Abstracts

Closed-form asymptotic extraction method for coupled microstrip lines

Seong-Ook Park and C.A. Balanis. "Closed-form asymptotic extraction method for coupled microstrip lines." 1997 Microwave and Guided Wave Letters 7.3 (Mar. 1997 [MGWL]): 84-86.

The effective dielectric constants of a symmetric coupled microstrip line operating in the dominant mode are solved by using a closed-form formula of the asymptotic part of the impedance matrix elements. Using this asymptotic closed-form solution, the finite upper limit for numerical integration in the evaluation of the impedance matrix elements is significantly reduced. This results in improved computational efficiency for determining the /spl epsiv//sub reff/ of a coupled microstrip line while retaining a good accuracy compared to the conventional spectral domain approach (SDA).

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