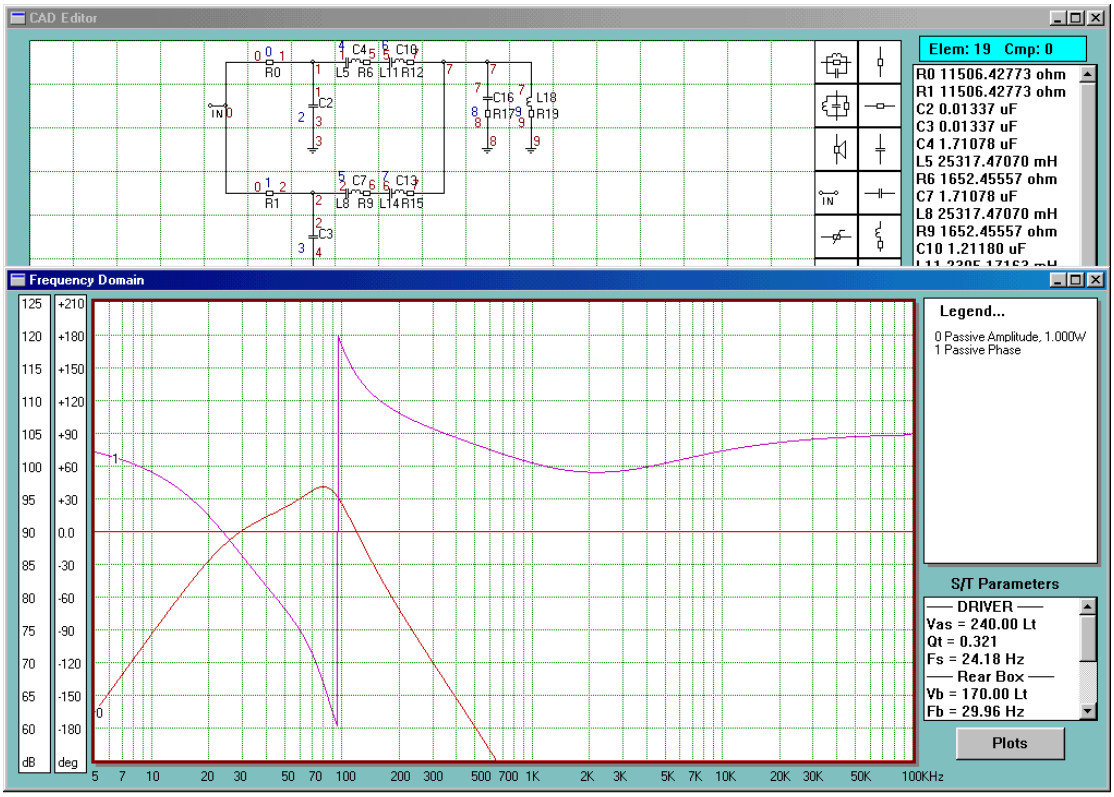

Fig 4.16 Band-Pass 4 system – acoustic impedance

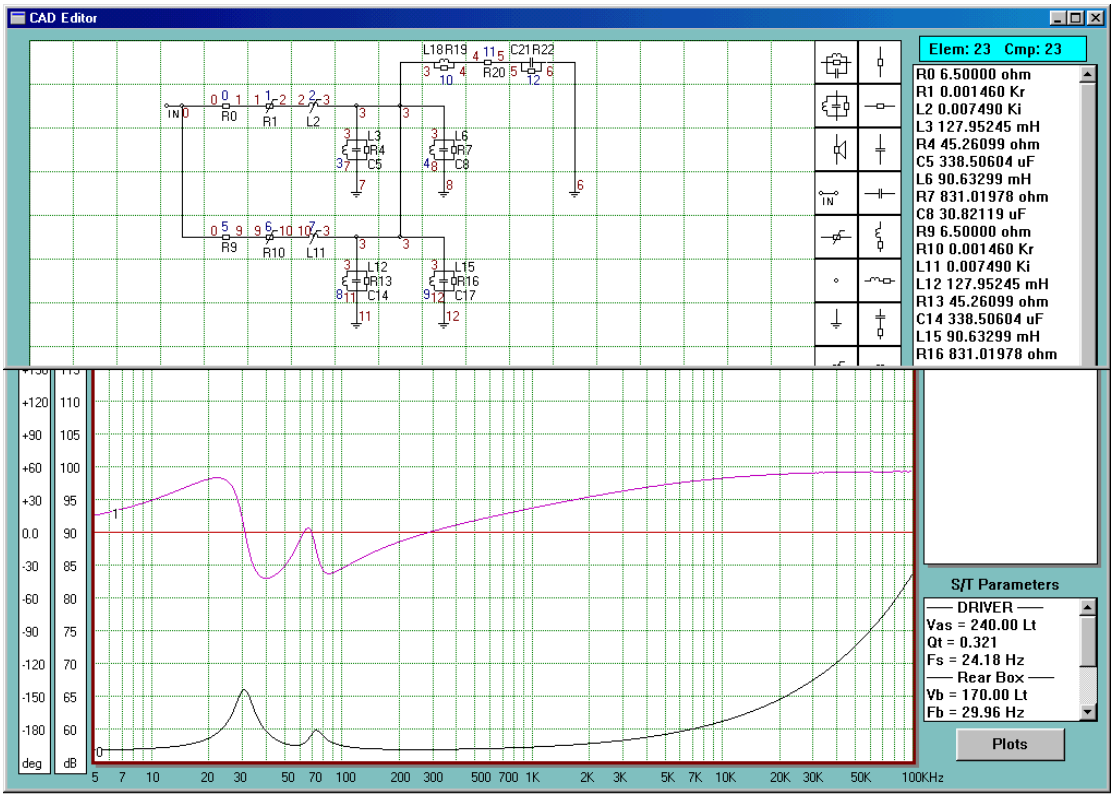

Fig 4.17 Band-Pass 4 system – electrical impedance

