

Abstracts

Enhanced MESFET VCO Injection-Locking Bandwidth Using Low Frequency Feedback Techniques

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A simple scheme for enhancing the locking range and capture range of MESFET VCOs is presented using a low frequency DC-coupled amplifier. This circuit is based on phase-locked loop (PLL) techniques; in the present case the MESFET VCO also provides the function of a mixer or phase detector. A 10 GHz prototype was constructed which demonstrated a locking range more than double that of the isolated VCO injection-locking range over the same range of injected signal power.

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