To our customers,

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## Old Company Name in Catalogs and Other Documents

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   On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

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

April 1st, 2010
Renesas Electronics Corporation

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

Send any inquiries to http://www.renesas.com/inquiry.

RENESAS

| | Mask ROM number | |
|---|---|---|

# 740 FAMILY MASK ROM CONFIRMATION FORM
# SINGLE-CHIP  MICROCOMPUTER M38869MCA-XXXHP/GP
# RENESAS TECHNOLOGY

| Receipt | Date: | |
|---|---|---|
| | Section head signature | Supervisor signature |
| | | |

Note : Please fill in all items marked ※.

| ※ Customer | Company name | | TEL ( ) | Issuance signature | Submitted by | Supervisor |
|---|---|---|---|---|---|---|
| | Date issued | Date: | | | | |

※ 1. Confirmation

Specify the name of the product being ordered.

Three EPROMs are required for each pattern if this order is performed by EPROMs.

One floppy disk is required for each pattern if this order is performed by a floppy disk.

Microcomputer  name:  ☐ M38869MCA-XXXHP   ☐ M38869MCA-XXXGP

☐ Ordering by EPROMs

If at least two of the three sets of EPROMs submitted contain identical data, we will produce masks based on this data. We shall assume the responsibility for errors only if the mask ROM data on the products we produce differs from this data. Thus, extreme care must be taken to verify the data in the submitted EPROMs.

Checksum code for entire EPROM  ☐☐☐☐  (hexadecimal notation)

EPROM type (indicate the type used)

| ☐ **27512** |
|---|

EPROM address

```
0000₁₆  ┌──────────────┐
        │ Product name │
        │ ASCII code : │
000F₁₆  │ 'M38869MCA-' │
0010₁₆  ├──────────────┤
        │//////////////│
        │//////////////│
407F₁₆  │//////////////│
4080₁₆  ├──────────────┤
        │     data     │
        │ ROM (48K-130)│
        │    bytes     │
FFFD₁₆  ├──────────────┤
FFFE₁₆  │//////////////│
FFFF₁₆  └──────────────┘
```
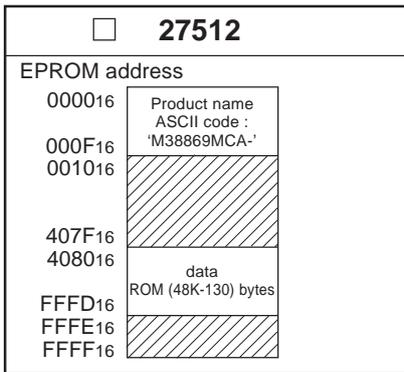
In the address space of the microcomputer, the internal ROM area is from address $4080_{16}$ to $FFFD_{16}$. The reset vector is stored in addresses $FFFC_{16}$ and $FFFD_{16}$.

(1) Set the data in the unused area (the shaded area of the diagram) to "$FF_{16}$".

(2) The ASCII codes of the product name "M38869MCA–" must be entered in addresses $0000_{16}$ to $0009_{16}$. And set the data "$FF_{16}$" in addresses $000A_{16}$ to $000F_{16}$.

The ASCII codes and addresses are listed to the right in hexadecimal notation.

| Address | | | Address | |
|---|---|---|---|---|
| $0000_{16}$ | 'M' = $4D_{16}$ | | $0008_{16}$ | 'A' = $41_{16}$ |
| $0001_{16}$ | '3' = $33_{16}$ | | $0009_{16}$ | '–' = $2D_{16}$ |
| $0002_{16}$ | '8' = $38_{16}$ | | $000A_{16}$ | $FF_{16}$ |
| $0003_{16}$ | '8' = $38_{16}$ | | $000B_{16}$ | $FF_{16}$ |
| $0004_{16}$ | '6' = $36_{16}$ | | $000C_{16}$ | $FF_{16}$ |
| $0005_{16}$ | '9' = $39_{16}$ | | $000D_{16}$ | $FF_{16}$ |
| $0006_{16}$ | 'M' = $4D_{16}$ | | $000E_{16}$ | $FF_{16}$ |
| $0007_{16}$ | 'C' = $43_{16}$ | | $000F_{16}$ | $FF_{16}$ |

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Renesas Technology Corp.

| Mask ROM number | |
|---|---|

## 740 FAMILY MASK ROM CONFIRMATION FORM
## SINGLE-CHIP  MICROCOMPUTER M38869MCA-XXXHP/GP
## RENESAS TECHNOLOGY

We recommend the use of the following pseudo-command to set the start address of the assembler source program because ASCII codes of the product name are written to addresses $0000_{16}$ to $0009_{16}$ of EPROM.

| EPROM type | 27512 |
|---|---|
| The pseudo-command | *=△$0000<br>.BYTE △M38869MCA–' |

Note : If the name of the product written to the EPROMs does not match the name of the mask confirmation form, the ROM will not be processed.

☐ Ordering by floppy disk

We will produce masks based on the mask files generated by the mask file generating utility.  We shall assume the responsibility for errors only if the mask ROM data on the products we produce differs from this mask file.  Thus, extreme care must be taken to verify the mask file in the submitted floppy disk.

The submitted floppy disk must be 3.5-inch 2HD type and DOS/V format.  And the number of the mask files must be 1 in one floppy disk.

File code ⬚⬚⬚⬚⬚⬚⬚⬚ (hexadecimal notation)

Mask file name ⬚⬚⬚⬚⬚⬚⬚⬚ .MSK (equal or less than eight characters)

※ 2. Mark specification

Mark specification must be submitted using the correct form for the package being ordered. Fill out the appropriate mark specification form (80P6Q-A for M38869MCA-XXXHP,80P6S-A for M38869MCA-XXXGP) and attach it to the mask ROM confirmation form.

※ 3. Usage conditions

Please answer the following questions about usage for use in our product inspection :

(1) How will you use the $X_{IN}$-$X_{OUT}$ oscillator?

☐ Ceramic resonator ☐ Quartz crystal

☐ External clock input ☐ Other (          )

At what frequency?  $f(X_{IN}) = $ ⬚ MHz

(2) Which  function will you use the pins $P4_1/X_{CIN}$ and $P4_0/X_{COUT}$ as $P4_1$ and $P4_0$, or $X_{CIN}$ and $X_{COUT}$ ?

☐ Ports $P4_1$ and $P4_0$ function ☐ $X_{CIN}$ and $X_{COUT}$ function (external resonator)

(3) Will you use the $I^2C$-BUS function or the SM-BUS function ?

☐ $I^2C$-BUS function used ☐ SM-BUS function used

☐ Not used

※ 4. Comments

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