Date: Sep. 18, 2020

RENESAS TECHNICAL UPDATE

TOYOSU FORESIA, 3-2-24, Toyosu, Koto-ku, Tokyo 135-0061, Japan
Renesas Electronics Corporation

Product Category	MPU/MCU		Document No.	TN-RA*-A0006A/E	Rev.	1.00
Title	Errata for User's Manual: Hardware for HOCO		Information Category	Technical Notification		
Applicable Product	RA6M1 Group RA6M2 Group RA6M3 Group	Lot No. All	Reference Document	RA6M1 Group User's Manual Hardware Rev.1.00 RA6M2 Group User's Manual Hardware Rev.1.00 RA6M3 Group User's Manual Hardware Rev.1.00		

The following descriptions should be changed.

1. OSCSF

RA6M1 Page 155, RA6M2 Page 160, RA6M3 Page 178

- Incorrect

HOCOSF flag (HOCO Clock Oscillation Stabilization Flag)

The HOCOSF flag indicates the operating status of the counter that measures the wait time for the high-speed clock oscillator (HOCO). When OFS1.HOCOEN is set to 1, confirm that OSCSF.HOCOSF is also set to 1 before using the HOCO clock.

- Correct

HOCOSF flag (HOCO Clock Oscillation Stabilization Flag)

The HOCOSF flag indicates the operating status of the counter that measures the wait time for the high-speed clock oscillator (HOCO). When OFS1.HOCOEN is set to 0, confirm that OSCSF.HOCOSF is ~~also~~ set to 1 before using the HOCO clock.

2. HOCOCR

RA6M1 Page 150, RA6M2 Page 155, RA6M3 Page 173

- Incorrect

HCSTP bit (HOCO Stop)

The HCSTP bit starts or stops the HOCO clock.

After setting the HCSTP bit to 0 to start the HOCO clock, confirm that the OSCSF.HOSCSF bit is set to 1 before using the clock. When OFS1.HOCOEN is set to 1, confirm that the OSCSF.HOCOSF is also set to 1 before using the HOCO clock. A fixed stabilization wait is required after setting the HOCO clock to start operation. A fixed wait for oscillation to stop is also required. For the HOCO to operate, the HOCO Wait Control Register (HOCOWTCR) must also be set.

The following constraints apply when starting and stopping operation:

- After stopping the HOCO, confirm that the OSCSF.HOCOSF bit is 0 before restarting the HOCO clock
- Confirm that the HOCO clock is operating and that the OSCSF.HOCOSF bit is 1 before stopping

the HOCO clock

- Regardless of whether the HOCO clock is selected as the system clock, confirm that the OSCSF.HOSCSF bit is set to 1 before executing a WFI instruction to place the MCU in Software Standby or Deep Software Standby mode

- Correct

HCSTP bit (HOCO Stop)

The HCSTP bit starts or stops the HOCO clock.

After setting the HCSTP bit to 0 to start the HOCO clock, confirm that the OSCSF.HOSCSF bit is set to 1 before using the clock. When OFS1.HOCOEN is set to 0, confirm that the OSCSF.HOCOSF is ~~also~~ set to 1 before using the HOCO clock. A fixed stabilization wait is required after setting the HOCO clock to start operation. A fixed wait for oscillation to stop is also required. For the HOCO to operate, the HOCO Wait Control Register (HOCOWTCR) must also be set.

The following constraints apply when starting and stopping operation:

- After stopping the HOCO, confirm that the OSCSF.HOCOSF bit is 0 before restarting the HOCO clock
- Confirm that the HOCO clock is operating and that the OSCSF.HOCOSF bit is 1 before stopping the HOCO clock
- Regardless of whether the HOCO clock is selected as the system clock, confirm that the OSCSF.HOSCSF bit is set to 1 before executing a WFI instruction to place the MCU in Software Standby or Deep Software Standby mode while HOCOCR.HCSTP bit is 0.