

# M3T-F160-100NSD

Converter Board for Connecting FLX160 to 100-pin 0.5-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-F160-100NSD is a converter board for connecting the 160-core flexible cable FLX160 to a foot pattern for 100-pin 0.5-mm-pitch LQFP (100P6Q-A).

## 2. Package Components (See Figure 1)

- (1) M3T-F160-100NSD 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-F160-100NSD 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	50 times guaranteed

## 4. Usage (See Figure 2)

The M3T-F160-100NSD 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-F160-100NSD. Then connect the YQPACK100SD and the M3T-F160-100NSD.
- (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-F160-100NSD, be sure to read "7. Precautions" on page 4.

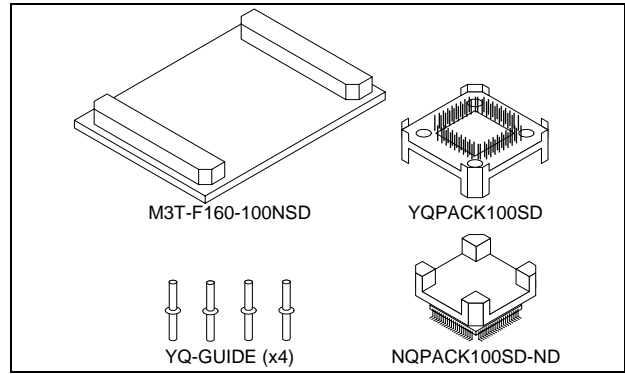


Figure 1 Package components of the M3T-F160-100NSD

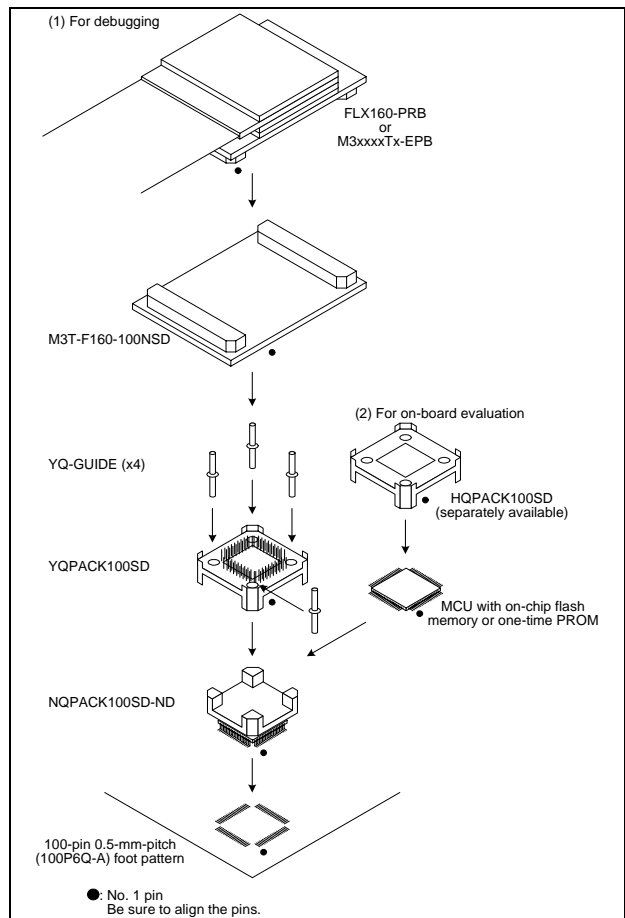


Figure 2 Usage of the M3T-F160-100NSD

## 5. Connection Procedure (See Figure 3)

The procedure for connecting the M3T-F160-100NSD 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 probe of the emulation pod to the M3T-F160-100NSD.
- (5) Connect M3T-F160-100NSD on the YQPACK100SD.

