

Abstracts

A New Phase Noise Reduction Technique for MMIC Oscillators

A.M. Darwish, A.K. Ezzeddine, H.-L.A. Hung and F.R. Phelleps. "A New Phase Noise Reduction Technique for MMIC Oscillators." 1992 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 92.1 (1992 [MCS]): 171-174.

A new technique for reducing oscillator phase noise has been demonstrated. The technique utilizes a pair of limiting diodes to keep the metal-semiconductor field-effect transistor operating in a linear region. An X-band monolithic microwave integrated circuit oscillator was designed, fabricated, and tested to demonstrate the concept. A reduction of 15 dB in phase noise at 5 kHz from the carrier was measured.

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