

# M34559T-PTCB

Converter Board for Connecting to 52-pin 0.65mm pitch LQFP of 4559 Group

## User's Manual

### Notes regarding these materials

1. This document is provided for reference purposes only so that Renesas customers may select the appropriate Renesas products for their use. Renesas neither makes warranties or representations with respect to the accuracy or completeness of the information contained in this document nor grants any license to any intellectual property rights or any other rights of Renesas or any third party with respect to the information in this document.
2. Renesas shall have no liability for damages or infringement of any intellectual property or other rights arising out of the use of any information in this document, including, but not limited to, product data, diagrams, charts, programs, algorithms, and application circuit examples.
3. You should not use the products or the technology described in this document for the purpose of military applications such as the development of weapons of mass destruction or for the purpose of any other military use. When exporting the products or technology described herein, you should follow the applicable export control laws and regulations, and procedures required by such laws and regulations.
4. All information included in this document such as product data, diagrams, charts, programs, algorithms, and application circuit examples, is current as of the date this document is issued. Such information, however, is subject to change without any prior notice. Before purchasing or using any Renesas products listed in this document, please confirm the latest product information with a Renesas sales office. Also, please pay regular and careful attention to additional and different information to be disclosed by Renesas such as that disclosed through our website. (<http://www.renesas.com>)
5. Renesas has used reasonable care in compiling the information included in this document, but Renesas assumes no liability whatsoever for any damages incurred as a result of errors or omissions in the information included in this document.
6. When using or otherwise relying on the information in this document, you should evaluate the information in light of the total system before deciding about the applicability of such information to the intended application. Renesas makes no representations, warranties or guaranties regarding the suitability of its products for any particular application and specifically disclaims any liability arising out of the application and use of the information in this document or Renesas products.
7. With the exception of products specified by Renesas as suitable for automobile applications, Renesas products are not designed, manufactured or tested for applications or otherwise in systems the failure or malfunction of which may cause a direct threat to human life or create a risk of human injury or which require especially high quality and reliability such as safety systems, or equipment or systems for transportation and traffic, healthcare, combustion control, aerospace and aeronautics, nuclear power, or undersea communication transmission. If you are considering the use of our products for such purposes, please contact a Renesas sales office beforehand. Renesas shall have no liability for damages arising out of the uses set forth above.
8. Notwithstanding the preceding paragraph, you should not use Renesas products for the purposes listed below:
  - (1) artificial life support devices or systems
  - (2) surgical implantations
  - (3) healthcare intervention (e.g., excision, administration of medication, etc.)
  - (4) any other purposes that pose a direct threat to human life

Renesas shall have no liability for damages arising out of the uses set forth in the above and purchasers who elect to use Renesas products in any of the foregoing applications shall indemnify and hold harmless Renesas Technology Corp., its affiliated companies and their officers, directors, and employees against any and all damages arising out of such applications.
9. You should use the products described herein within the range specified by Renesas, especially with respect to the maximum rating, operating supply voltage range, movement power voltage range, heat radiation characteristics, installation and other product characteristics. Renesas shall have no liability for malfunctions or damages arising out of the use of Renesas products beyond such specified ranges.
10. Although Renesas endeavors to improve the quality and reliability of its products, IC products have specific characteristics such as the occurrence of failure at a certain rate and malfunctions under certain use conditions. Please be sure to implement safety measures to guard against the possibility of physical injury, and injury or damage caused by fire in the event of the failure of a Renesas product, such as safety design for hardware and software including but not limited to redundancy, fire control and malfunction prevention, appropriate treatment for aging degradation or any other applicable measures. Among others, since the evaluation of microcomputer software alone is very difficult, please evaluate the safety of the final products or system manufactured by you.
11. In case Renesas products listed in this document are detached from the products to which the Renesas products are attached or affixed, the risk of accident such as swallowing by infants and small children is very high. You should implement safety measures so that Renesas products may not be easily detached from your products. Renesas shall have no liability for damages arising out of such detachment.
12. This document may not be reproduced or duplicated, in any form, in whole or in part, without prior written approval from Renesas.
13. Please contact a Renesas sales office if you have any questions regarding the information contained in this document, Renesas semiconductor products, or if you have any other inquiries.



