

# Abstracts

## Design of Linear Double Tapers in Rectangular Waveguides

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*R.C. Johnson. "Design of Linear Double Tapers in Rectangular Waveguides." 1959 Transactions on Microwave Theory and Techniques 7.3 (Jul. 1959 [T-MTT]): 374-378.*

This paper considers the problem of a taper connecting two uniform waveguides of arbitrary dimensions and propagating a single mode; an approximate expression for the reflection coefficient is derived. The special case of a linear double taper in rectangular waveguide is examined in detail for propagation in the TE/sub 10/ mode. Approximate expressions for the reflection coefficient and voltage standing wave ratio as functions of the taper dimensions and free space wavelength are derived and experimentally verified.

 [Return to main document.](#)