Abstracts

A Simple Tuning Circuit for Waveguide and Transmission Line Systems (Correspondence)

R.W. Beatty and G.H. Fentress. "A Simple Tuning Circuit for Waveguide and Transmission Line Systems (Correspondence)." 1971 Transactions on Microwave Theory and Techniques 19.3 (Mar. 1971 [T-MTT]): 337-338.

A simple tuning circuit for source or load matching is described that makes possible smooth and sensitive adjustments with no "holes" in frequency coverage over a complete waveguide band. Energy is coupled out of the mainline, the phase and magnitude adjusted with phase shifter and attenuator and fed back into the mainline to cancel the reflected signal. A simple analysis of the circuit is presented, and a graph given for estimating the maximum voltage standing-wave (VSWR) that can be "tuned out." Application to measurement of reflection coefficient or to impedance is proposed.

❑ Return to main document.