

Abstracts

A Traveling-Wave Directional Filter

F.S. Coale. "A Traveling-Wave Directional Filter." 1956 Transactions on Microwave Theory and Techniques 4.4 (Oct. 1956 [T-MTT]): 256-260.

A new type of microwave filter is presented in which resonance occurs in the form of a traveling wave rather than in the conventional form of a standing wave. This device is a constant-resistance circuit, and therefore presents a very low input vswr. Formulas for loaded Q and insertion loss are given. Experimental results verify the theoretical approach. This filter, which is constructed of a transmission-line loop and two directional couplers, finds application in multiplexing filters as well as in matched band-pass and band-rejection filters.

 [Return to main document.](#)