Abstracts

Single- and dual-feedback transimpedance amplifiers implemented by SiGe HBT technology

J.-S. Rieh, O. Qasaimeh, L.H. Lu, K. Yang, L.P.B. Katehi, P. Bhattacharya and E.T. Croke. "Single- and dual-feedback transimpedance amplifiers implemented by SiGe HBT technology." 1998 Microwave and Guided Wave Letters 8.2 (Feb. 1998 [MGWL]): 63-65.

Monolithically integrated SiGe/Si heterojunction bipolar transistor (HBT) transimpedance amplifiers, with single- and dual-feedback configurations, have been designed, fabricated, and characterized. The single-feedback amplifier showed transimpedance gain and bandwidth of 45.2 dB/spl Omega/ and 3.2 GHz, respectively. The dual-feedback version exhibits improved gain and bandwidth of 47.4 dB/spl Omega/ and 3.3 GHz, respectively. Their performance characteristics are excellent in terms of their application in communication systems.

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