Intrinsic Modulation Bandwidths of Widely Tunable SG-TTG Lasers

R. Laroy[1], G. Morthier[1], R. Todt[2], R. Meyer[2], M.-C. Amann[2], and R. Baets[1]
[1] Department of Information Technology (INTEC), Ghent University – IMEC,
Sint-Pietersnieuwstraat 41, B-9000 Gent, Belgium, E-mail: rlaroy@intec.UGent.be

[2] Walter Schottky Institut, Technische Universität München, D-85748 Garching, Germany

High-speed widely tunable lasers are the answer to an increasing demand for more bandwidth and functionality in WDM networks. The new widely tunable twin-guide (TTG) laser is a quarter-wave-shifted DFB laser that is tunable over a wide tuning range of more than 40nm while maintaining a high side mode suppression [1].

During this talk the dynamic properties of the SG-TTG laser will be discussed. The RIN characteristics of different lasers were investigated at different ITU frequencies confirming that a maximum intrinsic modulation bandwidth of around 20GHz is reachable over a tuning range of 35nm. This is significantly better than what has been reported so far for other widely tunable lasers.

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[1] R. Todt et al., 'State-of-the-art performance of widely tunable twin-guide laser diodes', European Semiconductor laser Workshop 2005, United Kingdom