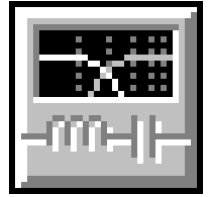


Custom Two-Way Crossover Network Design

By Dr F. Mark Carter, Walberswick Studios



2-Way Crossover Network

Low-Pass (LP) Filter: 1 required

Type: 2nd-Order Linkwitz-Riley

Desired Corner Frequency: 1500 Hz

High-Pass (HP) Filter: 1 required

Type: 2nd-Order Linkwitz-Riley

Desired Corner Frequency: 1500 Hz

C1 = 4.7 μ F, Polypropylene, 0.00697 ohms

C2 = 4.7 μ F, Polypropylene, 0.00697 ohms

L1 = 1 mH, Air Core (#16), 0.365 ohms

L2 = 1.6 mH, Air Core (#16), 0.342 ohms

Tweeter

7.61 dB L-Pad

Rp1 = 3 ohms

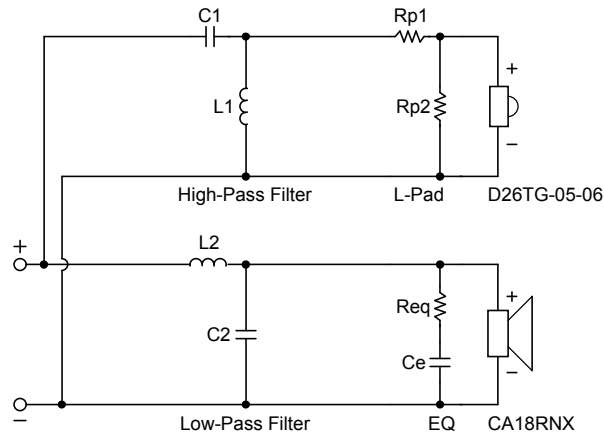
Rp2 = 4 ohms

Woofers

Impedance EQ

Req = 6 ohms

Ce = 30 μ F





Tweeter Properties

--Driver Description--

Name: D26TG-05-06

Type: Standard one-way driver

Company: Vifa

Piston: Fabric diaphragm.

Voice Coil: 26 mm diameter. "Butterfly" assembly.

Magnet: 240 g (8.5 oz) magnet.

Ferrofluid included

--Driver Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 1500 Hz
 Qms = 0.983
 Mms = 0.27 g
 Xmax = 0.2 mm
 Sd = 7.1 sq.cm
 Qes = 1.075
 Re = 4.6 ohms
 Le = 0.0521 mH
 Z = 6 ohms
 BL = 3.3 Tm
 Pe = 100 watts
 Qts = 0.513
 1-W SPL = 92 dB

Woofers Properties

--Driver Description--

Name: CA18RNX

Type: Standard one-way driver

Company: Seas Fabrikker A.S.

Comment: H 1215

--Driver Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 36 Hz
 Qms = 1.7
 Vas = 36 liters
 Cms = 1.6 mm/N
 Mms = 12 g
 Rms = 1.7 kg/s
 Xmax = 6 mm
 Xmech = 11 mm
 P-Dia = 126.6 mm
 Sd = 130 sq.cm
 P-Vd = 0.0755 liters
 Qes = 0.43
 Re = 6.1 ohms
 Le = 1.1 mH
 Z = 8 ohms
 BL = 6.4 Tm
 Pe = 80 watts
 Qts = 0.35
 no = 0.377 %
 1-W SPL = 88 dB
 2.83-V SPL = 89.08 dB

Graph Key: — LP — HP — Net

