

To our customers,

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## Old Company Name in Catalogs and Other Documents

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

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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

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# M3T-F160-64NSD

Converter Board for Connecting FLX160 to 64-pin 0.5-mm-pitch LQFP

## User's Manual

### Keep safety first in your circuit designs!

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- 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-F160-64NSD is a converter board for connecting the 160-core flexible cable FLX160 to a foot pattern for 64-pin 0.5-mm-pitch LQFP (64P6Q-A).

# 2. Package Components (See Figure 1)

- (1) M3T-F160-64NSD converter board ..... 1 pc.
- (2) NQPACK064SD-ND (made by Tokyo Eletech Corporation) ..... 1 pc.
- (3) YQPACK064SD (made by Tokyo Eletech Corporation) ..... 1 pc.
- (4) YQSOCKET064SDF (made by Tokyo Eletech Corporation) ..... 1 pc.
- Pre-mounted on the converter board M3T-F160-64NSD
- (5) YQ-GUIDE'S (made by Tokyo Eletech Corporation) ..... 4 pcs.
- (6) M3T-F160-64NSD User's Manual (This manual)

# 3. Specifications

Table 1 Specifications

Applicable package	64P6Q-A (64-pin 0.5-mm-pitch LQFP)
Insertion/removal iterations of connector	50 times guaranteed

# 4. Usage (See Figure 2)

The M3T-F160-64NSD can be used for debugging and board-mounted evaluation in common by mounting the NQPACK064SD-ND on the user system.

- (1) For debugging  
Mount the NQPACK064SD-ND on the foot pattern of the user system and attach the YQPACK064SD on it. And connect the probe of the emulation pod to the upper connector of the M3T-F160-64NSD. Then connect the YQPACK064SD and the M3T-F160-64NSD.
- (2) For onboard evaluation  
Mount an MCU with on-chip flash memory or QzROM and the HQPACK064SD (separately available) in that order on the NQPACK064SD-ND on the user system.

Before using the M3T-F160-64NSD, be sure to read "6. Precautions" on page 3.

