Abstracts

1/f noise modeling of InP HBT-based Schottky diodes for monolithic monolithic millimeter-wave mixers

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We present a procedure for modeling the low-frequency 1/f noise properties of millimeter-wave InP HBT-based Schottky diodes. These noise properties, coupled with the device's small and large-signal characteristics, enable the generation of a comprehensive diode model. The model is particularly useful for analyzing mixer and detector MMIC's. Simulations using this model compare well with W-band mixer measurements.

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