Abstracts

Hairpin-comb filters for HTS and other narrow-band applications

G.L. Matthaei, N.O. Fenzi, R.J. Forse and S.M. Rohlfing. "Hairpin-comb filters for HTS and other narrow-band applications." 1997 Transactions on Microwave Theory and Techniques 45.8 (Aug. 1997, Part I [T-MTT]): 1226-1231.

The folded half-wavelength resonators in hairpin-comb filters all have the same orientation, whereas the orientations of the resonators in conventional hairpin-filters alternates. Hairpin-comb filters are shown to have attractive properties for design of compact, narrow-band filters such as are often desired for high-temperature-superconductivity (HTS) and other applications. The results obtained from two- and four-resonator trial HTS-filter designs are discussed. The filters are seen to have very strong stopbands, and their computed and measured performance are found to be in very good agreement.

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