To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

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

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R8C/Tiny Series IC Socket Board
M3A-0112

Release Note, 1.00 Edition

Renesas Solutions Corp.
April 15, 2004

Thank you for purchasing the R8C/Tiny Series IC Socket Board (M3A-0112).
This release note explains how to use the IC Socket Board (M3A-0112). Please be sure to read it before using your IC Socket Board.

(Table of Contents)

1. Preface

This release note describes the precautions and how to use the hardware included in the M3A-0112.

2. Precautions (Be sure to read)

[Extraction of MCU]

When removing microcomputer from the IC Socket, in use of the IC Socket Board (M3A-0112), be sure to set the power switch of the IC Socket Board to OFF and remove a microcomputer.

[Connection of Flash Writer]

Each of the communication connectors, CN1 and CN2 of the IC Socket Board (M3A-0112) is wired-OR connection. Do not connect two or more flash writers to the IC Socket Board. When connecting several flash writers and using the IC Socket Board, microcomputer and flash writer may be damaged.

3. Product Overview

R8C/Tiny Series IC Socket Board (M3A-0112) is a write-only IC Socket Board to program to the R8C/Tiny Series using various flash writers.

[Applicable Microcomputer] *1

R8C/10 to 13 Groups 32-Pin Version Flash Microcomputer (Package : 32P6U-A)

*1 : There is a MCU which is not applied by the Flash Writer to be used. Please confirm the applicable microcomputer of the flash writer which you use.

[Applicable Flash Writers]

(1) Renesas Technology Corp.
- · E7 (HS0007TCU01H)

Homepage : http://www.renesas.com/fmwk.jsp?cnt=e7_tools_product_landing.jsp&fp=/products/tools/emulation_debugging/onchip_debuggers/e7/

(1) Renesas Solutions Corp.
- · USB Flash Writer (M3A-0665)
- · Flash Starter (M3A-0806)

Homepage : http://www.renesas.com/en/m16c

(2) Sunny Giken Inc.
- · Multi Flash Micro-Computer Programmer MFW-1
- · USB Compliant Flash Micro-Computer Programmer S550-MFW1U
- · USB Compliant Ultra-Small Flash Micro-Computer Programmer S550-SFW1U

Homepage : http://www.sunnygiken.co.jp/english/index.html

4. Product Specifications

Table 4-1 shows the specifications of the IC Socket Board (M3A-0112)

Table 4-1 Specifications of the IC Socket Board (M3A-0112)

Item		M3A-0112
Operation Voltage		5.0V±5% (Supplies from external power supply)
Operation Environment	1.Operation Ambient Temperature	25±5[°C]
	2.Humidity	No dew drops allowed

5. Package Information

Table 5-1 shows the package information of the IC Socket Board (M3A-0112).

Table 5-1 Package Information of the IC Socket Board (M3A-0112)

Product Name	Quantity	Remark
IC Socket Board (M3A-0112)	1 pc	
Power Cable	1 pc	
Release Note	1 copy	In Japanese and English

6. IC Socket Board (M3A-0112) Configuration

6.1. External Specifications

Table 6-1 shows the external specifications of the IC Socket Board (M3A-0112).

Table 6-1 External Specifications of the IC Socket Board (M3A-0112)

Item	Description	Remark
Connector	[CN1] : Communication connector (for Renesas Solutions / Sunny Giken)	Silk Name For FoUSB
	[CN2] : Communication connector (for Renesas Technology)	Silk Name For E7
	[CN3] : Power supply connector	
IC Socket	[IC1] : 32pin, Package type 32P6U-A	
Oscillator	[CST1] : Not equipped*1	
Switch	[SW1] : Power supply switch, Switch type Tactile	
LED	[LED1] : Power supply indicator	
Jumper	[JP1] : MODE pin pull-up / for pull-down switch	
	[JP2] : Not equipped	

*1: When using Flash Starter (M3A-0806), equip 16MHz-oscillator.

6.2. External Power Supply Specifications

1) DC Power Supply Connector (CN3)

When using DC power supply, input 5.0[V] ± 5%.

6.3. Jumper Specifications

1) JP1

JP1 is used for pull-up of MODE pin (28 pin) / pull-down switch. Table 6-2 shows the JP1 setting.

Table 6-2 JP1 Setting

Jumper Setting	Description	Remark
"H"	Pull-up	Default
"L"	Pull-down	

6.4. Switch Specifications

SW1 is used for the power supply switch on the IC Socket Board.

6.5. Connector Specifications

1) CN1 : For FoUSB

CN1 is a communication connector for the flash writer of Renesas Solutions and Sunny Giken. Table 6-5 shows the CN1 Pin Assignment.

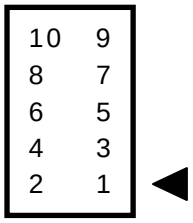


Table 6-5 CN1 Pin Assignment

Pin No.	Signal *1
1	Vcc
2	MODE
3	SCLK
4	RxD1
5	-------
6	-------
7	GND
8	RESET
9	-------
10	TxD11

Refer) CN1 *1 : Signal name of microcomputer

Product Name : 2.54mm Pitch 10-Pin Connector (Straight)

Part Number : HIF3FC-10PA-2.54DSA

Manufacturer : HIROSE ELECTRIC CO.,LTD

2) CN2 : For E7

CN2 is a communication connector for the flash writer of Renesas Technology. Table 6-6 shows the CN2 pin Assignment.

