

[Notes]
 Renesas Starter Kit+ for RX72M,
 Renesas Starter Kit+ for RX72N

R20TS0568EJ0100
 Rev.1.00
 Sep. 01, 2020

Outline

When using the products in the title, note the following point.

1. Notes on transitions to low power consumption mode of low-power consumption function

1. Notes on transitions to low power consumption mode of low-power consumption function

1.1 Applicable Products

Product name	Renesas Starter Kit+ for RX72M, Renesas Starter Kit+ for RX72M (with built-in Trusted Secure IP), Renesas Starter Kit+ for RX72N, Renesas Starter Kit+ for RX72N (with built-in Trusted Secure IP)
Applicable item	Sample code in product installers - Low_Power_Mode - System_Input_Capture

1.2 Details

The sample codes use 240 MHz ICLK and include transitions to a low power consumption mode (software standby mode or deep software standby mode), but do not comply with the following notes described in the User's Manual.

User's Manual	- RX72M Group User's Manual: Hardware Document number: R01UH0804EJ0100 - RX72N Group User's Manual: Hardware Document number: R01UH0824EJ0100
Notes (Excerpt)	11.7.9 Notes on Transitions from High-Speed Operating Mode to Low-Speed Operating Mode or to Low Power Consumption Mode When the operating frequency of ICLK is 70 MHz or higher and the chip is to be shifted to low-speed operation, or is to be placed on software standby or deep software standby, change the frequency of ICLK to one quarter of its current frequency and then wait for 3 μs before initiating the desired transition. Conversely, if the frequency of ICLK is to be changed to a frequency of 70 MHz or higher at the time of a transition from low-speed operation to high-speed operation, set the frequency to one quarter of the intended frequency and then wait for 3 μs before changing it to the intended frequency.

The following table shows how a transition to a low power consumption mode is handled by the sample codes for each product.

<ul style="list-style-type: none"> ➤ Renesas Starter Kit+ for RX72M ➤ Renesas Starter Kit+ for RX72M (with built-in Trusted Secure IP) 	Appropriate measures have not been taken for the notes.
<ul style="list-style-type: none"> ➤ Renesas Starter Kit+ for RX72N ➤ Renesas Starter Kit+ for RX72N (with built-in Trusted Secure IP) 	Updating to e ² studio (V7.8.0 or later) or CS+ (Smart Configurator V2.5.0 or later) and then regenerating the code may duplicate the steps for setting ICLK to one quarter of the intended frequency and then waiting for 3 μs.

1.3 Workarounds

1.3.1 Renesas Starter Kit+ for RX72M, Renesas Starter Kit+ for RX72M (with built-in Trusted Secure IP)

■For e² studio-version sample code

- (1) Update e² studio to V7.8.0 or later.
- (2) With the intended sample code, generate the code from Smart Configurator.

■For CS+ version sample code

- (1) Update the Smart Configurator to V2.5.0 or later using the Update Manager.
- (2) With the intended sample code, generate the code from Smart Configurator.

1.3.2 Renesas Starter Kit+ for RX72N, Renesas Starter Kit+ for RX72N (with the built-in Trusted Secure IP)

■For e² studio-version sample code

Download and use a fixed version of the sample codes from the following URL.

- Sample codes as attachments to the application note for Renesas Starter Kit+ for RX72N:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20an0554>

Document number: R20AN0554EJ0100

■For CS+ version sample code

Download and use a fixed version of the sample codes from the following URL.

- Sample codes as attachments to the application note for Renesas Starter Kit+ for RX72N:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20an0555>

Document number: R20AN0555EJ0100

1.4 Schedule for fixing the problem

We do not plan to fix the sample codes in the installers attached to the products.

The sample codes have been fixed as attachments to the application note. Download the sample codes as attachments to the application note.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Sep.01.20	-	First edition issued

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