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April 1st, 2010
Renesas Electronics Corporation

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3850A Group SP Package IC Socket Board (R0K303850A010BR)

Release Note, 1.00 Edition

Renesas Solutions Corp.
May 01, 2006

Thank you for purchasing the 3850A Group IC socket board (R0K303850A010BR).
This release note explains how to use. Please be sure to read it before using your IC socket board.

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1. Preface

This release note describes precautions and how to use the hardware included in the R0K303850A010BR.

2. Precautions (Be sure to read)

[Remove MCU]

When removing a microcomputer from the IC socket, in use of the IC socket board (R0K303850A010BR), Please remove the MCU after turning the power OFF.

[Connect E8]

Please connect the communication connector of E8 to CN1 of the IC socket board (R0K303850A010BR). Do not connect E8 to CN2 of the IC socket board. When connecting E8 to CN2 and using the IC socket board, the microcomputer and E8 may be damaged.

[Potential Meter]

Do not turn the volume (VR1) of the IC socket board (R0K303850A010BR). When turning the volume (VR1), and then using the IC socket board, programming to QzROM may not be performed properly. Also, the MCU may be damaged.

3. Product Overview

The 3850A Group IC socket board (R0K303850A010BR) is an IC socket board for programming to QzROM with Flash Development tool Kit (FDT) and E8.

[Applicable Microcomputer]

3850A Group 42-Pin Version QzROM Microcomputer (Package : PRDP0042BA-A(42P4B)

[Applicable Flash Writers]

(1) Renesas Technology Corp.

· Flash Development tool Kit (FDT)
URL:
http://www.renesas.com/fmwk.jsp?cnt=flash_development_toolkit_mid_level_landing.jsp&fp=/products/tools/flash_prom_programming/flash_development_toolkit/

· E8 (R0E000080KCE00)
URL:
http://www.renesas.com/fmwk.jsp?cnt=e8_tools_product_landing.jsp&fp=/products/tools/emulation_debugging/onchip_debuggers/e8/&site=i

4. Product Specifications

Table 4-1 lists the Specifications of the IC socket board.

Table 4-1 Specifications

Item		R0K303850A010BR
Operating Voltage	E8	3.3[V]±10% 5.0[V]±10%
	User Power Supply	2.7 to 5.5[V]
E8 power supply capability	3.3V±10%	<When external power for VPP generation is not used> Max. 50[mA] <When external power for VPP generation is used> Max. 300[mA]
	5.0V±10%	<When external power for VPP generation is not used> Max. 250[mA] <When external power for VPP generation is used> Max. 300[mA]
User Power Supply Current Consumption	3.3V±10%	<When external power for VPP generation is not used> Max. 250[mA] <When external power for VPP generation is used> Max.10[mA]
	5.0V±10%	<When external power for VPP generation is not used> Max. 50[mA] <When external power for VPP generation is used> Max. 10[mA]
Power supply for VPP generation	Supply Voltage	9.0 to 12.0[V]
	Current Consumption	Max. 250[mA]
Operating Environment	Operatmbient Temperature	25±5[°C]
	Humidity	No dew drops allowed

5. Package Information

Table 5-1 lists the Package Information of IC socket board.

Table 5-1 Package Information

Product Name	Quantity	Remark
IC Socket Board (R0K303850A010BR)	1 pc	
Release Note	1 copy	In Japanese and English
User cable	1.pc	

6. IC Socket Board (R0K303850A010BR)

6.1. External Specifications

Table 6-1 lists the External Specifications of IC socket board.

Table 6-1 External Specifications

Item	Description	Remark
Connector	[CN1] : Communication connector for connecting to E8	14-Pin Connector
	[CN2] : Communication connector for connecting to user board	14-Pin Connector
	[CN3] : Power supply connector for VPP power generation	
IC Socket	[IC4] : IC socket for PRDP0042BA-A(42P4B)	SDIP
Oscillator	[X1] : 4MHz	
Jumper	[JP1] : Select Vcc power supply	

6.2. External Power Supply Specifications

1) Power supply connector (CN3) for VPP power generation

The power supply connector (CN3) for VPP power generation is provided for the IC socket board.
Normally, the power is provided from E8 or the user board.
When drive capability of the power is not enough, external power for VPP generation of the IC socket board can be provided from the power connector.
The input voltage range of the external power for VPP power generation is 9.0 to 12.0V.

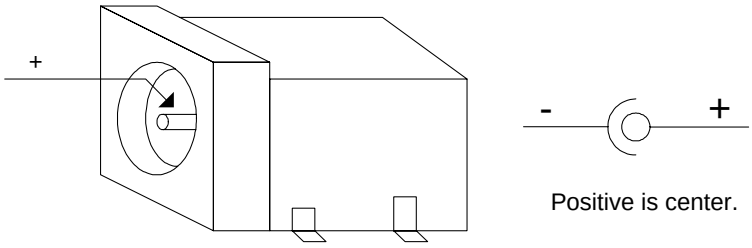


Figure 6.1 Power Supply for VPP power generation

6.3. Jumper Specifications

1) JP1

JP1 is used for selecting Vcc.
However, JP1 setting needs to be fixed to the target side. Figure 6-2 shows the JP1 Setting.

