Abstracts

A phase noise reduction technique in microwave oscillator using high-Q active filter

Jaechun Lee, Young-Taek Lee and Sangwook Nam. "A phase noise reduction technique in microwave oscillator using high-Q active filter." 2002 Microwave and Wireless Components Letters 12.11 (Nov. 2002 [MWCL]): 426-428.

The authors present a 10 GHz oscillator that uses a high-Q active filter to reduce the phase noise. The loaded Q of active filter is obtained at about 500. This oscillator is compared with another oscillator which uses a passive filter. The difference of two oscillators' Q is estimated at 12.5 times the open-loop gain simulation. The measured result of phase noise at 100 kHz offset shows maximum 10 dB reduction with high-Q active filter.

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