Abstracts

A Balanced Millimeter Wave Doubler Based on Pseudomorphic HEMTs

I. Angelov, H. Zirath, N. Rorsman and H. Gronqvist. "A Balanced Millimeter Wave Doubler Based on Pseudomorphic HEMTs." 1992 MTT-S International Microwave Symposium Digest 92.1 (1992 Vol. I [MWSYM]): 353-356.

A balanced HEMT doubler for operation at millimeter waves has been analyzed, fabricated and characterized. Particular attention has been paid to the influence of the output circuit on the performance of the doubler. The doubler was analyzed with a harmonic balance method and experimentally an output power of 4dBm at 42 GHz was obtained. The conversion gain is approximately -1 dB at 40 GHz at an input power of 5dBm. Bias and frequency response were very close to the predicted ones.

❑ Return to main document.