Abstracts

Influence of Optical Dispersion on the Performances of an Electrooptic Phase Modulator

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An equation for electrooptic modulation taking the optical dispersion into account is established using the standard perturbation method. The influence of the optical dispersion on the characteristics of an electrooptic phase modulator is analyzed with a numerical approach. The existence of an amplitude modulation due to the optical dispersion is demonstrated. For high-modulation frequencies, the dispersion can affect significantly the response of the phase modulator. The modulation factor can reach 50%.

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