Abstracts

A novel tunable microwave optical notch filter

Ningsi You and R.A. Minasian. "A novel tunable microwave optical notch filter." 2001 Transactions on Microwave Theory and Techniques 49.10 (Oct. 2001, Part II [T-MTT] (Special Issue on Microwave and Millimeter-Wave Photonics)): 2002-2005.

A new topology for a tunable microwave photonic notch filter, which achieves a wide and continuous tuning range of FSR/2, is presented. The novel principle of tuning is based on changing optical variable attenuators only; consequently, a fixed wavelength laser can be used as the optical source. Experimental filter tuning results demonstrate a wide fractional tuning range of 50%, continuous tuning capability, and a notch filter shape that does not change as it is tuned, in very good agreement with predictions.

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