

Abstracts

Fabrication of high frequency passives on BiCMOS silicon substrates

R. Volant, R. Groves, J. Malinowski, S. Subbanna, E. Begle, D. Laney, L. Larson, G. Sakamoto and P. Chan. "Fabrication of high frequency passives on BiCMOS silicon substrates." 2000 MTT-S International Microwave Symposium Digest 00.1 (2000 Vol. I [MWSYM]): 209-212.

We describe a manufacturable process for the fabrication of microwave passive circuits on a high loss silicon substrate. This process, known as "Topside" allows for the fabrication of high frequency microwave transmission lines and inductors over the typical final metal layer of an integrated circuit. This process has been implemented on 200 mm (8 inch) silicon wafers with SiGe HBT's and CMOS devices. We describe for the first time the process details, as well as microstrip data on different thicknesses of metal.

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