### 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/tools>

Rev.1.01  
Sep. 01, 2007  
REJ10J1487-0101

(1/4)

Renesas Technology  
[www.renesas.com](http://www.renesas.com)

# 1. Outline

The M34559T-PTCB, combined with the M34559T2-CPE compact emulator, is a converter board for connecting a foot pattern for 52-pin 0.65mm pitch LQFP package (PLQP0052JA-A) of the 4559 group.

# 2. Package Components (See Figure 1)

- (1) M34559T-PTCB converter board..... 1 pc.
- (2) NQPACK052SB (made by Tokyo Eletech Corporation) ..... 1 pc.
- (3) YQPACK052SB (made by Tokyo Eletech Corporation) ..... 1 pc.
- (4) YQSOCKET052SBF (made by Tokyo Eletech Corporation) ..... 1 pc.
- Pre-mounted on the converter board M34559T-PTCB
- (5) YQ-GUIDE-S1 (made by Tokyo Eletech Corporation) ..... 4 pcs.
- (6) M34559T-PTCB User's Manual (This manual)

# 3. Specifications

Table 1 Specifications

Applicable package	PLQP0052JA-A (Previous code: 52P6A-A) (52-pin 0.65mm pitch LQFP)
Insertion/removal iterations of connector	20 times guaranteed

# 4. Usage (See Figure 2)

The M34559T-PTCB can be used for debugging and board-mounted evaluation in common by mounting the NQPACK052SB on the user system.

- (1) For debugging  
Mount the NQPACK052SB on the foot pattern of the user system and attach the YQPACK052SB on it. Then connect the M34559T-PTCB to the YQPACK052SB.
- (2) For onboard evaluation  
Mount the OzROM MCU first, and HQPACK052SB (separately available) on the NQPACK052SB on the user system.

Before using the M34559T-PTCB, be sure to read "6. Precautions" on page 3.

