

A Bandpass Filter Using Circular Discontinuities in Nonradiative Dielectric Waveguide

J.C. Olivier and J.A.G. Malherbe. "A Bandpass Filter Using Circular Discontinuities in Nonradiative Dielectric Waveguide." 1987 MTT-S International Microwave Symposium Digest 87.1 (1987 Vol. 1 [MWSYM]): 419-422.

The design of a new bandpass filter in Non-radiative Dielectric (NRD) Waveguide is described. The filter makes use of an inverter-prototype and series fullwave resonators. The T-sections necessary to realize the inverters are realized by means of round holes drilled through the dielectric centre conductor. The properties of the round discontinuities are fitted to those of rectangular holes, and the design is executed by means of closed form equations. The measured practical response is in very good agreement with the predicted theoretical properties.

 [Return to main document.](#)