Abstracts

RF-microwave multi-band design solutions for multilayer organic system on package integrated passives

M.F. Davis, S.-W. Yoon, S. Mandal, N. Bushyager, M. Maeng, K. Lim, S. Pinel, A. Sutono, J. Laskar, M. Tentzeris, T. Nonaka, V. Sundaram, F. Liu and R. Tummala. "RF-microwave multi-band design solutions for multilayer organic system on package integrated passives." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 2217-2220 vol.3.

We present multi-band design solutions for integrated passives using multilayer organic (MLO) process technology for RF and microwave System on Package (SOP) module development. The components developed in this technology include embedded high-Q compact inductors and filters designed in three frequency bands: S, C and Ku applicable for Bluetooth, MMDS, IEEE802.11a WLAN and satellite communications. Measured inductor Q-factor as high as 182 and Self-Resonant-Frequency (SRF) as high as 20 GHz, which represents the highest Q in its frequency range reported to date in a multilayer technology, have been demonstrated. A time domain electromagnetic modeling technique is also use to characterize the passive devices.

❑ Return to main document.