

M3T-F160-64NSD

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

User's Manual

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If the requirements shown in the "CAUTION" sentences are ignored, the equipment may cause personal injury or damage to the products.

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
- $(5) \ YQ\text{-}GUIDE's \ (\text{made by Tokyo Eletech Corporation}) \dots 4 \ pcs.$
- (6) M3T-F160-64NSD User's Manual (This manual)

3. Specifications

Table 1 Specifications

| Appliachle peakage | 64P6Q-A | | |
|-------------------------|----------------------------|--|--|
| Applicable package | (64-pin 0.5-mm-pitch LQFP) | | |
| Insertion/removal | 50 times guaranteed | | |
| 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.

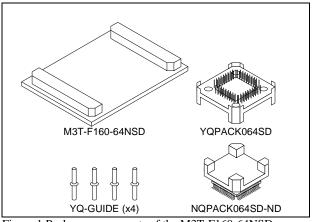
(1) For debugging

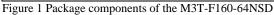
Mount the NQPACK064SD-ND on the foot pattern of the user system and attach the YQPACK064SD on it. And connect the probe of the emulation pod to the upper connector of the M3T-F160-64NSD. Then connect the YQPACK064SD and the M3T-F160-64NSD.

(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.





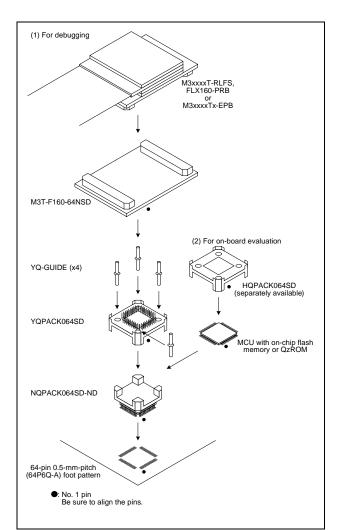


Figure 2 Usage of the M3T-F160-64NSD

5. External Dimensions and a Sample Foot Pattern

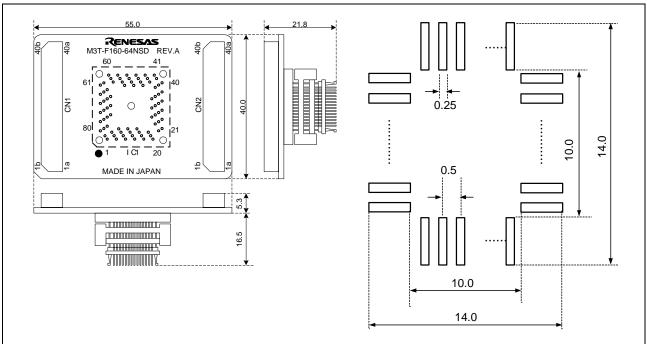


Figure 3 External dimensions and a sample foot pattern of the M3T-F160-64NSD

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 http://www.tetc.co.jp/e_tet.htm
 - Daimaru Kogyo Ltd.
- http://www.daimarukogyo.co.jp/ • For inquiries about the product or the contents of this manual, contact your local distributor. http://www.renesas.com/en/tools
 - Renesas Tools Homepage

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)