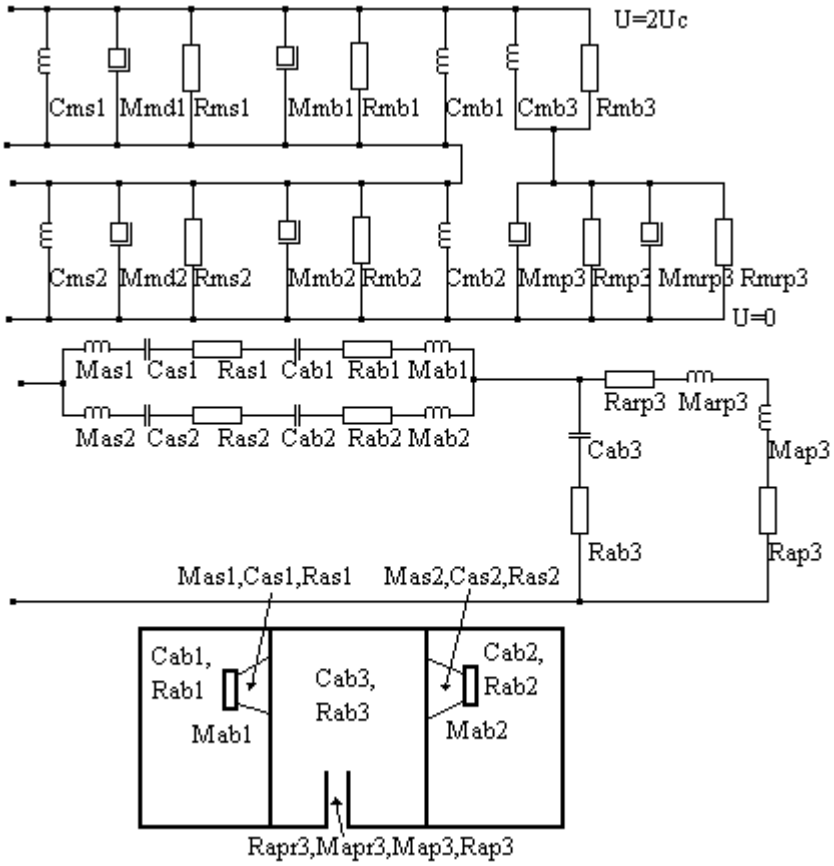

Fig 4.18

Fig 4.16 shows acoustical impedance representation adopted for the BandPass 3 enclosure model. The components are:

