

Notes for ROM Ordering

Forms to be Submitted

1. Please download the latest versions of the following forms corresponding to your microcomputer. These are located at the Renesas Website: Single-chip microcomputer specification form/Option list/Mark specification form.
If you already have these forms, please check our website to make sure they are the latest versions.
2. If you do not find the forms corresponding to your microcomputer, please contact the nearest Renesas sales office. (Please do not use another microcomputer's forms or hand-revised forms.)
3. When filling in forms by hand, please use block letters (print) and write each number and letter clearly to avoid any mistakes or misunderstandings. Make sure upper- and lower-case letters are written correctly.

<Example>

(ou)(zero)(ai)(one)
 ↓ ↓ ↓ ↓
 O 0 I 1

Single-chip microcomputer order specification form

This is the document that always needs to be prepared when you place an order for mask-version ROM. This document is an important material to ensure that your microcomputer will be developed correctly as intended. Please be sure to fill out the form following the procedure described below. This specification form is common to all of formally Hitachi microcomputer series.

1. Basic items

(1) Write your desired series name.

For the SH and H8 series microcomputers (except the H8/300L series), write the frequency version of the product in the "Operating clock frequency" column. For other products, this information is unnecessary.

<Example>

Microcomputer Family	HD6435328	Operating clock frequency/ voltage	10MHz 5V
----------------------	------------------	---------------------------------------	----------

(2) Write the equipment name in which your microcomputer is to be incorporated and the functions to be controlled as concretely as possible by using generic names.

(Especially be sure to discriminate the types of equipment between, for example, household use and business use.)

<Example>

Purpose of use	<input checked="" type="checkbox"/> Household use	Air conditioner	Purpose of use	Temperature adjustment and control
	<input type="checkbox"/> Business use (General industry or manufacturing industry etc.)			

(3) Write the ROM code name and put a check mark for the type of media in which the ROM data is written.

<Example>

ROM code name	P-123
---------------	-------

ROM code media	<input type="checkbox"/> ZTAT, F-ZTAT (Type name:) <input type="checkbox"/> EPROM (Type name:) <input type="checkbox"/> ROM transmission (Inquiry No.) <input checked="" type="checkbox"/> Floppy
----------------	---

(4) Select the package and specify the number of pins.

<Example>

Package	<input type="checkbox"/> DP-() <input checked="" type="checkbox"/> FP-(112) <input type="checkbox"/> TFP-() <input type="checkbox"/> CP-() <input type="checkbox"/> Other () (Ex.) : DP-(64S), FP-(808)
---------	--

(5) Select the operating temperature range of the LSI.

<Example>

Operating temperature	<input checked="" type="checkbox"/> Standard specification	<input type="checkbox"/> Wide-range temperature specification (I specification: Ta= -40°C to +85°C)
	<input type="checkbox"/> High-reliability temperature specification (J specification: Ta= -40°C to +85°C)	<input type="checkbox"/> Other specification ()

(6) Write in detail about requirements other than standard specifications, if any. For requirements regarding the functionality of the LSI, contact the nearest Renesas Sales office.

<Example>

Special specifications (Special product or mark specifications)	Logo mark + specified product No. should be stamped.
--	--

1. Working environment check list

This item is used to examine the working conditions of the LSI for use as reference material for reliability design, and not intended to determine the guaranteed values of characteristics when developing a microcomputer. Therefore, the actual product is guaranteed based on the content written in paragraph 1, "Basic items."

2. Checksum

To confirm the content of your ROM data presented to Renesas, the CAD processing result and the value of checksum *1 are used for inquiry. Always be sure to write all addresses of your presented ROM data (start address to end address).

If ROM data with different contents such as those with separate high-order and low-order bits are included, please make sure the checksum value of each of such ROM data can be discriminated.

Notes

*1 The checksum refers to the result derived by adding up data at all addresses of ROM data, which is represented in hexadecimal. Write the four low-order digits of the sum total. For Motorola S format, a checksum calculation tool is available for you to use.

Option List

A mask option is the one that when producing a ROM mask indicates specific settings to be made in the microcomputer. Not all types of MCUs require a mask option. Those that require setting a mask option are shown in the option list below for your reference. For details about the option list, refer to your hardware manual or Renesas data book.

Mark Specification Form

When an ES sample is delivered to you, a written confirmation of sample evaluation will be included with it. After filling out the form, please return it to your Renesas sales office.

ES Evaluation Sheet

You will receive an ES Evaluation Sheet with delivery of your engineering samples. It is important that you confirm all items on the form and return it to your Renesas sales office.