To our customers,

Old Company Name in Catalogs and Other Documents

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 M37151MF-XXXFP
RENESAS

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.
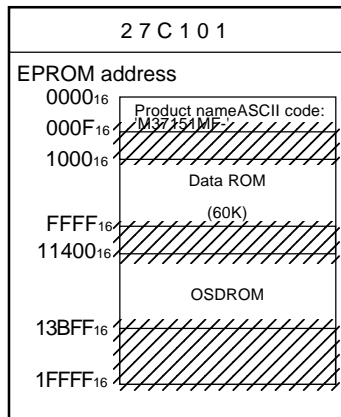
☐ Ordering by EPROMs

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)

2 7 C 1 0 1
EPROM address

0000_{16}
$000F_{16}$ Product name ASCII code: 'M37151MF-'
1000_{16}
Data ROM
(60K)
$FFFF_{16}$
11400_{16}
OSDROM
$13BFF_{16}$
$1FFFF_{16}$

(1)   Set "FF_{16}" in the shaded area.

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(2)   Write the ASCII codes that indicate the product name of "M37151MF–" to addresses 0000_{16} to $000F_{16}$.

Addresses 0000_{16} to $000F_{16}$ store the product name.
ASCII codes 'M37151MF-' are listed on the right.
The addresses and data are in hexadecimal notation.

Address				Address			
0000_{16}	'M'	=	$4D_{16}$	0008_{16}	'–'	=	$2D_{16}$
0001_{16}	'3'	=	33_{16}	0009_{16}			FF_{16}
0002_{16}	'7'	=	37_{16}	$000A_{16}$			FF_{16}
0003_{16}	'1'	=	31_{16}	$000B_{16}$			FF_{16}
0004_{16}	'5'	=	35_{16}	$000C_{16}$			FF_{16}
0005_{16}	'1'	=	31_{16}	$000D_{16}$			FF_{16}
0006_{16}	'M'	=	$4D_{16}$	$000E_{16}$			FF_{16}
0007_{16}	'F'	=	46_{16}	$000F_{16}$			FF_{16}

Note: If the name of the product contained in the EPROMs does not match the name on the mask ROM confirmation form, the ROM processing is disabled. Please make sure the data is written correctly.

☐ 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 type of package being ordered. Fill the appropriate mark specification form (42P2R for M37151MF-XXXFP) and attach to the mask ROM confirmation form.

∗3. Comments

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Font data must be stored in the proper OSD ROM address according to the following table.

OSD ROM address of character font data

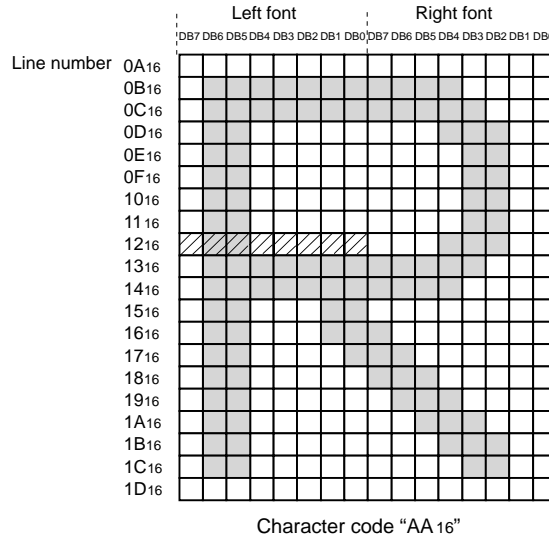| OSD ROM address bit	AD16	AD15	AD14	AD13	AD12	AD11	AD10	AD9	AD8	AD7	AD6	AD5	AD4	AD3	AD2	AD1	AD0
Line number / Character code / Font bit	1	0	0	Line number					Character code								Font bit

Line number = $0A_{16}$ to $1D_{16}$
Character code = 00_{16} to FF_{16} (Do not set $7F_{16}$ and 80_{16}.)
Font bit = 0 : Left font
        1 : Right font

Example) The font data "60" (shaded area [▨]) of the character code "AA_{16}" is stored in address
$1\ 001\ 0\ 0\ 1\ 0\ 1\ 0\ 1\ 0\ 1\ 0\ 1\ 0\ 0_2 = 12554_{16}$.

Character code "AA_{16}"

Notes 1 : The 80-byte addresses corresponding to the character code "$7F_{16}$" and "80_{16}" in OSD ROM are the test data storning area. Set "FF_{16}" to the area (We stores the test data to this area and the different data from "FF_{16}" is stored for the actual products.)
The test data storing area :
addresses $11000_{16}+(4+2n)×100_{16}+FE_{16}$ to $11000_{16}+(5+2n)×100_{16}+01_{16}$(n=0 to 19)

> addresses $114FE_{16}$ to 11501_{16}
> addresses $116FE_{16}$ to 11701_{16}
> •
> •
> •
> addresses $138FE_{16}$ to 13901_{16}
> addresses $13AFE_{16}$ to $13B01_{16}$

2 : The character code "09_{16}" is used for "transparent space" when displaying Closed Caption.
Therefore, set "00_{16}" to the 40-byte addresses corresponding to the character code "09_{16}."
The transparent space font data storing area :
addresses $11000_{16}+(4+2n)×100_{16}+12_{16}$ to $11000_{16}+(4+2n)×100_{16}+13_{16}$ (n=0 to 19)

> addresses 11412_{16} and 11413_{16}
> addresses 11612_{16} and 11613_{16}
> •
> •
> •
> addresses 13812_{16} and 13813_{16}
> addresses $13A12_{16}$ and $13A13_{16}$