

[Note]

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Ethernet Communications of the Renesas Starter Kit+ for RX64M and Renesas Starter Kit+ for RX71M

Outline

When using the CPU board which is enclosed with the Renesas Starter Kit+ for RX64M and Renesas Starter Kit+ for RX71M, take note of the problem described in this note regarding the following point.

1. Ethernet communications from the CPU board

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1.1 Applicable Products

- Renesas Starter Kit+ for RX64M
- Renesas Starter Kit+ for RX71M

1.2 Details

Reception errors may arise in Ethernet communications from the CPU boards of the applicable products.

1.3 Conditions

This problem may arise if both of the following conditions are met.

- (1) Ethernet channel 1 is in use in Media Independent Interface (MII) mode (10/100 Base-TX).
- (2) Access to the SDRAM proceeds.

Since switching between the MII mode and Reduced Media Independent Interface (RMII) modes is supported, the wiring patterns on the CPU board are susceptible to noise. Thus, errors in reception may arise due to coupling of noise from the data bus with the reception clock input pin (ET1_RX_CLK) for the MII of Ethernet channel 1, because the wiring runs for both are next to each other.

1.4 Workaround

Use Ethernet channel 1 in RMII mode if you are using the SDRAM at the same time.

1.5 Schedule for Fixing the Problem

We are not going to modify the CPU board since this problem can be prevented by using RMII mode.

You can borrow our evaluation board for Ethernet if you need to evaluate the MII mode of Ethernet channel 1 while also using SDRAM access. Contact our contact point below if you have any questions.

Our contact point: <http://www.renesas.com/contact/>

Revision History

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■Inquiry

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