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(54) **REGULATING OFF-STATE IMPEDANCE AND LEAKAGE CURRENT OF A POWER AMPLIFIER IN A TRANSCEIVER**

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(57) **ABSTRACT**

A power amplifier may be configured to operate in an on state and an off state. The power amplifier may include a plurality of transistors and an impedance controller circuit. The plurality of transistors may be electrically coupled to an electrical ground and an output of the power amplifier. The impedance controller circuit may be electrically coupled to the plurality of transistors and a reference voltage. The impedance controller circuit may be configured to provide the reference voltage to the plurality of transistors when the power amplifier is in the off state to cause a leakage current to flow between the reference voltage and the electrical ground.