

To our customers,

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## Old Company Name in Catalogs and Other Documents

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

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

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

ROM number	
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**QzROM PROGRAMMING CONFIRMATION FORM  
SINGLE-CHIP 8-BIT MICROCOMPUTER  
M37549G1-XXXFP  
RENESAS TECHNOLOGY**

Note : Please fill in all items marked\*.

Receipt	Date:	
	Section head signature	Supervisor signature

*	Customer	Company name	Issuance signature	Supervisor	
		Telephone number			(      )
		Date issued			Date:

\*1. Confirmation

Specify the name of the product being ordered.

The submitted floppy disk must be 3.5-inch 2HD type and DOS/V format if this order is performed by a floppy disk. And the number of the mask files must be 1 in one floppy disk.

Microcomputer name: M37549G1-XXXFP

File code 

--	--	--	--	--	--	--	--

 (hexadecimal notation)

Mask file name 

--	--	--	--	--	--	--	--

 .MSK (equal or less than eight characters)

Note1: Write data to only ROM data area (addresses F880<sub>16</sub> to FFD3<sub>16</sub>, FFD8<sub>16</sub> to FFDA<sub>16</sub>, FFDC<sub>16</sub> to FFFD<sub>16</sub>).  
ROM option data area: Addresses 10<sub>16</sub>

Note2: The function set ROM data 0 to 2 (address FFD8<sub>16</sub> to FFDA<sub>16</sub>) must be set according to the data sheet.  
The designated value must be set to those bits whose set value is fixed to 1 or 0.

**Notes (RENESAS ---> Customer)**

Note 1 : ROM data confirmation request

QzROM programming will be processed based on the mask file generated by the mask file generating utility. Only in the case when ROM data programmed in the actual mass produced product differs from that of above mentioned mask file, Renesas takes the responsibility. There is no Engineering Sample, thus please confirm the ROM data at the receipt of the Initial product delivery.  
Should you find any problem, please return immediately. Two weeks without technical error feedback towards Renesas will automatically be regarded as acceptance of products.

Note 2 : ROM option ("Mask option" written in the mask file converter MM)

Either of the following data should be set to the ROM option data address (10<sub>16</sub>) of the mask file you have ordered. When you don't protect the ROM data, a third party can read out it.

When the ROM data is protected 

<b>00<sub>16</sub></b>
------------------------

 Address 10<sub>16</sub>

When the ROM data is not protected 

<b>FF<sub>16</sub></b>
------------------------

 Address 10<sub>16</sub>

If you set except the above data or nothing at the ROM option data address (10<sub>16</sub>), We can't generate the ROM data. Then we request to submit the data again.

When Renesas ships QzROM write products, we write the data in the ROM option address (10<sub>16</sub>) to the actual ROM code protect address (FFDB<sub>16</sub>).

Therefore, set FF<sub>16</sub> to address FFDB<sub>16</sub> in the ROM data regardless of the presence or absence of a protect. When data other than FF<sub>16</sub> is set, we may ask that the ROM data be submitted again.

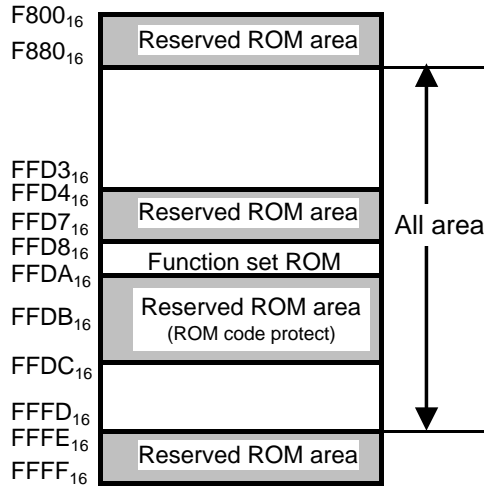
Note 3 : Mark specification

You can appoint the mark by the mark specification form. Without submitting the mark specification form, your mark will be a standard mark. Please fill out the 24P2Q MARK SPECIFICATION FORM and attach it when you submit the QzROM PROGRAMMING CONFIRMATION FORM. We can't deal with special font marking (customer's trademark etc.) in QzROM microcomputer.

ROM number	
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ROM-Protection-Area



**NOTE:**  
**Do not set any data to address FFDB<sub>16</sub>.**

\*2. Usage conditions

For our reference of new products, please reply to the following questions about the usage of the products you ordered.

(1) Which operation source main clock do you use?

- Ceramic resonator           RC oscillation           High-speed on-chip oscillator
- Quartz-crystal oscillation       External clock input       Low-speed on-chip oscillator
- Other (                                  )

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

(2) What is the voltage of power supply ( $V_{DD}$ ) you use?

Typ. =  V      Min. =  V      Max. =  V

(3) What is the ambient temperature you use?

Typ. =  °C      Min. =  °C      Max. =  °C

(4) Which clock division ratio mode do you use?

- Double-speed mode ( $f(\phi) = \phi\text{SOURCE}/1$ )       High-speed mode ( $f(\phi) = \phi\text{SOURCE}/2$ )
- Middle-speed mode ( $f(\phi) = \phi\text{SOURCE}/4$ )       Low-speed mode ( $f(\phi) = \phi\text{SOURCE}/8$ )

(5) Which function of  $P2_0$ /  $X_{OUT}$ /  $X_{COUT}$ ,  $P2_1$ /  $X_{IN}$ /  $X_{CIN}$  pins do you use?

- Clock pins not used ( $P2_0$  and  $P2_1$  are used as I/O ports)        $X_{IN}$ ,  $X_{OUT}$
- $X_{CIN}$ ,  $X_{COUT}$        External clock input ( $P2_1$  is used as I/O port)

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(6) Please reply to the following questions about timer function.

(i) Which timer do you use?

Timer1       Timer2       TimerA

(ii) Which count source of timer do you use?

· Timer2	<input type="checkbox"/> $\phi$ SOURCE/16	<input type="checkbox"/> $\phi$ SOURCE/256	<input type="checkbox"/> Prescaler 12 output
	<input type="checkbox"/> TimerA underflow signal		
· TimerA	<input type="checkbox"/> $\phi$ SOURCE/16	<input type="checkbox"/> $\phi$ SOURCE/2	<input type="checkbox"/> $\phi$ SOURCE/32
	<input type="checkbox"/> $\phi$ SOURCE/64	<input type="checkbox"/> $\phi$ SOURCE/128	<input type="checkbox"/> $\phi$ SOURCE/256
	<input type="checkbox"/> Low-speed on-chip oscillator output	<input type="checkbox"/> X <sub>CIN</sub> input clock	

(iii) Do you use the Output compare?

Use (      ) channel       Not use

(iv) Do you use the Input capture?

Use       Not use

(7) Do you use the Serial I/O?

Use       Not use  
(  Clock synchronous Serial I/O mode       Asynchronous Serial I/O(UART) mode )

(8) Do you use the A/D converter?

Use       Not use

(9) Do you use the Watchdog timer?

Use       Not use

(10) Do you use the oscillation stop detection circuit?

Use       Not use

**Thank you cooperation**

\*3. Comments