

# NEODYMIUM SERIES

## KL3010LF-8

Lightweight high-power subwoofer recommended for vented and horn loaded enclosures.

- 900 W Program Power
- 10" Nominal Diameter
- 8 Ω

application	enclosure	
Midrange	<input type="checkbox"/>	Sealed Box <input type="checkbox"/>
Midbass	<input type="checkbox"/>	Vented Box <input checked="" type="checkbox"/>
Woofer	<input checked="" type="checkbox"/>	Scoop Loading <input type="checkbox"/>
Subwoofer	<input checked="" type="checkbox"/>	Horn Loading <input checked="" type="checkbox"/>
Bass Guitar	<input checked="" type="checkbox"/>	



### Specification

Nominal Basket Diameter	10", 254 mm
Nominal Impedance*	8 Ω
Power Rating*	
Program Power	900 W
Nominal Power	450 W
Resonance	44.8 Hz
Usable Frequency Range	42 Hz – 1.6 kHz
Sensitivity*	92 dB
Magnet Weight	11 oz.
Gap Height	0.365", 9.3 mm
Voice Coil Diameter	3.0", 76.2 mm

### Electrical & Small Parameters

Fs	44.8 Hz
Re	7.03 Ω
Le	0.87 mH
Qms	6.95
Qes	0.33
Qts	0.31
Vas	1.67 cu.ft., 47.33 liters
Vd	321.12 cc
Cms	0.24 mm/N
BL	17.98 T-M
Mms	53.23 grams
EBP	137.35
Xmax	8.5 mm
Sd	376.9 cm <sup>2</sup>
Xlim	15.7 mm

### Mounting Information

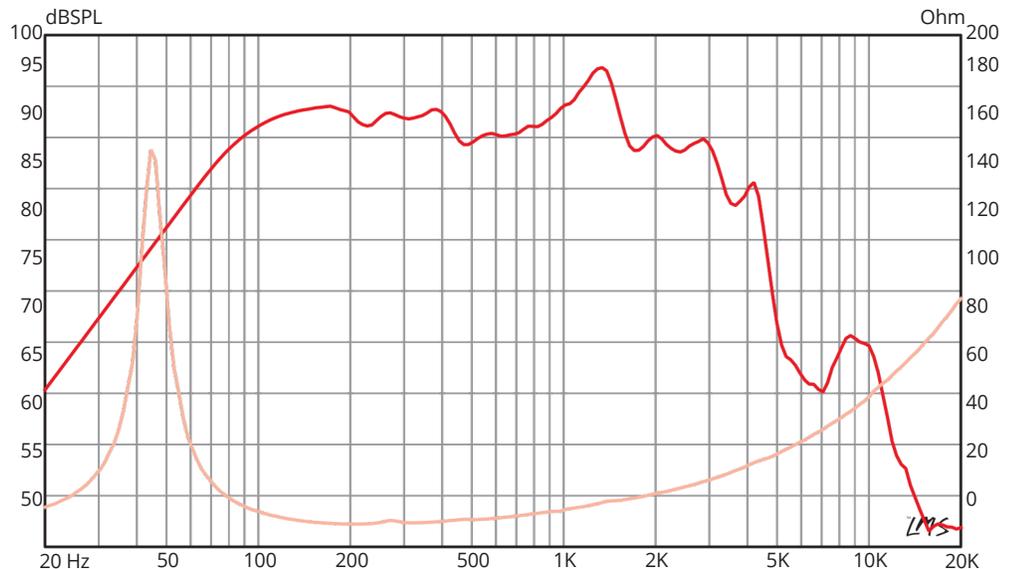
Recommended Enclosure Volume	
Sealed	N/A
Vented	19.82-84.95 liters, 0.70-3.0 cu.ft.
Driver Volume Displaced	64.69 cu.in., 1.06 liters
Overall Diameter	10.25", 260.35 mm
Baffle Hole Diameter	9.12", 231.65 mm
Front Sealing Gasket	Yes
Rear Sealing Gasket	Yes
Mounting Holes Diameter	0.285", 7.24 mm
Mounting Holes B.C.D.	9.73", 247.14 mm
Depth	4.875", 123.83 mm
Net Weight	7.1 lbs , 3.22 kg
Shipping Weight	8.9 lbs , 4.04 kg

### Materials of Construction

- Copper voice coil
- Polyimide former
- Neodymium magnet
- Vented core
- Cast aluminum basket
- Paper cone
- Cloth cone edge
- Treated paper dust cap



### Frequency Response & Impedance Curve\*



VISIT [EMINENCE.COM](http://EMINENCE.COM) TO FIND A DEALER NEAR YOU.

