

Abstracts

Optimum Noise Measure Terminations for Microwave Transistor Amplifiers (Short Papers)

C.R. Poole and D.K. Paul. "Optimum Noise Measure Terminations for Microwave Transistor Amplifiers (Short Papers)." 1985 Transactions on Microwave Theory and Techniques 33.11 (Nov. 1985 [T-MTT]): 1254-1257.

The noise performance of the individual stages in a multistage low-noise amplifier can be quantified by means of the noise measure as proposed by Haus and Adler. The minimization of the noise measure of a given active two-port device is of direct interest to the designer of such amplifiers. A new means of obtaining circles of constant noise measure in the source reflection coefficient plane is presented here. These circles can be used to determine the value of the minimum noise measure for a given active device and the associated source termination. The validity of the new method has been verified by comparison with results obtained using existing equations for the admittance plane and also by experiment.

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