Abstracts

Determination of Microwave Transducer and Delay-Line Properties with a Modified Nodal Shift Method

G. Rupprecht and R.F. Steinberg. "Determination of Microwave Transducer and Delay-Line Properties with a Modified Nodal Shift Method." 1969 Transactions on Microwave Theory and Techniques 17.11 (Nov. 1969 [T-MTT] (Special Issue on Microwave Acoustics)): 942-956.

A mathematical analysis of the input impedance to a single-ended delay line is given and the developed formulas are applied to the experimental data to yield: sound velocity and round-trip time in the delay medium, electromechanical coupling coefficient, series resistance, transducer capacity, and the acoustical loss and mismatch which is caused by the electrode structure. A measuring technique similar to the nodal shift method has been introduced.

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