= 1 , and the frequencies in those expressions are all scaled to the cut @-@ off frequency ?c = 1 .

= = = = Series sections = = = =

The image impedances of the series section are given by
<formula>
and is the same as that of the constant k section
<formula>

= = = = Shunt sections = = = =

The image impedances of the shunt section are given by
<formula>
and is the same as that of the constant k section
<formula>
As with the k @-@ type section , the image impedance of the m @-@ type low @-@ pass section is purely real below the cut @-@ off frequency and purely imaginary above it . From the chart it can be seen that in the passband the closest impedance match to a constant pure resistance termination occurs at approximately m = 0 @.@ 6 .

= = = Transmission parameters = = =

For an m @-@ derived section in general the transmission parameters for a half @-@ section are given by
<formula>
and for n half @-@ sections
<formula>
For the particular example of the low @-@ pass L section , the transmission parameters solve differently in three frequency bands .
For <formula> the transmission is lossless :
<formula>
For <formula> the transmission parameters are
<formula>
For <formula> the transmission parameters are
<formula>

= = = Prototype transformations = = =