Abstracts

Analysis of propagation characteristics and field images for printed transmission lines on anisotropic substrates using a 2-D-FDTD method

In this paper, we apply an efficient two-dimensional (2-D) finite-difference time-domain (FDTD) algorithm to an analysis of uniform transmission fines printed on various anisotropic substrates. By investigating the transverse resonant properties of the structures, we obtain their propagation characteristics, as well as the field images at specified frequencies. To eliminate the Gibbs phenomenon generated by a sudden time-stepping termination, we employ the Blackman-Harris window (BHW) function to truncate and modulate the entire time-domain fields, which leads to a significant time saving compared to the conventional time-stepping termination.

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