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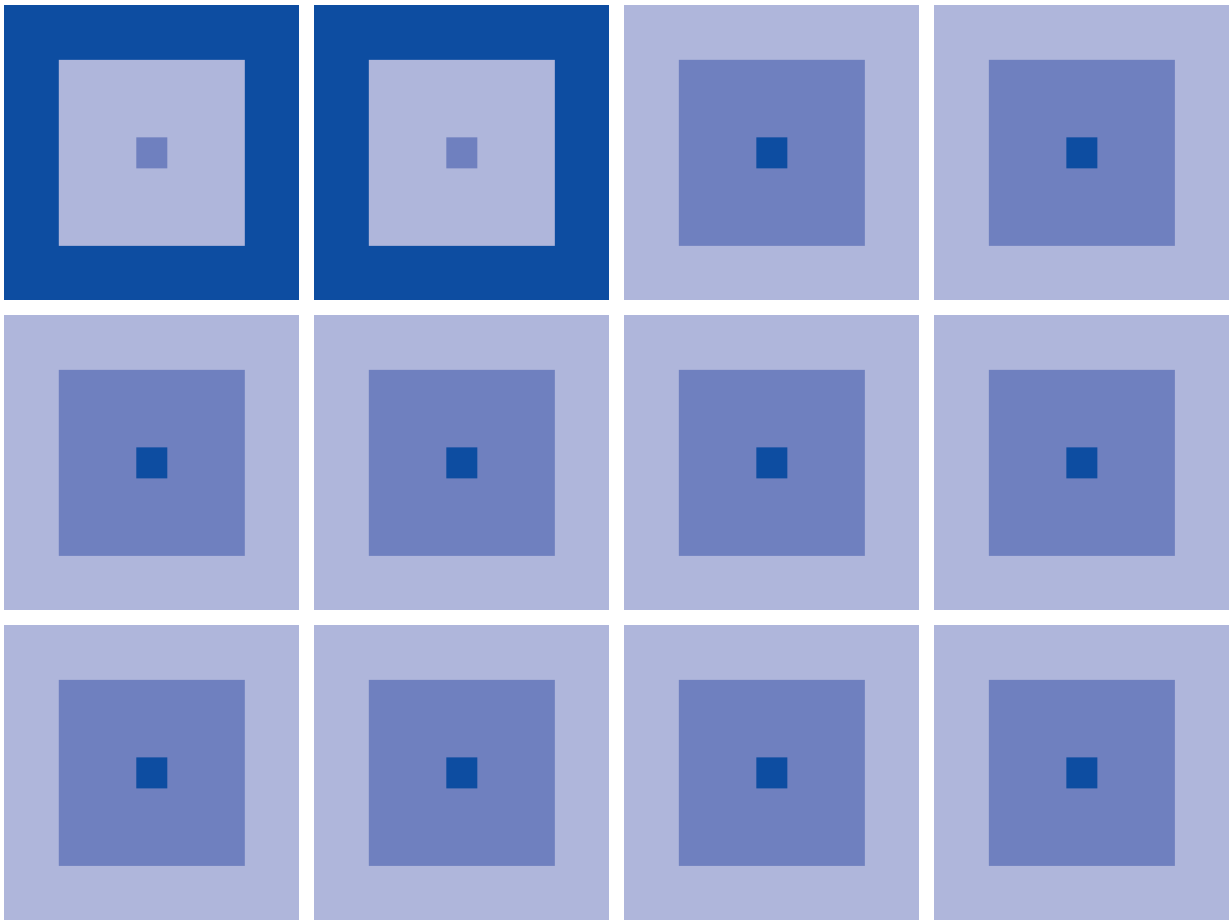
EPSON

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.

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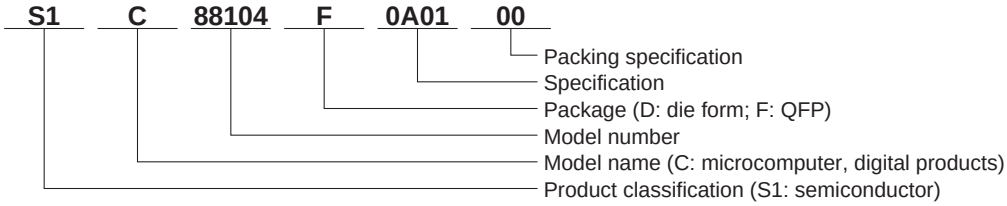
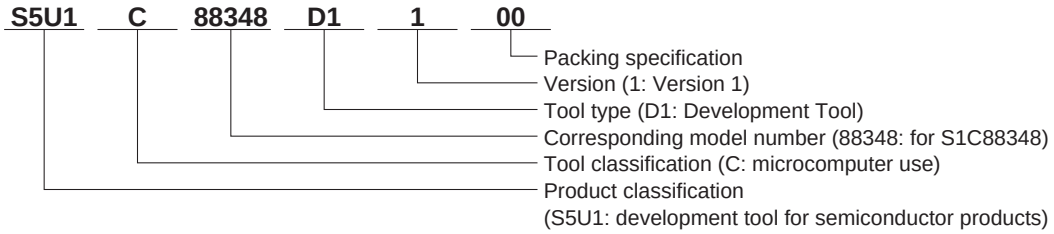


