

## Box Properties

### --Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

### --Box Parameters--

Vb = 0.38 cu.ft

V(total) = 0.396 cu.ft

Fb = 54.35 Hz

QL = 7

F3 = 57.62 Hz

Fill = normal

### --Vents--

No. of Vents = 1

Vent shape = round

Vent ends = one flared

Dv = 1.5 in

Lv = 3.25 in

## Driver Properties

### --Description--

Name: HR124B8-10L

Type: Standard one-way driver

Company: Airborne

Magnetic shielding

### --Configuration--

**No. of Drivers = 1**

### --Mechanical Parameters--

Fs = 78 Hz

Qms = 3.538

Vas = 4.707 liters

Cms = 0.734 mm/N

Mms = 5.672 g

Rms = 0.786 kg/s

Xmax = 2 mm

Xmech = 3 mm

P-Dia = 92.5 mm

Sd = 67.2 sq.cm

P-Vd = 0.0134 liters

### --Electrical Parameters--

Qes = 0.597

Re = 6.2 ohms

Le = 0.319 mH

Z = 8 ohms

BL = 5.373 Tm

Pe = 30 watts

### --Electromech. Parameters--

Qts = 0.511

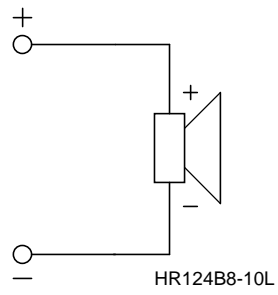
no = 0.361 %

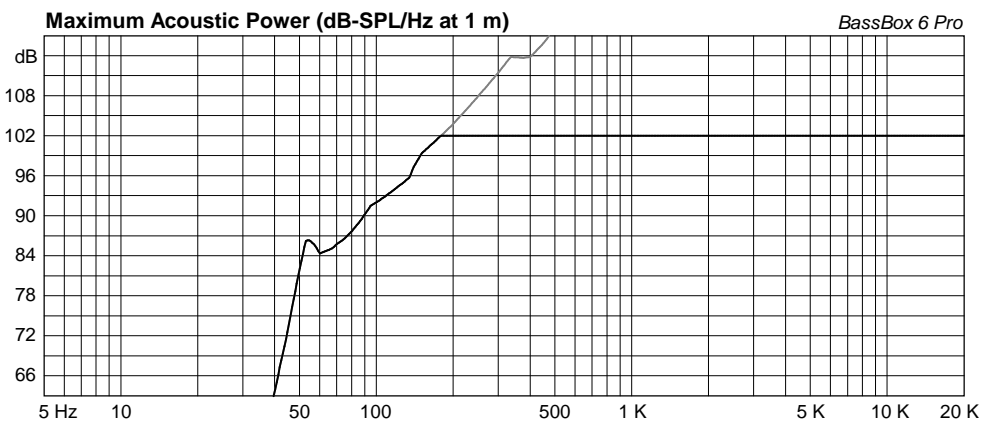
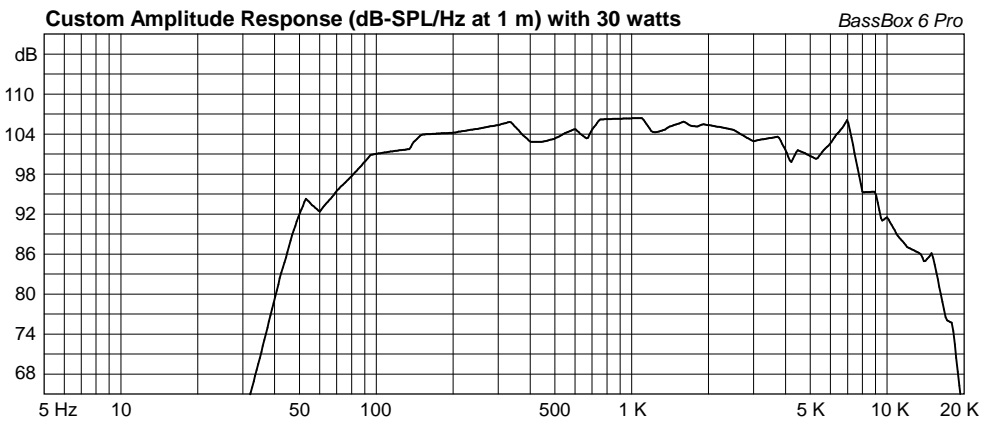
1-W SPL = 87.5 dB

