Abstracts

A new method for active device load equivalent circuit extraction for MMICs

F. Giannini, G. Leuzzi and A. Serino. "A new method for active device load equivalent circuit extraction for MMICs." 2000 Microwave and Guided Wave Letters 10.8 (Aug. 2000 [MGWL]): 319-321.

Active device loads for monolithic microwave integrated circuits (MMICs) have been extensively studied and a new procedure for the extraction of their equivalent circuit has been developed. The procedure requires the availability of a coplanar three-terminal device for accurate model extraction. The new procedure is accurate, general, and easy to apply. Its validity has been demonstrated by extracting a scalable bias-dependent small-signal equivalent circuit of PHEMT-based active device loads up to 40 GHz. A good agreement between measured and modeled data has been obtained, confirming the validity and the accuracy of the proposed method.

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