Abstracts

Microwave Filter Loss Mechanisms and Effects

H.L. Thal, Jr.. "Microwave Filter Loss Mechanisms and Effects." 1982 Transactions on Microwave Theory and Techniques 30.9 (Sep. 1982 [T-MTT] (Special Issue on Microwave Filters)): 1330-1334.

The losses in coupled cavity filters due to coupling apertures, tuning screws, and surface roughness have been determined experimentally. The results show, for example, that the shapes of the coupling apertures have a significant effect on filter losses. They may be used to estimate how the effective unloaded Q of a filter, and thus its insertion loss, varies as a function of bandwidth configuration (e.g., single- or dual-mode), and response type (e.g., Chebyshev or elliptic). Also, they may he used to predict other effects such as response skewing and spatial distribution of dissipated power.

❑ Return to main document.