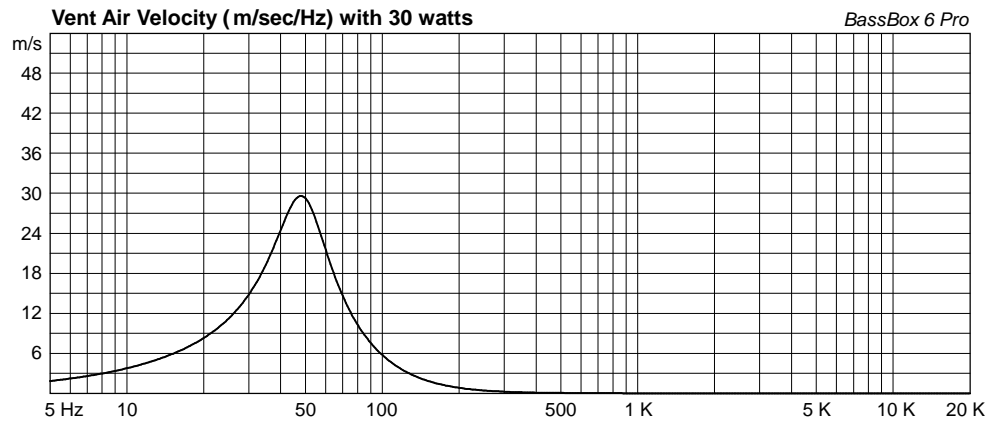
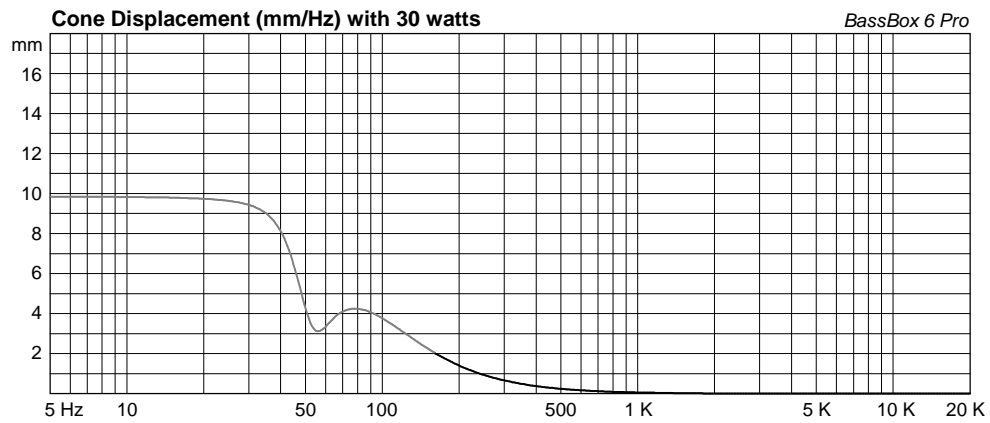
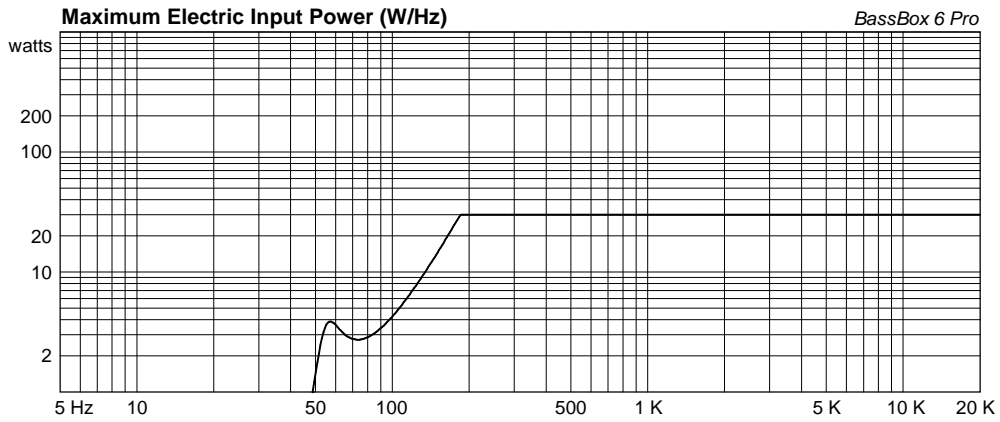
2.83-V SPL = 89 dB

