

Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 0.5 cu.ft

V(total) = 0.528 cu.ft

Fb = 51.08 Hz

QL = 6.992

F3 = 46.54 Hz

Fill = normal

--Vents--

No. of Vents = 1

Vent shape = round

Vent ends = one flared

Dv = 2 in

Lv = 5 in

Driver Properties

--Description--

Name: FR148B6-17L

Type: Standard one-way driver

Company: Airborne

--Configuration--

No. of Drivers = 1

--Mechanical Parameters--

Fs = 39 Hz

Qms = 3.545

Vas = 18.63 liters

Cms = 1.457 mm/N

Mms = 11.43 g

Rms = 0.79 kg/s

Xmax = 4 mm

Xmech = 6 mm

P-Dia = 109.9 mm

Sd = 94.9 sq.cm

P-Vd = 0.038 liters

--Electrical Parameters--

Qes = 0.496

Re = 5.8 ohms

Le = 0.26 mH

Z = 8 ohms

BL = 5.727 Tm

Pe = 20 watts

--Electromech. Parameters--

Qts = 0.435

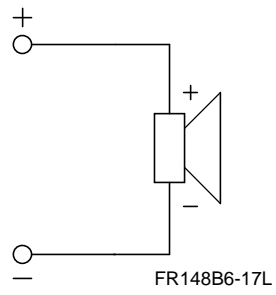
no = 0.215 %

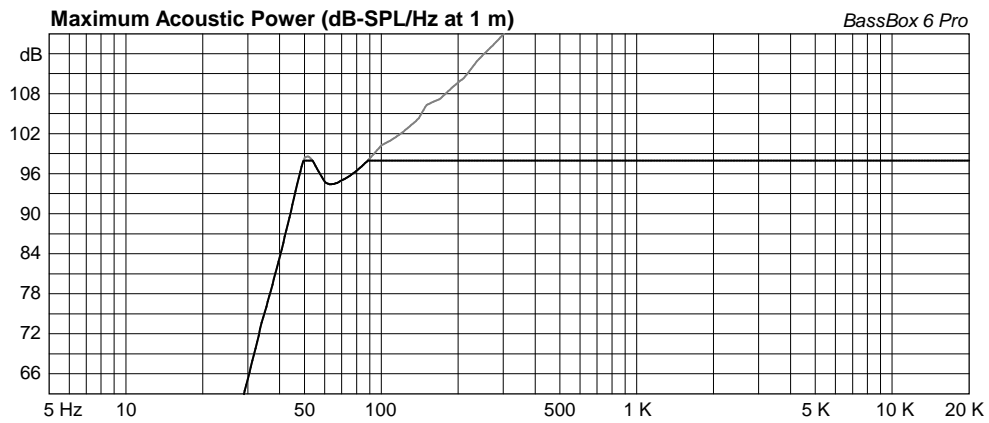
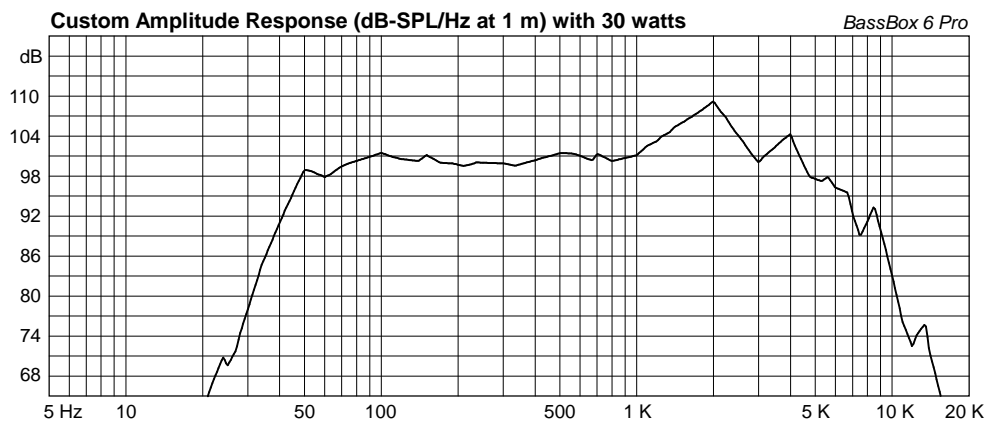
1-W SPL = 85.37 dB

