عنوان مقاله:

Design of microstrip single-band bandpass filter with SIRs resonators and review of LC model in WLAN Application

نویسندگان:

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خلاصه مقاله:

In this paper, a new design of a single-band bandpass microstrip filter using stepped impedance resonators and parallel stubs is presented. A stepped impedance resonator with ۲ parallel stubs and a gap between them in the middle of the structure has been selected as the base resonator. The even and odd mode capacitor are then calculated for the air distance and by adding a stepped impedance resonator to the base resonator and optimizing the dimensions of the bandpass filter. To examine the design simulation results of the designed LC equivalent circuit in more detail, we draw it. Simplicity of design and compact dimensions are the advantages of this single-band filter. The simulation results for the proposed filter include band performance, finally a single-band filter with a central frequency of ۲.۴ GHz, Insertion loss of -۰.۱۵ dB, return loss of -۲۶.۲۶ dB and bandwidth of ۱۰۲MHz.

کلمات کلیدی:

microstrip filter, stepped impedance resonators, parallel stubs, Insertion loss, return loss