Abstracts

Propagation in a Microwave Model Waveguide of Variable Surface Impedance--Theory and Experiment

E. Bahar. "Propagation in a Microwave Model Waveguide of Variable Surface Impedance--Theory and Experiment." 1966 Transactions on Microwave Theory and Techniques 14.11 (Nov. 1966 [T-MTT]): 572-578.

In this paper propagation in a model terrestrial waveguide is investigated. The surface impedance of the waveguide boundary is assumed to vary along the path of propagation. A quasioptical approach is used to derive the solution for the case of an abrupt variation in the surface impedance. The reciprocity theorem is employed to facilitate that solution for both directions of propagation. Experimental verification of this technique is obtained from measurements in the model waveguide.

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