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Chen et al.

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(54) **INFORMATION ACQUISITION DEVICE AND INFORMATION ACQUISITION METHOD FOR PULSATING VOLTAGE**

USPC 324/76.39, 76.11, 76.16
See application file for complete search history.

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(51) **Int. Cl.**

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(57) **ABSTRACT**

The present invention provides an information acquisition device and method for a pulsating voltage. The device uses a signal isolation circuit to receive a switch-controlling voltage of a motor driver and outputs a logic voltage. When a signal processing module receives the logic voltage from the signal isolation circuit, the signal processing module starts a counter and determines whether a rising or falling edge is present in the logic voltage. When determining that a first rising edge, a first falling edge, and a second rising edge are respectively present in the logic voltage, the signal processing module respectively stores a value of the counter as a first counter value, a second counter value, and a third counter value, and proceeds to calculate a voltage duty cycle of a motor-switching period based on the counter values. The present invention calculates the voltage duty cycle with improved accuracy.

(52) **U.S. Cl.**

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11 Claims, 6 Drawing Sheets

(58) **Field of Classification Search**

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