

Abstracts

Computer-Aided Filter Alignment and Diagnosis (Dec. 1978 [T-MTT])

H.L. Thal, Jr.. "Computer-Aided Filter Alignment and Diagnosis (Dec. 1978 [T-MTT])." 1978 Transactions on Microwave Theory and Techniques 26.12 (Dec. 1978 [T-MTT] (1978 Symposium Issue)): 958-963.

The cavity resonant frequencies and coupling values of a wide range of bandpass filters, band-reject filters, and equalizers have been determined in situ by computer-adjusting analytic models to fit the scattering parameters measured on an automatic network analyzer. A higher order mode elliptic filter, a dual-mode quasi-elliptic filter, and a dual-mode band-reject filter are presented as examples. The general relationships between mechanical dimensions and circuit parameters are discussed. The circuit adjustment procedure is outlined, and equations for the sensitivity coefficients of several element types are tabulated.

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