

Abstracts

High isolation, planar filters using EBG substrates

J. Chappell, M.P. Little and L.P.B. Katehi. "High isolation, planar filters using EBG substrates." 2001 Microwave and Wireless Components Letters 11.6 (Jun. 2001 [MWCL]): 246-248.

The concept of electromagnetic bandgaps (EBGs) has been utilized to develop a high-quality filter that can be integrated monolithically with other components due to a reduced height, planar design. Coupling adjacent defect elements in a periodic lattice creates a filter characterized by its ease of fabrication, high-Q performance, high-port isolation, and integrability to planar or 3-D circuit architectures. The filter proof of concept has been demonstrated in a metallo-dielectric lattice. The measured and simulated results of 2-, 3-, and 6-pole filters are presented at 10.7 GHz.

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