Abstracts

GaAs MESFET dual-gate mixer with active filter design for Ku-band applications

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We present the design of an active filter to suppress the LO noise, spurious and harmonics of an upconversion mixer for Ku-band (12/spl sim/18 GHz) applications. This filter, when combined with the dual-gate mixer, can replace the need for a balanced topology with comparable performance. The conversion loss and harmonics suppression are improved by more than 15 dB and 20 dB, respectively. Such a filter is more compact and flexible than the widely used balanced topology.

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