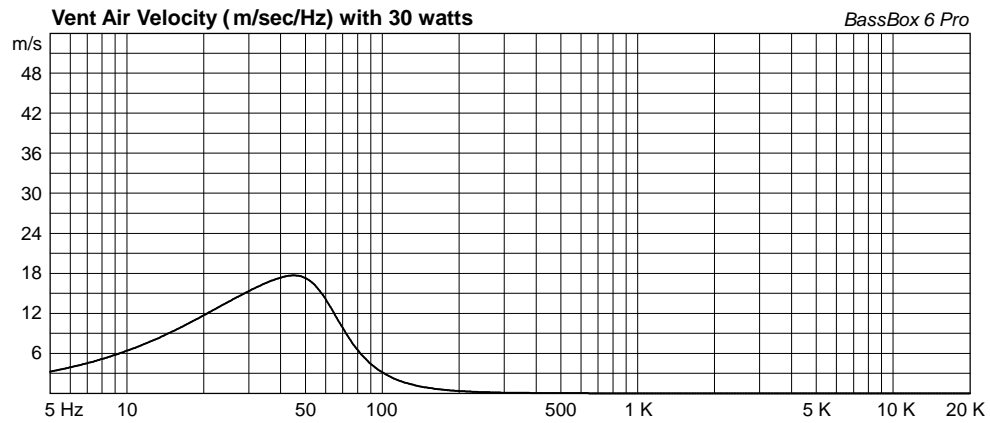
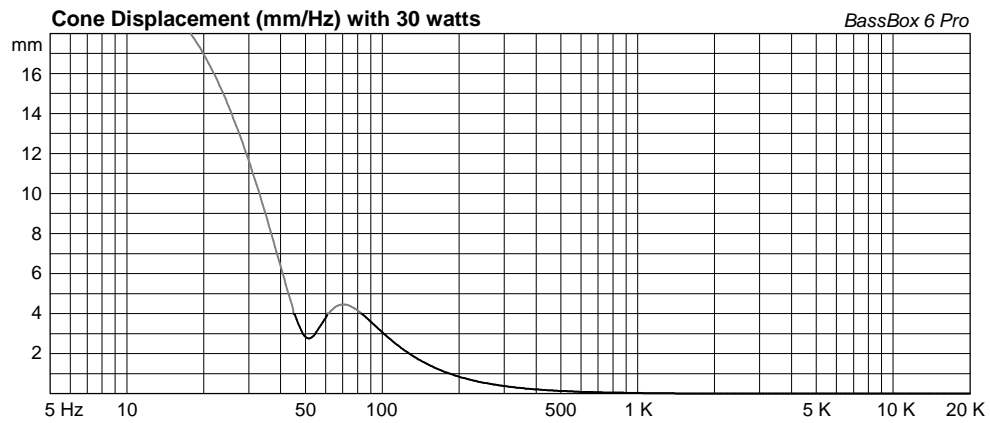
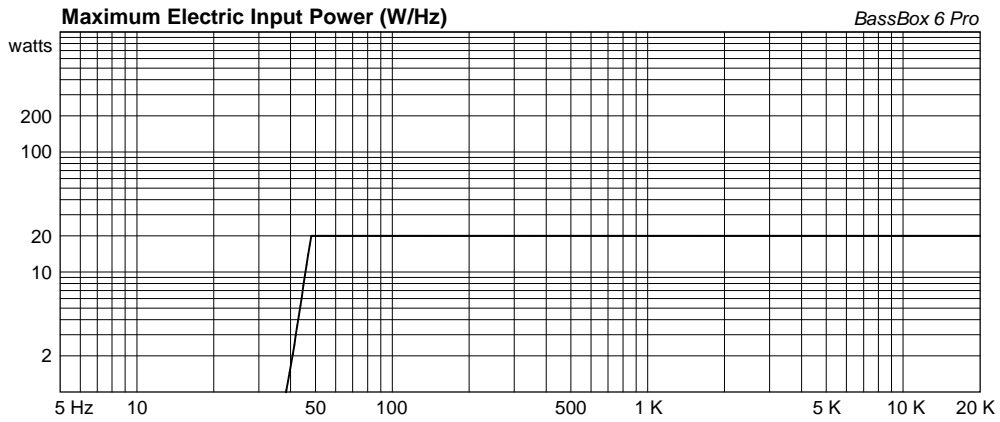
2.83-V SPL = 86.87 dB

