Abstracts

Integrated Fin-Line Millimeter Components (Dec. 1974 [T-MTT])

P.J. Meier. "Integrated Fin-Line Millimeter Components (Dec. 1974 [T-MTT])." 1974 Transactions on Microwave Theory and Techniques 22.12 (Dec. 1974, Part II [T-MTT] (1974 Symposium Issue)): 1209-1216.

This paper reviews the characteristics of integrated fine line, a low-loss transmission line which is compatible with batch-processing techniques and superior to microstrip in several respects at millimeter wavelengths. Relative to microstrip, fin-line can provide less stringent tolerances, greater freedom from radiation and higher mode propagation, better compatibiliy with hybrid devices, and simpler interfaces with waveguide instrumentation. Examples of solid-state and passive components are presented which illustrate the potential of integrated fin-line at millimeter wavelengths. The examples include a p-i-n attenuator which has demonstrated the capability of constructing low-loss semiconductor mounts in fin-line. A four-pole bandpass filter, which performs in close agreement with theory, is also discussed.

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