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(54) PULSE WIDTH DIGITIZING METHOD AND  
PULSE WIDTH DIGITIZER USING THEREOF

(56)

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(57) ABSTRACT

A pulse width (PW) digitizer comprises a current pump, a capacitor, a quantizer, a feedback controller, and a digital filter. The current pump provides a current signal in response to a PW signal. The capacitor obtains a voltage signal in response to the current signal. The quantizer obtains a digital signal in response to the voltage signal. The feedback controller determines a feedback PW signal in response to the digital signal. The feedback PW signal is fed back to the current pump for controlling the current signal converging to a specific value and controlling the digital signal switching between a first code and a second code. The digital filter counts times that the digital signal indicating the first code/the second code and accordingly obtains the PW of the PW signal.

See application file for complete search history.

16 Claims, 6 Drawing Sheets

