

Abstracts

A High Efficiency Frequency Doubler for 100 GHz

M.T. Faber, J.W. Archer and R.J. Mattauch. "A High Efficiency Frequency Doubler for 100 GHz." 1985 MTT-S International Microwave Symposium Digest 85.1 (1985 [MWSYM]): 363-365.

Development of a high efficiency varactor frequency doubler for 100 GHz is reported. The efficiency of the doubler is greater than 32% at any frequency between 97 GHz and 102 GHz and reaches 35% at 98 GHz. This is the highest efficiency ever reported for a frequency multiplier above 75 GHz. The measured efficiency is in very good agreement with a theoretically predicted value. The doubler is very suitable for the realization of a W-band, all solid-state, local oscillator source.

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