

Abstracts

Wide-Band Microwave Transmission Measuring System

J.B. Linker, Jr. and H.H. Grimm. "Wide-Band Microwave Transmission Measuring System." 1958 Transactions on Microwave Theory and Techniques 6.4 (Oct. 1958 [T-MTT]): 415-418.

A relatively broad-band balanced microwave measurement system has been built using a traveling-wave tube amplifier which permits automatic phase and amplitude transmission measurements to be made simultaneously as a function of frequency over the frequency range 8.7 kmc-9.6 kmc. A phase accuracy of ± 1 degree can be achieved for a change of attenuation in the unknown of 24 db. Loss measurements can be made with an accuracy of ± 2 per cent. The bridge is built largely of commercially available components and can be easily duplicated. The basic technique is compatible with additional broad-banding efforts as improved components become available, and it will eventually be applicable to all microwave frequencies.

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