# Abstracts

## Thin-Film Waveguide Bolometers for Multimode Power Measurement

*B.M. Schiffman, L. Young and R.B. Larrick. "Thin-Film Waveguide Bolometers for Multimode Power Measurement." 1964 Transactions on Microwave Theory and Techniques 12.2 (Mar. 1964 [T-MTT]): 155-163.*

Thin-film bolometers have been developed for measuring the total (unwanted) power that could be transmitted in any or all possible modes and at many frequencies above the normal operating band. The bolometer is a thin metal film which is placed so that it intercepts all the power flowing down the waveguide. When the power in the fundamental frequency is filtered out and only power at higher frequencies remains in the waveguide containing the bolometer, then it can be used to measure the total spurious power emitted by a high-power transmitter above its fundamental frequency band. Measurements have been made up to 15 Gc in S-band waveguide. A variety of materials and shapes were tested and the bolometers were shown to be capable of measuring equally well several different modes and frequencies separately and in combination.

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