Abstracts

Electromagnetic Synthesis of Overlap-Gap-Coupled Microstrip Filters

O. Fordham, M.-J. Tsai and N.G. Alexopoulos. "Electromagnetic Synthesis of Overlap-Gap-Coupled Microstrip Filters." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1199-1202.

This paper presents a technique for electromagnetic synthesis of microstrip overlap-gap-coupled filters. The algorithm uses a rigorous analysis, which solves an electric field integral equation in the spectral domain using the method of moments, inside an outer loop that optimizes the filter dimensions. A piecewise synthesis procedure generates initial dimensions that provide a good starting point for direct electromagnetic optimization of the complete filter. Measured results for a five-section filter are shown that verify the accuracy of this design method.

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