# Abstracts

## The Conservation of Complex Power Technique and E-Plane Step-Diaphragm Junction Discontinuities (Short Papers)

*E.M. Sich and R.H. MacPhie. "The Conservation of Complex Power Technique and E-Plane Step-Diaphragm Junction Discontinuities (Short Papers)." 1982 Transactions on Microwave Theory and Techniques 30.2 (Feb. 1982 [T-MTT]): 198-201.*

The singular integral equation solution due to L. Lewin and his colleagues for the E-plane step-diaphragm junction discontinuity are extended by the conservation of complex power technique (CCPT). The singular integral equation method provides formulas for the junction susceptance (both with and without a diaphragm) which are valid only in the quasi-static limit. In contrast, the CCPT provides numerical solutions for larger guides. It is applied to a step with a diaphragm of nonvanishing thickness.

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