Abstracts

A Wide-Band S-Parameter Extraction Procedure for Arbitrarily Shaped, Inhomogeneous Structures Using Time Domain Numerical Techniques

J. Ritter, V.J. Brankovic, D.V. Krupezevic and F. Arndt. "A Wide-Band S-Parameter Extraction Procedure for Arbitrarily Shaped, Inhomogeneous Structures Using Time Domain Numerical Techniques." 1995 MTT-S International Microwave Symposium Digest 95.1 (1995 Vol. I [MWSYM]): 273-276.

A new, simple and very efficient technique for the wide-band extraction of scattering parameters using time domain methods (e.g. FDTD, TLM) is introduced which avoids the hitherto necessary high requirements for appropriate absorbing boundary conditions. The technique is based on the modal S-parameter definition for unmatched ports and achieves, even with standard non-dispersive Mur's absorbing boundaries, excellent and reliable results also for dispersive microwave structures and inhomogeneous input and output ports. The proposed method is verified by excellent agreement with measurements or with mode-matching

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