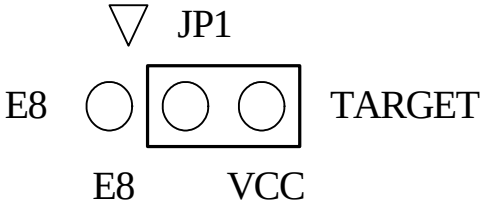


Figure 6.2 JP1

6.4. Connector Specifications

1) CN1 : 14-pin connector for connection E8

Table 6-3 lists the CN1 Pin Assignment.

Table 6-3 CN1 Pin Assignment

Pin No.	Signal Name
1	P43/INT2/SCMP2
2	Vss,AVss
3	CNVSS
4	P40/CNTR1
5	N.C.
6	Vss,AVss
7	P42/INT1
8	Vcc
9	N.C.
10	Vss,AVss
11	N.C.
12	Vss,AVss
13	RESET
14	Vss,AVss

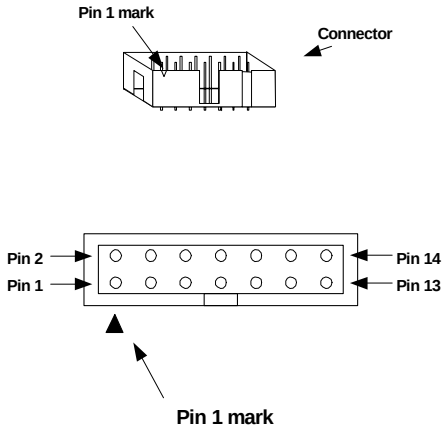


Figure 6.2 CN1 Pin Assignment

Refer) CN1
Product Name : 2.54mm Pitch 14-Pin Connector (Straight)
Part Number : 7614-6002
Manufacturer : SUMITOMO 3M Limited

2) CN2 : 14-pin connector for connection user board

Table 6-4 lists the CN2 pin Assignment.

Table 6-4 CN2 Pin Assignment

Pin No.	Signal Name	MCU Pin No
1	P43/INT2/SCMP2	5
2	Vss,AVss	3,21
3	CNVSS	15
4	P40/CNTR1	8
5	N.C.	N.C.
6	Vss,AVss	3,21
7	P42/INT1	6
8	Vss,AVss	3,21
9	N.C.	N.C.
10	Vss,AVss	3,21
11	N.C.	N.C.
12	Vss,AVss	3,21
13	RESET	15
14	Vss,AVss	3,21

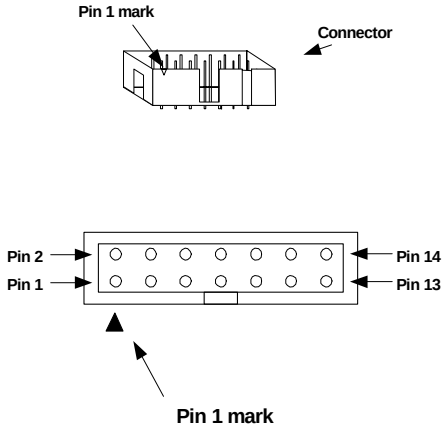


Figure 6.3 CN2 Pin Assignment

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 (Programming on the IC socket board)

Procedure 1 Connect the connector CN1 to E8.

The set-up ends above.

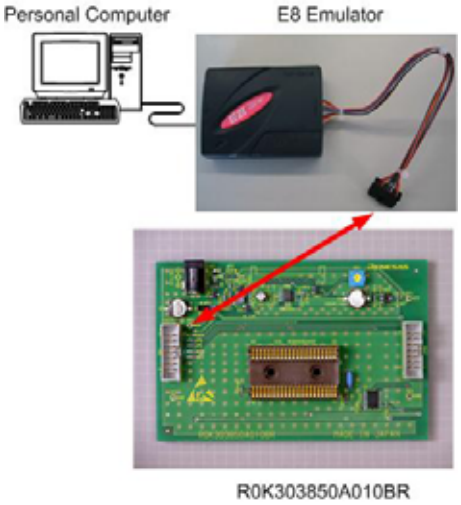


Figure 7.1 Connecting Example 1

7.2. Set Up (Programming on user target board)

Procedure 1 When drive capability of the user target power is not enough, connect external power for VPP generation to R0K303850A010BR.

*Since the R0K303850A010BR, MCU or E8 may be damaged, please note the power polarity.

Procedure 2 Connect the connector CN1 to E8.

Procedure 3 Connect the connector CN2 to the user target board.

Provide user target power supply and VPP external power supply based on a manual of the flash development tool kit (FDT).

