Abstracts

A Miniaturized Dielectric Monoblock Band-Pass Filter for 800MHz Band Cordless Telephone System

H. Matsumoto, H. Ogura and T. Nishikawa. "A Miniaturized Dielectric Monoblock Band-Pass Filter for 800MHz Band Cordless Telephone System." 1994 MTT-S International Microwave Symposium Digest 94.1 (1994 Vol. I [MWSYM]): 249-252.

A miniaturized dielectric monoblock band-pass filter is realized by using unique coupling method in a ceramic block of high permittivity. The filter only consists of one dielectric monoblock and electrodes. The RF leakage is suppressed without other shield housing because the whole outside wall of the filter is covered with plated copper electrode except I/O ports useful for surface mount. The dimensions of dielectric monoblock and its electrodes are decided from the elements of an equivalent circuit by 3D-FEM. The volume of the filter made as a trial for 800 MHz cordless telephone is less than 300 mm^3 in insertion loss of 2.1dB.

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