\* See footnotes on page 2 for information regarding usable frequency range, nominal impedance, power rating and sensitivity.



*From design and manufacturing to the stage or studio. Once you've experienced the performance of Eminence, you'll never accept anything else.*

## mission statement

*Eminence is dedicated to providing the best Quality, Value and Service to meet our customers' needs.*

## footnotes

- \* Please consult [www.eminence.com](http://www.eminence.com) for specifications of models with alternative impedances.
- \*\* Multiple units exceed published ratings evaluated under EIA 426A specification while tested in a free-air, non-temperature-controlled environment.
- \*\*\* The average output across the usable frequency range when applying 1W/1m into the nominal impedance. i.e: 2.83V/8Ω, 4V/16Ω. Eminence response curves are measured under the following conditions: All speakers are tested at 1W/1m using a variety of test set-ups for the appropriate impedance | LMS using 0.25" supplied microphone (software calibrated) mounted 1m from wall/baffle | 2 ft. x 2 ft. baffle is built into the wall with the speaker mounted flush against a steel ring for minimum diffraction | Carver PM-120 amplifier | 2700 cu. ft. chamber with fiberglass on all six surfaces (three with custom-made wedges).  
BETA 8CX, 10CX, and 12CX are coaxial speakers with tweeter sold separately. Published
- \*\*\*\* usable frequency response contingent upon use of ASD:1001 HF Driver.
  
- \*\*\*\*\* Multiple units exceeded published ratings evaluated under EIA-426A or AES specification while mounted on Eminence's H290, H290S, or H2EA horn in a non-temperature-controlled environment.
- \*\*\*\*\*The average on axis output across the entire usable frequency range when applying 1W/1m into the nominal impedance, i.e. 2.83V/8Ω, 4V/16Ω. Eminence response curves are measured under the following conditions: All speakers are tested at 1W/1m using a variety of test set-ups for the appropriate impedance | LMS using 0.25" supplied microphone (software calibrated) mounted 1m from wall/baffle | 2ft x 2ft baffle is built into the wall with horn front mounted | Carver PM-120 amplifier | 2700 cu.ft. chamber with fiberglass on all six surfaces (three with custom-made wedges).

Prices, specifications and product cosmetics are subject to change without notice.

eminence speaker llc  
838 Mulberry Pike, Eminence, KY 40019



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# KappaLite 3010LF Large Vented Box Design

By Jerry McNutt, Eminence Speaker LLC

450 Watts Power Handling, F3 of 44 Hz, High Pass Suggested at 38 Hz.

---

## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 2.66 cu.ft

V(total) = 2.821 cu.ft

Fb = 48 Hz

QL = 20

F3 = 41.89 Hz

Fill = minimal

--Vents--

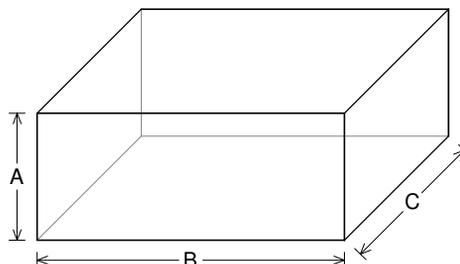
No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 4 in

Lv = 6.738 in



--External Dimensions--

A = 11.98 in

B = 28.93 in

C = 18.46 in

--Internal Dimensions--

A = 10.48 in

B = 27.43 in

C = 16.96 in

--Wall Thickness--

Front = 0.75 in

Side = 0.75 in

## Driver Properties

--Description--

Name: KappaLite 3010LF

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 10" Cast Neo Subwoofer

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

Fs = 44.82 Hz

Qms = 6.95

Vas = 47.33 liters

Cms = 0.24 mm/N

Mms = 53.23 g

Rms = 2.16 kg/s

Xmax = 8.52 mm

Xmech = 15.7 mm

P-Dia = 217.8 mm

Sd = 376.9 sq.cm

P-Vd = 321.1 cu.cm

--Electrical Parameters--

Qes = 0.31

Re = 7.03 ohms

Le = 0.87 mH

Z = 8 ohms

BL = 17.98 Tm

Pe = 450 watts

--Electromech. Parameters--

Qts = 0.31

no = 1.243 %

1-W SPL = 93.09 dB

2.83-V SPL = 93.55 dB

# KappaLite 3010LF x2, MicroSub, Advanced Design

By Jerry McNutt, Eminence Speaker LLC  
600 Watts Power Handling, F3 of 47 Hz. Not For First Time Builders.  
Fx at 48 Hz and Qx at 1.4 or other types of EQ to play this low.

