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(54) **AMPLIFIER DEVICE WITH MULTI-STAGE
AMPLIFIER PACKAGE**

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ABSTRACT

An amplifier device may include at least one two-stage amplifier package, where an amplifier of a first amplification stage of the amplifier package may be aligned opposite to amplifiers of a second amplification stage of the amplifier package. The amplifier device may be a three-stage amplifier device, where the second stage of the two-stage amplifier package is coupled to amplifiers of a final (third) stage, which may be in a Doherty configuration. The amplifiers of the second stage may be arranged in any of a class AB configuration, a Doherty configuration, a multi-stage Doherty configuration (with amplifiers of the final amplification stage), or a multi-driver, multi-stage Doherty configuration. One or more passive components used for inter-stage impedance matching may be disposed outside of the two-stage amplifier package. Amplifiers of the first, second, and third amplification stages may each be gallium nitride (GaN) amplifiers, in some embodiments.

