# Abstracts

## Computer-Aided Design of Parallel-Connected Millimeter-Wave Diplexers/Multiplexers

*R. Vahldieck and B. Varailhon de la Filolie. "Computer-Aided Design of Parallel-Connected Millimeter-Wave Diplexers/Multiplexers." 1988 MTT-S International Microwave Symposium Digest 88.1 (1988 Vol. I [MWSYM]): 435-438.*

This paper describes the analysis and design of a novel integrated millimeter wave diplexer. The structure is simple and can easily be extended to a multiplexer configuration. The diplexer is composed of ladder-shaped E-plane metal insert filters which are fabricated on a single metallic sheet and embedded in a split block housing. The theoretical design procedure is based on the generalized scattering matrix method which includes mutual parasitic loading effects between the filters as well as higher order mode interaction. Thus, no physical fine tuning of the component is necessary.

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