

Design Dual Band Band-Pass Filter by Using Stepped Impedance

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Abstract : Development in the communications field is proceeding at an amazing speed, which has led researchers to improve and develop electronic circuits by increasing their efficiency and reducing their size to reduce the weight of electronic devices. One of the most important of these circuits is the band-pass filter, which is what made us carry out this research, which aims to use an alternate technology to design a dual band-pass filter by using a stepped impedance microstrip transmission line. We designed a filter that works at two center frequency bands by designing with the ADS program, and the results were excellent, as we obtained the two design frequencies, which are 1 and 3GHz, and the values of insertion loss S11, which was more than 21dB with a small area.

Keywords : band pass filter, dual band band-pass filter, ADS, microstrip filter, stepped impedance

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