in common by mounting the NQPACK100SD-ND on the target board.

- (1) For debugging
Mount the NQPACK100SD-ND on the foot pattern of the target board and attach the YQPACK100SD on it. And connect the probe of the emulation pod to the upper connector of the M3T-FLX-100NSD. Then connect the YQPACK100SD and the M3T-FLX-100NSD.
- (2) For onboard evaluation
Mount an MCU with on-chip flash memory or one-time PROM and the HQPACK100SD (separately available) in that order on the NQPACK100SD-ND on the target board.

Before using the M3T-FLX-100NSD, be sure to read "7. Precautions" on page 4.

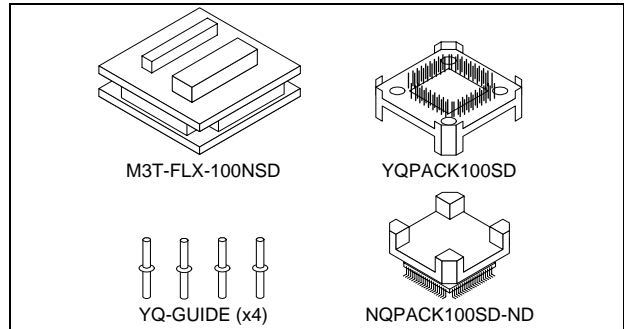


Figure 1 Package components of the M3T-FLX-100NSD

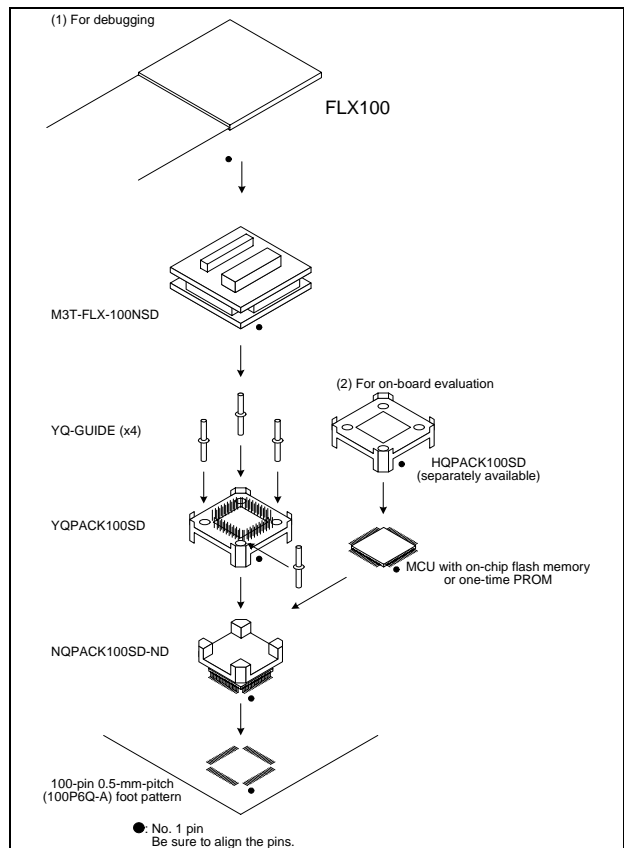


Figure 2 Usage of the M3T-FLX-100NSD

5. Connection Procedure (See Figure 3)

The procedure for connecting the M3T-FLX-100NSD is shown below.

- (1) Mount the NQPACK100SD-ND on the user system.
- (2) Attach the YQPACK100SD on the NQPACK100SD-ND.
- (3) Secure the four corners of the YQPACK100SD with the YQ-GUIDE's.

- Do not use the screws included with the YQPACK100SD for fixing the YQPACK100SD.
- Do NOT use the screwdriver included with the NQPACK100SD-ND that is used only for the HQPACK100SD.

- (4) Attach the M3T-FLX-100NSD on the YQPACK100SD.
- (5) Attach the probe of the emulation pod to the M3T-FLX-100NSD.

