Abstracts

Tests of Microstrip Dispersion Formulas (Short Papers)

H.A. Atwater. "Tests of Microstrip Dispersion Formulas (Short Papers)." 1988 Transactions on Microwave Theory and Techniques 36.3 (Mar. 1988 [T-MTT]): 619-621.

A set of published formulas for the frequency dependence of the microstrip effective relative dielectric constant epsilon/sub re/(f) is tested relative to an assemblage of measured data values for this quantity chosen from the literature. The r.m.s. deviation of the predicted from the measured values ranged from 2.3 percent to 4.1 percent of the seven formulas for epsilon/sub re/(f) tested. A formula due to Kirschning and Jansen showed the lowest average deviation from measured values, although the differences between the predictions of their formula and others tested are of the order of the error limits of the comparison process. It is concluded that the results indicate the suitability of relatively simple analytical expressions for the computation for microstrip dispersion.

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