

Abstracts

The Rigorous CAD of Aperture Coupled T-Junction Bandstop-Filters, E-Plane Circuit Elliptic-Function Filters, and Diplexers

F. Arndt and T. Sieverding. "The Rigorous CAD of Aperture Coupled T-Junction Bandstop-Filters, E-Plane Circuit Elliptic-Function Filters, and Diplexers." 1991 MTT-S International Microwave Symposium Digest 91.3 (1991 Vol. III [MWSYM]): 1103-1106.

The rigorous CAD of waveguide bandstop-filters, of elliptic-function E-plane integrated circuit filters with additional bandstop cavities, and of high return loss E-plane T-junction diplexers with iris matching elements is introduced. Based on the general rectangular waveguide T-junction key-building block modal S-matrix, the design takes into account both the finite thickness of all coupling elements and the higher order mode interaction at all step discontinuities. The theory is verified by measurements.

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