1. General

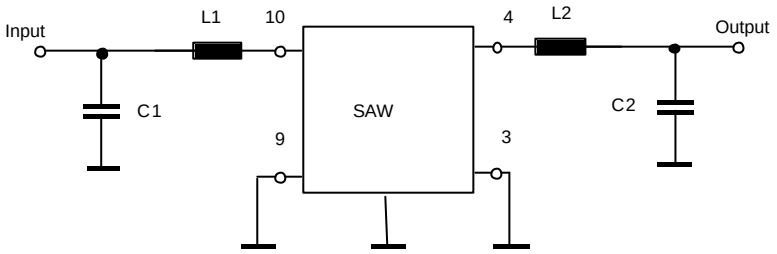
The filter is single ended driven. It is matched to 50 Ω

The matching element values given below are valid theoretically. The matching elements have to be optimised regarding the circuit and PCB design and existing parasitics.

2. Theoretical matching

The balanced driven source and load impedances of the filter are:
Source: 720 Ω || -4.7 pF
Load: 1,0 kΩ || -4.1 pF

The values of the matching elements which are given below are calculated from the source and load impedance. If the values of the matching elements are not equal to standard values the best standard values are given in brackets.



L1 = 46 nH (47 nH)
C1 = 15 pF

L2 = 51 nH (56 nH+33pF in line)
L4 = 16 pF (15pF)

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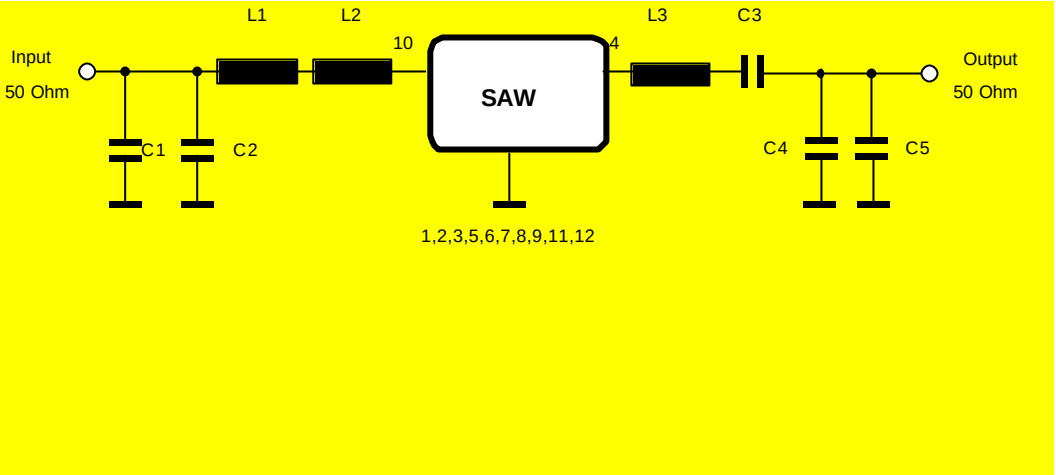
3. Matching on PCB

Single ended matching



L1 = 10 nH
L2 = 15 nH
C1 = 5,6 pF
C2 = 22 pF
L3 = 22 nH
C3 = 56 pF
C4 = 18 pF
C5 = 5,6 pF
All other components are 0 Ω jumper.

The matching on the PCB does slightly differ from the theoretical matching. The reason for that are parasitics on PCB.
If the parasitics on the customer board (mentioned parasitics, additional parasitics of active parts) are different to this PCB the matching elements have to be slightly adjusted.

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In case of questions please contact us to

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