1. General

The filter is matched to 50 Ω single ended at the input and to a 200 to 50 Ω balun at the output.

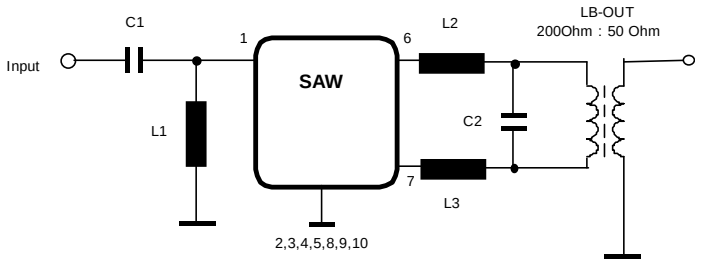
2. Theoretical matching

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.

The termination impedances of the filter are:
source impedance: 63 Ω || - 1,7 pF
load impedance: 63 Ω || - 1,7 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.

50 Ω test circuit



L1 = 60 nH
C1 = 25 pF

L2 = L3 = 30 nH
C2 = 4,7 pF

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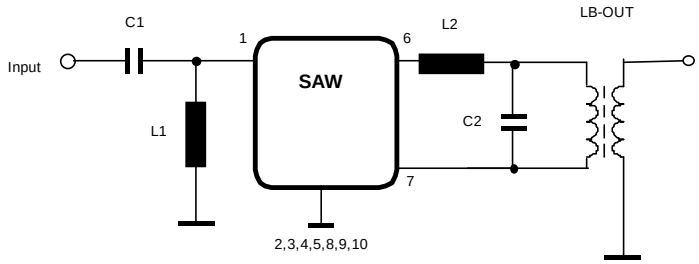
3. PCB matching

The following matching elements have been used on the PCB:



L1 = 68 nH
C1 = 27 pF

L2 = 6,8 nH
C2 = 10 pF

The matching on the PCB does slightly differ from the theoretical matching. The reason for that are parasitics of the PCB. If the parasitics on the customer PCB are different the matching elements have to be slightly adjusted.

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