

# Abstracts

## Power Amplifier Linearization Using IF Feedback

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*K.G. Voyce and J.H. McCandless. "Power Amplifier Linearization Using IF Feedback." 1989 MTT-S International Microwave Symposium Digest 89.3 (1989 Vol. III [MWSYM]): 863-866.*

A narrowband feedback technique for linearizing power amplifiers is presented. The technique uses frequency conversions, thus allowing loop compensation and added loop gain to be implemented at the intermediate frequency (IF). An analysis is presented which allows assessment of the applicability of the technique and which shows the performance advantages of using a two pole loop compensation filter. When applied to a 450MHz power amplifier with a delay of 70nS, the technique suppressed intermodulation products at  $\pm 500$  KHz by 12dB with the amplifier driven to within 5dB of its 1dB impression point.

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