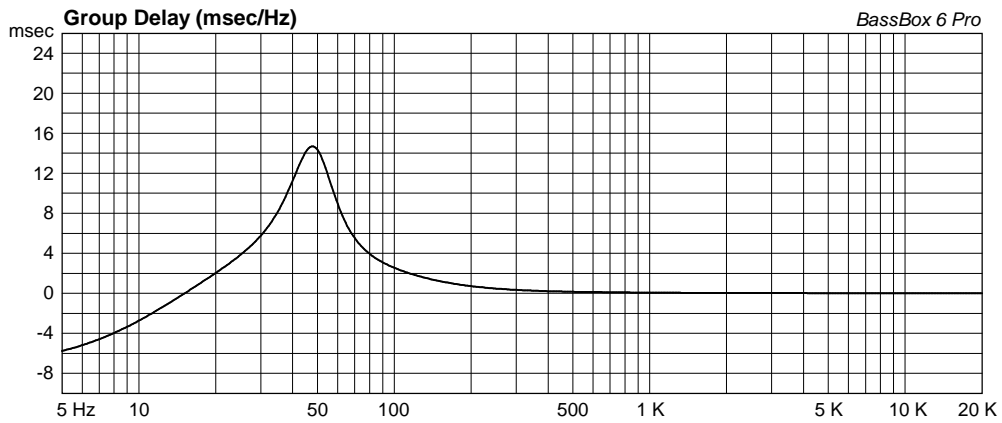
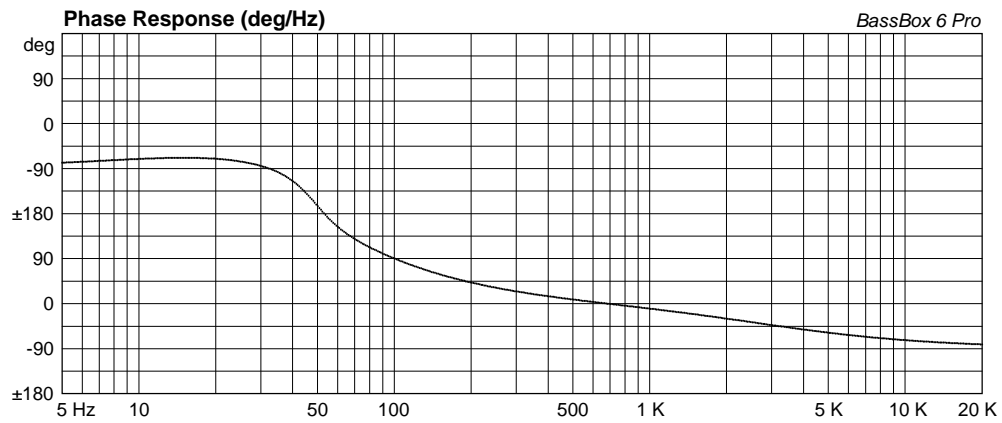
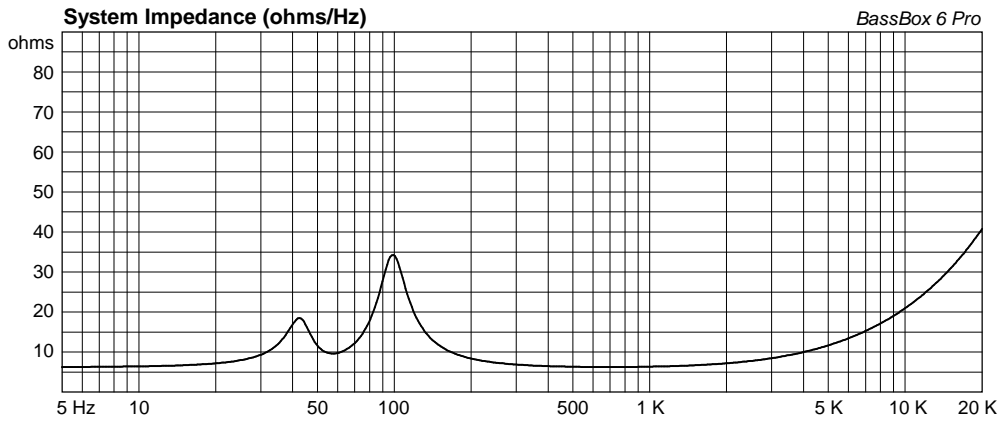


### Wiring Diagram



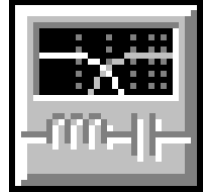






# Custom Two-Way Crossover Network Design

By Chris, Solen Inc.



