

Small-signal modeling of pHEMTs and analysis of their microwave Performances

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Abstract

Accurate extraction of the small-signal equivalent circuit of GaAs microwave Field Effect Transistors (GaAs FET) is crucial for efficient design of microwave analog circuits such as Low Noise Amplifiers (LNAs).

This study proposed an Improved direct analytical extraction procedure Its efficiency was demonstrated through the characterisation of two 1 μm gate-length pseudomorphic heterojunction transistors.

Keywords pHEMT, extraction, small signal modeling, LNAs, GaAs FET, Canada.

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