Abstracts

Experimental Studies of the Peak Power-Handling Capacity of Finlines at Centimeter and Millimeter Wavelengths (Short Papers)

M.M. Ney, W. Yue and W.J.R. Hoefer. "Experimental Studies of the Peak Power-Handling Capacity of Finlines at Centimeter and Millimeter Wavelengths (Short Papers)." 1988 Transactions on Microwave Theory and Techniques 36.10 (Oct. 1988 [T-MTT]): 1448-1451.

The microwave and millimeter-wave field breakdown in various unilateral finlines is investigated experimentally. First, experiments in the X- and Ku-band are described to study the breakdown phenomenon and its effects on the structure. Then, experimental values of the maximum transmissible peak power are compared with the theoretical predictions. Experimental results confirm the validity of the theoretical model, within a reasonable limit, when the uncertainties produced by the various parameters pertaining to the electric breakdown phenomenon are taken into account.

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