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(54) **SWITCHING POWER CONVERTER CIRCUIT, CLOCK GENERATOR CIRCUIT AND CLOCK GENERATION METHOD HAVING SPREAD SPECTRUM**

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(57) **ABSTRACT**

A spread spectrum switching power converter circuit includes: a power stage circuit which includes an inductor and a power switch and is configured to switch the power switch according to a switching signal having spread spectrum for power conversion; a variable frequency oscillator, which generates a spread spectrum clock signal according to a spread spectrum control signal; a spread spectrum control circuit, which generates the spread spectrum control signal according to a first clock signal and a second clock signal; and a pulse width modulation circuit, configured to generate the switching signal according to a feedback signal based on the spread spectrum clock signal. The spread spectrum control circuit generates the spread spectrum control signal by sampling and combining a periodic waveform and a random waveform. The random waveform is generated according to the first clock signal and the periodic waveform is generated according to the second clock signal.