Abstracts

Applications of Time-Domain Metrology to the Automation of Broad-Band Microwave Measurements

A.M. Nicolson, C.L. Bennett, Jr., D. Lamensdorf and L. Susman. "Applications of Time-Domain Metrology to the Automation of Broad-Band Microwave Measurements." 1972 Transactions on Microwave Theory and Techniques 20.1 (Jan. 1972 [T-MTT] (Special Issue on Automated Microwave Measurements)): 3-9.

It is only recently that measurement of the transient response of microwave systems directly in the time domain has become practicable. It has led to growing interest in the concept of specifying broad-band performance solely by a transient-response measurement. Results of the use of time-domain techniques to obtain, within the range 0.1 to 10 GHz, such data as the S parameters of networks, the constitutive parameters of microwave materials, the driving-point impedance and transfer function of microwave antennas, and the frequency-domain scattering parameters of conducting surfaces in free space are described.

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