Abstracts

Noise and Conversion Loss Analysis of Two-Diode Subharmonically Pumped and Balanced Mixers

A.R. Kerr. "Noise and Conversion Loss Analysis of Two-Diode Subharmonically Pumped and Balanced Mixers." 1979 MTT-S International Microwave Symposium Digest 79.1 (1979 [MWSYM]): 17-18.

The theory of noise and frequency conversion in two-diode mixers is presented. The diodes are assumed to have non-linear conductance and capacitance, series resistance, and shot and thermal noise. The series resistance can include a frequency dependent skin-effect component. Any linear embedding network is allowed. Computed examples are given showing the effect of the loop inductance in subharmonically pumped mixers.