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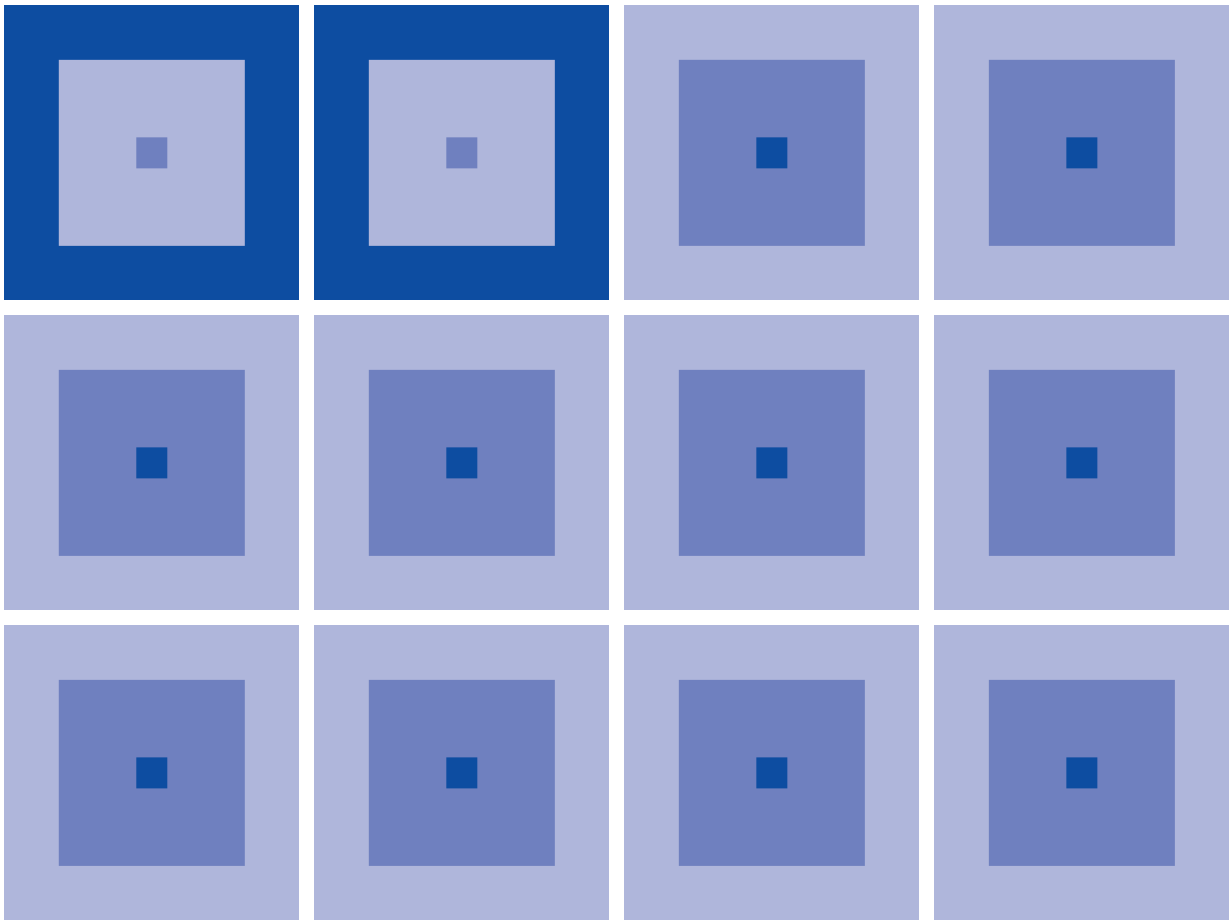
EPSON

CMOS 8-BIT SINGLE CHIP MICROCOMPUTER

S5U1C88000P Manual

(S1C88 Family Peripheral Circuit Board)



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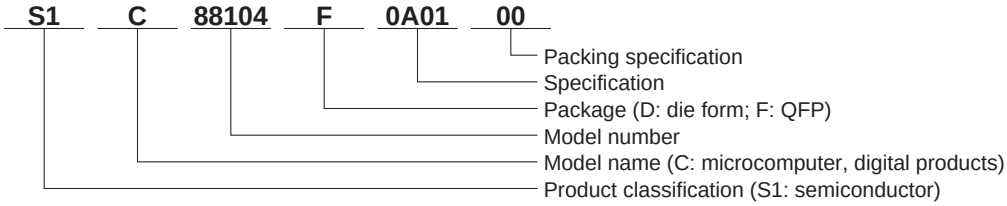
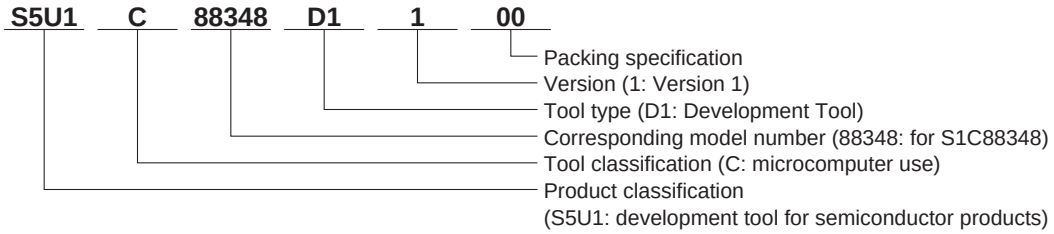
New configuration of product number

Starting April 1, 2001, the product number has been changed as listed below. Please use the new product number when you place an order. For further information, please contact Epson sales representative.

