

Measurement of Relative Phase Shift at Microwave Frequencies

C.A. Finnila, L.A. Roberts and C. Susskind. "Measurement of Relative Phase Shift at Microwave Frequencies." 1960 *Transactions on Microwave Theory and Techniques* 8.2 (Mar. 1960 [T-MTT]): 143-147.

A method is described for measuring the relative phase shift of microwave devices, such as traveling-wave tubes, which utilizes the serrodyne technique to transfer the measurements into the audio-frequency range. The method is used to measure the phase shift incidental to the variation of the dc potentials applied to the several electrodes of a 2- to 4-kmc traveling-wave tube. This method is particularly useful in coaxial systems, where accurately calibrated phase shifters (and attenuators without phase shift) are not available.

 [Return to main document.](#)