

Abstracts

Accurate Prediction of the Small-Signal Gain of the HBT Dual-Fed Distributed Amplifier

I.A. Botterill and C.S. Aitchison. "Accurate Prediction of the Small-Signal Gain of the HBT Dual-Fed Distributed Amplifier." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1073-1076.

The benefits of the MESFET dual-fed distributed amplifier over the conventional distributed amplifier (DA), both in small and large-signal operation, have previously been reported. Recent interest in the heterojunction bipolar transistor (HBT) DA has led to consideration of the HBT in the dual-fed configuration. It has been found that the previously proposed equation, developed to predict the small-signal gain of the MESFET dual-fed DA, is inaccurate when applied to the HBT dual-fed DA. This paper describes an expression which gives better agreement with the simulated performance of such an amplifier.

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