

Abstracts

A drop-on band-pass filter for millimeter-wave multichip modules on LTCC

J. Kassner and W. Menzel. "A drop-on band-pass filter for millimeter-wave multichip modules on LTCC." 1999 Microwave and Guided Wave Letters 9.11 (Nov. 1999 [MGWL]): 456-457.

Low-temperature cofired ceramic (LTCC) is increasingly used to realize multichip modules (MCMs), even in the millimeter (mm)-wave frequency range. Fabrication tolerances of standard LTCC structures, however, still are limiting the performance of band-pass filters integrated directly on the LTCC substrate. This contribution therefore describes the design and the performance of a separate filter chip based on alumina which simply is placed on top and glued to the LTCC substrate using nonconductive epoxy. A special electromagnetic field coupling is used to provide both the interconnect of signal lines and filter ground. The design includes special measures to reduce the tolerance requirement for filter placement and glue thickness.

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