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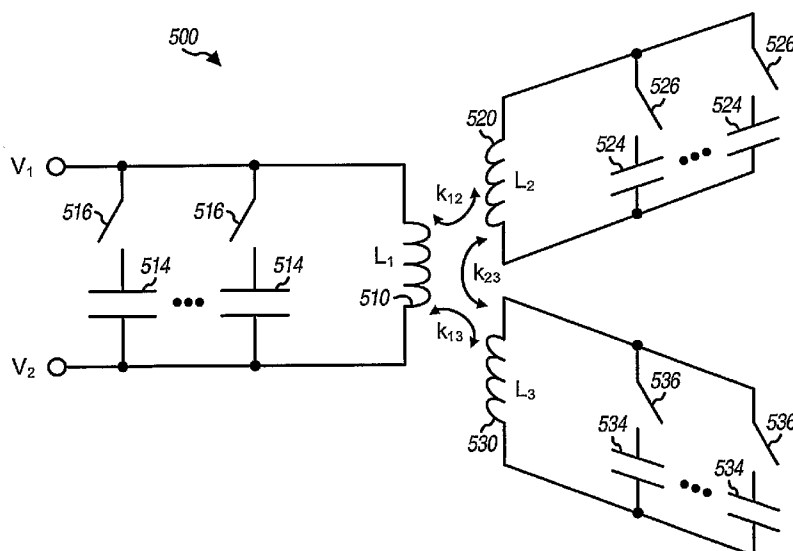
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(54) Title: COUPLED-INDUCTOR MULTI-BAND VCO



(57) Abstract: A multi-band VCO employs a coupled-inductor based resonator having ports. Each port has an inductor and at least one capacitor. The N inductors for the N ports are magnetically coupled. The inductors/ports may be selectively enabled and disabled to allow the VCO to operate at different frequency bands. The capacitor(s) for each port may include one or more fixed capacitors, one or more variable capacitors (varactors), one or more switchable capacitors, or any combination of fixed, variable, and switchable capacitors. The switchable capacitors (if any) in the enabled ports may be selectively enabled and disabled to vary the VCO oscillation frequency. The varactors (if any) in the enabled ports can vary the oscillation frequency to lock the VCO to a desired frequency. The multi-band VCO may be implemented with various oscillator topologies and can replace multiple single-band VCOs.

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