---

## Box Properties

--Description--

Name:

Type: Vented Box w/ Active HP Filter

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 2.8 cu.ft  
V(total) = 3.019 cu.ft  
Fb = 48 Hz  
QL = 7  
F3 = 44.41 Hz  
Fill = minimal

--Vents--

No. of Vents = 2

Vent shape = round

Vent ends = one flush

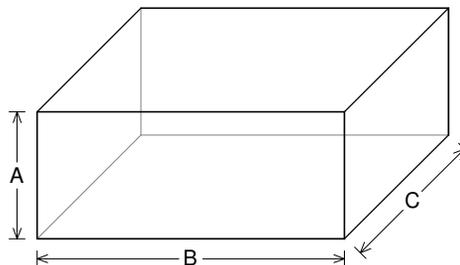
Dv = 4 in

Lv = 6.163 in

--Active 12 dB/oct. HP Filter--

Fx = 48 Hz

Qx = 1.4



--External Dimensions--

A = 12.22 in

B = 29.56 in

C = 18.84 in

--Internal Dimensions--

A = 10.72 in

B = 28.06 in

C = 17.34 in

--Wall Thickness--

Front = 0.75 in

Side = 0.75 in

## Driver Properties

--Description--

Name: KappaLite 3010LF

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 10" Cast Neo Subwoofer

--Configuration--

**No. of Drivers = 2**

Mounting = Standard

Wiring = Parallel

Drivers sum coherently = Yes

--Mechanical Parameters--

Fs = 44.82 Hz

Qms = 6.95

Vas = 47.33 liters [94.66]

Cms = 0.24 mm/N [0.12]

Mms = 53.23 g [106.5]

Rms = 2.16 kg/s [4.32]

Xmax = 8.52 mm

Xmech = 15.7 mm

P-Dia = 217.8 mm [308]

Sd = 376.9 sq.cm [753.8]

P-Vd = 0.302 liters [0.604]

--Electrical Parameters--

Qes = 0.33

Re = 7.03 ohms [3.515]

Le = 0.87 mH [0.435]

Z = 8 ohms [4]

BL = 17.98 Tm [17.87]

Pe = 450 watts [900]

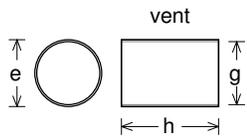
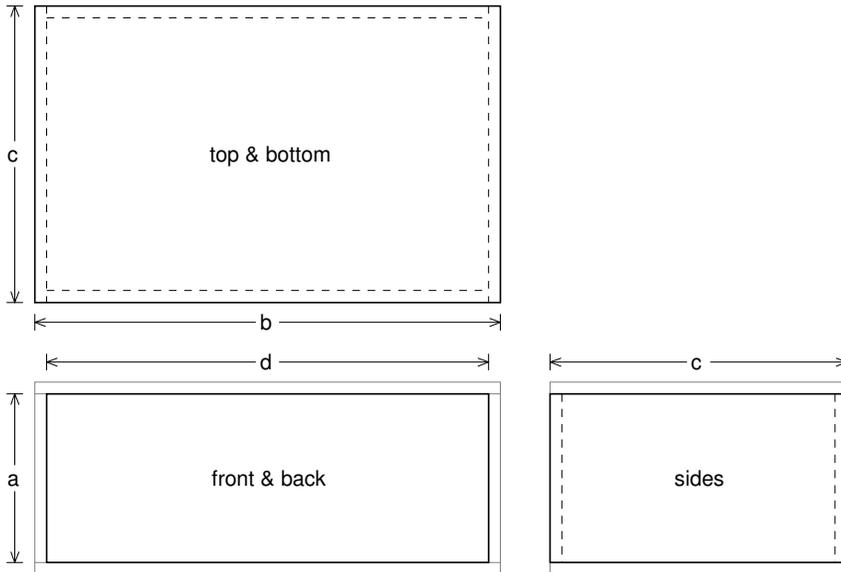
--Electromech. Parameters--

Qts = 0.31

no = 1.243 % [2.485]

1-W SPL = 93.09 dB [96.1]

2.83-V SPL = 93.55 dB [99.57]



**Box Parts**

Box Shape: Optimum Square Prism  
1 Top, 1 Bottom: depth (c) = 18.84 in  
width (b) = 29.56, thickness = 0.75 in  
1 Front, 1 Back: height (a) = 10.72 in  
width (d) = 28.06, thickness = 0.75 in  
2 Sides: height (a) = 10.72 in  
depth (c) = 18.84, thickness = 0.75 in

