

Abstracts

Fast Sequential FDTD Diakoptics Method Using the System Identification Technique

T.-W. Huang, B. Houshmand and T. Itoh. "Fast Sequential FDTD Diakoptics Method Using the System Identification Technique." 1993 Microwave and Guided Wave Letters 3.10 (Oct. 1993 [MGWL]): 378-380.

The sequential finite-difference time-domain (FDTD) Diakoptics method is accelerated by the system identification technique. The time-domain convolution in Diakoptics is replaced by a difference equation with a small number of coefficients. Hence, the memory size is also reduced. The validity of this method is confirmed by comparison with simulated results from Microwave SPICE. The accuracy of this fast algorithm is also demonstrated by the analysis of cascaded circuit modules.

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