Abstracts

Two-tone intermodulation distortion simulations in the time domain using a quasi-2D physical pHEMT model

P.J. Rudge, R.E. Miles, M.B. Steer and C.M. Snowden. "Two-tone intermodulation distortion simulations in the time domain using a quasi-2D physical pHEMT model." 2001 MTT-S International Microwave Symposium Digest 01.1 (2001 Vol. I [MWSYM]): 439-442 vol.1.

The need for both linear and efficient pHEMTs for modern wireless handsets necessitates a thorough understanding of the origins of intermodulation distortion at the device level. For the first time, two-tone time domain simulations of a microwave pHEMT using a quasi-two-dimensional physical device model in a CAD environment are presented. The model fully accounts for device-circuit interaction and is validated experimentally for a two-tone experiment around 5 GHz.

❑ Return to main document.