Abstracts

Optical fiber recirculating delay line incorporating a fiber grating array

W. Zhang, J.A.R. Williams and I. Bennion. "Optical fiber recirculating delay line incorporating a fiber grating array." 2001 Microwave and Wireless Components Letters 11.5 (May 2001 [MWCL]): 217-219.

For a practical optical fiber recirculating delay line the maximum notch depth and tunable free spectral range are difficult to achieve because of fixed coupling coefficient and loop length. We present here an optical fiber recirculating delay line incorporating a fiber grating array. In this work, the effect of insertion loss in the delay loop is investigated and used to maximize the notch depth of the frequency response. The tunable free spectral range is obtained from the wavelength dependent loop length introduced by the fiber grating array.

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