R0,R1 = Rea, electrical DC resistance Re transformed to acoustical side.
C2,C3 = Lea, voice coil inductance Le transformed to acoustical side.
C4,C7 = Cas, equivalent compliance volume Vas transformed to acoustical side.
L5,L8 = Mad, mass of the vibrating system Mms transformed to acoustical side.
R6,R9 = Ras, vibrating assembly loss Rms transformed to acoustical side.
L11,L14 = Mab, air load of the back side of the diaphragms.
R12,R15 = Rear enclosure losses.
C10,C13 = Cab, rear enclosure compliance Vab transformed to acoustical side.
C16 = Cab, front enclosure compliance Vab transformed to acoustical side.
R17 = Rab, front enclosure absorption loss.
L18 = Marp+Map, front enclosure port and radiation.
R19 = Rarp+Rap, front enclosure port and radiation.

Band-Pass 5 System

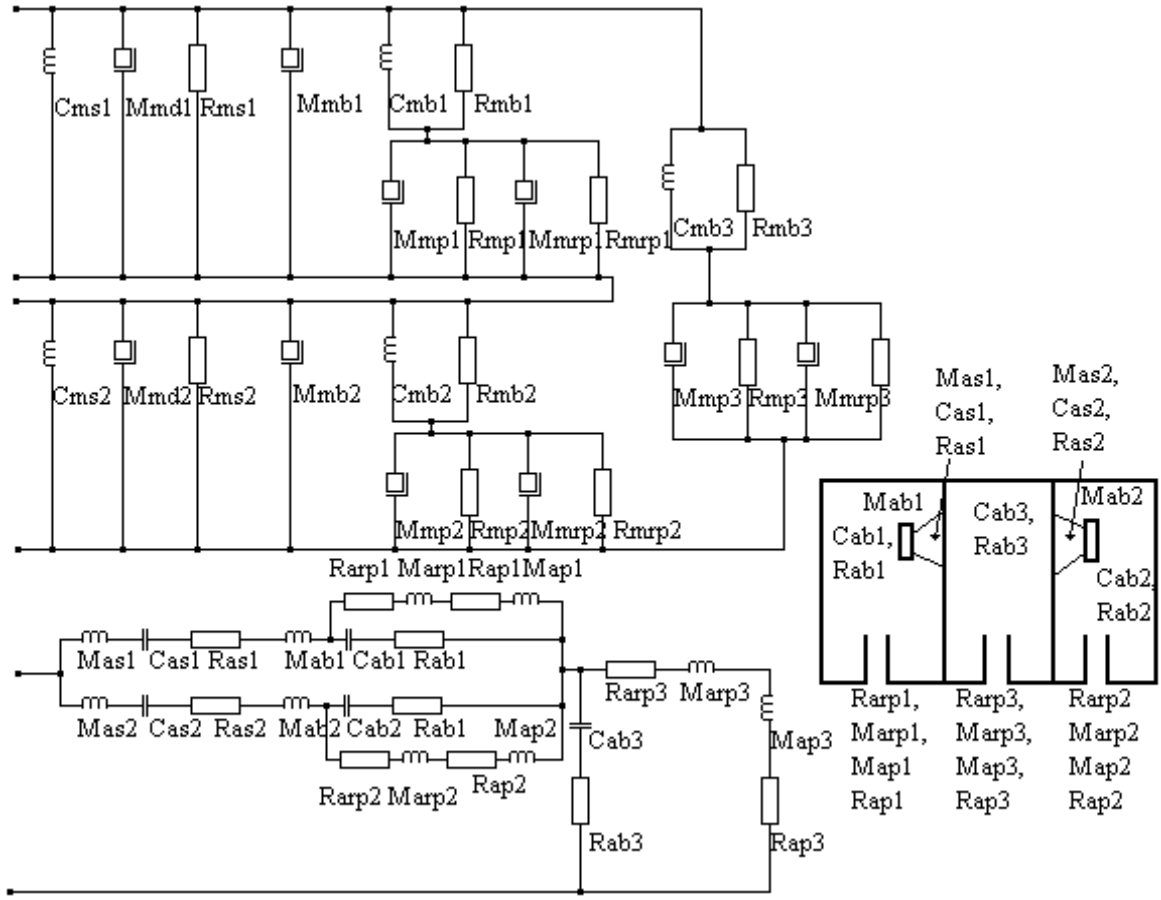

Fig 4.19

Fig 4.20 shows acoustical impedance representation adopted for the BandPass 5 enclosure model. The components are:

R0,R1 = Rea, electrical DC resistance Re transformed to acoustical side.
C2,C3 = Lea, voice coil inductance Le transformed to acoustical side.
C4,C7 = Cas, equivalent compliance volume Vas transformed to acoustical side.
L5,L8 = Mad, mass of the vibrating system Mms transformed to acoustical side.
R6,R9 = Ras, vibrating assembly loss Rms transformed to acoustical side.
L10,L12 = Mab, air load of the back side of the diaphragms.
R11,R13 = Dummy resistors.
C14,C15 = Cab, rear enclosure compliance Vab transformed to acoustical side.
R16,R17 = Rab, rear enclosure absorption losses.
L18,L20 = Marp+Map, rear enclosure port and radiation.
R19,R21 = Rarp+Rap, rear enclosure port and radiation.
L22 = Mab, air load on the front side of the diaphragm.
R23 = dummey resistor.
C24 = Cab, front enclosure compliance Vab transformed to acoustical side.
R25 = Rab, front enclosure absorption loss.
L26 = Marp+Map, front enclosure port and radiation.
R27=Rarp+Rap,front enclosure port and radiation.

