Abstracts

Measurement of Interaction Impedance of Microwave Circuits for Solid-State Devices (Correspondence)

S.P. Yu and J.D. Young. "Measurement of Interaction Impedance of Microwave Circuits for Solid-State Devices (Correspondence)." 1970 Transactions on Microwave Theory and Techniques 18.11 (Nov. 1970 [T-MTT] (Special Issue on Microwave Circuit Aspects of Avalanche-Diode and Transferred Electron Devices)): 999-1001.

The performance of a microwave solid-state device not only depends upon its intrinsic characteristics but also to a large extent on the circuit interaction impedance seen by the mobile carriers in the device. In this paper the well-known perturbation technique for measuring the interaction impedance of linear accelerators and microwave tubes is adapted for measuring the interaction impedance of circuits for solid-state microwave sources. Experimental results indicate that the technique can provide a powerful method for circuit optimization and device characterization.

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