Abstracts

Improved Calibration and Measurement of the Scattering Parameters of Microwave Integrated Circuits

R.R. Pantoja, M.J. Howes, J.R. Richardson and R.D. Pollard. "Improved Calibration and Measurement of the Scattering Parameters of Microwave Integrated Circuits." 1989 Transactions on Microwave Theory and Techniques 37.11 (Nov. 1989 [T-MTT]): 1675-1680.

A novel procedure for the calibration of microwave integrated circuit test fixtures, based on a generalization of the "through-reflect-line" algorithm, is presented. Its advantages compared with previous methods, namely bandwidth of validity and standards availability, are discussed. The approach is verified through the characterization of a particular microstrip verification standard using both the "generalized TRL" and precision 7 mm calibration techniques. Comparison of the results obtained from these schemes indicates that both the effective directivity and the source/load match are better than 30 dB.

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