Abstracts

A New Technique for Multimode Power Measurement (Nov. 1962 [T-MTT])

J.J. Taub. "A New Technique for Multimode Power Measurement (Nov. 1962 [T-MTT])." 1962 Transactions on Microwave Theory and Techniques 10.6 (Nov. 1962 [T-MTT]): 496-505.

A new and simple technique for measuring total power flow to within ±1 db in an overmoded waveguide has been developed. A set of fixed probes (typically, 40 probes) samples the electric fields normal to the surface of an enlarged waveguide section. The enlarged waveguide and a dispersive line stretcher permit quick determinations of power delivered to a matched load when the power is propagating in a large number of modes. Extension to the case of a mismatched load is also discussed. This technique is useful for measuring spurious emissions of microwave transmitters and power flow in millimeter and submillimeter waveguides.

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