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(54) **CONSTANT-PHASE ATTENUATOR TECHNIQUES IN RADIO FREQUENCY FRONT END (RFFE) AMPLIFIERS**

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(57) **ABSTRACT**

Aspects of the disclosure relate to devices, wireless communication apparatuses, methods, and circuitry implementing a low noise amplifier (LNA) with phase-shifting circuitry to achieve a continuous phase at the output of the LNA. One aspect is an amplifier including a high gain active path comprising active circuitry, and a low gain path comprising passive circuitry and phase-shifting circuitry. In one or more aspects, the phase-shifting circuitry is configured to shift a phase of an input signal within the low gain path such that the phase of an output signal outputted from the low gain path approximately matches a phase of an output signal outputted from the high gain active path. In at least one aspect, a gain of the high gain active path is higher than a gain of the low gain passive path.