Abstracts

Simple technique for measuring source reflection coefficient while characterizing active devices

G. Madonna and A. Ferrero. "Simple technique for measuring source reflection coefficient while characterizing active devices." 2002 Transactions on Microwave Theory and Techniques 50.2 (Feb. 2002 [T-MTT]): 564-569.

The measurement of the source reflection coefficient is fundamental for noise, as well as large-signal testing of microwave active devices. This paper describes a simple yet rigorous technique for fast and accurate determination of a source reflection coefficient when a load-source pull test set is used. The solution consists in measuring the waves at the device-under-test reference plane under two different bias conditions. We have proven that these measurements give enough information to compute the source reflection coefficient with accuracy suitable for most applications. Experimental results are presented and compared to data obtained with more conventional techniques.

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