# Abstracts

## Lateral microwave transformers and inductors implemented in a Si/SiGe HBT process

*D.C. Laney, L.E. Larson, P. Chan, J. Malinowski, D. Harame, S. Subbanna, R. Volant and M. Case. "Lateral microwave transformers and inductors implemented in a Si/SiGe HBT process." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 855-858 vol.3.*

Experimental results are presented on a set of microwave inductors and transformers fabricated in a lateral spiral design utilizing two metal layers rather than a single metal layer as used in conventional planar magnetic devices. The fabrication process utilizes a production Si-SiGe HBT technology with standard metallization and a thick polyimide dielectric. Inductors with peak Q's between 2.6-5 and inductance values between 1-3 nH are presented. Transformers with a loss of less than 5 dB when corrected for impedance mismatch and a measured coupling coefficient (k) of 0.6 at 5.5 GHz and 0.4 up to 12.5 GHz are also discussed.

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