To our customers,

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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-0114

Release Note, 1.00 Edition

Renesas Solutions Corp.
April 1, 2005

Thank you for purchasing the R8C/Tiny Series IC socket board (M3A-0114).
This release note explains how to use the IC socket board (M3A-0114). Please be sure to read it before using your IC socket board.

(Table of Contents)

1. Preface 2

2. Precautions (Be sure to read) 2

3. Product Overview 2

4. Product Specifications 2

5. Package Information 3

6. IC Socket Board (M3A-0114) 3

6.1. External Specifications *..... 3*

6.2. External Power Supply Specifications *..... 3*

6.3. Jumper Specifications *..... 3*

6.4. Switch Specifications *..... 3*

6.5. Connector Specifications *..... 4*

7. How to Use 5

7. How to Use 5

7.1. Set Up *..... 5*

7.2. Programming Procedure *..... 6*

8. Latest Information 6

1. Preface

This release note describes precautions and how to use the hardware included in the M3A-0114.

2. Precautions (Be sure to read)

[Remove MCU]

When removing a microcomputer from the IC socket, in use of the IC socket board (M3A-0114), ensure to set the power switch of the IC socket board to OFF and remove a microcomputer.

[Connect Flash Writer]

Each of communication connectors, CN1 and CN2 of the IC socket board (M3A-0114) are connected with the wired OR. Do not connect multiple flash writers to the IC socket board. When connecting multiple flash writers and using the IC socket board, the microcomputer and flash writer may be damaged.

3. Product Overview

R8C/Tiny Series IC socket board (M3A-0114) is an IC socket board for write-only to program to the R8C/Tiny Series using various flash writers.

[Applicable Microcomputer] *1

R8C/14/15/16/17 Groups 20-Pin Version Flash Microcomputer (Package : 20P2F-A, 20P4B)

*1 : There is a MCU which may not be applied by the Flash Writer you use. Please check the applicable microcomputers of the flash writer which you use.

[Applicable Flash Writers]

(1) Renesas Technology Corp.
- E8 (R0E000080KCE00)

(2) Renesas Solutions Corp.
- Flash Starter (M3A-0806)

(3) Sunny Giken Inc.
- Multi Flash Micro-Computer Programmer MFW-1
- USB Compliant Flash Micro-Computer Programmer S550-MFW1U

4. Product Specifications

Table 4-1 lists the Specifications of the IC socket board (M3A-0114)

Table 4-1 Specifications of IC socket board (M3A-0114)

Item		M3A-0114
Operating Voltage		5.0V±5% (Supply from external power supply)
Operating Environment	1.Operating Ambient Temperature	25±5[°C]
	2.Humidity	No dew drops allowed

5. Package Information

Table 5-1 lists the Package Information of IC socket board (M3A-0114).

Table 5-1 Package Information of IC Socket Board (M3A-0114)

Product Name	Quantity	Remark
IC Socket Board (M3A-0114)	1 pc	
Cable for Power Supply	1 pc	
Release Note	1 copy	In Japanese and English

6. IC Socket Board (M3A-0114)

6.1. External Specifications

Table 6-1 lists the External Specifications of IC socket board (M3A-0114).

Table 6-1 External Specifications of IC Socket Board (M3A-0114)

Item	Description	Remark
Connector	[CN1] : Communication connector	10-Pin Connector
	[CN2] : Communication connector	14-Pin Connector
	[CN3] : Power supply connector	
IC Socket	[IC1] : IC socket for 20P2F-A	SSOP package
	[IC2] : IC socket for 20P4B	SDIP package
Oscillator	[CST1] : Not included	
Switch	[SW1] : Power supply switch, Switch type Tactile	
LED	[LED1] : Power supply indicator	
Jumper	[JP1] : For MODE pin “L” input switching	

*1: When using the Flash Starter (M3A-0806), include the 20MHz-oscillator.

6.2. External Power Supply Specifications

1) DC Power Supply Connector (CN3)

The external power supply is necessary. Apply 5.0[V] ± 5% to the connector.

6.3. Jumper Specifications

1) JP1

JP1 is used for “L” input switching of the MODE pin (8 pins). Table 6-2 lists the JP1 Setting.

Table 6-2 JP1 Setting

Jumper Setting	Description	Remark
Open	Pull-up	Default
Short	“L” input	

6.4. Switch Specifications

SW1 is used for the power supply switch on the IC socket board.

6.5. Connector Specifications

1) CN1 : 10-pin connector

Table 6-3 lists the CN1 Pin Assignment.

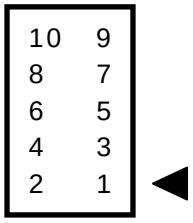

Table 6-3 CN1 Pin Assignment

Pin No.	Signal *1
1	Vcc
2	-------
3	MODE
4	(RxD *2)
5	-------
6	-------
7	GND
8	RESET
9	-------
10	(TxD *2)

*1 : Signal name of microcomputer

*2 : Communication pin for Flash Starter (M3A-0806)

Refer) CN1

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

Part Number : HIF3FC-10PA-2.54DSA

Manufacturer : HIROSE ELECTRIC CO.,LTD

2) CN2 : 14-pin connector

Table 6-4 lists the CN2 pin Assignment.