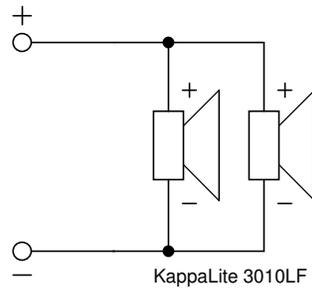
*--Vent Parts--*

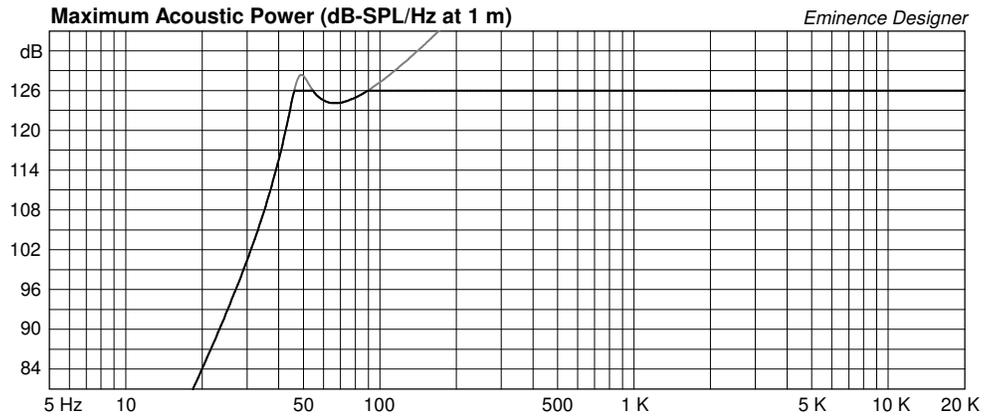
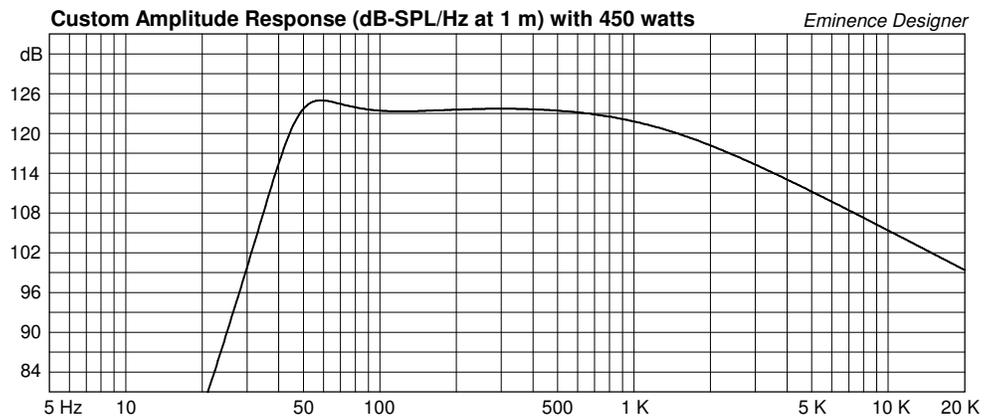
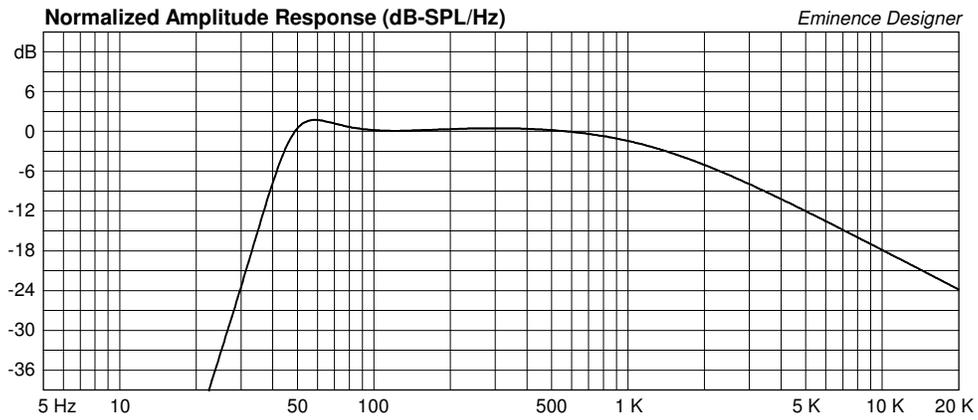
2 Ducts: outside diameter (e) = 4.25 in  
inside diameter (g) = 4 in  
length (h) = 6.163 in

