Abstracts

A novel vector network analyzer (Dec. 1998, Part II [T-MTT])

K. Hoffmann and Z. Skvor. "A novel vector network analyzer (Dec. 1998, Part II [T-MTT])." 1998 Transactions on Microwave Theory and Techniques 46.12 (Dec. 1998, Part II [T-MTT] (1998 Symposium Issue)): 2520-2523.

A calibration procedure for a perturbation two-port vector network analyzer is presented. It consists of a variable perturbation two-port placed between a device-under-test and a scalar network analyzer. A measured vector reflection coefficient is determined on the basis of amplitude-only measurements. A full correction of systematic errors is possible. The new principle was experimentally confirmed in the frequency band up to 14 GHz. The results enable prediction of an add-on for scalar analyzers, enabling vector measurements.

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