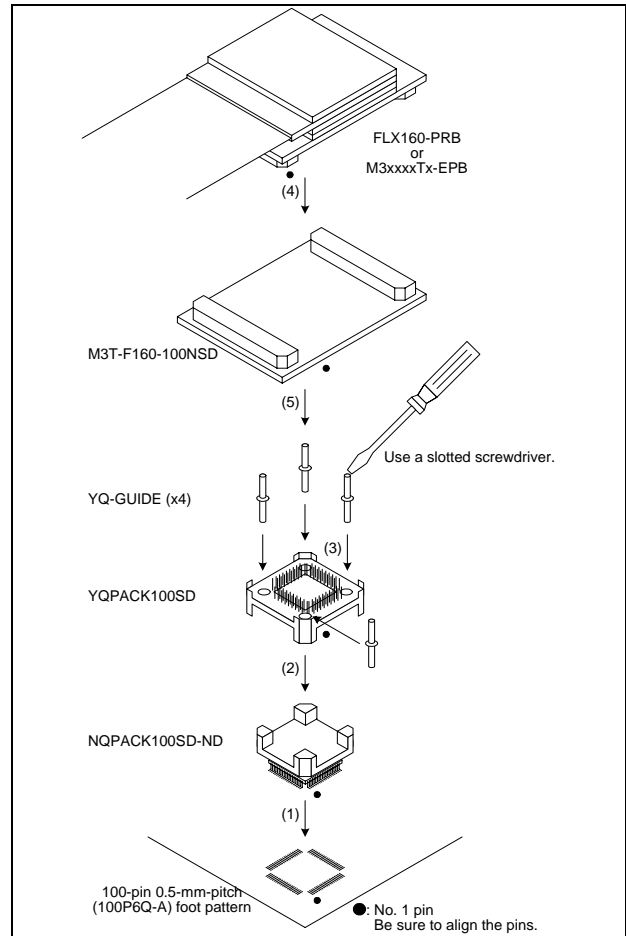


Figure 3 Connection procedure of the M3T-F160-100NSD

## 6. External Dimensions and a Sample Foot Pattern

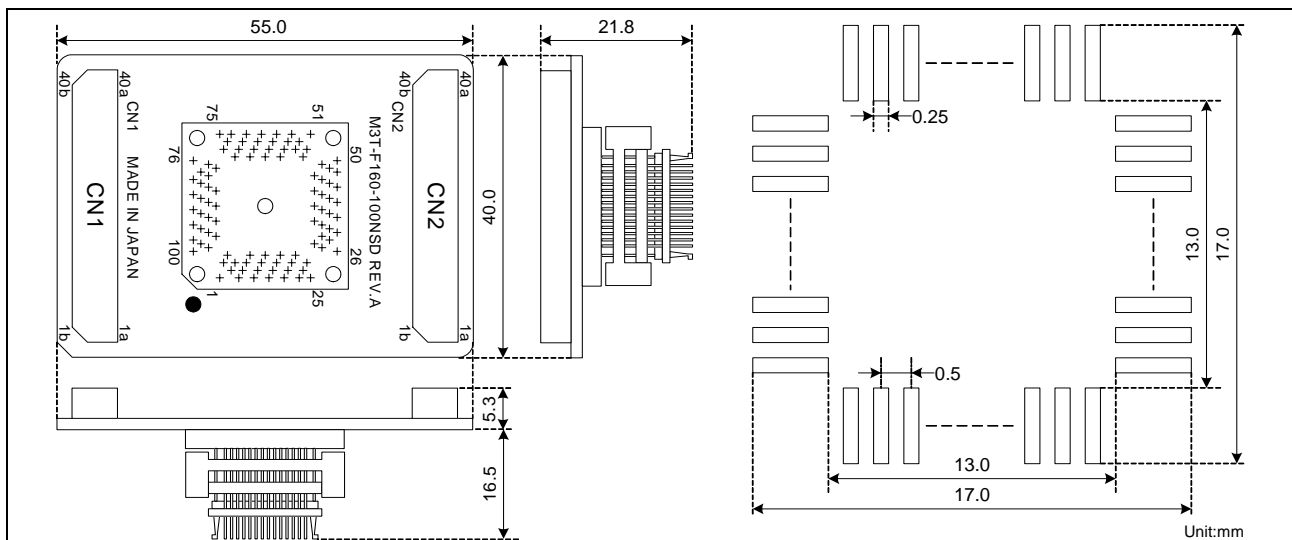


Figure 4 External dimensions and a sample foot pattern of the M3T-F160-100NSD

## 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](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 CN1 and CN2

Table 2 Correspondence of the connectors

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

(NC: No connection)