# Abstracts

## Multitone power and intermodulation load-pull characterization of microwave transistors suitable for linear SSPA's design

*R. Hajji, F. Beauregard and F.M. Ghannouchi. "Multitone power and intermodulation load-pull characterization of microwave transistors suitable for linear SSPA's design." 1997 Transactions on Microwave Theory and Techniques 45.7 (Jul. 1997 [T-MTT]): 1093-1099.*

In this paper, an experimental load-pull characterization of microwave transistors operated under N-tone-excitations (2/spl les/N/spl les/32) is presented. Such characterization is very useful to investigate the linearity of high-power amplifiers via intermodulation distortion analysis. All the measurements were carried out using a newly developed multiline measurement system which uses an arbitrary waveform generator (AWG) to generate the spectrum of any N desired tones and a microwave transition analyzer (MTA) as a vector receiver. The measured intermodulation rejection (IMR) behavior, as the number of tones increases, is compared with previously published theoretical results. Constant output power contours and IMR contours in the /spl Gamma//sub L/(f/sub 0/) plane for different number of tones are presented and discussed. The dependency of the IMR on the biasing conditions and the carriers' phase distribution is also investigated.

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