Abstracts

Photonic signal processing of microwave signals using an active-fiber Bragg-grating-pair structure

D.B. Hunter and R.A. Minasian. "Photonic signal processing of microwave signals using an active-fiber Bragg-grating-pair structure." 1997 Transactions on Microwave Theory and Techniques 45.8 (Aug. 1997, Part II [T-MTT]): 1463-1466.

A new active photonic signal processor which achieves a high-Q microwave bandpass response is presented. It comprises active fiber within a pair of fiber Bragg gratings, and produces multiple taps with precise delay-time characteristics. The impulse response has demonstrated well in excess of 270 taps. The filter response demonstrates high resolution, having a narrow-band response with a Q of 325. The processor is also tunable, in both passband width and frequency.

❑ Return to main document.