

Abstracts

Photonic bandgap dielectric waveguide filter

Chi-Yang Chang and Wei-Chen Hsu. "Photonic bandgap dielectric waveguide filter." 2002 Microwave and Wireless Components Letters 12.4 (Apr. 2002 [MWCL]): 137-139.

The application of photonic bandgap (PBG) structures as the sidewall of the printed circuit board (PCB) dielectric waveguide filter is investigated. The effect of different PBG parameters on the Q-value of PBG dielectric waveguide resonator is evaluated. A PBG dielectric waveguide three-pole Chebyshev bandpass filter is realized. The measured performance matched well with the calculated results. The newly proposed I/O coupling structure makes the filter much easier for mass production.

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