Devices



Development tools



S5U1C88000P Manual (S1C88 Family Peripheral Circuit Board)

This manual describes how to use the S1C88 Family Peripheral Circuit Board (S5U1C88000P). This circuit board is used to provide emulation functions when it is installed in the ICE (S5U1C88000H5), a debugging tool for the 8-bit Single Chip Microcomputer S1C88 Family.
This manual describes only the common specifications of the S1C88 Family Peripheral Circuit Board (S5U1C88000P), so refer to the S5U1C88000P manual (Peripheral Circuit Board for S1C88xxx) for the model dependent specifications. For details on ICE functions and how to operate the debugger, refer to the separately prepared manuals.

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CHAPTER 1 INTRODUCTION

1.1 Outline of S5U1C88000P

The S5U1C88000P provides on a board all the peripheral circuits of S1C88 Family microcomputers other than the core CPU. By installing this board in the ICE (S5U1C88000H5) you can use it to emulate each model in the S1C88 Family. This board contains a programmable gate array (FPGA) and supports each model by downloading the circuit data from the host PC to the FPGA via the ICE.

1.2 Components of S5U1C88000P

After unpacking your S5U1C88000P package, check to see that all of the following components are included.

(1) S5U1C88000P main unit ..... 1 board
(2) I/O cable (80-pin/40-pin × 2 flat type) ..... 2 pairs
(3) Connector for connecting to target system (40-pin) ..... 4 pieces
(4) Warranty card ..... 1 card
(5) User registration card ..... 1 card
(6) Precautions on using the S5U1C88000P Peripheral Circuit Board ..... 1 sheet
(7) S5U1C88000P Manual (S1C88 Family Peripheral Circuit Board) ..... 1 copy

1.3 External View of S5U1C88000P

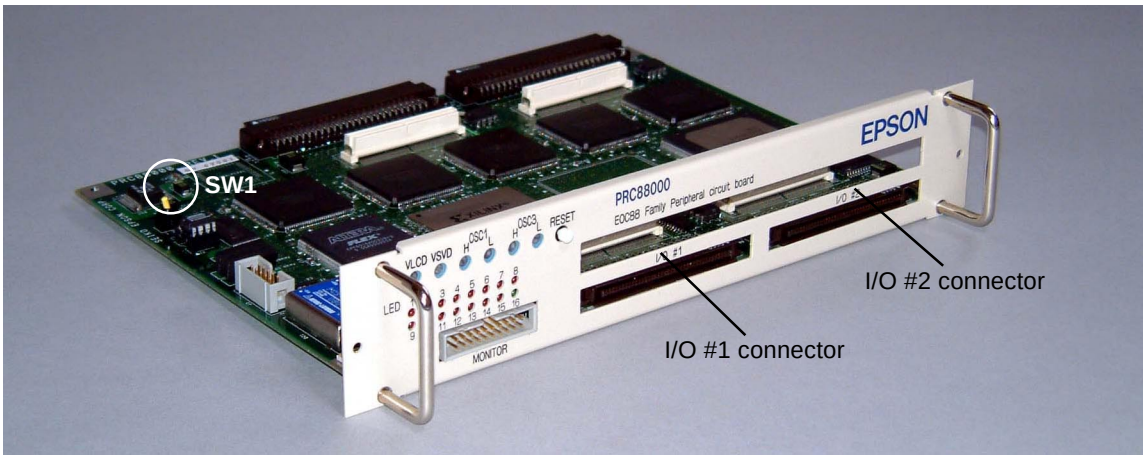

Fig. 1.3.1 External view of S5U1C88000P

CHAPTER 2 SETTING UP THE S5U1C88000P

2.1 Installing the S5U1C88000P in the ICE (S5U1C88000H5)

Insert this board along by the lower guide rail of the ICE (S5U1C88000H5). The system may fail to operate if this board is not adequately mounted, so be sure to mount it securely.

