

# Abstracts

## The reentrant wide-band directional filter

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A. Petrovich Gorbachev. "The reentrant wide-band directional filter." 2002 *Transactions on Microwave Theory and Techniques* 50.8 (Aug. 2002 [T-MTT]): 2028-2031.

A new type of a wide-band microwave filter is described and named the reentrant directional filter, in which resonance occurs in the form of a traveling wave rather than in the conventional form of a standing wave. This device is the network, which has the constant input impedance and is manufactured as the directional coupler's free construction. An analysis of the reentrant directional filter shows it to have advantages in the case of wide-bands when compared to previously used directional filters. This filter finds application in multiplexers, as well as in matched bandpass (band-stop) filters by using planar multilayer transmission-line technology. Experimental results verify the theoretical approach.

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