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(57)**ABSTRACT**

An oscillator is provided. The oscillator includes two reverse amplification elements, and each of the reverse amplification elements forms a self-feedback structure by using an inductor. Output ends of the two reverse amplification elements are coupled to each other by using one or more inductors, and input ends of the two reverse amplification elements are coupled to each other by using a capacitor. A capacitance value of the capacitor may be adjusted, to change an oscillation frequency of a differential output oscillation signal output by the oscillator.