Development tools



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

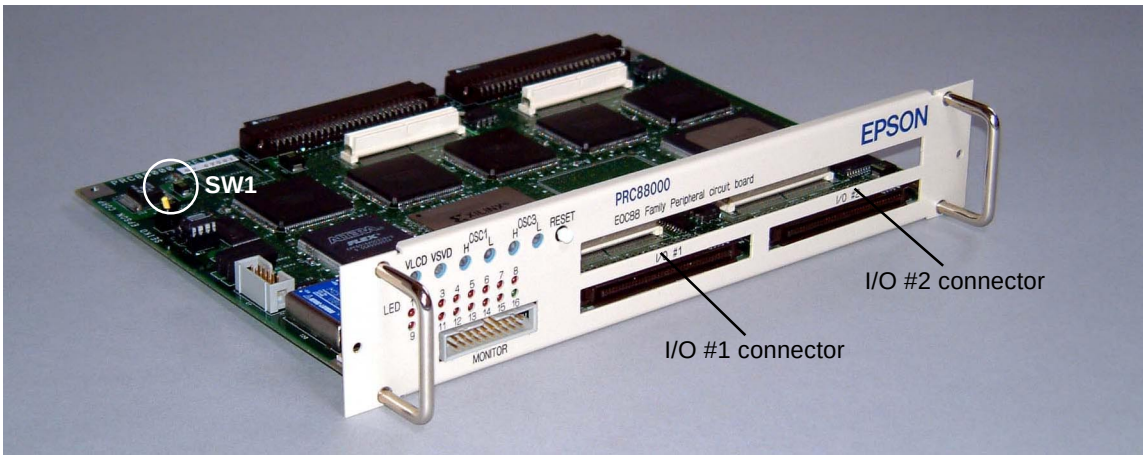

Fig. 1.3.1 External view of S5U1C88000P

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.

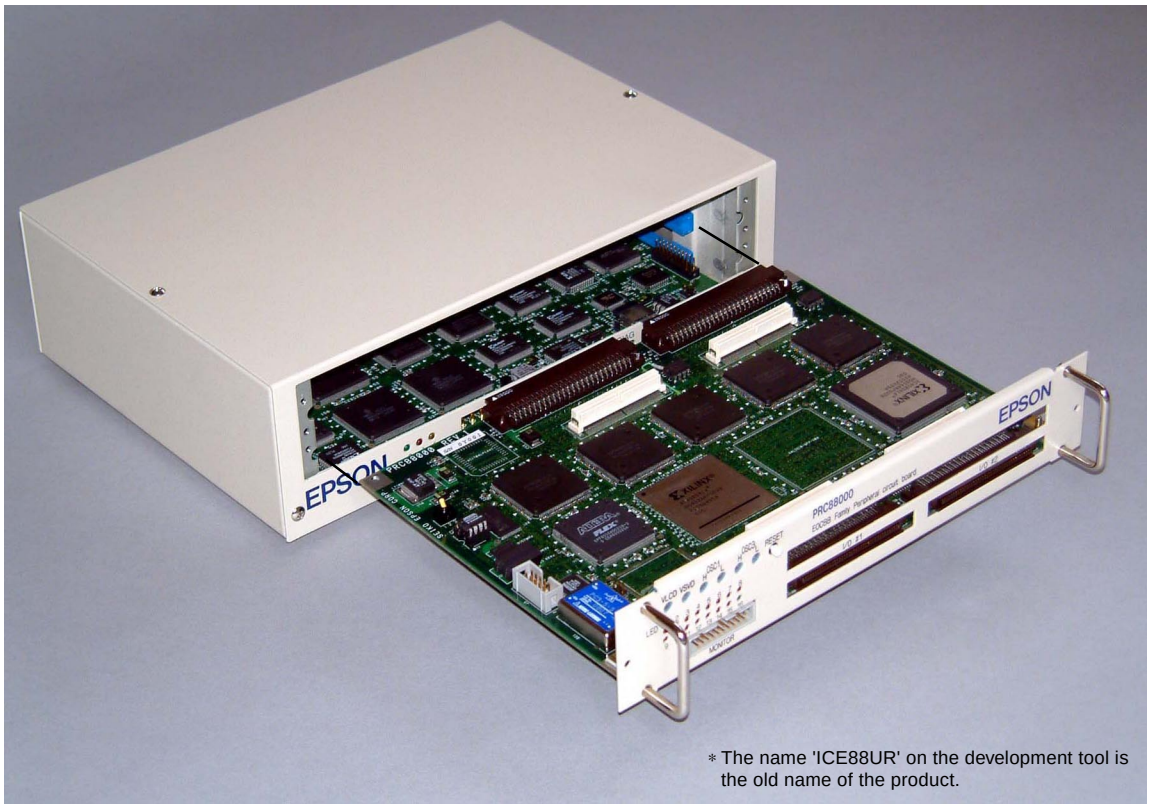

Fig. 2.1.1 Installing the S5U1C88000P

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

EPSON International Sales Operations

AMERICA

EPSON ELECTRONICS AMERICA, INC.

