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LOW-NOISE FINE-FREQUENCY TUNING

ABSTRACT

Circuits, methods and apparatus that provide low-noise and high-resolution electronic circuit tuning. An exemplary embodiment of the present invention adjusts a capacitance value by pulse-width modulating a control voltage for a switch in series with a capacitor. The pulse-width-modulated control signal can be adjusted using entry values found in a lookup table, by using analog or digital control signals, or by using other appropriate methods. The capacitance value tunes a frequency response or characteristic of an electronic circuit. The response can be made to be insensitive to conditions such as temperature, power supply voltage, or processing.

Figure 1

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