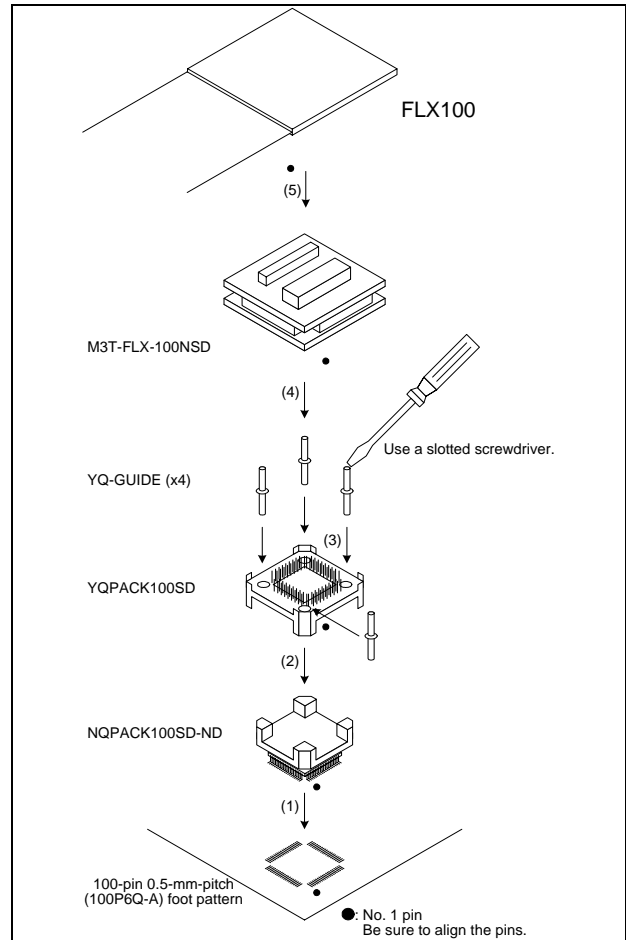


Figure 3 Connection procedure of the M3T-FLX-100NSD

6. External Dimensions and a Sample Foot Pattern

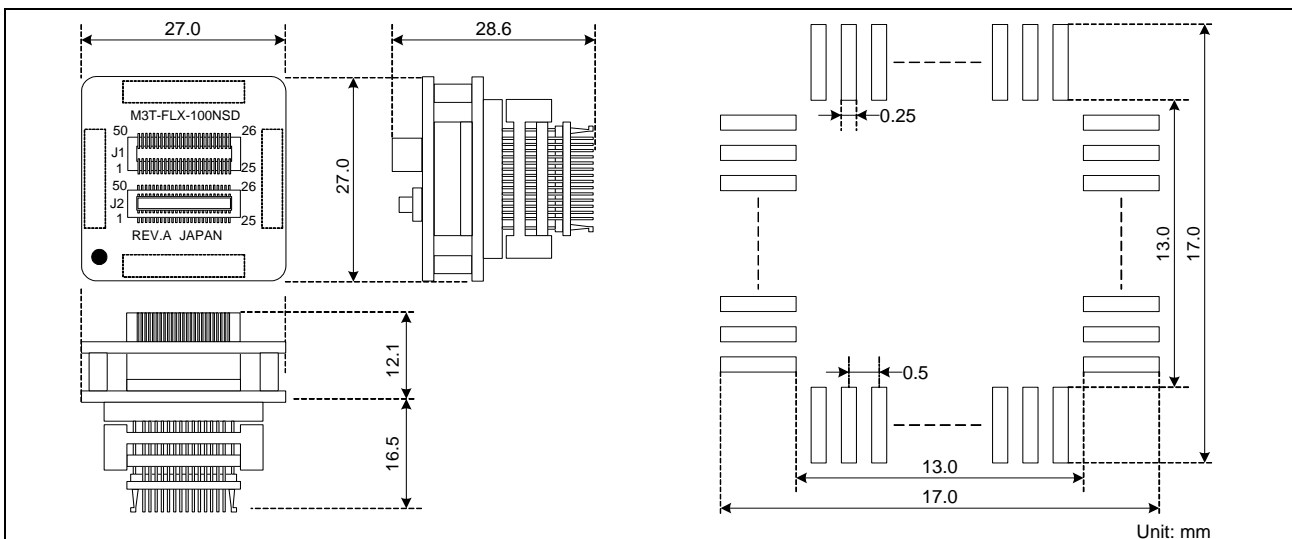


Figure 4 External dimensions and a sample foot pattern of the M3T-FLX-100NSD

7. Precautions

CAUTION

Caution to Be Taken for This Product:



- When connecting the YQPACK100SD, be sure to use the included YQ-GUIDE's.
- Do NOT use the screws included with the YQPACK100SD for connecting the YQPACK100SD.

IMPORTANT

Notes on This Product:

- We cannot accept any request for repair.
- For purchasing the NQPACK100SD-ND, YQPACK100SD, HQPACK100SD, contact the following:
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>

8. Correspondence of Connectors J1 and J2

Table 2 Correspondence of the connectors

Connector pin No.	IC1	Connector pin No.	IC1	Connector pin No.	IC1	Connector pin No.	IC1
J1-1	77	J1-26	51	J2-1	1	J2-26	27
J1-2	75	J1-27	52	J2-2	3	J2-27	28
J1-3	78	J1-28	53	J2-3	4	J2-28	29
J1-4	79	J1-29	54	J2-4	5	J2-29	30
J1-5	80	J1-30	55	J2-5	6	J2-30	31
J1-6	81	J1-31	56	J2-6	7	J2-31	32
J1-7	82	J1-32	57	J2-7	8	J2-32	33
J1-8	83	J1-33	58	J2-8	9	J2-33	34
J1-9	84	J1-34	59	J2-9	10	J2-34	35
J1-10	85	J1-35	60	J2-10	11	J2-35	36
J1-11	86	J1-36	61	J2-11	12	J2-36	37
J1-12	87	J1-37	62	J2-12	13	J2-37	38
J1-13	88	J1-38	63	J2-13	14	J2-38	89
J1-14	39	J1-39	64	J2-14	15	J2-39	90
J1-15	40	J1-40	65	J2-15	16	J2-40	91
J1-16	41	J1-41	66	J2-16	17	J2-41	92
J1-17	42	J1-42	67	J2-17	18	J2-42	93
J1-18	43	J1-43	68	J2-18	19	J2-43	94
J1-19	44	J1-44	69	J2-19	20	J2-44	95
J1-20	45	J1-45	70	J2-20	21	J2-45	96
J1-21	46	J1-46	71	J2-21	22	J2-46	97
J1-22	47	J1-47	72	J2-22	23	J2-47	98
J1-23	48	J1-48	73	J2-23	24	J2-48	99
J1-24	49	J1-49	74	J2-24	25	J2-49	2
J1-25	50	J1-50	76	J2-25	26	J2-50	100

(NC: No connection)