Abstracts

Calculation of HEMT Oscillator Phase Noise Using Large Signal Analysis in Time Domain

G.R. Olbrich, T. Felgentreff, W. Anzill, G. Hersina and P. Russer. "Calculation of HEMT Oscillator Phase Noise Using Large Signal Analysis in Time Domain." 1994 MTT-S International Microwave Symposium Digest 94.2 (1994 Vol. II [MWSYM]): 965-968.

A 15 GHz coplanar HEMT oscillator is analyzed in the time domain using a large signal transistor model for signal ancl noise analysis and phase noise calculation. The transistor model parameters in a wide bias range (200 bias points) are determined from DC, S-parameter and noise measurements, using cold and hot modelling techniques in combination with deembedding procedures. The model includes a low frequency f/sup a/-noise source. Results of phase noise measurements are compared with calculated data ancl agree within ±5dB.

❑ Return to main document.