Abstracts

Monolithic Circuit for Reflection Coefficient Measurement

R.E. Neidert. "Monolithic Circuit for Reflection Coefficient Measurement." 1991 Microwave and Guided Wave Letters 1.8 (Aug. 1991 [MGWL]): 195-197.

A monolithic circuit for measuring complex reflection coefficient using fixed-probe voltage sampling has been investigated. Ion implanted GaAs Schottky diodes, with built-in isolation resistance, have been used as voltage samplers along a microstrip transmission line on semi-insulating GaAs. An algorithm for determining reflection coefficient from three detected dc voltages is described. Circuit analysis and modeling, dc voltage calculations, and experimental results are presented for the 5 to 18 GHz frequency range.

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