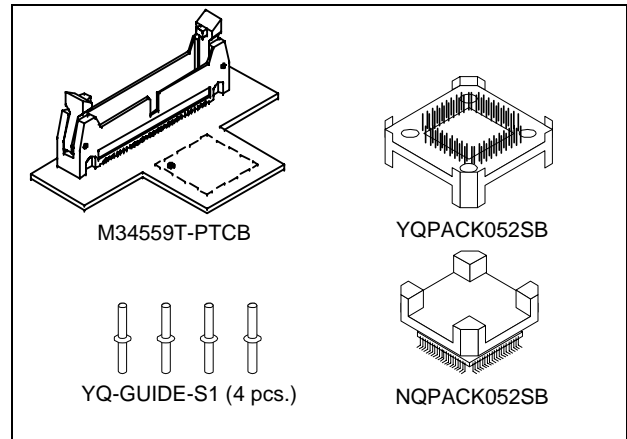


Figure 1 Package components of the M34559T-PTCB

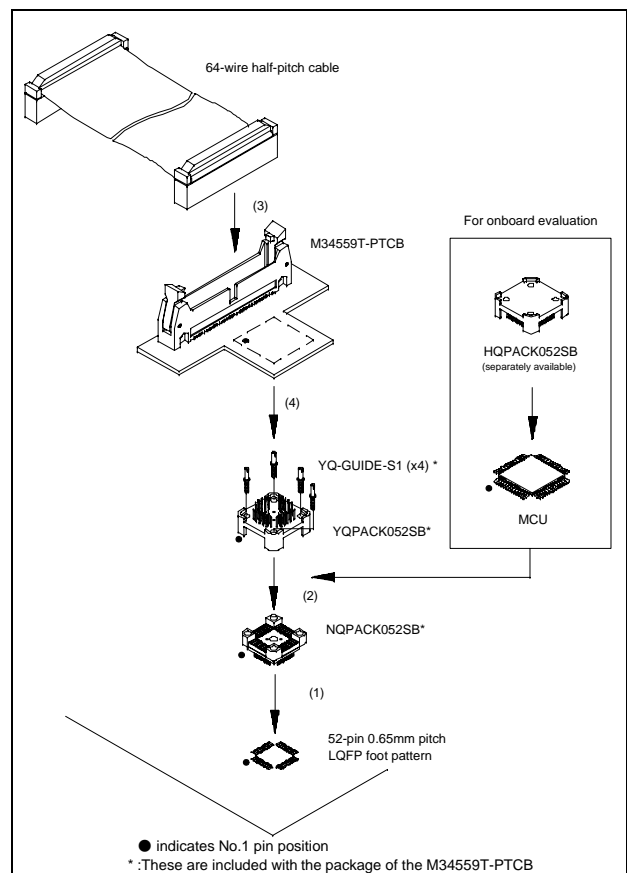


Figure 2 Usage of the M34559T-PTCB

## 5. External Dimensions

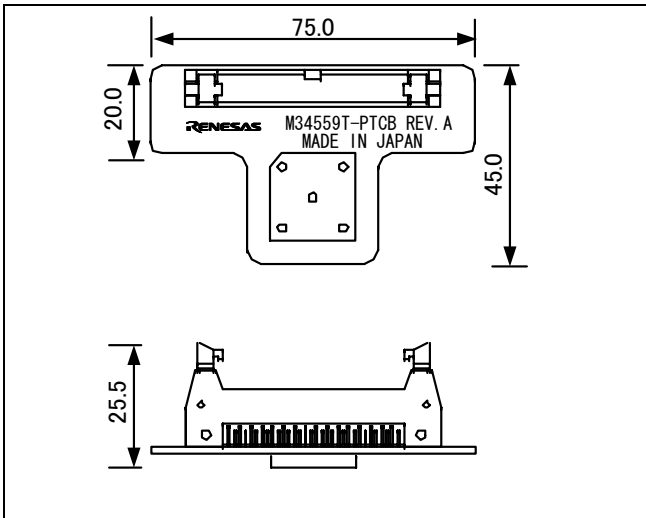


Figure 3 External dimensions of the M34559T-PTCB

## 6. Precautions

### ⚠ CAUTION

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



- When connecting the YQPACK052SB, be sure to use the included YQ-GUIDE's.
- Do NOT use the screws included with the YQPACK052SB for connecting the YQPACK052SB.

### IMPORTANT

#### Notes on This Product:

- We cannot accept any request for repair.
- For purchasing the NQPACK052SB, YQPACK052SB, HQPACK052SB, 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/tools>

## 7. Correspondence of Connectors

Table 2 Correspondence of the connectors

MCU Pin No.	Signal	MCU Pin No.	Signal
1	D2	52	D1
2	D3	51	D0
3	D4	50	P33/SEG31
4	D5/INT	49	P32/SEG30
5	CNVSS	48	P31/SEG29
6	XCIN/D6	47	P30/SEG28
7	XCOU/D7	46	P23/SEG27
8	RESET	45	P22/SEG26
9	XOUT	44	P21/SEG25
10	VSS	43	P20/SEG24
11	XIN	42	P13/SEG23
12	VDD	41	P12/SEG22
13	C/CNTR	40	P11/SEG21
14	VDCE	39	P10/SEG20
15	COM0	38	P03/SEG19
16	COM1	37	P02/SEG18
17	COM2	36	P01/SEG17
18	COM3	35	P00/SEG16
19	SEG0/VLC3	34	SEG15
20	SEG1/VLC2	33	SEG14
21	SEG2/VLC1	32	SEG13
22	SEG3	31	SEG12
23	SEG4	30	SEG11
24	SEG5	29	SEG10
25	SEG6	28	SEG9
26	SEG7	27	SEG8

("-": No connection)

## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>