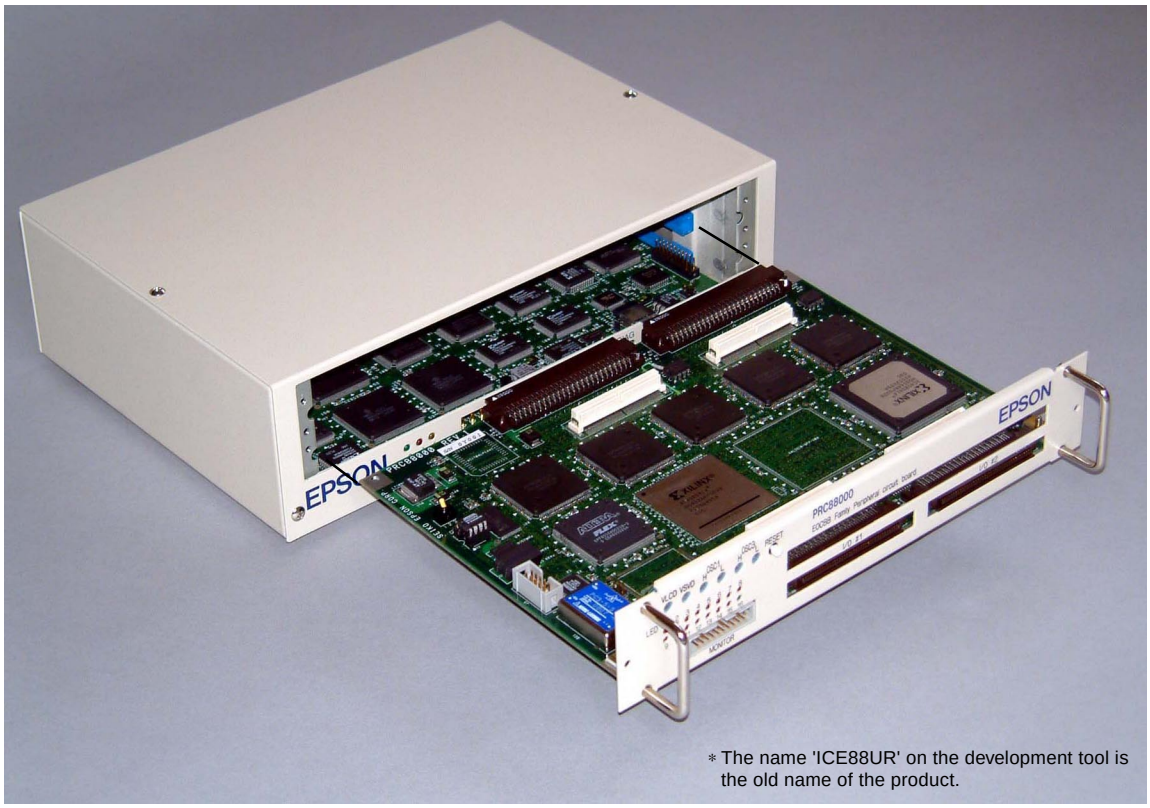

Fig. 2.1.1 Installing the S5U1C88000P

2.2 Downloading Circuit Data

This board (S5U1C88000P) comes with the FPGA that contains factory inspection data, therefore the circuit data for the model to be used should be downloaded. The following explains the downloading procedure.

1) Set the switch "SW1"*1 on this board to the "3" position.
2) Install this board to the ICE (S5U1C88000H5) as shown in Section 2.1.
3) Connect the ICE to the host PC. Then turn the host PC and ICE on.
4) Invoke the debugger included in the ICE or assembler package. For how to use the ICE and debugger, refer to the manuals supplied with the ICE and assembler package.
5) Download the circuit data file (.mot) corresponding to the model by entering the following commands in the command window.

`>XFER`	(erase all)
`>XFWR` <*file name*>	(download the specified file)*2
`>XFCP` <*file name*>	(compare the specified file and downloaded data)

6) Terminate the debugger and then turn the ICE off.
7) Remove this board from the ICE and set the switch "SW1" on the board to the "1" position.
8) Install this board to the ICE again.
9) Turn the ICE on and invoke the debugger again. Debugging can be started here.

∗1 See Figure 1.3.1, "External view of S5U1C88000P", for the location of SW1.
∗2 The downloading takes about 5 minutes.

CHAPTER 3 PRODUCT SPECIFICATIONS

The specifications of the S5U1C88000P are listed below.

S5U1C88000P

Dimension:	247.5 mm (wide) × 165 mm (depth) × 44.6 mm (height)
Weight:	Approx. 500 g
Power supply:	DC 5 V ± 5%, less than 1 A (supplied from ICE main unit)

I/O connection cable (80-pin)

S5U1C88000P connector:	KEL8830E-080-170L, or equivalent	
Cable connector (80-pin):	KEL8822E-080-171	× 1
Cable connector (40-pin):	3M7940-6500SC	× 2 pairs
Cable:	40-pin flat cable	× 2 pairs
Interface:	CMOS interface (3.3 V)	
Length:	Approx. 40 cm	

Monitor signal cable

S5U1C88000P connector:	3M7610-5002SC, or equivalent	
Cable connector (10-pin):	3M7910-6500SC	× 1
Interface:	CMOS interface (3.3 V)	
Length:	Approx. 40 cm	

Accessories

40-pin connector for connecting to target system:
3M3432-6002LCSC × 4

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Issue May, 2001
Printed in Japan ⓂA