[Notes]
CS+ Code Generator for RH850,
AP4 Coding Assistance Tool for RH850

R20TS0747EC0100
Rev.1.00
Sep. 16, 2021

Outline

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

1. Notes on using CSIH Master receive and Master transmit/receive operation mode

1. Notes on using CSIH Master receive and Master transmit/receive operation mode

1.1 Applicable Products

- CS+ Code Generator for RH850 V1.00.00 (CS+ for CC V4.00) or later
- AP4 for RH850 V1.01.00 or later

1.2 Applicable Devices

RH850 family: RH850/F1K group

1.3 Details

When using CSIH as Master “Receive” and Master “Transmit/Receive” mode (refer to figure 1-1), master can only receive the first data correctly. From the second data, master fails to receive.

- RH850/F1K:

  CSIH0, CSIH1, CSIH2, CSIH3

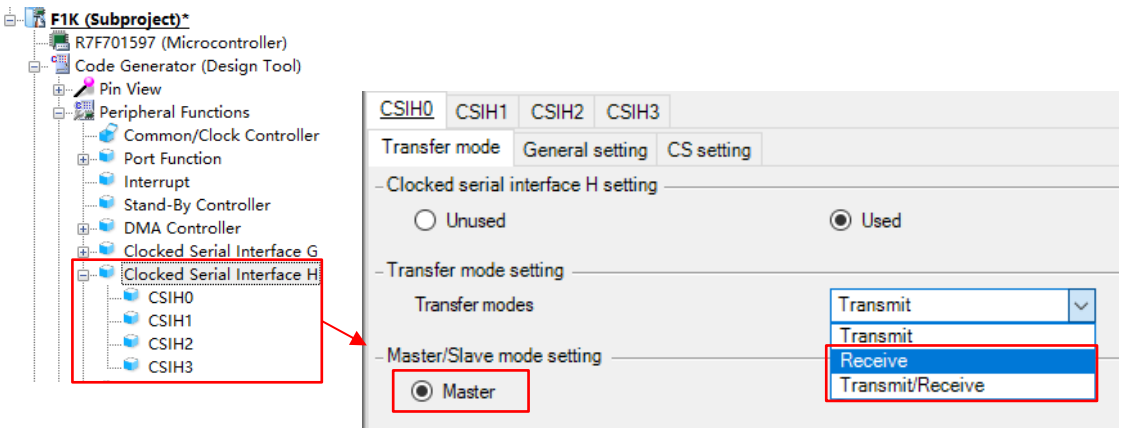

Figure 1-1 Setting of CSIH operation mode

1.4 Workaround

User can manually modify the register setting code in the following source file

- Source file: “r_cg_csih_user.c”.
- Function: “void r_<*csihn*>_interrupt_receive (void)”

Note: If code is generated again, the previous state is restored. Modification is necessary each time you perform code generation.

The following is an example of the required modification when <*csihn*> is CSIH0 in the RH850/F1K group. The code in red color is wrong code before modification, while the code in blue color is correct code after modification.

Before modification:

```
void r_Config_CSIH0_interrupt_receive(void)
{
    uint8_t err_type;
    uint16_t temp;
     ……
    else
    {
        temp = g_csih0_rx_total_num;
        if (temp > g_csih0_rx_num)
        {
            *gp_csih0_rx_address = CSIH0.RX0W;
            gp_csih0_rx_address++;
            g_csih0_rx_num++;
            CSIH0.TX0W = 0U;
        }
        ……
    }
```

After modification:

```
void r_Config_CSIH0_interrupt_receive(void)
{
    uint8_t err_type;
    uint16_t temp;
     ……
    else
    {
        temp = g_csih0_rx_total_num;
        if (temp > g_csih0_rx_num)
        {
            *gp_csih0_rx_address = CSIH0.RX0W;
            gp_csih0_rx_address++;
            g_csih0_rx_num++;
            CSIH0.TX0W |= 0U;          --> change "=" to "|="
        }
        ……
    }
}
```

1.5 Schedule for Fixing the Problem

There is no schedule for fixing this problem.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Sep.16.21	-	First edition issued

Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
Koto-ku, Tokyo 135-0061, Japan
www.renesas.com

Trademarks

Contact information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit:
www.renesas.com/contact/

TS Colophon 4.2