= 1 henry and C =
1 farad . This prototype can be impedance scaled and frequency scaled to the desired values . The low @-@ pass prototype can also be transformed into high @-@ pass , band @-@ pass or band @-@ stop types by application of suitable frequency transformations .

= = Cascading sections = =

Several L half @-@ sections may be cascaded to form a composite filter . Like impedance must always face like in these combinations . There are therefore two circuits that can be formed with two identical L half @-@ sections . Where ZiT faces ZiT , the section is called a ? section . Where Zi? faces Zi? the section formed is a T section . Further additions of half @-@ sections to either of these forms a ladder network which may start and end with series or shunt elements .
It should be born in mind that the characteristics of the filter predicted by the image method are only accurate if the section is terminated with its image impedance . This is usually not true of the sections at either end which are usually terminated with a fixed resistance . The further the section is from the end of the filter , the more accurate the prediction will become since the effects of the terminating impedances are masked by the intervening sections . It is usual to provide half half @-@ sections at the ends of the filter with m = 0 @.@ 6 as this value gives the flattest Zi in the passband and hence the best match in to a resistive termination .