The Design of A Compact Sharp Micro strip X band filter[1]

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Abstract

Bandpass filters can be made with cascaded coupled line sections, but to get a sharper cutoff bandpass filter the number of sections must be increased, which increases the filter loss and size. In addition, to get a wider bandwidth filters, tightly coupled lines are required, which are difficult to fabricate. On the other side a compact bandpass filter means the lowest number of sections with small size. This paper presents a technique to design a compact microstrip X-band bandpass filter using two sections and a stub to have a compact size, good sharpness on the sides, and small loss. Experimental prototype filters have been implemented and measurement results show improved performance compared with the other regular cascaded coupled line bandpass filters.

[1] For the paper in Arabic see pages (101-108).
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