Abstracts

Analytic Johns Matrix and its Applications in TLM Diakoptics

The storage of a general TLM Johns matrix is large because the dimension of Johns matrix is dependent on the iteration number. The time-domain convolution with Johns matrix is computationally intensive as the whole time history of the incident impulses is involved. In this paper, analytic Johns matrix is derived. A recursive convolution formulas is then developed, resulting in a considerable reduction of the computation count.

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