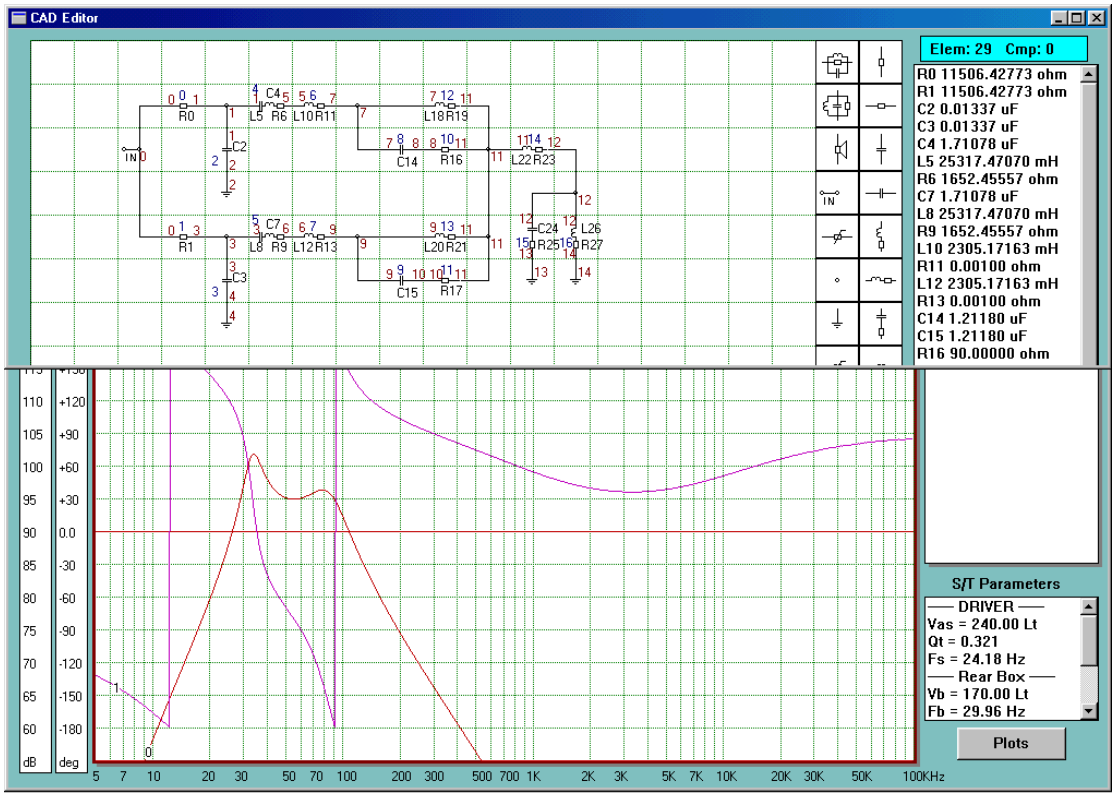

Fig 4.20 Band-Pass 5 - acoustical impedance

