

Abstracts

On Design and Performance of Lossy Match GaAs MESFET Amplifiers

K.B. Niclas. "On Design and Performance of Lossy Match GaAs MESFET Amplifiers." 1982 Transactions on Microwave Theory and Techniques 30.11 (Nov. 1982 [T-MTT]): 1900-1907.

The noise figure, the gain, and the reflection coefficients of lossy match amplifiers and their dependence on circuit elements are studied. Theoretical results are supported by measured data taken on a two-stage unit. In addition, the performance characteristics of a 100-8800 MHz four-stage lossy match amplifier are discussed. The unit exhibits 23.3 ± 1.1 dB of gain over the nearly 6-1/2 octaves. Its maximum noise figure is 10.9 dB from 100-8800 MHz and 6.6 dB from 2000-8000 MHz. The amplifier's overall circuit dimensions are 10 X 5.7 mm..

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