

Abstracts

Magnified and Squared VSWR Responses for Microwave Reflection Coefficient Measurements

R.W. Beatty. "Magnified and Squared VSWR Responses for Microwave Reflection Coefficient Measurements." 1959 Transactions on Microwave Theory and Techniques 7.3 (Jul. 1959 [T-MTT]): 346-350.

In conventional microwave impedance measuring the measured ratio of maximum to minimum detector signal level is ideally equal to the voltage standing-wave ratio (VSWR) of the termination. In this paper, it is shown how radically types of response are obtainable in which the observed ratio may approximately equal the square of the VSWR or may be magnified any desired amount. Theory is given enabling accurate measurements by interesting techniques. Accuracies of 0.1 per cent in VSWR to 2.0 have been achieved using magnified response techniques.

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