Abstracts

Currents and Conduction Losses in Unilateral Finline

C. Olley and T. Rozzi. "Currents and Conduction Losses in Unilateral Finline." 1988 Transactions on Microwave Theory and Techniques 36.1 (Jan. 1988 [T-MTT]): 86-95.

This paper presents a rigorous calculation of currents, conduction losses, and Q factors of the fundamental and higher order modes of unilateral finline. The latter, in particular, are important in estimating the loss for practical components. The approach is based on a Ritz Galerkin variational development of, first, the field in the fin gap in terms of functions which intrinsically satisfy the edge condition and, second, the currents in the fin also satisfying the same properties. Results show losses to be higher than previously estimated, in very good agreement with experiment.

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