Abstracts

Full-Wave Spectral-Domain Analysis of Compensation of Microstrip Discontinuities Using Triangular Subdomain Functions (Dec. 1992 ([T-MTT])

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This paper presents a full-wave spectral-domain analysis to investigate compensation of a variety of microstrip discontinuities including open-ends, bends and T junctions. To properly model the discontinuities with miters as well as 90° corners, vector-valued triangular subdomain functions are used as both expansion and testing functions in the moment method procedure. Special consideration is given to the numerical treatment of the reaction integral between two triangular sub-domains such that rather complicated geometrical configurations can be handled very efficiently. Comparison of some numerical results with available experimental data shows excellent agreement. The losses due to radiation and surface waves for some discontinuities are also included.

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