Abstracts

Two-terminal edge-coupled InP/InGaAs heterojunction phototransistor optoelectronic mixer

C.P. Liu, A.J. Seeds and D. Wake. "Two-terminal edge-coupled InP/InGaAs heterojunction phototransistor optoelectronic mixer." 1997 Microwave and Guided Wave Letters 7.3 (Mar. 1997 [MGWL]): 72-74.

We report the first experimental results for optoelectronic mixing using a two-terminal edge-coupled InP/InGaAs heterojunction phototransistor (HPT). The HPT optoelectronic mixer (OEM) exhibits a maximum of 7-dB conversion gain relative to a 100% quantum efficient photodetector operated at the optical modulation frequency. We give a qualitative explanation for the observed conversion gain variation with the HPT bias voltage.

❑ Return to main document.