Abstracts

Benefits of SiGe over silicon bipolar technology for broadband mixers with bandwidth above 10 GHz

S. Hackl, M. Wurzer, J. Bock, T.F. Meister, H. Knapp, K. Aufinger, S. Boguth, L. Treitinger and A.L. Scholtz. "Benefits of SiGe over silicon bipolar technology for broadband mixers with bandwidth above 10 GHz." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1693-1696 vol.3.

Future broadband wireless services will use carrier frequencies in the range of 10 GHz to 40 GHz. This raises the question which semiconductor technologies are suited for realization of the key RF building blocks like LNAs, mixers, oscillators and, in a later phase, for the complete monolithic integration of receivers and transmitters. This work investigates the benefits of SiGe bipolar technology in comparison to silicon at identical feature size for broadband mixers with bandwidth in the range mentioned above.

❑ Return to main document.