

DISCRETE ELEMENT FILTERS



A variety of filter requirements can be satisfied by using a Microwave Filter Company discrete element (LC) filter. These versatile units cover the broad frequency range of 200 KHz to 6 GHz, and are available in a variety of packages. All standard bandpass LC filters utilize a low ripple Chebyshev design which offers the best compromise of low loss, low VSWR, and high selectivity. Each filter situation is unique, and the data provided on the following pages offers only a small sample of our capabilities. Should a different design become necessary to meet your requirements, MFC can provide units with Bessel, Butterworth, Elliptic, Gaussian, or Linear Phase responses.

Miniature and Micro-miniature LC Filters:

Miniature and Micro-miniature filters are perfect for applications where size is at a premium. The lowpass and highpass versions cover the frequency range from 0.2 MHz to 6 GHz, while the bandpass filters will cover from 0.5 MHz to 6 GHz. These units are usually designed to a 0.1 dB Chebyshev response using 3 to 9 sections, although other responses and number of sections are available to meet specific requirements. A variety of connector options are also available including surface mount. These units provide similar performance to the larger LC filters with the same frequency, bandwidth, and attenuation requirements.

Design Curves

The normalized bandwidth attenuation curves included here-in are representative only and are not meant to be definitive with regard to the filter parameters. Many other variables allow the designer to tailor the transfer function to meet the custom needs of a requirement.