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(54) Title: TUNABLE JOSEPHSON JUNCTION OSCILLATOR

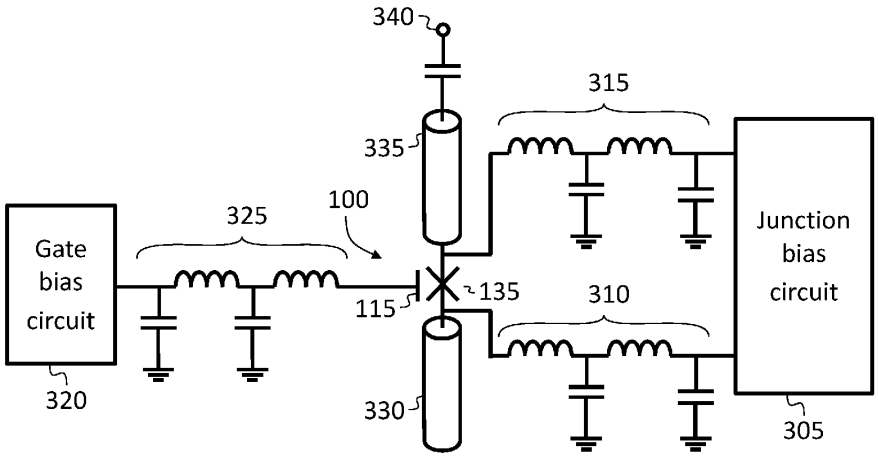


FIG. 3

(57) Abstract: A tunable oscillator including a Josephson junction. In some embodiments, the tunable oscillator includes a first superconducting terminal, a second superconducting terminal, a graphene channel including a portion of a graphene sheet, and a conductive gate. The first superconducting terminal, the second superconducting terminal, and the graphene channel together may form a Josephson junction having an oscillation frequency, and the conductive gate may be configured, upon application of a voltage across the conductive gate and the graphene channel, to modify the oscillation frequency.

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