

Abstracts

An 80/160 GHz broadband, fixed-tuned, balanced frequency doubler

D.W. Porterfield, T.W. Crowe, R.F. Bradley and N.R. Erickson. "An 80/160 GHz broadband, fixed-tuned, balanced frequency doubler." 1998 MTT-S International Microwave Symposium Digest 98.2 (1998 Vol. II [MWSYM]): 391-394.

We report on the development of a high-power, broadband, fixed-tuned 80/160 GHz frequency doubler. The design is based on a similar 40/80 GHz doubler which exhibited a measured 3 dB bandwidth of 17% and peak efficiency of 48% at an output power of 100 mW. Simulations for the new 80/160 GHz doubler indicate similar bandwidth and efficiency. The focus of this paper is the design and simulation of the 80/160 GHz doubler. Test results will be presented at the conference.

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