Abstracts

Improved Waveguide Diode Mount Circuit Model Using Post Equivalence Factor Analysis

R.G. Hicks and P.J. Khan. "Improved Waveguide Diode Mount Circuit Model Using Post Equivalence Factor Analysis." 1982 Transactions on Microwave Theory and Techniques 30.11 (Nov. 1982 [T-MTT]): 1914-1920.

This paper presents an improved wide-band equivalent circuit for a diode mount consisting of a gapped cylindrical post in a rectangular waveguide. The empirical round post to flat strip equivalence factor used in an earlier study by Eisenhart and Khan is replaced by one which is calculated via an accurate analysis. Results indicating the dependence of this equivalence factor on post diameter, post position, and frequency are shown, allowing a more accurate interpretation from the Eisenhart and Khan analysis.

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