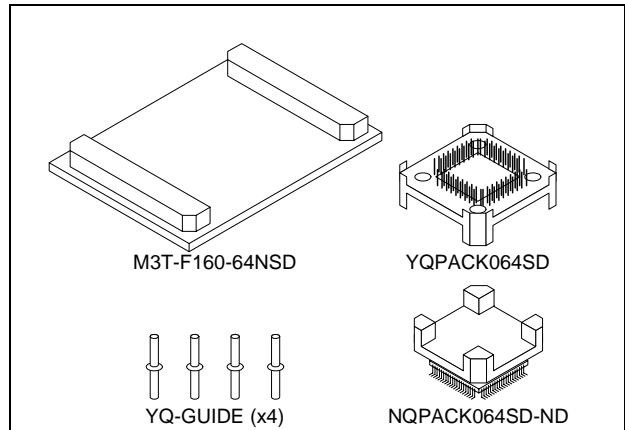


Figure 1 Package components of the M3T-F160-64NSD

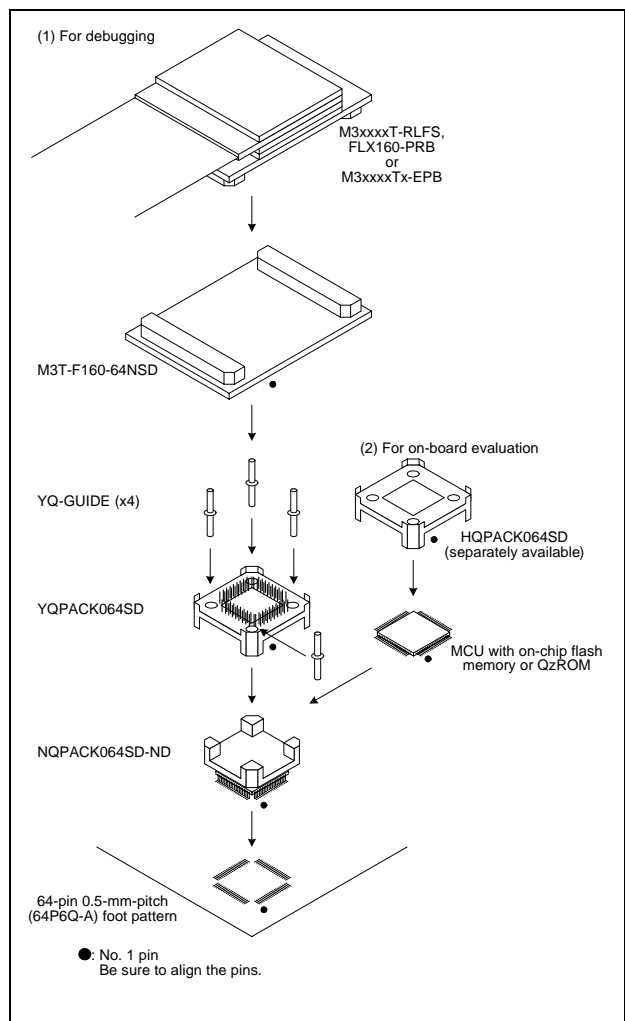


Figure 2 Usage of the M3T-F160-64NSD

## 5. External Dimensions and a Sample Foot Pattern

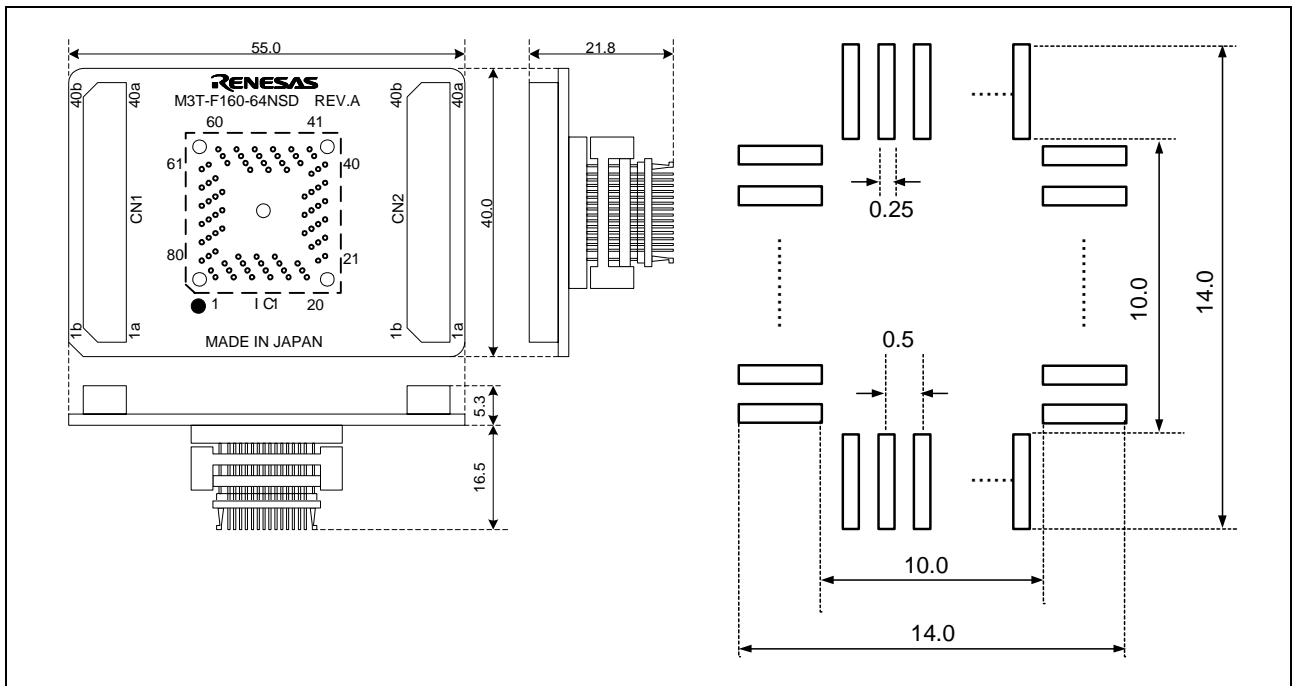


Figure 3 External dimensions and a sample foot pattern of the M3T-F160-64NSD

## 6. Precautions

### ⚠ CAUTION

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



- When connecting the YQPACK064SD, be sure to use the included YQ-GUIDE's.
- Do NOT use the screws included with the YQPACK064SD for connecting the YQPACK064SD.

