

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**  
**8BIT SINGLE-CHIP MICROCOMPUTER**  
**M3823AGF-XXXFP/HP**  
**RENESAS TECHNOLOGY**

Receipt	Date:	
	Section head signature	Supervisor signature

Note: Please fill in all items marked\*.

* Customer	Company name	TEL (      )	Issuance signature	Supervisor
	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:                      M3823AGF-XXXFP                      M3823AGF-XXXHP

File code                      

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

                      (hexadecimal notation)

Mask file name                      

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

                      .MSK (equal or less than eight characters)

Note: Write data to only ROM data area (addresses 1080<sub>16</sub> to FFFD<sub>16</sub>).  
 ROM option data area: Addresses 10<sub>16</sub>

**Notes (RENESAS → Customer)**

**1 : ROM data confirmation request**

QzROM programming will be processed based on the mask file generated by the mask file generating utility. Only in 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.**

**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 ROM data is protected                      

00
----

<sub>16</sub> Address 10<sub>16</sub>

When ROM data is not protected                      

FF
----

<sub>16</sub> 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.**

**3 : Mark specification**

You can appoint the mark by the mark specification form. Without submitting the mark specification form, your mark will be standard mark. Please fill out the 80P6N MARK SPECIFICATION FORM for the M3823AGF-XXXFP, the 80P6Q MARK SPECIFICATION FORM for the M3823AGF-XXXHP, 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.**

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※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
- External clock input
- Quartz-crystal oscillation
- Other(                    )

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

(2) Which operation source sub clock do you use?

- Quartz-crystal oscillation
- Other(                    )
- On-chip oscillator

At what frequency?  
 $f(X_{CIN}) =$   kHz

(3) What is the voltage of power supply (V<sub>CC</sub>) you use?

Typ.=  V      Min.=  V      Max.=  V

(4) What is the ambient temperature you use?

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

(5) Which main clock (X<sub>in</sub>-X<sub>out</sub>) division ratio mode will you use?

- In frequency/2 mode    ( $f(\phi) = f(X_{IN})/2$ )       In frequency/4 mode    ( $f(\phi) = f(X_{IN})/4$ )
- In frequency/8 mode    ( $f(\phi) = f(X_{IN})/8$ )

(6) Which function will you use the pins P71/X<sub>CIN</sub> and P70/X<sub>COUT</sub> as P70 and P71, or X<sub>CIN</sub> and X<sub>COUT</sub>?

- P71,P70       X<sub>CIN</sub>,X<sub>COUT</sub>

(7) On which condition will you use LCD drive control circuit?

LCD drive control circuit       Use       Not use  
 Duty ratio       4     3     2  
 Range of power source voltage(V<sub>L3</sub>)    Min.=  V    Max.=  V  
 Number of segment pins used     

(8) Which timer mode will you use?

Timer X     Timer mode     Pulse output mode     Event counter mode  
                   Pulse width measurement mode     Not use  
 Timer Y     Timer mode     Pulse output mode     Event counter mode  
                   Pulse width HL continuously measurement mode     Not use

(9) Which serial I/O will you use?

- Clock synchronous     UART     Not use

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(10) On which condition will you use A/D converter?

- 10bit or 8bit conversion switch     8bitA/D     10bitA/D     Not use  
A/D conversion clock                 f(X<sub>IN</sub>)/2     f(X<sub>IN</sub>)     On-chip oscillator

(11) Do you use the Watchdog timer?

- Use                     Not use

(12) Do you use the ROM correction function?

- ROM correction function     Use     Not use

Thank you for cooperation.

※3. Comments