Abstracts

Simultaneous Load-Pull of Intermodulation and Output Power Under Two-Tone Excitation for Accurate SSPA's Design

F.M. Ghannouchi, G. Zhao and F. Beauregard. "Simultaneous Load-Pull of Intermodulation and Output Power Under Two-Tone Excitation for Accurate SSPA's Design." 1994 Transactions on Microwave Theory and Techniques 42.6 (Jun. 1994 [T-MTT]): 929-934.

The simultaneous measurements of the third-order intermodulation and output power under two-tone excitation have been implemented on a MESFET operated in large-signal mode for load impedances spanning quasi-entirely the Smith chart, using a six-port reflectometer with variable test port impedance. An experimental comparison between single-tone and two-tone output power and power-added efficiency was performed. The experimental results show that the load-pull of the output power capability and power-added efficiency by a two-tone test are more accurate than the single-tone characterization for multi-carrier Solid State Power Amplifiers (SSPA's) design.

❑ Return to main document.