

# Abstracts

## Deflection of Waveguide Subjected to Internal Pressure

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*L.G. Virgile. "Deflection of Waveguide Subjected to Internal Pressure." 1957 Transactions on Microwave Theory and Techniques 5.4 (Oct. 1957 [T-MTT]): 247-250.*

The pressure carrying capacity of a large range of standard waveguide sizes can be readily determined by the use of formulas presented in this paper. The derivation of these formulas is obtained by a contiguous beam analogy and comparable test results are shown which substantiate the validity of the theoretical analysis. Where high pressure conditions prevent the use of standard waveguide, these same formulas are utilized in the development of special high-strength lightweight guide. Techniques for designing such waveguide, including the use of a honeycomb sandwich construction, are discussed.

[Return to main document.](#)