

## 1. General

The filter is unbalanced driven. It is matched to 50  $\Omega$

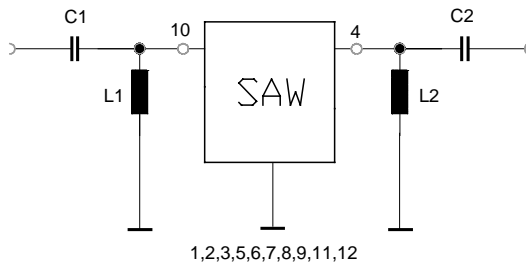
The matching element values given below are theoretical values. Parasitics on the customer PCB will change the values of the matching elements. The values of matching components have been calculated for transformation of impedance from 50 Ohms to the termination impedances given in the specification. Termination impedances for filter input and filter output are identical. So filter input and filter output can be exchanged for each other in principle.

## 2. Theoretical matching

The unbalanced driven source and load impedances of the filter are:

Source impedance:  $185 \Omega \parallel 1.25 \text{ pF}$

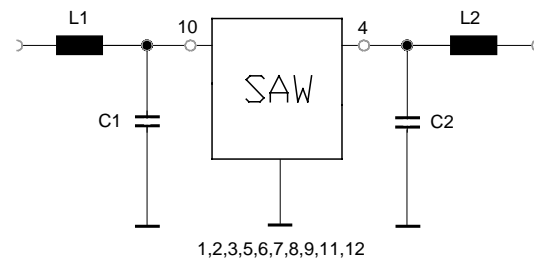
Load impedance:  $185 \Omega \parallel 1.25 \text{ pF}$



The calculated matching elements for matching circuit scheme using serial capacitors and shunt inductors are:

$L1 = L2 = 18.6 \text{ nH}$

$C1 = C2 = 3.1 \text{ pF}$



The calculated matching elements for matching circuit scheme using serial inductors and shunt capacitors are:

$L1 = L2 = 21 \text{ nH}$

$C1 = C2 = 1 \text{ pF}$

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