Abstracts

Optical Phase Control of an Optically Injection-Locked FET Microwave Oscillator

R.D. Esman, L. Goldberg and J.F. Weller. "Optical Phase Control of an Optically Injection-Locked FET Microwave Oscillator." 1989 Transactions on Microwave Theory and Techniques 37.10 (Oct. 1989 [T-MTT]): 1512-1518.

A simple technique is proposed and demonstrated for controlling the phase of an optically injection-locked 7.2 GHz FET oscillator. The relative phase /spl phi/ between the oscillator and the optically injected locking signal is adjusted by optically tuning the oscillator frequency. Locking characteristics described include locking bandwidth (2.6 MHz), phase tuning range (187°), phase modulation (Beta=0.69 at 500 kHz), and optical tuning (125 MHz).

❑ Return to main document.