Abstracts

The effects of photocurrent on microwave properties of electroabsorption modulators

G.L. Li, W.X. Chen, P.K.L. Yu, C.K. Sun and S.A. Pappert. "The effects of photocurrent on microwave properties of electroabsorption modulators." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 1003-1006 vol.3.

Photocurrent in semiconductor electroabsorption modulator (EAM) can potentially affect its microwave properties. In this work, we found that at high optical power, the modulation bandwidth can be increased at large photocurrent. Based on photocurrent effects on EAM harmonics, a new approach is proposed for modulator bias control for maximum RF link gain in analog fiber optic link. Photocurrent effects on the microwave properties of ultra-wide bandwidth traveling wave EAM waveguide are also examined.

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