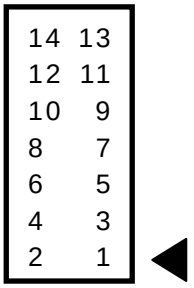

Table 6-4 CN2 Pin Assignment

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

*1: Signal name of microcomputer

Refer) CN2

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

Part Number : 7614-6002

Manufacturer : SUMITOMO 3M Limited

7. How to Use

7.1. Set Up

Procedure 1 Connect external power supply to the M3A-0114

* M3A-0114, MCU or flash writer may be damaged due to insert incorrectly, Pay attention to the power supply polarity.

Procedure 2 Connect a flash writer with the connector CN1 (CN2 when using E8).

Only when using the Flash Starter (M3A-0806), short JP1 and mount the 20MHz oscillator.

Procedure 3 Supply the power from the external power supply.

Ensure that the power LED on the M3A-0114 is turned off.

* When the power LED lights, press down the power switch and turn off the power LED.

The set-up ends above.

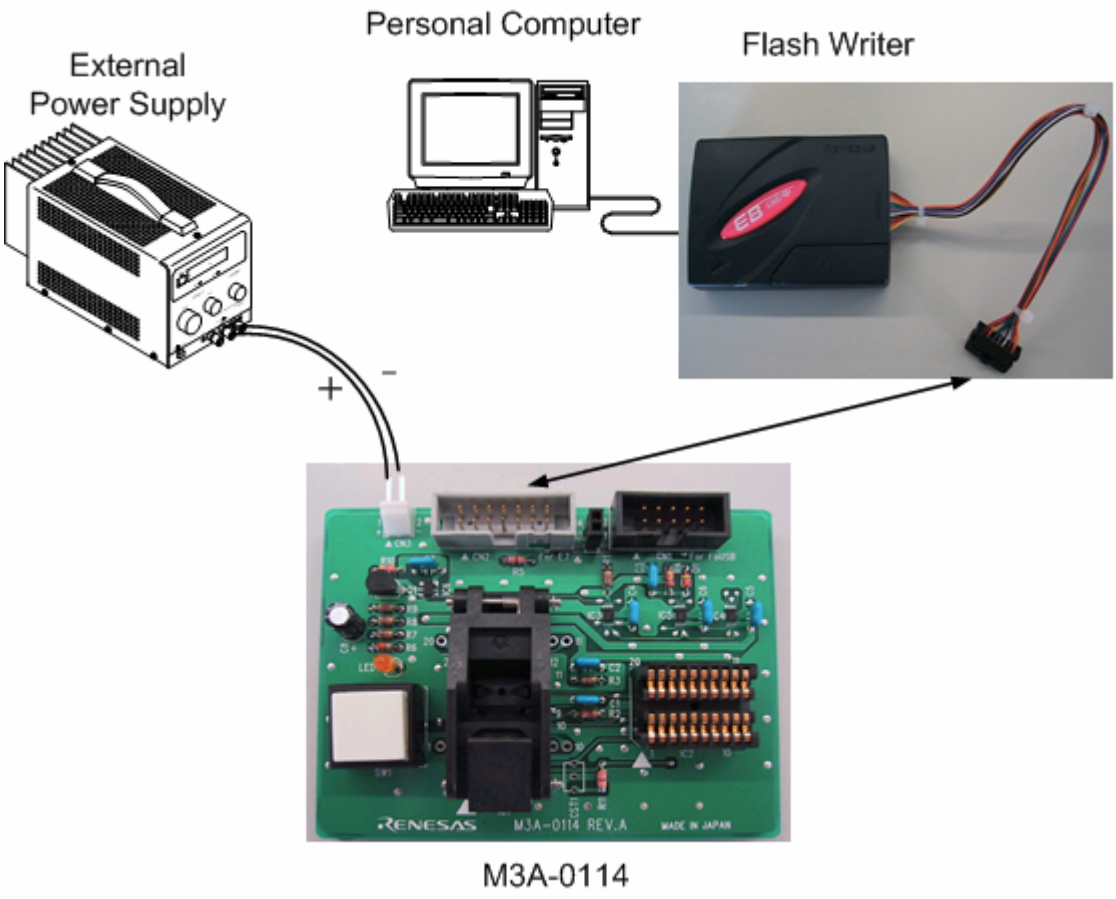

Figure 7.1 M3A-0114 Connecting Example

7.2. Programming Procedure

Procedure 1 Mount a MCU into the IC socket on the M3A-0114.
* The MCU may be damaged due to insert incorrectly. Pay attention to the insert direction.
Procedure 2 Press down the power switch and ensure that the power LED lights.
Procedure 3 Program into the MCU internal flash memory by a flash writer.
For a flash writer, check the programmer manual which you use before programming.
Procedure 4 Press down the power switch and ensure that power LED is turned off.
When the LED lights, remove the MCU from the M3A-0114.
Go back to the procedure 1 and programming into the MCU 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/fmwk.jsp?cnt=m16c_family_landing.jsp&fp=/products/mpumcu/m16c_family/