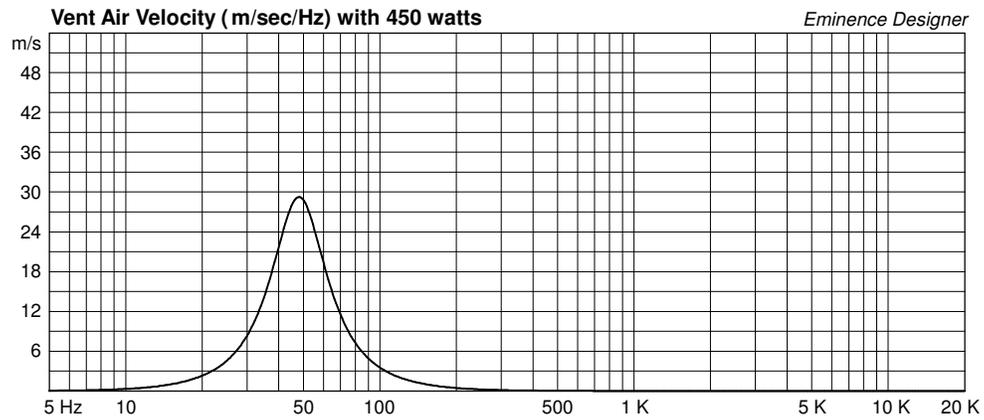
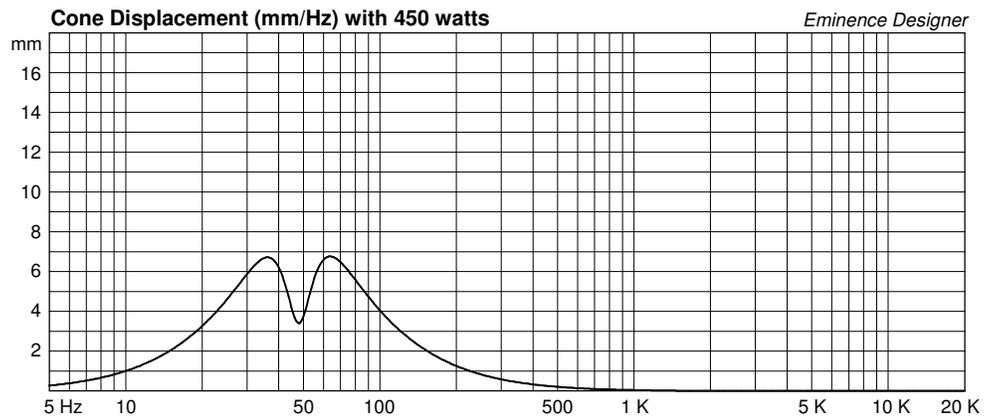
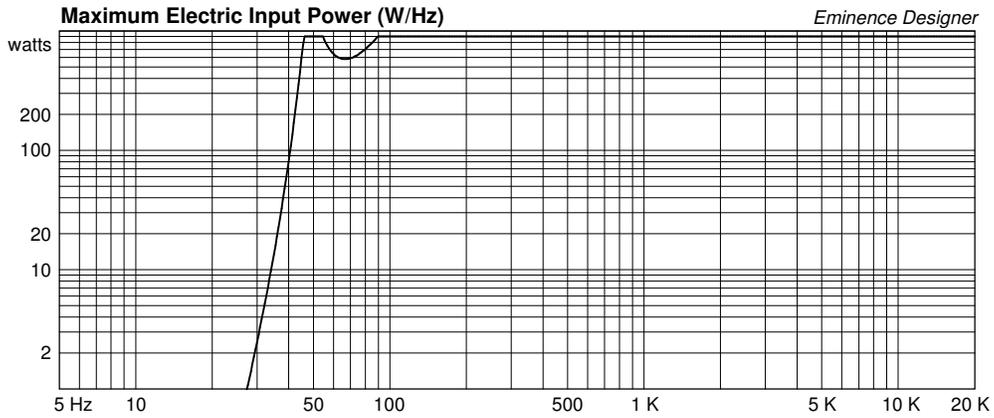
*--Driver Mounting--*

