Abstracts

Large-Signal Characterization of Dual-Gate Field Effect Transistors Using Load-Pull Measurements

D.M. Drury, D.C. Zimmerman and W.A. Davis. "Large-Signal Characterization of Dual-Gate Field Effect Transistors Using Load-Pull Measurements." 1993 Transactions on Microwave Theory and Techniques 41.2 (Feb. 1993 [T-MTT]): 183-189.

A new automated injected signal load-pull measurement system has been designed to operate from 8 to 12 GHz, with a range of injected signal power extending to 4 W. The system has been shown to be as accurate as the HP8510 network analyzer. The large signal intrinsic drain to source resistance of an 1800 µm dual gate FET was measured on the load-pull system, and subsequently a variable power amplifier was designed using the load-pull data. The amplifier output phase variation of the variable power amplifier was 10° when operating at 31.3 dBm.

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