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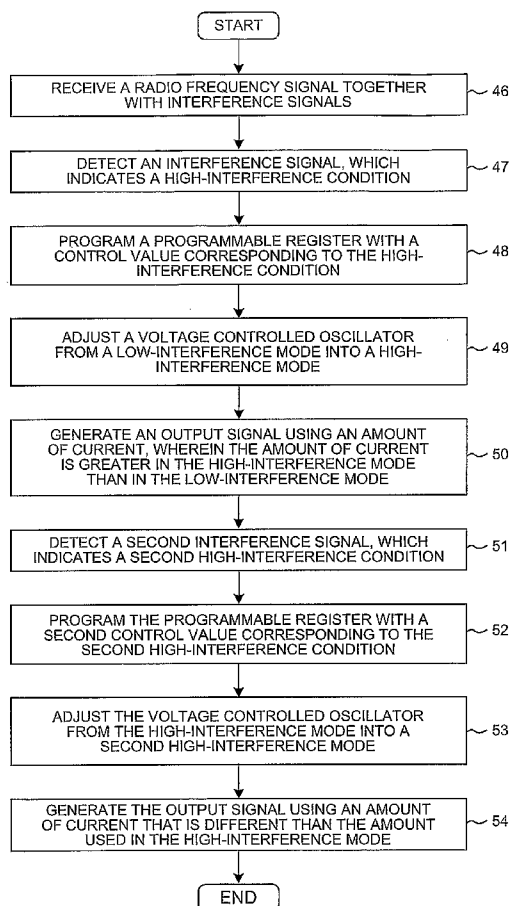
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(54) Title: ADJUSTABLE-BIAS VCO



(57) Abstract: A dynamically programmable RF receiver includes an adjustable bias voltage-controlled oscillator (ABVCO) that operates in both low-interference and high-interference modes. The ABVCO uses a drive current to generate an output signal whose frequency varies based on a control voltage. When a jammer detector detects an interference signal, a state machine adjusts the ABVCO from the low-interference mode to the high-interference mode. Reciprocal mixing between the interference signal and phase noise in the output signal is reduced in the high-interference mode by increasing the drive current to reduce the phase noise. The ABVCO switches to the high-interference mode when a bias control circuit sends a bias control signal to the ABVCO, causing the ABVCO to generate the output signal using a greater amount of drive current. A programmable register contains a control value that determines the magnitude of the bias control signal and ultimately the magnitude of the drive current.



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