

# Abstracts

## Analysis of g-r Noise Upconversion in Oscillators

---

*T. Felgentreff, W. Anzill, G. Olbrich and P. Russer. "Analysis of g-r Noise Upconversion in Oscillators." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 947-950.*

In this paper the upconversion of g-r noise to oscillator phase noise is analysed for the first time. The treatment of g-r noise sources showing a Lorentzian spectrum is implemented in a time domain noise calculation program using the perturbation method. Measurements and simulations show that the unconverted g-r noise dominates the phase noise characteristics of AlGaAs/GaAs-HEMT oscillators in the frequency range between 10 kHz and 8 MHz besides the carrier.

 [Return to main document.](#)