Abstracts

Computer aided design of reentrant coaxial filters including coaxial excitation

V. Boria, G. Gerini and M. Guglielmi. "Computer aided design of reentrant coaxial filters including coaxial excitation." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 1131-1134 vol.3.

An advanced EM based CAD tool is used for the detailed characterisation of a family of reentrant coaxial waveguide filters. The EM analysis includes the effects of tuning screws and of the input/output coaxial excitation. The software is essentially used as an efficient replacement for the traditional experimental characterisation procedure. As a result, design curves are obtained relating relevant electrical parameters to normalised structural dimensions. In addition to the theory, a four-pole filter structure has been built and tested demonstrating very good agreement between simulations and measurements.

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