

Abstracts

Ultra-Wide Bandwidth, Low Voltage, and Chirp-Free Optical Intensity Modulator: Design and Performance Analysis

M.T.C. Silva and C.A. De Francisco. "Ultra-Wide Bandwidth, Low Voltage, and Chirp-Free Optical Intensity Modulator: Design and Performance Analysis." 1996 MTT-S International Microwave Symposium Digest 96.2 (1996 Vol. II [MWSYM]): 899-902.

A novel wavelength-selective InGaAs/InP coupled asymmetric quantum well electrorefraction type optical intensity modulator is proposed. The device is based on contradirectional exchange Bragg grating coupled-waveguide structure, which avoids the use of an interferometer. For a non-optimized device the bandwidth is 111 GHz at 1.67 V and it is chirp-free. The device can be integrated with lasers, optical amplifiers, photodetectors etc. It can also be integrated in tandem.

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