

Abstracts

A Novel, Injection Locked Oscillator MMIC with Combined Ultra-Wide-Band Active Combiner/Divider and Amplifiers (1994 [MCS])

T. Tokumitsu, K. Kamogawa, I. Toyoda and M. Aikawa. "A Novel, Injection Locked Oscillator MMIC with Combined Ultra-Wide-Band Active Combiner/Divider and Amplifiers (1994 [MCS])." 1994 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 94.1 (1994 [MCS]): 143-146.

A subharmonically injection locked oscillator (ILO) MMIC for LO oscillators, synthesizers and phased array antennas is proposed. An ultra-wide-band, 4-port active combiner/divider in the oscillator feedback loop performs subharmonic injection locking at a variety of subharmonic factors, $1/n$. The ILO MMIC's exhibit a locking range of 700 MHz at $n=1$ and operate at n from 1 to 16, with output power larger than 5 dBm.

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