Abstracts

Determination of Microwave Transistor Noise and Gain Parameters through Noise-Figure Measurements Only (Short Papers)

G. Martines and M. Sannino. "Determination of Microwave Transistor Noise and Gain Parameters through Noise-Figure Measurements Only (Short Papers)." 1982 Transactions on Microwave Theory and Techniques 30.8 (Aug. 1982 [T-MTT]): 1255-1259.

A novel method for measuring noise and gain parameters of linear two-ports solely from noise-figure measurements is applied here to perform noise and gain characterization of microwave transistors versus frequency and collector current in S-band. The method results in a simpler procedure and improved accuracy compared to conventional methods. In addition, a technique to estimate the loss of the input tuner of the measuring setup is presented, which yields a further improvement in accuracy. As experimental verification, the noise and gain parameters of a microwave transistor versus collector current in the 2-4-GHz frequency range are reported.

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