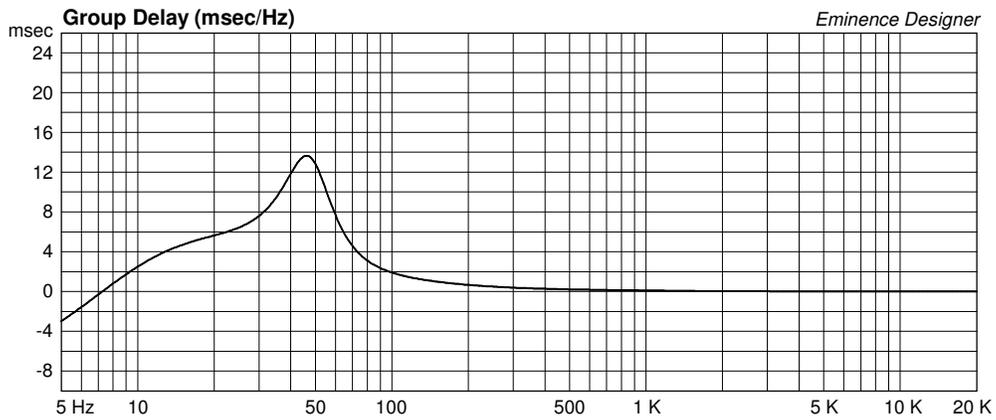
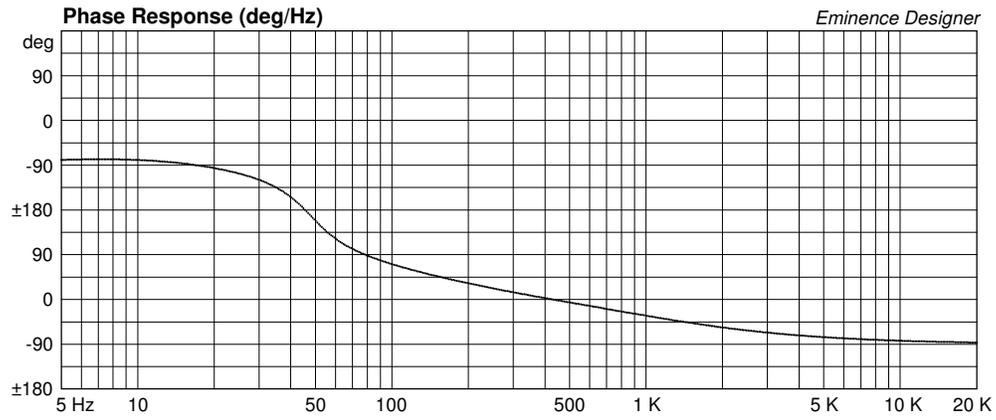
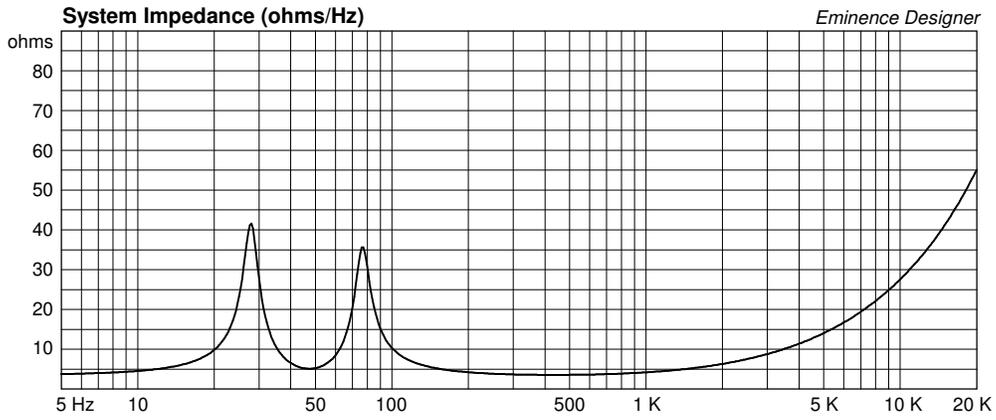
Mounting: Flush  
Aim: All drivers face same direction

### Wiring Diagram









# KappaLite 3010LF Med Vented Box, Bass Guitar

By Jerry McNutt, Eminence Speaker LLC

450 Watts Power Handling, F3 of 52Hz, High Pass Suggested at 40 Hz.

---

## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, square (optimum)

