

Abstracts

Method for Measuring the Directivity of Directional Couplers

G.E. Schafer and R.W. Beatty. "Method for Measuring the Directivity of Directional Couplers." 1958 Transactions on Microwave Theory and Techniques 6.4 (Oct. 1958 [T-MTT]): 419-422.

This method of measuring directivity requires the measurement of the ratio of powers delivered to the side arm when the normal input arm is connected alternately to an adjustable sliding termination and a sliding short circuit. The short circuit is phased to yield maximum and minimum responses and the amplitudes are averaged. Two techniques of adjusting the termination may be used, One procedure requires zero reflection from the termination. The other procedure requires adjustment for a null at the detector and then measurement of the maximum response due to changing the phase of the termination. The inherent errors of the method are analyzed and found to be within the limits--0.01 to 0.00 db in a specific example.

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