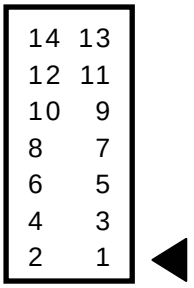


Table 6-6 CN2 Pin Assignment

Pin No.	Signal *1
1	SCLK
2	GND
3	N.C.
4	GND
5	TxD11
6	GND
7	MODE
8	Vcc
9	N.C.
10	GND
11	RxD
12	GND
13	RESET
14	GND

Refer) CN2 *1: Signal name of microcomputer

Product Name : 2.54mm Pitch 14-Pin Connector (Straight)

Part Number : 7614-6002

Manufacturer : SUMITOMO 3M Limited

7. Usage

7.1. Set Up

Procedure 1 Connect external power supply to M3A-0112

* M3A-0112, MCU or flash writer may be damaged due to insert incorrectly, Pay attention to the power supply polarity.

Procedure 2 Connect flash writer and connector and connector CN1 (CN2 when using E7)

Only when using Flash starter (M3A-0806), connect "L" and the middle pin of the JP1 and mount 16MHz oscillator on the CST1.

Procedure 3 Supply the power from the external power supply.

Confirm whether the power LED on the M3A-0112 is turned off or not.

When the power LED is turned on, press down the power switch and turn off the power LED.

An set-up is completed.

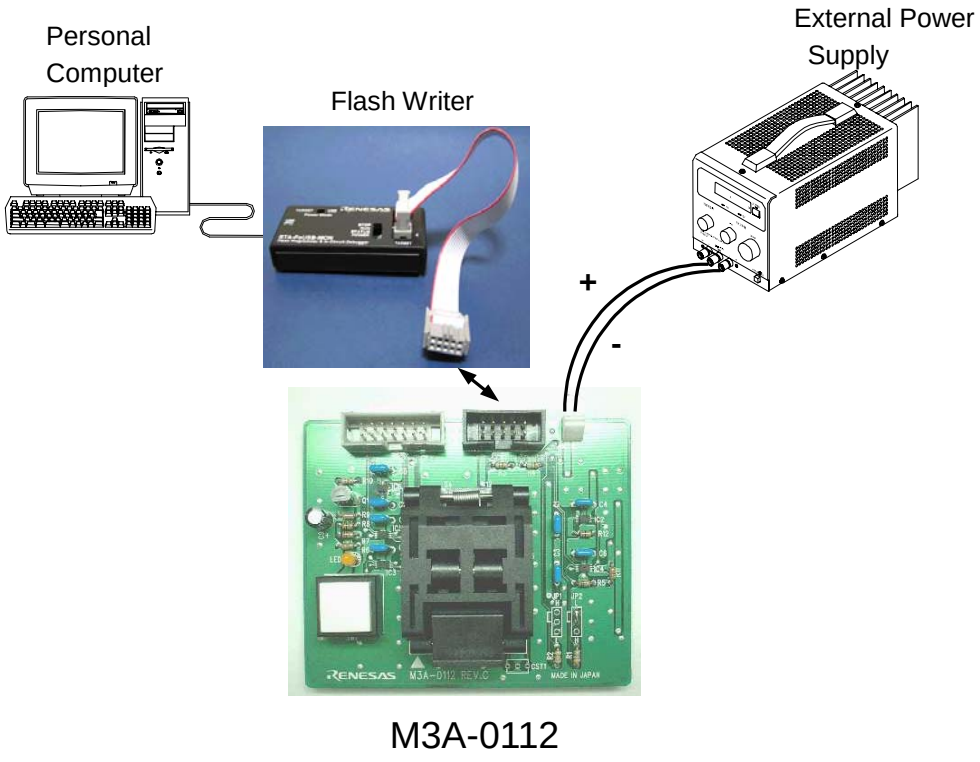
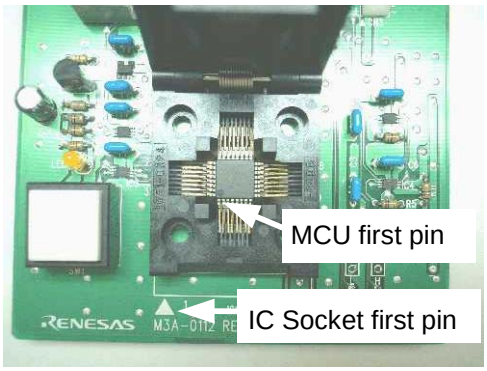


Figure 7.1 M3A-0112 Connecting Example

7.2. Write Procedure



Procedure 1 Place a MCU on the M3A-0112 Socket.
M3A-0112, MCU or flash writer may be damaged due to insert incorrectly, Pay attention to the insert direction.
Procedure 2 Press down the power switch and confirm whether the power LED is turned on
Procedure 3 Write a program into the MCU internal flash memory by a flash writer.
For a flash writer, confirm the programmer manual which you are using and write a program.
Procedure 4 Press down the power switch and confirm whether the power LED is turned off.
When the LED is turned off, remove the MCU from the M3A-0112.
Go back to the procedure 1 and MCU rewriting is enabled continuously.

8. Latest Information

The latest R8C/Tiny Series IC Socket Board information can be browsed and downloaded from Renesas home page shown below.

Home page : http://www.renesas.com/en/m16c

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