

Abstracts

In-Line Waveguide Calorimeter for High-Power Measurements"-- Accounting for Transverse Waveguide Wall Currents (Correction)

M.M. Brady. "In-Line Waveguide Calorimeter for High-Power Measurements"-- Accounting for Transverse Waveguide Wall Currents (Correction)." 1963 Transactions on Microwave Theory and Techniques 11.2 (Mar. 1963 [T-MTT]): 152-153.

In a recent paper an analysis of calorimeter error due to standing waves in the measured section of waveguide appeared in (11)-(13) and Fig. 3. This analysis was based on the most pessimistic case of a standing-wave of waveguide dissipated power proportional to the square of the transverse H field. Engen has pointed out that the resulting error expression thus obtained is applicable to a TEM wave problem; the actual waveguide calorimeter error will be smaller due to the effects of transverse waveguide wall currents. In the following an expression for the ratio of longitudinal to transverse dissipated power for the TE₀₁ mode is developed and a resulting correction to the original error expression (14) is given.

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