Abstracts

On the stability of millimeter-wave power amplifiers

L. Samoska, Kun-You Lin, Huei Wang, Yun-Ho Chung, M. Aust, S. Weinreb and D. Dawson. "On the stability of millimeter-wave power amplifiers." 2002 MTT-S International Microwave Symposium Digest 02.1 (2002 Vol. I [MWSYM]): 429-432 vol.1.

In this paper, we discuss issues affecting high-frequency power amplifier stability. Two methods for simulating K-factor stability in a monolithic millimeter-wave. integrated circuit (MMIC) power amplifier will be discussed. Both methods will be used to predict the occurrence of millimeter-wave oscillations (Ka-band and above) in a W-band power amplifier. We present experimental results confirming the simulation data, and discuss how the methods may be applied to eliminate instabilities in MMIC power amplifiers.

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