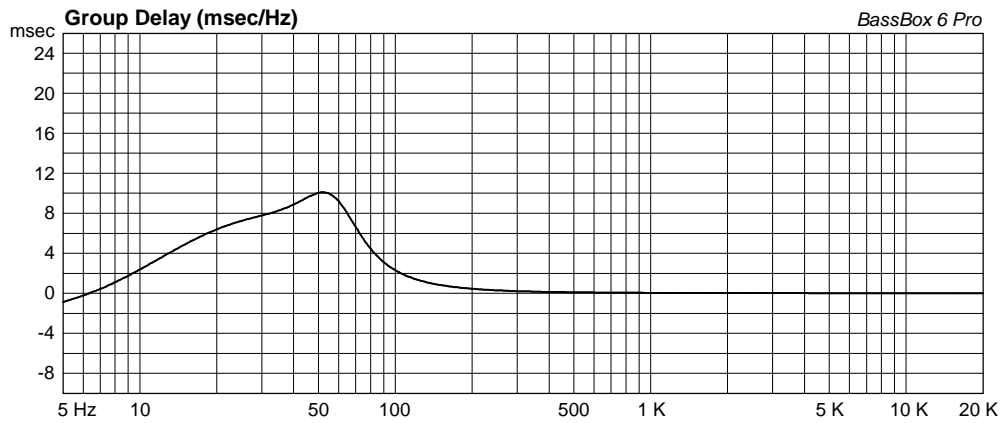
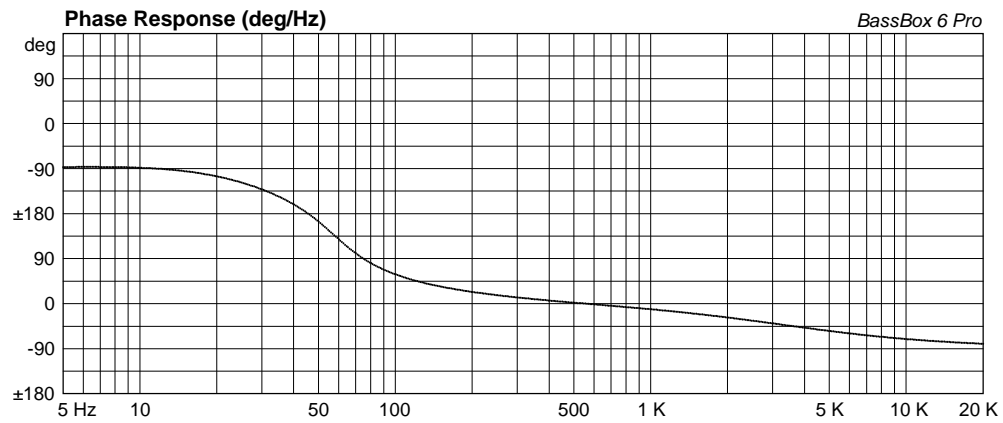
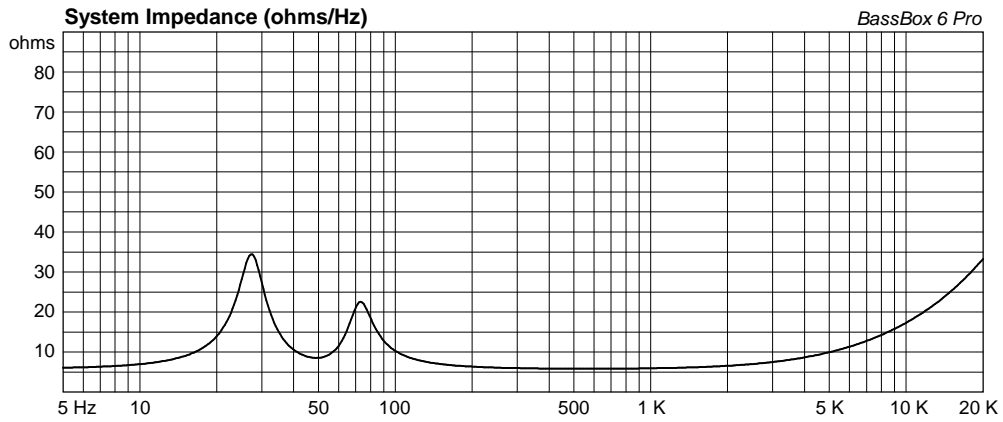


