Abstracts

Fully Automated On-Wafer Noise Characterization of Gaas MESFET's and HEMT's

J.W. Archer and R.A. Batchelor. "Fully Automated On-Wafer Noise Characterization of Gaas MESFET's and HEMT's." 1992 Transactions on Microwave Theory and Techniques 40.2 (Feb. 1992 [T-MTT]): 209-216.

A technique is described which enables the rapid determination of all four noise parameters of a MESFET or HEMT at wafer level. The fully automated procedure, which has been implemented in the 2-18 GHz range, uses 16 accurately measured, very repeatable source impedance standards. The standards have been selected for optimum coverage of the input impedance plane to result in stable and rapidly convergent least-squares solutions for the minimum noise figure, optimum source impedance and noise resistance of practical devices. The resultant system is very stable and produces accurate noise parameters for a wide range of devices.

❑ Return to main document.