Abstracts

Influence of some imperfect system performances on linearizers

Qiming Ren and I. Wolff. "Influence of some imperfect system performances on linearizers." 1998 MTT-S International Microwave Symposium Digest 98.2 (1998 Vol. II [MWSYM]): 973-976.

In this paper the effect of demodulator errors on predistortion techniques and the effect of output return losses of power amplifiers as well as the return loss of load and power combiner on LINC linearization technique are studied. The simulations show that for Cavers' predistorter only a DC offset will affect the ACI (Adjacent Channel Interference). Gain imbalance and phase imbalance of the demodulator have little effect on the ACI. For Nagata's predistortion system, although the predistorter is also misadjusted because of errors, the ACI will not deteriorate. But owing to these errors, BER of both systems will deteriorate. The output return losses of amplifiers and the return loss of load can also deteriorate the performance of LINC linearizer while the isolation resistor can improve it.

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