Abstracts

Nonlinear gain compression in microwave amplifiers using generalized power-series analysis and transformation of input statistics

H. Gutierrez, K. Gard and M.B. Steer. "Nonlinear gain compression in microwave amplifiers using generalized power-series analysis and transformation of input statistics." 2000 Transactions on Microwave Theory and Techniques 48.10 (Oct. 2000 [T-MTT]): 1774-1777.

Two methods are presented for the estimation of gain compression generated by a digitally modulated carrier passed through a nonlinear RF circuit. The first one is based on developing an analytical expression for gain compression based on the transformation of input signal statistics. The second one is based on approximated expressions derived from generalized power-series analysis. The techniques are evaluated by comparing measured and predicted gain compression in a CDMA system.

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