Abstracts

Analysis of Planar Transmission Lines and Microshield Lines with Arbitrary Metallization Cross Sections Using Finite Elements Methods

M. Helal, J.F. Legier, P. Pribetich and P. Kennis. "Analysis of Planar Transmission Lines and Microshield Lines with Arbitrary Metallization Cross Sections Using Finite Elements Methods." 1994 MTT-S International Microwave Symposium Digest 94.2 (1994 Vol. II [MWSYM]): 1041-1044.

Propagation analysis is proposed to determine with much accuracy as possible, the dispersion characteristics for classical planar structures as well as for the new microstrip and coplanar membrane microshield lines both for microwave and millimeterwave ranges. These transmissions lines present an arbitrary cross section for the metallization of the strips and a finite value of the conductivity. We have developed two formulations of finite element methods in order to simulate such structures in the considered frequency range, showing the influence of lossy strips corner angles.

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