Abstracts

Characterization of power loss from discontinuities in guided structures

T.K. Sarkar, Z.A. Maricevic and M. Salazar-Palma. "Characterization of power loss from discontinuities in guided structures." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 613-616.

This paper is an extension of the work presented by Sarkar et al. (1996). In that work it was shown how to utilize the matrix pencil approach to extract S-parameters of N-port microwave structures. In this paper this earlier approach has been extended to analyze radiation/power loss from the discontinuities of guided structures. Specifically, computed results are presented for the S-parameters of an open ended rectangular waveguide radiating into free space along with experimental results given by Marcuvitz (1951). In addition power loss from rectangular and mitered bends are computed for a microstrip line. The present results are more accurate than what is available in the published literature.

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