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**Drogi et al.**(10) **Pub. No.: US 2022/0393657 A1**(43) **Pub. Date: Dec. 8, 2022**(54) **ENVELOPE TRACKING SYSTEMS FOR  
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**ABSTRACT**

Envelope tracking systems for power amplifiers are provided herein. In certain embodiments, an envelope tracker is provided for a power amplifier that amplifies an RF signal. The envelope tracker includes an error amplifier that controls a voltage level of a power amplifier supply voltage of the power amplifier based on amplifying a difference between a reference signal and an envelope signal indicating an envelope of the RF signal. The envelope tracker further includes a multi-level switching circuit that generates an error amplifier supply voltage based on sensing a current of the error amplifier, and uses the error amplifier supply voltage to power the error amplifier.

