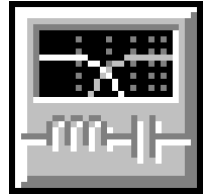


# Custom Two-Way Crossover Network Design

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## 2-Way Crossover Network

Low-Pass (LP) Filter: 1 required

Type: 2nd-Order Linkwitz-Riley

Desired Corner Frequency: 2200 Hz

High-Pass (HP) Filter: 1 required

Type: 2nd-Order Linkwitz-Riley

Desired Corner Frequency: 2200 Hz

C1 = 1  $\mu$ F, Polypropylene, 0.0053 ohms

C2 = 4  $\mu$ F, Polypropylene, 0.0069 ohms

L1 = 0.5 mH, Air Core (#16), 0.315 ohms

L2 = 0.25 mH, Air Core (#16), 0.366 ohms

## Woofers

### Impedance EQ

Req = 4 ohms

Ce = 22  $\mu$ F

Rm = 0.25 ohms

Cm = 3.3 mF

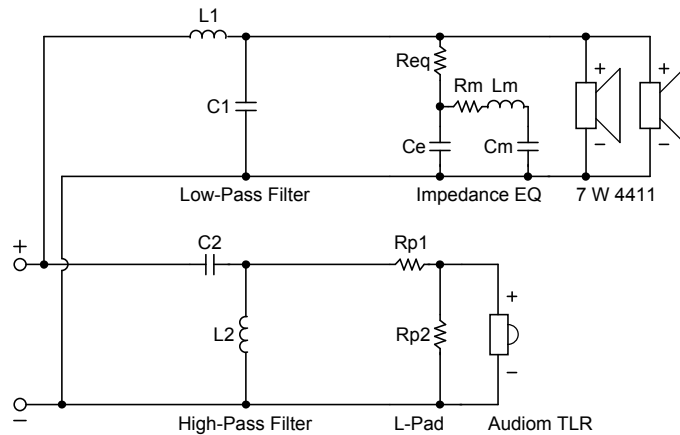
Lm = 6 mH

## Tweeter

### 3.71 dB L-Pad

Rp1 = 2 ohms

Rp2 = 10 ohms





### Woofers Properties

--Driver Description--

Name: 7 W 4411  
 Type: Standard one-way driver  
 Company: Focal-JMLab

--Driver Configuration--

**No. of Drivers = 2**

Mounting = Standard  
 Wiring = Parallel

--Driver Parameters--

Fs = 39.5 Hz  
 Qms = 7  
 Vas = 33.9 liters [67.8]  
 Cms = 0.885 mm/N [0.443]  
 Mms = 18.33 g [36.66]  
 Rms = 0.65 kg/s [1.3]  
 Xmax = 5.5 mm  
 Xmech = 8.25 mm  
 P-Dia = 144.6 mm [204.5]  
 Sd = 165.1 sq.cm [330.2]  
 P-Vd = 0.0903 liters [0.181]  
 Qes = 0.38  
 Re = 7.8 ohms [3.9]  
 Le = 0.69 mH [0.345]  
 Z = 8 ohms [4]  
 BL = 9.67 Tm [9.663]  
 Pe = 90 watts [180]  
 Qts = 0.36  
 no = 0.53 % [1.06]  
 1-W SPL = 89.3 dB [92.31]  
 2.83-V SPL = 89.5 dB [95.52]

### Tweeter Properties

--Driver Description--

Name: Audiom TLR  
 Type: Standard one-way driver  
 Company: Focal-JMLab

Comment: Audiom series.

--Driver Configuration--

**No. of Drivers = 1**

--Driver Parameters--

Fs = 1059 Hz  
 Qms = 1.51  
 Xmax = 0.1 mm  
 Xmech = 0.15 mm  
 Qes = 0.77  
 Re = 6 ohms  
 Le = 0.08 mH  
 Z = 8 ohms  
 Pe = 15 watts  
 Qts = 0.51  
 no = 1.447 %  
 1-W SPL = 93.75 dB  
 2.83-V SPL = 95 dB

Graph Key: — LP — HP — Net

