

## Large-signal design of MMIC Ka-band power amplifiers based on physical models

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*A.D. Plews, C.M. Snowden and M.J. Howes. "Large-signal design of MMIC Ka-band power amplifiers based on physical models." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1729-1732.*

A quasi-two-dimensional physical model is used to predict the effects of process variations on the DC, small-, and large-signal behaviour of a pHEMT. A large-signal equivalent circuit model of the mm-wave pHEMT extracted from the physical model is used to predict the non-linear behaviour of an amplifier. A two-tone on-wafer source- and load-pull measurement system has been constructed to allow verification of the modelling procedure.

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