# Abstracts

## CAD of T-Septum Waveguide Evanescent-Mode Filters (Short Papers)

*V.A. Labay and J. Bornemann. "CAD of T-Septum Waveguide Evanescent-Mode Filters (Short Papers)." 1993 Transactions on Microwave Theory and Techniques 41.4 (Apr. 1993 [T-MTT]): 731-733.*

This paper presents a mode-matching-based design of evanescent-mode waveguide filters with T-septum shaped metal inserts. Owing to the wideband characteristics of the T-septum waveguide, the proposed design constitutes a significant improvement over common evanescent-mode filters with respect to both size reduction and stopband behavior. The theoretical approach is verified at the example of a three-resonator 8.8.GHz filter prototype of less than 3/4 inch length. The second passband is beyond 27 GHz. Since the design procedure takes higher-order mode interactions into account, good agreement between theory and experiment is obtained over the entire measurement range between 8.2 and 40 GHz.

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