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(54) **ELECTRONIC DEVICE AND METHOD FOR ENVELOPE TRACKING**

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(57) **ABSTRACT**

An electronic device includes a processor, a modulator, and a power amplifier. The processor receives a baseband signal and executes a first ET shaping function on the baseband signal. The modulator receives the baseband signal, detects the magnitude of the baseband signal, and outputs the first voltage according to the magnitude of the baseband signal. The power amplifier outputs an amplified signal based on the first voltage. The first ET shaping function enables the relationship between the baseband signal and the first voltage to be $Vpa=a|X|^2+b$. X is the baseband signal, Vpa is the first voltage, and a and b are constants. The look-up table records the relation curve between the power of the amplified signal and the first voltage when the second ET shaping function is used for envelope tracking.

100