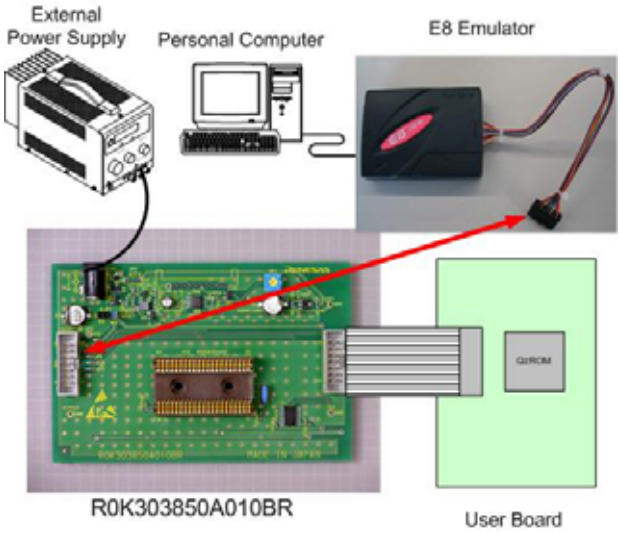
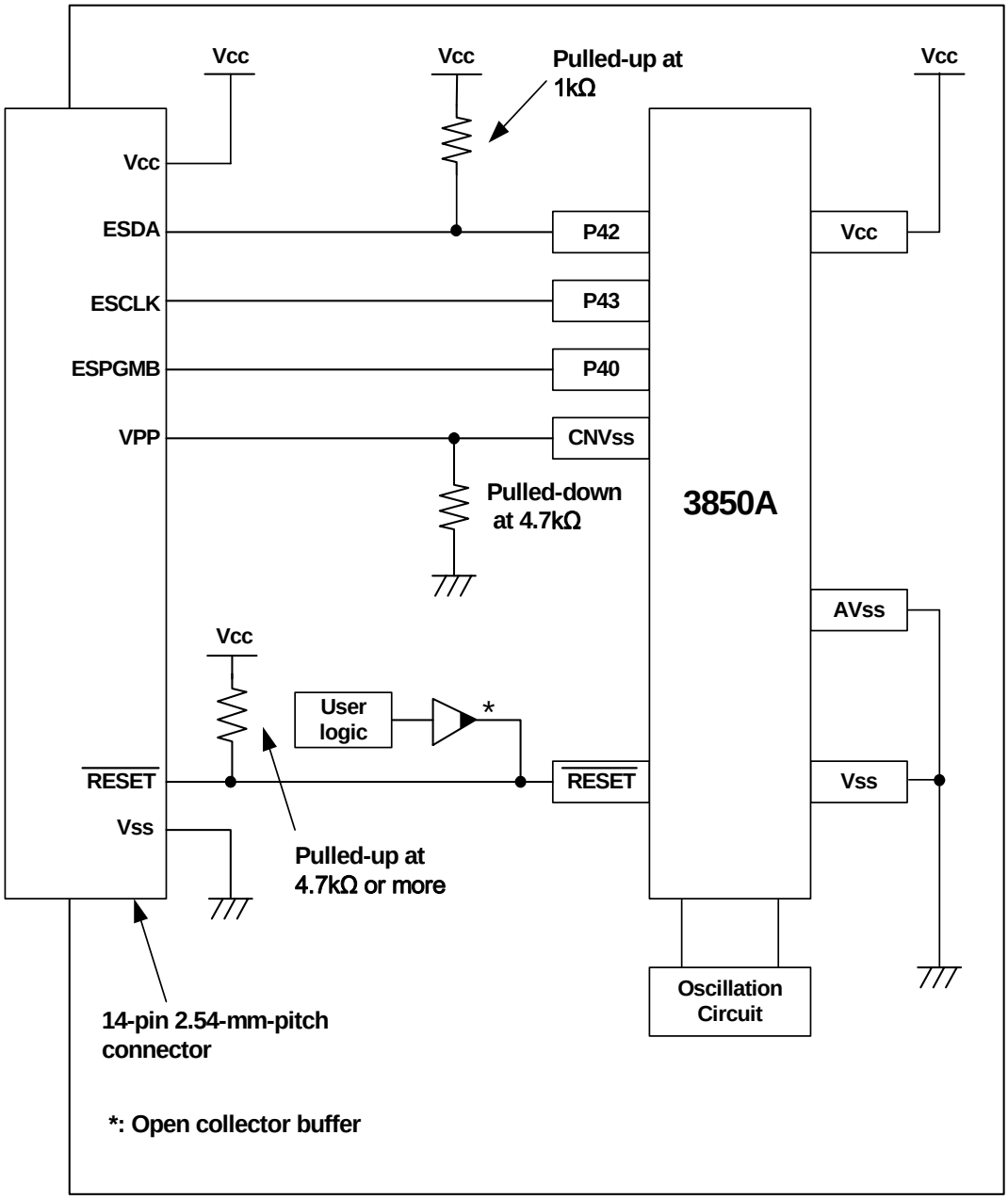


Figure 7.2 Connecting Example 2

7.3. Connection of user board



User Board

8. Latest Information

The latest 3850A Group IC socket board information can be browsed and downloaded from Renesas web site shown below.

URL :

http://www.renesas.com/fmwk.jsp?cnt=ic_socket_board.jsp&fp=/products/tools/flash_prom_programming/flash_programmers/ic_socket_board/&site=i