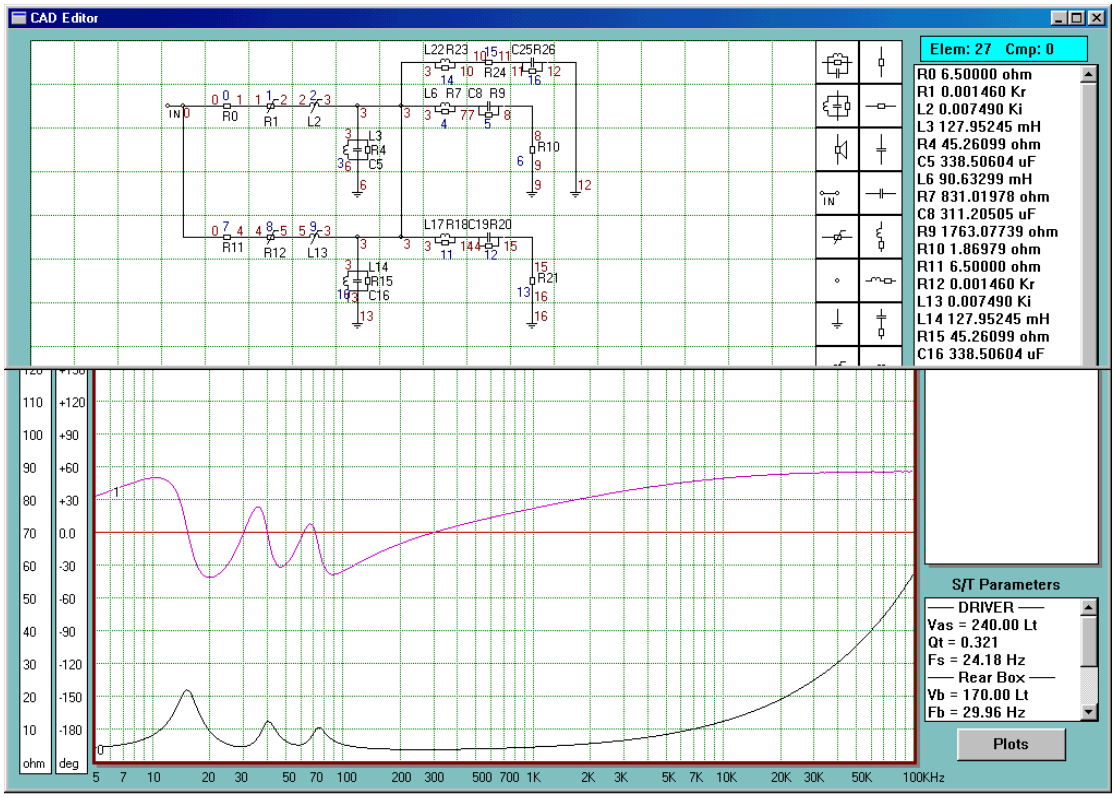

Fig 4.21 Band-Pass 5 - electrical impedance