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AYRANCI et al.(10) **Pub. No.: US 2022/0407469 A1**(43) **Pub. Date: Dec. 22, 2022**(54) **STACKED MULTI-STAGE PROGRAMMABLE  
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**ABSTRACT**

Methods and devices for reducing DC current consumption of a multi-stage LNA amplifier. According to one aspect, first and second amplification stages are stacked to provide a common conduction path of a DC current. The first stage includes a common-source amplifier, the second stage includes a common-drain amplifier. Coupling between the two stages is provided by series connection of load inductors of the respective stages and a capacitor coupled at a common node between the inductors. According to another aspect, a current splitter circuit is used to split a current to the first stage according to two separate conduction paths, one common path to the two stages, and another separate from the second stage. According to yet another aspect, the current splitter circuit includes a feedback loop that controls the splitting of the current so to maintain a constant current through the common path.

