

Abstracts

A Shunt Technique for Microwave Measurements

H.M. Altschuler and A.A. Oliner. "A Shunt Technique for Microwave Measurements." 1955 Transactions on Microwave Theory and Techniques 3.4 (Jul. 1955 [T-MTT]): 24-30.

A new method of measuring low-loss quantities at microwave frequencies, which employs a lossy shunt structure, is described. The additional loss introduced thereby reduces the excessively high VSWR's to values lying in the measurable range. The relevant information is abstracted from the data in a precision manner independent of the parameters of the shunt structure itself. Applications are made to the measurement of low-loss dielectric constants, structures with shunt representations such as certain bolometer elements, attenuation constants, and VSWR's of slightly lossy variable short circuits. Physical realizations of such shunt structures are discussed.

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