Abstracts

Full-Wave Characterization of Cylindrical Layered Multiconductor Transmission Lines Using the MoL

S. Xiao and R. Vahldieck. "Full-Wave Characterization of Cylindrical Layered Multiconductor Transmission Lines Using the MoL." 1994 MTT-S International Microwave Symposium Digest 94.1 (1994 Vol. I [MWSYM]): 349-352.

The Method of Lines (MoL) has been modified for application in cylindrical coordinates. When the variables are discretized in theta-direction, a transformation matrix is found analytically to decouple the discretized ordinary differential equations. Furthermore, the normally second order accuracy of the MoL is improved to the fourth order. This scheme is applied to the field continuity condition and the edge condition and leads to significantly improved computational efficiency of the method.

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