Abstracts

Efficient TLM Diakoptics for Separable Structures (1993 Vol. I [MWSYM])

M. Righi, M. Mongiardo, R. Sorrentino and W.J.R. Hoefer. "Efficient TLM Diakoptics for Separable Structures (1993 Vol. I [MWSYM])." 1993 MTT-S International Microwave Symposium Digest 93.1 (1993 Vol. I [MWSYM]): 425-428.

In this paper a new procedure for the efficient application of diakoptics to the TLM simulation of waveguide structures is described. The above procedure is based on the expansion of the time-domain Green's function for separable regions into eigenfunctions. The suggested procedure leads to a dramatical reduction of the numerical effort when compared to regular Johns Matrix operation. The procedure has been applied to an inductive iris in order to demonstrate how this new approach can be used to generate variable wide band absorbing boundaries that can be placed very close to the discontinuity.

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