

ABSTRACT OF THE DISCLOSURE

The invention provides methods and apparatus for adaptive adjustment of the phase and amplitude controllers that are needed in Feed Forward Linearized Amplifiers (FFLA) to balance, first, the desired signal component and then the distortion component for the eventual full suppression of the latter. The particular advantage of the methods of the invention is that the adaptive adjustment is achieved without the need for additional RF reference or pilot signals and without RF correlators as proposed in prior art; rather, it is based solely on envelope-detected samples of the signal at two test points and on perturbations of the quiescent operating points of the amplifiers and/or other components, such as vector modulators, by appropriately selected voltage patterns. All these operations are at base band frequencies which makes the apparatus for the adaptive control implementable in simple digital circuitry.

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