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(57) **ABSTRACT**

Voltage ripple suppression in a transmission circuit is disclosed. The transmission circuit includes a power amplifier circuit coupled to an envelope tracking integrated circuit (ETIC) via a conductive path. Notably, the ETIC and the conductive path can present a large source impedance to the power amplifier circuit, which can cause a ripple in the modulated voltage received by the power amplifier circuit. In a conventional approach, the large source impedance may be isolated by a large decoupling capacitor at the expense of increased voltage switching time and battery current drain. In contrast, the ETIC disclosed herein can determine and apply a correction term to the modulated voltage generated by the ETIC to thereby suppress the ripple without requiring the large decoupling capacitor. By eliminating the large decoupling capacitor, the transmission circuit can thus achieve fast voltage switching with lower battery current drain.

