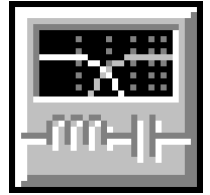


# Custom Two-Way Crossover Network Design

By Eric Chandler, Parts Express



## 2-Way Crossover Network

Low-Pass (LP) Filter: 1 required

Type: 2nd-Order Chebychev

Desired Corner Frequency: 1300 Hz

High-Pass (HP) Filter: 1 required

Type: 2nd-Order Chebychev

Desired Corner Frequency: 2900 Hz

C1 = 11.44  $\mu$ F, Polypropylene, 0.00488 ohms

C2 = 41.3  $\mu$ F, Polypropylene, 0.00261 ohms

L1 = 0.264 mH, Air Core (#16), 0.28 ohms

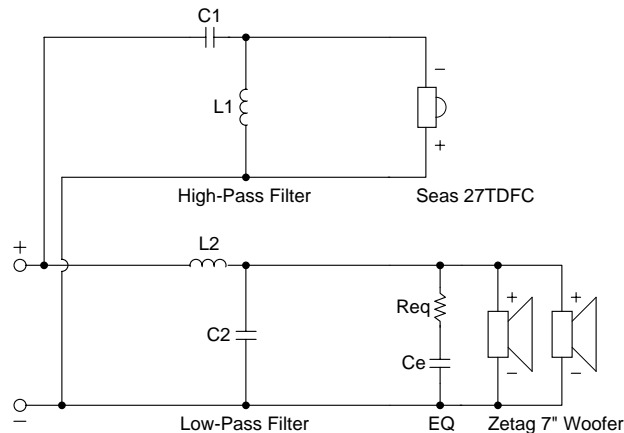
L2 = 0.363 mH, Air Core (#16), 0.292 ohms

## Woofers

### Impedance EQ

Req = 5.93 ohms

Ce = 22.18  $\mu$ F



## Tweeter Properties

--Driver Description--

Name: Seas 27TDFC

Type: Standard one-way driver

--Driver Configuration--

**No. of Drivers = 1**

--Driver Parameters--

Fs = 550 Hz

Vas = 0.0181 liters

Cms = 0.226 mm/N

Mms = 0.37 g

P-Dia = 1.217 in

Sd = 7.5 sq.cm

Qes = 0.378

Re = 4.8 ohms

Le = 0.05 mH

Z = 6 ohms

BL = 4.031 N/A

no = 0.768 %

1-W SPL = 91 dB

2.83-V SPL = 93.22 dB

## Woofers Properties

--Driver Description--

Name: Zetag 7" Woofer

Type: Standard one-way driver

--Driver Configuration--

**No. of Drivers = 2**

Mounting = Standard

Wiring = Parallel

--Driver Parameters--

Fs = 38.36 Hz

Qms = 7.59

Vas = 28.03 liters [56.07]

Cms = 1.13 mm/N [0.565]

Mms = 15.24 g [30.48]

Rms = 0.484 kg/s [0.968]

P-Dia = 5.125 in [7.248]

Sd = 132.2 sq.cm [264.3]

Qes = 0.39

Re = 5.93 ohms [2.965]

Le = 0.78 mH [0.39]

Z = 7.116 ohms [3.558]

BL = 7.49 N/A [7.473]

Qts = 0.37

no = 0.391 % [0.782]

1-W SPL = 88 dB [91.01]

2.83-V SPL = 89.37 dB [95.39]



Graph Key: — LP — HP — Net

