

RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-RZ*-A015A/E	Rev.	1.00
Title	Note on the Output Protection Function of the General PWM Timer (GPT) in the RZT1 Series		Information Category	Technical Notification		
Applicable Product	RZT1 Group	Lot No.	Reference Document	RZ/T1 Group User's Manual Hardware Rev1.1 R01UH0483EJ0110 Rev.1.10		
		All				

This document describes a note regarding the output protection function of the general PWM timer (GPT) that is incorporated in the products listed above.

Note:

The output protection of the GPT is performed when the GTCCRA register is set to 0000h or a value greater than or equal to that set in the GTPR register while the automatic dead time setting function is enabled in triangle-wave PWM mode. However, the value of the GTCCRA register satisfies one of the following conditions when a buffer transfer is performed, the output protection is not performed normally.

- The GTCCRA value was greater than or equal to $[GTPR + GTDVD - 1]$ when a buffer transfer is performed at a crest, or
- The GTCCRA value was equal to the GTPR value and the GTDVU value is equal to $[GTPR - 1]$ when a buffer transfer is performed at a trough.

Measure:

Set the value of the GTCCRA, GTDVU, GTDVD, and GTPR registers such that the following conditions are all satisfied even if a value greater than or equal to that set in the GTPR register may be set in the GTCCRA register.

- The GTCCRA value is smaller than $[GTPR + GTDVD - 1]$ when a buffer transfer is performed at a crest, and
- The GTDVU value is smaller than $[GTPR - 1]$ when the GTCCRA value may be equal to that of the GTPR value when a buffer transfer is performed at a trough.

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