# Abstracts

## Optical injection locking of a 38-GHz-band InP-based HEMT oscillator using a 1.55-/spl mu/m DSB-SC modulated lightwave

*H. Furuta, M. Maeda, T. Nomoto, J. Kobayashi and S. Kawasaki. "Optical injection locking of a 38-GHz-band InP-based HEMT oscillator using a 1.55-/spl mu/m DSB-SC modulated lightwave." 2001 Microwave and Wireless Components Letters 11.1 (Jan. 2001 [MWCL]): 19-21.*

Optical injection locking was experimentally performed using a 38-GHz-band InP-based HEMT MMIC oscillator and a 1.55-/spl mu/m lightwave. Two optical modulation schemes were compared for optical injection locking, and no difference was found except for the optical modulation frequency. With suppressed carrier modulation of the lightwave, phase noise of less than -73.2 dBc/Hz at a 10-kHz frequency offset and a 14-MHz locking range were achieved.

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