--Box Parameters--

Vb = 1.2 cu.ft

V(total) = 1.361 cu.ft

Fb = 52 Hz

QL = 7

F3 = 52.44 Hz

Fill = minimal

--Vents--

No. of Vents = 1

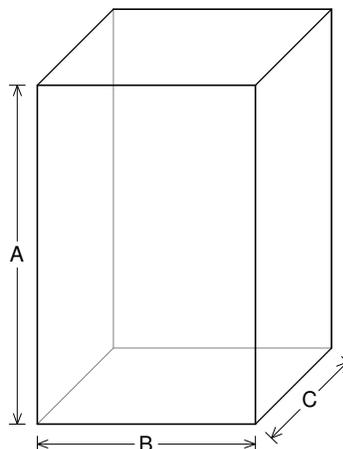
Vent shape = rectangle

Vent ends = one flush

Hv = 1.1 in

Wv = 13.14 in

Lv = 10.18 in



--External Dimensions--

A = 23.02 in

B = 14.8 in

C = 9.719 in

--Internal Dimensions--

A = 21.52 in

B = 13.3 in

C = 8.219 in

--Wall Thickness--

Front = 0.75 in

Side = 0.75 in

## Driver Properties

--Description--

Name: KappaLite 3010LF

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 10" Cast Neo Subwoofer

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

Fs = 44.82 Hz

Qms = 6.95

Vas = 47.33 liters

Cms = 0.24 mm/N

Mms = 53.23 g

Rms = 2.129 kg/s

Xmax = 8.52 mm

Xmech = 15.7 mm

P-Dia = 217.8 mm

Sd = 376.9 sq.cm

P-Vd = 376.9 cu.cm

--Electrical Parameters--

Qes = 0.33

Re = 7.03 ohms

Le = 0.87 mH

Z = 8 ohms

BL = 17.98 Tm

Pe = 450 watts

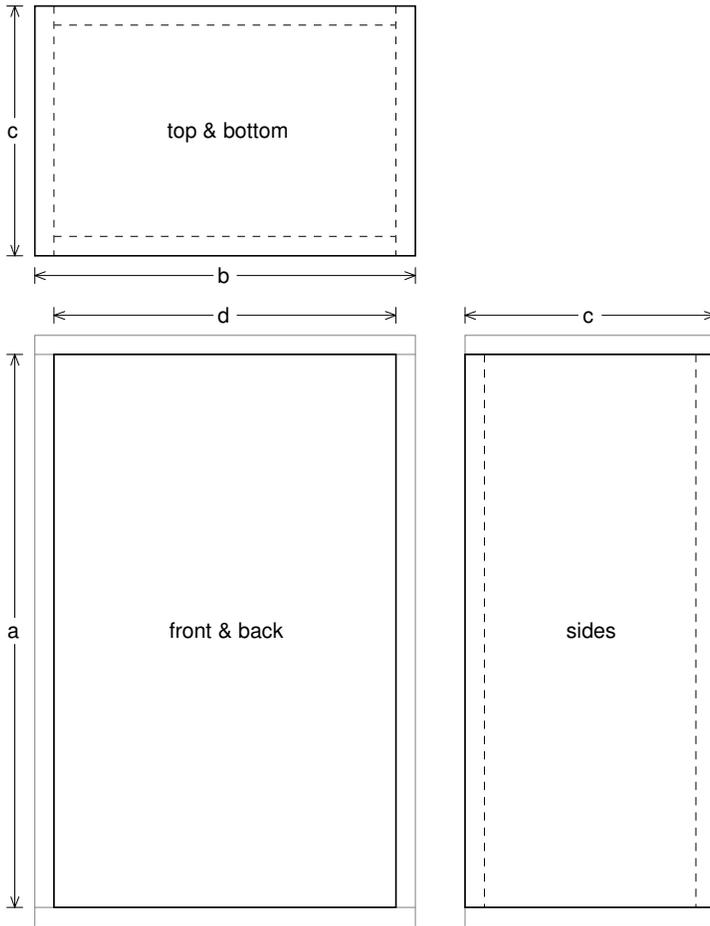
--Electromech. Parameters--

Qts = 0.31

no = 1.243 %

1-W SPL = 93.09 dB

2.83-V SPL = 93.55 dB



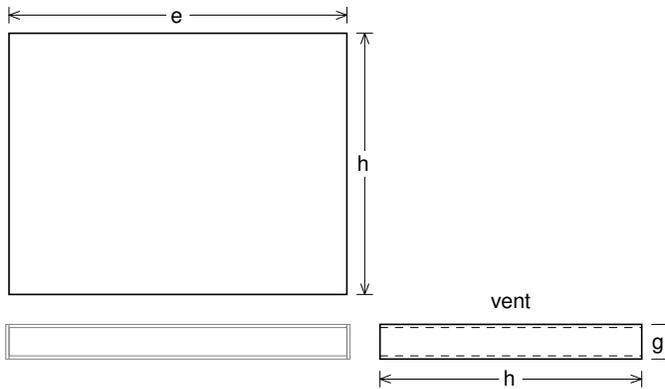
**Box Parts**

Box Shape: Optimum Square Prism  
1 Top, 1 Bottom: depth (c) = 9.719 in  
width (b) = 14.8, thickness = 0.75 in  
1 Front, 1 Back: height (a) = 21.52 in  
width (d) = 13.3, thickness = 0.75 in  
2 Sides: height (a) = 21.52 in  
depth (c) = 9.719, thickness = 0.75 in

