

Abstracts

An Alternate Derivation of Lewin's Formula (Letters)

H.J. Riblet. "An Alternate Derivation of Lewin's Formula (Letters)." 1977 Transactions on Microwave Theory and Techniques 25.8 (Aug. 1977 [T-MTT]): 711-712.

The reflection coefficient at the junction between a uniform waveguide and one which tapers linearly in the plane of the electric field can be evaluated by a suitable integration of the differential reflection coefficient. When the limit of this infinite integral is determined as the "flare" angle approaches zero, the relative susceptance at the discontinuity is found to be the well-known expression $B/Y_{sub 0} = \tan \theta/k_b$.

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