Abstracts

Field singularity correction in 2-D time domain Haar wavelet modeling of waveguide components

M. Fujii and W.J.R. Hoefer. "Field singularity correction in 2-D time domain Haar wavelet modeling of waveguide components." 1999 MTT-S International Microwave Symposium Digest 99.4 (1999 Vol. IV [MWSYM]): 1467-1470 vol.4.

A time domain Haar-wavelet based modeling technique has been applied to 2-D waveguide problems including discontinuities. The principal original contribution of this paper is the correction of the field singularity at the edge of a conductor by quasi-static field approximation. Combination of quasi-static correction and wavelet modeling considerably improves the computational efficiency compared to conventional time domain analysis techniques.

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