

Methods and Apparatus for Time to Current Conversion

ABSTRACT OF THE DISCLOSURE

A time to current conversion apparatus and methods. An impedance having an input for selectively receiving a time varying periodic signal or a known voltage signal is provided; and a current output is coupled to the impedance. By observing the average current through the impedance for the known voltage signal over a time period, and by observing the average current through the impedance for a time varying periodic signal, the duty cycle of the time varying periodic signal may be determined by evaluating a ratio of a first average current observed at the current output while the time varying periodic signal is coupled to the impedance to a second average current observed at the current output while the known voltage signal is coupled to the impedance. An embodiment time to current converter circuit is disclosed. Method embodiments for determining the duty cycle of a time varying periodic signal are provided.

Figure 3