Abstracts

A Novel Amplitude and Phase Linearizing Technique for Microwave Power Amplifiers

M. Nakayama, K. Mori, K. Yamauchi, Y. Itoh and T. Takagi. "A Novel Amplitude and Phase Linearizing Technique for Microwave Power Amplifiers." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1451-1454.

A novel amplitude and phase linearizing technique for microwave power amplifiers has been developed. It employs a series feedback amplifier with a large source inductance as a predistortion linearizer, which provides positive amplitude and negative phase deviations for input power and can compensate for AM-AM and AM-PM distortions of power amplifiers. Applying this technique to a 1.9 GHz MMIC power amplifier for use in the Japanese Personal Handy-Phone System (PHS), an improvement of adjacent channel leakage power (ACP) up to 7 dB has been achieved when it is used for pi/14-shift QPSK signal.

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