Wiring Diagram



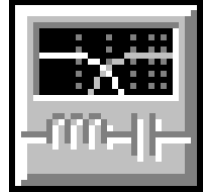






Custom Two-Way Crossover Network Design

By Chris, Solen Inc.



2-Way Crossover Network

Low-Pass (LP) Filter: 1 required

Type: 2nd-Order Linkwitz-Riley

Desired Corner Frequency: 2000 Hz

High-Pass (HP) Filter: 1 required

Type: 2nd-Order Linkwitz-Riley

Desired Corner Frequency: 3000 Hz

C1 = 6.6 μ F, Film & Foil 2xSB330, 0.000627 ohms

C2 = 6.8 μ F, Polypropylene, 0.00617 ohms

L1 = 0.43 mH, Air Core (#20), 0.436 ohms

L2 = 0.91 mH, Litz (#14), 0.197 ohms

Tweeter

10.03 dB L-Pad

Rp1 = 2.7 ohms

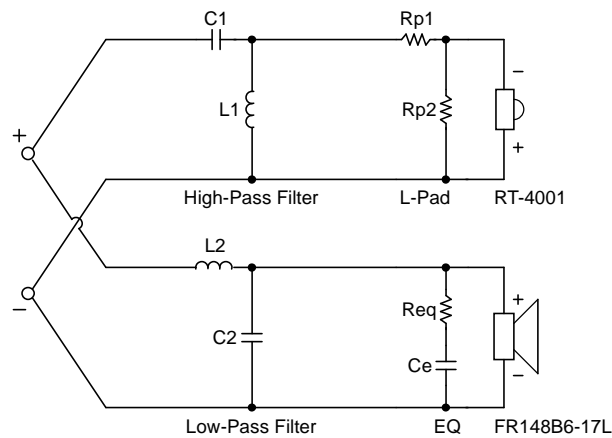
Rp2 = 1.8 ohms

Woofers

Impedance EQ

Req = 6.8 ohms

Ce = 24 μ F





Tweeter Properties

--Driver Description--
 Name: RT-4001
 Type: Standard one-way driver
 Company: Airborne
 --Driver Configuration--
No. of Drivers = 1
 --Driver Parameters--
 Fs = 1400 Hz
 Qms = 3.796
 Vas = 0.0763 liters
 Cms = 0.0215 mm/N
 Mms = 0.6 g
 Rms = 1.393 kg/s
 Xmax = 0.1 mm
 Xmech = 0.15 mm
 Sd = 50 sq.cm
 P-Vd = 0.0005 liters
 Qes = 41.71
 Re = 3.4 ohms
 Z = 4 ohms
 BL = 0.656 Tm
 Pe = 20 watts
 Qts = 3.48
 no = 0.484 %
 1-W SPL = 89 dB
 2.83-V SPL = 92.72 dB

Woofers Properties

--Driver Description--
 Name: FR148B6-17L
 Type: Standard one-way driver
 Company: Airborne
 --Driver Configuration--
No. of Drivers = 1
 --Driver Parameters--
 Fs = 39 Hz
 Qms = 3.545
 Vas = 18.63 liters
 Cms = 1.457 mm/N
 Mms = 11.43 g
 Rms = 0.79 kg/s
 Xmax = 4 mm
 Xmech = 6 mm
 P-Dia = 109.9 mm
 Sd = 94.9 sq.cm
 P-Vd = 0.038 liters
 Qes = 0.496
 Re = 5.8 ohms
 Z = 8 ohms
 BL = 5.727 Tm
 Pe = 20 watts
 Qts = 0.435
 no = 0.215 %
 1-W SPL = 85.37 dB
 2.83-V SPL = 86.87 dB

Graph Key: — LP — HP — Net