### IMPORTANT

#### Notes on This Product:

- We cannot accept any request for repair.
- For purchasing the NQPACK064SD-ND, YQPACK064SD, HQPACK064SD, contact the following:
 

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

Renesas Tools Homepage	<a href="http://www.renesas.com/en/tools">http://www.renesas.com/en/tools</a>
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## 7. Correspondence of Connectors CN1 and CN2

Table 2 Correspondence of the connectors

No.	IC1	No.	IC1	No.	IC1	No.	IC1
CN1-1a	NC	CN1-1b	5	CN2-1a	-	CN2-1b	6
CN1-2a	4	CN1-2b	3	CN2-2a	7	CN2-2b	8
CN1-3a	-	CN1-3b	NC	CN2-3a	9	CN2-3b	10
CN1-4a	NC	CN1-4b	NC	CN2-4a	11	CN2-4b	12
CN1-5a	NC	CN1-5b	NC	CN2-5a	13	CN2-5b	14
CN1-6a	NC	CN1-6b	NC	CN2-6a	15	CN2-6b	16
CN1-7a	2	CN1-7b	NC	CN2-7a	17	CN2-7b	18
CN1-8a	1	CN1-8b	64	CN2-8a	-	CN2-8b	-
CN1-9a	63	CN1-9b	-	CN2-9a	-	CN2-9b	-
CN1-10a	-	CN1-10b	NC	CN2-10a	19	CN2-10b	-
CN1-11a	NC	CN1-11b	-	CN2-11a	-	CN2-11b	20
CN1-12a	62	CN1-12b	61	CN2-12a	21	CN2-12b	-
CN1-13a	60	CN1-13b	59	CN2-13a	22	CN2-13b	-
CN1-14a	58	CN1-14b	57	CN2-14a	23	CN2-14b	24
CN1-15a	56	CN1-15b	55	CN2-15a	25	CN2-15b	26
CN1-16a	54	CN1-16b	53	CN2-16a	27	CN2-16b	28
CN1-17a	52	CN1-17b	NC	CN2-17a	-	CN2-17b	-
CN1-18a	NC	CN1-18b	NC	CN2-18a	-	CN2-18b	-
CN1-19a	NC	CN1-19b	NC	CN2-19a	-	CN2-19b	-
CN1-20a	NC	CN1-20b	NC	CN2-20a	-	CN2-20b	-
CN1-21a	NC	CN1-21b	NC	CN2-21a	-	CN2-21b	-
CN1-22a	NC	CN1-22b	NC	CN2-22a	-	CN2-22b	-
CN1-23a	NC	CN1-23b	51	CN2-23a	-	CN2-23b	-
CN1-24a	50	CN1-24b	49	CN2-24a	-	CN2-24b	-
CN1-25a	48	CN1-25b	NC	CN2-25a	29	CN2-25b	30
CN1-26a	NC	CN1-26b	NC	CN2-26a	31	CN2-26b	32
CN1-27a	NC	CN1-27b	NC	CN2-27a	-	CN2-27b	-
CN1-28a	-	CN1-28b	-	CN2-28a	-	CN2-28b	-
CN1-29a	-	CN1-29b	-	CN2-29a	-	CN2-29b	-
CN1-30a	NC	CN1-30b	NC	CN2-30a	-	CN2-30b	-
CN1-31a	NC	CN1-31b	NC	CN2-31a	-	CN2-31b	33
CN1-32a	NC	CN1-32b	NC	CN2-32a	-	CN2-32b	34
CN1-33a	NC	CN1-33b	NC	CN2-33a	-	CN2-33b	35
CN1-34a	NC	CN1-34b	NC	CN2-34a	36	CN2-34b	37
CN1-35a	-	CN1-35b	-	CN2-35a	38	CN2-35b	39
CN1-36a	-	CN1-36b	-	CN2-36a	40	CN2-36b	41
CN1-37a	-	CN1-37b	47	CN2-37a	42	CN2-37b	43
CN1-38a	46	CN1-38b	45	CN2-38a	-	CN2-38b	-
CN1-39a	-	CN1-39b	44	CN2-39a	-	CN2-39b	-
CN1-40a	-	CN1-40b	NC	CN2-40a	-	CN2-40b	-

("-": No connection)