Abstracts

Pulse Dispersion Distortion in Open and Shielded Microstrips Using the Spectral-Domain Method (Short Papers)

T. Leung and C.A. Balanis. "Pulse Dispersion Distortion in Open and Shielded Microstrips Using the Spectral-Domain Method (Short Papers)." 1988 Transactions on Microwave Theory and Techniques 36.7 (Jul. 1988 [T-MTT]): 1223-1226.

The spectral domain method is used to compute the effective dielectric constant [epsilon/sub r/sub eff//(f)] of open and shielded microstrip lines to analyze the dispersion distortion of short electrical pulses. Precise expressions for the Iongitudinal and transverse current distributions allow a high level of accuracy for epsilon/sub r/sub eff//(f). It is determined that computation time can be minimized for the open microstrip calculations by using the shielded microstrip formulation provided large dimensions for the conducting walls are taken.

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