Abstracts

Full-Wave Spectral-Domain Analysis of Compensation of Microstrip Discontinuities Using Triangular Subdomain Functions (1992 Vol. I [MWSYM])

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This paper presents a full-wave spectral-domain analysis to investigate compensation of a variety of microstrip discontinuities including bends and T junctions. To properly model the discontinuities with miters as well as 90° corners, vector-valued triangular sub domain 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 subdomains 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 in some discontinuities will also be discussed in the presentation.

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