Abstracts

Laser Induced Phase Noise in Optically Injection Locked Oscillator

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The spectral purity of a microwave reference signal, distributed by fiberoptic link to subharmonically injection lock oscillator can be degraded by laser large-signal noise. This paper present analysis predicting the conversion of the laser intrinsic noise to the FM noise of the frequency reference. The Langevin noise conversion model was validated through measurement of the phase noise of the subharmonically injection locked 5GHz oscillator.

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