RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU			Document No.	TN-RA*-A0071A/E	Rev.	1.00
Title	RA4E1 Group, RA4M2 Group, RA4M3 Group, RA6E1 Group, RA6M4 Group, RA6M5 Group, correction of DBLANS[4:0] bits in the ADCSR register			Information Category	Technical Notification		
Applicable Product	RA4E1 Group RA4M2 Group RA4M3 Group RA6E1 Group RA6M4 Group RA6M5 Group	Lot No.		Reference Document	RA4E1 Group User's Manual Hardware Rev.1.10 RA4M2 Group User's Manual Hardware Rev.1.10 RA4M3 Group User's Manual Hardware Rev.1.30 RA6E1 Group User's Manual Hardware Rev.1.10 RA6M4 Group User's Manual Hardware Rev.1.20 RA6M5 Group User's Manual Hardware Rev.1.20		
		All					

The description of ADCSR.DBLANS[4:0] bits is corrected.

ADCSR : A/D Control Register
DBLANS[4:0] bits (Double Trigger Channel Select)

1. RA4M2 Page 1384, RA4M3 Page 1399, RA6M4 Page 1561, RA6M5 Page 1926
[Before]
When double-trigger mode is used in group scan mode, double-trigger control is only applied to group A and not to group B. Therefore, multiple channel analog input can be selected for group B even in double-trigger mode. Only set the DBLANS[4:0] bits when the ADST bit is 0. Do not set the DBLANS[4:0] bits at the same time that you write 1 to the ADST bit.

To enter A/D-converted value addition/average mode when in double-trigger mode, select the channel using the DBLANS[4:0] bits in the ADANSA0 and ADANSA1 registers.

A/D-converted data from the self-diagnosis function temperature sensor output and internal reference voltage cannot be used in double-trigger mode.

[After]
When double-trigger mode is used in group scan mode, double-trigger control is only applied to group A and not to group B. Therefore, multiple channel analog input can be selected for group B even in double-trigger mode. Only set the DBLANS[4:0] bits when the ADST bit is 0. Do not set the DBLANS[4:0] bits at the same time that you write 1 to the ADST bit.

To enter A/D-converted value addition/average mode when in double-trigger mode, select the channel using the DBLANS[4:0] bits in the ADADS0 and ADADS1 registers.

A/D-converted data from the self-diagnosis function temperature sensor output and internal reference voltage cannot be used in double-trigger mode.

2. RA4E1 Page 1197

[Before]

In double-trigger mode, the channels selected in the ADANSA0 and ADANSA1 registers, are invalid, and the channel selected in the DBLANS[4:0] bits is A/D converted instead.

When double-trigger mode is used in group scan mode, double-trigger control is only applied to group A and not to group B. Therefore, multiple channel analog input can be selected for group B even in double-trigger mode.

Only set the DBLANS[4:0] bits when the ADST bit is 0. Do not set the DBLANS[4:0] bits at the same time that you write 1 to the ADST bit.

To enter A/D-converted value addition/average mode when in double-trigger mode, select the channel using the DBLANS[4:0] bits in the ADANSA0 and ADANSA1 registers.

A/D-converted data from the self-diagnosis function and internal reference voltage cannot be used in double-trigger mode.

[After]

In double-trigger mode, the channels selected in the ADANSA0 register, are invalid, and the channel selected in the DBLANS[4:0] bits is A/D converted instead.

When double-trigger mode is used in group scan mode, double-trigger control is only applied to group A and not to group B. Therefore, multiple channel analog input can be selected for group B even in double-trigger mode.

Only set the DBLANS[4:0] bits when the ADST bit is 0. Do not set the DBLANS[4:0] bits at the same time that you write 1 to the ADST bit.

To enter A/D-converted value addition/average mode when in double-trigger mode, select the channel using the DBLANS[4:0] bits in the ADADS0 register.

A/D-converted data from the self-diagnosis function and internal reference voltage cannot be used in double-trigger mode.

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3. RA6E1 Page 1436

[Before]

When double-trigger mode is used in group scan mode, double-trigger control is only applied to group A and not to group B. Therefore, multiple channel analog input can be selected for group B even in double-trigger mode.

Only set the DBLANS[4:0] bits when the ADST bit is 0. Do not set the DBLANS[4:0] bits at the same time that you write 1 to the ADST bit.

To enter A/D-converted value addition/average mode when in double-trigger mode, select the channel using the DBLANS[4:0] bits in the ADANSA0 register.

A/D-converted data from the self-diagnosis function and internal reference voltage cannot be used in double-trigger mode.

[After]

When double-trigger mode is used in group scan mode, double-trigger control is only applied to group A and not to group B. Therefore, multiple channel analog input can be selected for group B even in double-trigger mode.

Only set the DBLANS[4:0] bits when the ADST bit is 0. Do not set the DBLANS[4:0] bits at the same time that you write 1 to the ADST bit.

To enter A/D-converted value addition/average mode when in double-trigger mode, select the channel using the DBLANS[4:0] bits in the ADADS0 register.

A/D-converted data from the self-diagnosis function and internal reference voltage cannot be used in double-trigger mode.