Abstracts

Monolithic integrated circuits incorporating InP-based heterostructure barrier varactors

T. David, S. Arscott, J.-M. Munier, T. Akalin, P. Mounaix, G. Beaudin and D. Lippens. "Monolithic integrated circuits incorporating InP-based heterostructure barrier varactors." 2002 Microwave and Wireless Components Letters 12.8 (Aug. 2002 [MWCL]): 281-283.

Fully integrated monolithic circuits incorporating InP-based heterostructure barrier varactor (HBV) frequency multipliers have been fabricated via epitaxial liftoff and transfer-substrate techniques onto a quartz substrate. We have obtained a maximum output power of 6 mW at 288 GHz: corresponding to an overall efficiency of 6%. In addition, we have observed a 45-GHz, 3-dB bandwidth centered around 300 GHz for a constant input power of 70 mW.

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