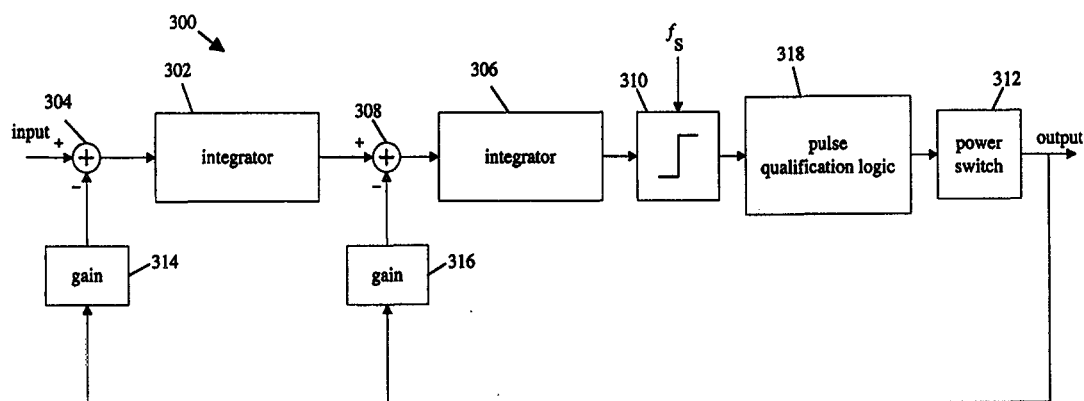




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(54) Title: METHOD AND APPARATUS FOR PERFORMANCE IMPROVEMENT BY QUALIFYING PULSES IN AN OVERSAMPLED, NOISE-SHAPING SIGNAL PROCESSOR



(57) Abstract

An oversampled, noise shaping signal processor (300) is described having at least one integrator stage (306) in the loop. A sampling stage (310) is connected coupled to the at least one integrator stage. The sampling stage samples an analog signal at a sample frequency. Qualification logic (318) coupled to the sampling stage receives a pulse waveform therefrom, and ensures that signal transitions in the pulse waveform occur more than a first time period apart and that the waveform can therefore be handled by, for example, a power switching device (312). A switching stage (312) in the loop is coupled to the qualification logic. The signal processor (300) has a feedback path from the output of the switching stage (312) to the input of the at least one integrator stage (306) thereby closing the loop.

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