Abstracts

Design and performance of UHF band inductors, capacitors and resonators using LTCC technology for mobile communication systems

W. Eurskens, W. Wersing, S. Gohlke, V. Wannemnacher, P. Hild and R. Weigel. "Design and performance of UHF band inductors, capacitors and resonators using LTCC technology for mobile communication systems." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1285-1288.

We report on basic passive components integrated into ceramic substrate and on the performance of a finite element software package. The inductors of different types in a range of 1 nH to 10 nH show moderate dependence on frequency. Spurious resonances indicate coupling of neighboring structures. Shunt capacitors between 6 pF and 128 pF have resonances in contrast to the series capacitors depending on the ground plane. Stripline and lumped element resonators at 1 GHz showed Q factors around 100 and 50 respectively. Fair agreement of measurement and simulation was observed.

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