

# Abstracts

## Analysis and Synthesis of Tapered Fin-Lines

*P. Pramanick and P. Bhartia. "Analysis and Synthesis of Tapered Fin-Lines." 1984 MTT-S International Microwave Symposium Digest 84.1 (1984 [MWSYM]): 336-338.*

Fin-line tapers are useful for design of matching networks, filters, circulators, rectangular waveguide to fin-line transition etc. In this paper such tapers have been analysed and a synthesis technique presented using the closed-form expression for the power-voltage definition of the characteristic impedance. Reflection coefficient results are presented for exponential, parabolic and cosine squared tapers. Typical design data, using WR-19 housing and 150  $\mu\text{m}$  RT - Duroid substrate, are presented for unilateral fin-lines.

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