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(54) **METHOD AND APPARATUS FOR CONTROLLING POWER CONSUMPTION OF AN INTEGRATED CIRCUIT**

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(58) **Field of Search** 365/226, 227, 365/228, 229; 713/320, 322

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(57) **ABSTRACT**

A method and apparatus for controlling power consumption of an integrated circuit include processing that begins by producing a system clock from a reference clock based on a system clock control signal. The reference clock may be generated from an external crystal oscillator circuit operable to produce a reference clock at a desired frequency. The processing continues by regulating at least one supply from a power source and an inductor based on a power supply control signal. The processing continues by producing the system clock control signal and the power supply control signal based on a processing transfer characteristic of a computational engine and processing requirements associated with processing at least a portion of an application by the computational engine.

22 Claims, 5 Drawing Sheets