

Abstracts

A Fast-Tuned, Injection Locked, DDS-Based Local Oscillator for the 3.6 to 4.1GHz Frequency Range

L.D. Cohen and K. Breuer. "A Fast-Tuned, Injection Locked, DDS-Based Local Oscillator for the 3.6 to 4.1GHz Frequency Range." 1993 MTT-S International Microwave Symposium Digest 93.2 (1993 Vol. II [MWSYM]): 659-662.

A new fast-tuned (100 nsec) local oscillator design for the 3.6- to 4.1- GHz frequency range uses a direct digital synthesizer (DDS) to high-order subharmonically injection lock a VCO and thereby upconvert and broaden the DDS frequency range. The injection locking process provides the advantages of fast locking time (40 nsec) and reduction of reference source spurs in the locked VCO output.

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