

RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-R8C-A059A/E	Rev.	1.00
Title	Caution on using wait mode		Information Category	Technical Notification		
Applicable Product	R8C/54E, R8C/54F, R8C/54G, R8C/54H, R8C/56E, R8C/56F, R8C/56G, R8C/56H	Lot No.	Reference Document	Latest user's Manual of applicable products		
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This caution below applies to wait mode in the above mentioned Applicable Products.

1. Description

Is not usable the timer RE2 interrupt as exit wait mode.

“Table. Interrupts Used to Exit Wait Mode and Usage Conditions” in User's Manual is shown below.

- Interrupts Used to Exit Wait Mode and Usage Conditions (R8C/54E, R8C/54F, R8C/54G and R8C/54H)
- Interrupts Used to Exit Wait Mode and Usage Conditions (R8C/56E, R8C/56F, R8C/56G and R8C/56H)

● Interrupts Used to Exit Wait Mode and Usage Conditions (R8C/54E, R8C/54F, R8C/54G and R8C/54H)

Correct:

Table. Interrupts Used to Exit Wait Mode and Usage Conditions

Interrupt	When CM02 = 0	When CM02 = 1
Serial interface interrupt	Usable with an internal clock or external clock supplied.	Usable with an external clock supplied.
Synchronous serial communication unit/I ² C bus interface	Usable in all modes.	- (Do not use.)
Key input interrupt	Usable	Usable
A/D interrupt	- (Do not use.)	- (Do not use.)
Timer RJ interrupt	Usable in all modes.	Usable without a filter in event counter mode. Usable when fOCO is selected as the count source.
Timer RB2 interrupt	Usable in all modes.	- (Do not use.)
Timer RC interrupt	Usable in all modes.	Usable when fHOCO or fHOCO-F is selected as the count source.
Timer RD interrupt	Usable in all modes.	Usable when fHOCO or fHOCO-F is selected as the count source.
Timer RE2 interrupt	- (Do not use.)	- (Do not use.)
INT interrupt	Usable	Usable (usable when INT0 to INT4 are used without a filter.)
Voltage monitor 1 interrupt	Usable	Usable
Voltage monitor 2 interrupt	Usable	Usable
Oscillation stop detection interrupt	Usable	- (Do not use.)
CAN wake-up interrupt	Usable	Usable

Incorrect:

Table. Interrupts Used to Exit Wait Mode and Usage Conditions

Interrupt	When CM02 = 0	When CM02 = 1
Serial interface interrupt	Usable with an internal clock or external clock supplied.	Usable with an external clock supplied.
Synchronous serial communication unit/I ² C bus interface	Usable in all modes.	- (Do not use.)
Key input interrupt	Usable	Usable
A/D interrupt	- (Do not use.)	- (Do not use.)
Timer RJ interrupt	Usable in all modes.	Usable without a filter in event counter mode. Usable when fOCO is selected as the count source.
Timer RB2 interrupt	Usable in all modes.	- (Do not use.)
Timer RC interrupt	Usable in all modes.	Usable when fHOCO or fHOCO-F is selected as the count source.
Timer RD interrupt	Usable in all modes.	Usable when fHOCO or fHOCO-F is selected as the count source.
Timer RE2 interrupt	Usable in all modes.	- (Do not use.)
INT interrupt	Usable	Usable (usable when INT0 to INT4 are used without a filter.)
Voltage monitor 1 interrupt	Usable	Usable
Voltage monitor 2 interrupt	Usable	Usable
Oscillation stop detection interrupt	Usable	- (Do not use.)
CAN wake-up interrupt	Usable	Usable

● Interrupts Used to Exit Wait Mode and Usage Conditions (R8C/56E, R8C/56F, R8C/56G and R8C/56H)

Correct:

Table. Interrupts Used to Exit Wait Mode and Usage Conditions

Interrupt	When CM02 = 0	When CM02 = 1
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Synchronous serial communication unit/I ² C bus interface	Usable in all modes.	- (Do not use.)
Key input interrupt	Usable	Usable
A/D interrupt	- (Do not use.)	- (Do not use.)
Timer RJ interrupt	Usable in all modes.	Usable without a filter in event counter mode. Usable when fOCO is selected as the count source.
Timer RB2 interrupt	Usable in all modes.	- (Do not use.)
Timer RC interrupt	Usable in all modes.	Usable when fHOCO or fHOCO-F is selected as the count source.
Timer RD interrupt	Usable in all modes.	Usable when fHOCO or fHOCO-F is selected as the count source.
Timer RE2 interrupt	- (Do not use.)	- (Do not use.)
Timer RF interrupt	Usable in all modes.	Usable when fHOCO-F is selected as the count source.
Timer RG interrupt	Usable in all modes.	Usable when fHOCO is selected as the count source.
INT interrupt	Usable	Usable (usable when INT0 to INT4 are used without a filter.)
Voltage monitor 1 interrupt	Usable	Usable
Voltage monitor 2 interrupt	Usable	Usable
Oscillation stop detection interrupt	Usable	- (Do not use.)
CAN wake-up interrupt	Usable	Usable

Incorrect:

Table. Interrupts Used to Exit Wait Mode and Usage Conditions

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Timer RB2 interrupt	Usable in all modes.	- (Do not use.)
Timer RC interrupt	Usable in all modes.	Usable when fHOCO or fHOCO-F is selected as the count source.
Timer RD interrupt	Usable in all modes.	Usable when fHOCO or fHOCO-F is selected as the count source.
Timer RE2 interrupt	Usable in all modes.	- (Do not use.)
Timer RF interrupt	Usable in all modes.	Usable when fHOCO-F is selected as the count source.
Timer RG interrupt	Usable in all modes.	Usable when fHOCO is selected as the count source.
INT interrupt	Usable	Usable (usable when INT0 to INT4 are used without a filter.)
Voltage monitor 1 interrupt	Usable	Usable
Voltage monitor 2 interrupt	Usable	Usable
Oscillation stop detection interrupt	Usable	- (Do not use.)
CAN wake-up interrupt	Usable	Usable