Abstracts

Parameter Extraction Technique for Non-Linear MESFET Models

A. Davies and A.K. Jastrzebski. "Parameter Extraction Technique for Non-Linear MESFET Models." 1990 MTT-S International Microwave Symposium Digest 90.2 (1990 Vol. II [MWSYM]): 747-750.

The non-linear parameter extraction technique proposed in this paper gives both rapid convergence and consistency of the derived model. The computational aspect of the technique is divided into two processes: (i) direct extraction of intrinsic element values by a statistically based routine and (ii) optimisation of intrinsic and extrinsic element values and/or non-linear functions simultaneously at all bias points. The non-linear elements are extracted in two forms: (a) as some analytical functions of bias and (b) as bias-dependent values. The results of the modelling of both chip as well as packaged MESFET devices are presented and very good agreements between measurements and calculations are obtained.

❑ Return to main document.