Abstracts

A technique for determining the normalized impedance of slots in the image plane of the image NRDG

L.C. Chirwa, M. Yamamoto, M. Omiya and K. Itoh. "A technique for determining the normalized impedance of slots in the image plane of the image NRDG." 2001 Transactions on Microwave Theory and Techniques 49.5 (May 2001 [T-MTT]): 995-997.

This paper presents a method for determining the normalized impedance of a transverse slot in the image plane of the image nonradiative dielectric guide using measurements of the standing wave. The method overcomes the problem of distortion caused by the scattered evanescent fields that are present in the vicinity of the slot. The measurement equipment, its optimum parameters, and aspects necessary for accurate measurements are also discussed. Moreover, the finite-difference time-domain technique is employed to determine the normalized slot impedance, and good agreement is obtained with measured results, confirming the reliability of the method.

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