Abstracts

Expanded space mapping design framework exploiting preassigned parameters

J.W. Bandler, M.A. Ismail and J.E. Rayas-Sanchez. "Expanded space mapping design framework exploiting preassigned parameters." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 1151-1154 vol.2.

We present a novel design framework for microwave circuits. We expand the original space mapping technique by allowing preassigned parameters (which are not used in optimization) to change in some components of the coarse model. We refer to those components as "relevant" components and we present a method based on sensitivity analysis to identify them. As a result, the coarse model can be calibrated to align with the fine model. Our algorithm establishes a mapping from some of the optimizable parameters to the preassigned parameters of the relevant components. This mapping is updated iteratively until we reach the optimal solution. We illustrate our approach through a microstrip design example.

❑ Return to main document.