

Abstracts

98-GHz InP/InGaAs HBT amplifier with 26-dB gain

T. Morf, S. Hubscher, D. Huber, A. Huber, V. Schwarz and H. Jackel. "98-GHz InP/InGaAs HBT amplifier with 26-dB gain." 1999 Microwave and Guided Wave Letters 9.12 (Dec. 1999 [MGWL]): 523-525.

In this work the design and characterization of an InP/InGaAs single heterojunction bipolar transistor (HBT) W-band amplifier is described. The amplifier achieves 26-dB gain at 98 GHz with a bandwidth of 3.1 GHz. On-wafer S-parameter and gain compression measurements are presented. The goal was to explore high gain HBT-amplifiers around 100 GHz. No comparable HBT amplifier at these frequencies could be found in the literature.

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