

Abstracts

A line-unified-FET combiner/divider with built-in 3D amplifiers (LUFET-amp) and its application to a very small injection-locked oscillator

T. Tokumitsu, K. Kamogawa, K. Nishikawa and M. Tanaka. "A line-unified-FET combiner/divider with built-in 3D amplifiers (LUFET-amp) and its application to a very small injection-locked oscillator." 1999 MTT-S International Microwave Symposium Digest 99.1 (1999 Vol. I [MWSYM]): 21-24 vol. 1.

A 20-GHz-band injection-locked oscillator MMIC, which incorporates a novel active four-port combiner/divider and a simple feedback path, is presented. This ILO MMIC measures only 1.0/spl times/1.2 mm, operates in an injection-locked state at subharmonic factors from 1 to 1/4 without buffer amplifiers, and suppress the undesired harmonics of the injected signal to less than -50 dBc. This device is very effective for highly stabilized K-band oscillators.

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