

AMPLIFIER LINEARITY BOOST CIRCUITS AND METHODS FOR POST DISTORTION FEEDBACK CANCELATION

ABSTRACT

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An amplifier circuit is provided that includes an amplifier having a signal input and a signal output, the amplifier being configured to produce an amplified signal at the signal output, a feedback path coupled between the signal output and the signal input, and an amplifier linearity boost circuit positioned in the feedback path. The amplifier linearity boost circuit includes a non-linear current generator and a phase-shifting circuit, the non-linear current generator being configured to provide a non-linear current based on the amplified signal, and the phase-shifting circuit being configured to adjust a phase of the non-linear current to reduce an intermodulation distortion of the amplified signal.

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Fig. 1