Abstracts

Evolutionary Generation of (M)MIC Component Shapes Using 2.5D EM Simulation and Discrete Genetic Optimization

A. John and R.H. Jansen. "Evolutionary Generation of (M)MIC Component Shapes Using 2.5D EM Simulation and Discrete Genetic Optimization." 1996 MTT-S International Microwave Symposium Digest 96.2 (1996 Vol. II [MWSYM]): 745-748.

Using a combination of the fullwave 2.5D Spectral Domain Approach (SDA) and a genetic algorithm, the automated generation of (M)MIC component shapes having predescribed electrical specifications is demonstrated, Instead of merely scaling the dimensions of a predefine layout, the genetic optimizer creates the layout from the scratch exploiting explicitly the capability of the 2.5D fullwave simulation to analyze arbitrarily shaped conductor configurations. This may -- as is illustrated by two examples -- yield new, unconventional geometries.

❑ Return to main document.