- HEADQUARTERS -
150 River Oaks Parkway
San Jose, CA 95134, U.S.A.
Phone: +1-408-922-0200 Fax: +1-408-922-0238

- SALES OFFICES -

West
1960 E. Grand Avenue
El Segundo, CA 90245, U.S.A.
Phone: +1-310-955-5300 Fax: +1-310-955-5400

Central
101 Virginia Street, Suite 290
Crystal Lake, IL 60014, U.S.A.
Phone: +1-815-455-7630 Fax: +1-815-455-7633

Northeast
301 Edgewater Place, Suite 120
Wakefield, MA 01880, U.S.A.
Phone: +1-781-246-3600 Fax: +1-781-246-5443

Southeast
3010 Royal Blvd. South, Suite 170
Alpharetta, GA 30005, U.S.A.
Phone: +1-877-EEA-0020 Fax: +1-770-777-2637

EUROPE

EPSON EUROPE ELECTRONICS GmbH

- HEADQUARTERS -
Riesstrasse 15
80992 Munich, GERMANY
Phone: +49-(0)89-14005-0 Fax: +49-(0)89-14005-110

SALES OFFICE
Altstadtstrasse 176
51379 Leverkusen, GERMANY
Phone: +49-(0)2171-5045-0 Fax: +49-(0)2171-5045-10

UK BRANCH OFFICE
Unit 2.4, Doncastle House, Doncastle Road
Bracknell, Berkshire RG12 8PE, ENGLAND
Phone: +44-(0)1344-381700 Fax: +44-(0)1344-381701

FRENCH BRANCH OFFICE
1 Avenue de l' Atlantique, LP 915 Les Conquerants
Z.A. de Courtaboeuf 2, F-91976 Les Ulis Cedex, FRANCE
Phone: +33-(0)1-64862350 Fax: +33-(0)1-64862355

BARCELONA BRANCH OFFICE
Barcelona Design Center
Edificio Prima Sant Cugat
Avda. Alcalde Barrils num. 64-68
E-08190 Sant Cugat del Vallès, SPAIN
Phone: +34-93-544-2490 Fax: +34-93-544-2491

ASIA

EPSON (CHINA) CO., LTD.
28F, Beijing Silver Tower 2# North RD DongSanHuan
ChaoYang District, Beijing, CHINA
Phone: 64106655 Fax: 64107319

SHANGHAI BRANCH
4F, Bldg., 27, No. 69, Gui Jing Road
Caohejing, Shanghai, CHINA
Phone: 21-6485-5552 Fax: 21-6485-0775

EPSON HONG KONG LTD.
20/F., Harbour Centre, 25 Harbour Road
Wanchai, Hong Kong
Phone: +852-2585-4600 Fax: +852-2827-4346
Telex: 65542 EPSCO HX

EPSON TAIWAN TECHNOLOGY & TRADING LTD.
10F, No. 287, Nanking East Road, Sec. 3
Taipei
Phone: 02-2717-7360 Fax: 02-2712-9164
Telex: 24444 EPSONTB

HSINCHU OFFICE
13F-3, No. 295, Kuang-Fu Road, Sec. 2
HsinChu 300
Phone: 03-573-9900 Fax: 03-573-9169

EPSON SINGAPORE PTE., LTD.
No. 1 Temasek Avenue, #36-00
Millenia Tower, SINGAPORE 039192
Phone: +65-337-7911 Fax: +65-334-2716

SEIKO EPSON CORPORATION KOREA OFFICE
50F, KLI 63 Bldg., 60 Yoido-dong
Youngdeungpo-Ku, Seoul, 150-763, KOREA
Phone: 02-784-6027 Fax: 02-767-3677

SEIKO EPSON CORPORATION
ELECTRONIC DEVICES MARKETING DIVISION

Electronic Device Marketing Department
IC Marketing & Engineering Group
421-8, Hino, Hino-shi, Tokyo 191-8501, JAPAN
Phone: +81-(0)42-587-5816 Fax: +81-(0)42-587-5624

ED International Marketing Department Europe & U.S.A.
421-8, Hino, Hino-shi, Tokyo 191-8501, JAPAN
Phone: +81-(0)42-587-5812 Fax: +81-(0)42-587-5564

ED International Marketing Department Asia
421-8, Hino, Hino-shi, Tokyo 191-8501, JAPAN
Phone: +81-(0)42-587-5814 Fax: +81-(0)42-587-5110

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SEIKO EPSON CORPORATION
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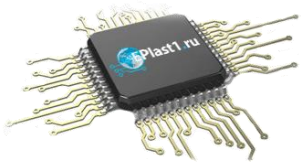

Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.