Abstracts

Measurement and Calibration of a Universal Six-Port Network Analyzer

W. Lin and C. Ruan. "Measurement and Calibration of a Universal Six-Port Network Analyzer." 1989 Transactions on Microwave Theory and Techniques 37.4 (Apr. 1989 [T-MTT]): 734-742.

A general theory of measuring multiport networks is presented in this paper. In order to measure microwave multiport networks conveniently a method involving the stepwise reduction of the order of the network under test is suggested. All formulas for calibrating and measuring the triple six-port network analyzer (TSPNA), which is a universal six-port network analyzer, are given without any ambiguity. The procedures for calibration and measurement are very simple. No standard three-port network is needed to calibrate the six-port system. Finally, the error caused by nonideal isolation is discussed.

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