Abstracts

A W-Band Subharmonically Pumped Resistive Mixer Based on Pseudomorphic Heterostructure Field Effect Transistor Technology

H. Zirath, I. Angelov, N. Rorsman and C. Karlsson. "A W-Band Subharmonically Pumped Resistive Mixer Based on Pseudomorphic Heterostructure Field Effect Transistor Technology." 1993 MTT-S International Microwave Symposium Digest 93.1 (1993 Vol. I [MWSYM]): 341-344.

This paper describes the first sub-harmonically pumped resistive mixer (SPRM) based on HFETs, operating in the W-band (75-110 GHz). Two HFET devices, specially designed for this application, were integrated together with a coupler, 180° phase shifter, and an IF-filter. Both theoretical and experimental results are presented in this paper. A minimum conversion loss of about 22 dB was experimentally obtained at an LO-power of 10 dBm.

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