

Abstract Submitted
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A simple method for determining the wavelength drift of vertical-cavity surface-emitting lasers¹ DA-LONG CHENG, Department of Computer and Communication, SHU-TE University, TSU-CHIANG YEN, Department of Physics, National Sun Yat-sen University — Wavelength drift versus current characteristic is one of the important laser characteristics in vertical-cavity surface-emitting lasers (VCSELs). This investigation presents a simple method for determining the wavelength drift with current change. The extremely simple setup merely consists of a neutral-density filter (ND Filter), a photo detectors and a voltage meter. The ND filter is like a Fabry-Perot etalon when the incident angle of the laser approximates to zero. Therefore, the regular oscillations can be observed in the light versus bias current characteristic ($L - I$ curve) of VCSELs. Experimental result shows that the wavelength drift per milliampere of the VCSEL is 0.78 nm/mA.

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