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标题: Miniature Self-Aligned External Cavity Tunable Single Frequency Laser for THz Generation
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摘要: We report on the unique highly-configurable wavelength tuning and switching properties of a tunable external cavity laser based on multiplexed volume holographic gratings (VHGs) and a micromirror device. The ultra-compact laser has a 3 THz bandwidth and exhibits single mode operation in either single or multiple wavelengths with narrow linewidth (<7.5 MHz), and a switching rate of 0.66 kHz per wavelength. A prototype laser exhibited 40 mW of output power for wavelengths from 776 - 783 nm. The unique discrete-wavelength-switching features and low power consumption of this laser make it well suited as a source for continuous-wave (cw) terahertz signal generation in portable photomixing systems.
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