## 2-Way Crossover Network

Low-Pass (LP) Filter: 1 required

Type: 2nd-Order Linkwitz-Riley

Desired Corner Frequency: 3500 Hz

High-Pass (HP) Filter: 1 required

Type: 2nd-Order Linkwitz-Riley

Desired Corner Frequency: 3500 Hz

C1 = 5.4  $\mu$ F, Film & Foil 2x SB270, 0.000668 ohms

C2 = 3.6  $\mu$ F, Polypropylene, 0.00743 ohms

L1 = 0.36 mH, Air Core (#20), 0.391 ohms

L2 = 0.56 mH, Litz (#14), 0.148 ohms

## Tweeter

### 3.12 dB L-Pad

Rp1 = 1.2 ohms

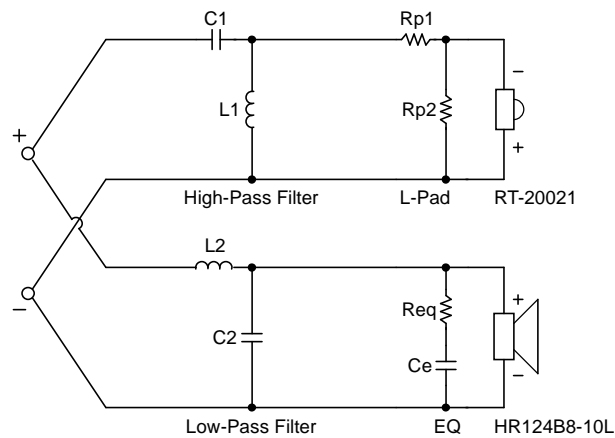
Rp2 = 9.1 ohms

## Woofers

### Impedance EQ

Req = 7.5 ohms

Ce = 8.2  $\mu$ F





**Tweeter Properties**

--Driver Description--  
 Name: RT-20021  
 Type: Standard one-way driver  
 Company: Airborne  
 --Driver Configuration--  
**No. of Drivers = 1**  
 --Driver Parameters--  
 Fs = 1800 Hz  
 Qms = 4.72  
 Vas = 0.0231 liters  
 Cms = 0.026 mm/N  
 Mms = 0.3 g  
 Rms = 0.721 kg/s  
 Xmax = 0.1 mm  
 Xmech = 0.15 mm  
 Sd = 25 sq.cm  
 P-Vd = 0.00025 liters  
 Qes = 33.74  
 Re = 4 ohms  
 Z = 4 ohms  
 BL = 0.634 Tm  
 Pe = 20 watts  
 Qts = 4.14  
 no = 0.385 %  
 1-W SPL = 88 dB  
 2.83-V SPL = 91.01 dB

**Woofers Properties**

--Driver Description--  
 Name: HR124B8-10L  
 Type: Standard one-way driver  
 Company: Airborne  
 Magnetic shielding  
 --Driver Configuration--  
**No. of Drivers = 1**  
 --Driver Parameters--  
 Fs = 78 Hz  
 Qms = 3.538  
 Vas = 4.707 liters  
 Cms = 0.734 mm/N  
 Mms = 5.672 g  
 Rms = 0.786 kg/s  
 Xmax = 2 mm  
 Xmech = 3 mm  
 P-Dia = 92.5 mm  
 Sd = 67.2 sq.cm  
 P-Vd = 0.0134 liters  
 Qes = 0.597  
 Re = 6.2 ohms  
 Z = 8 ohms  
 BL = 5.373 Tm  
 Pe = 30 watts  
 Qts = 0.511  
 no = 0.361 %  
 1-W SPL = 87.5 dB  
 2.83-V SPL = 89 dB

Graph Key: — LP — HP — Net