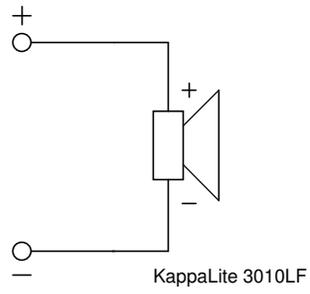
*--Vent Parts--*

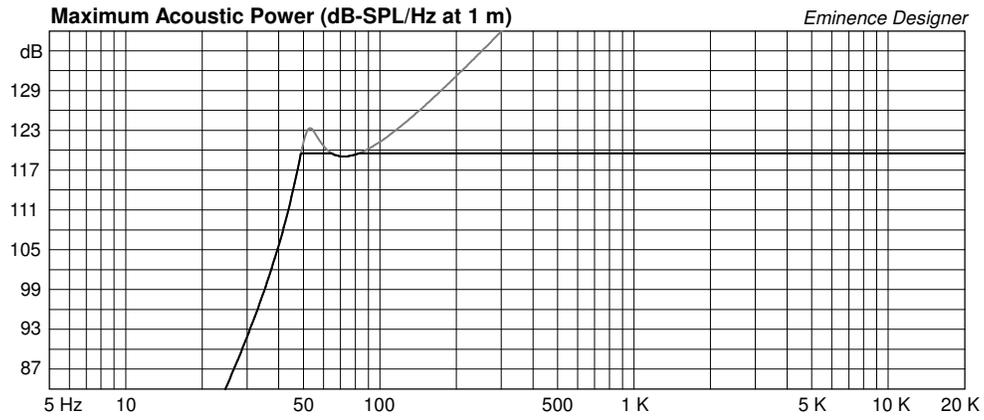
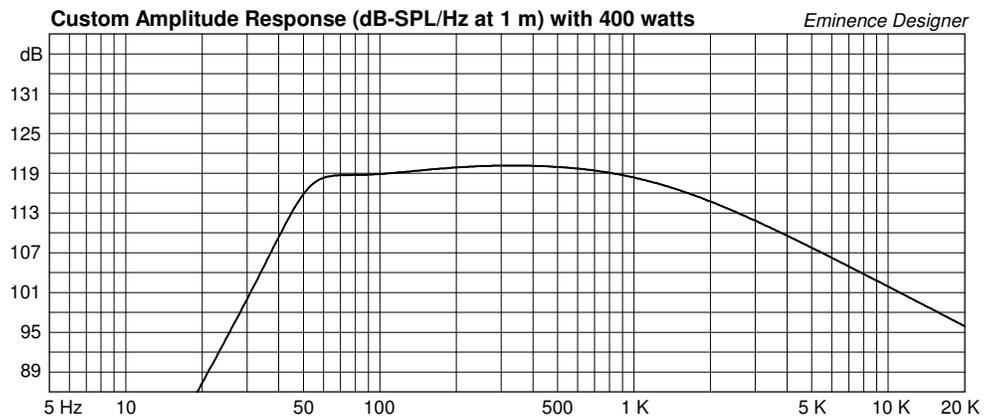
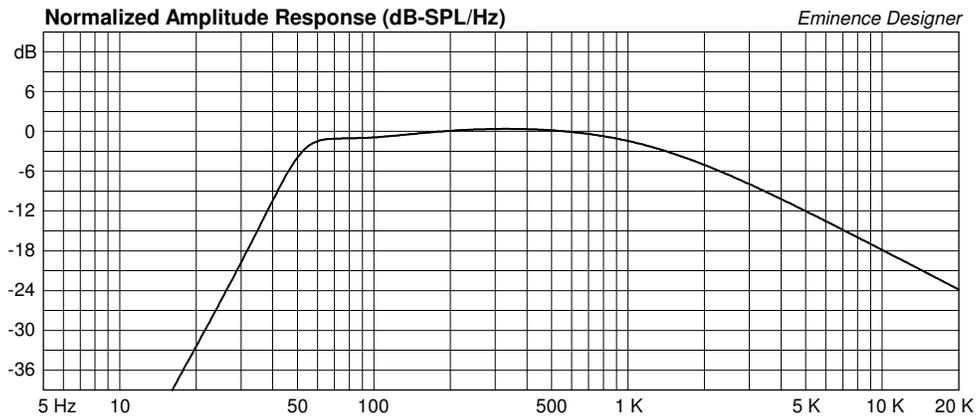
1 Top, 1 Bottom:  
width (e) = 13.14, length (h) = 10.18 in  
thickness = 0.125 in  
2 Sides:  
height (g) = 1.35, length (h) = 10.18 in  
thickness = 0.125 in

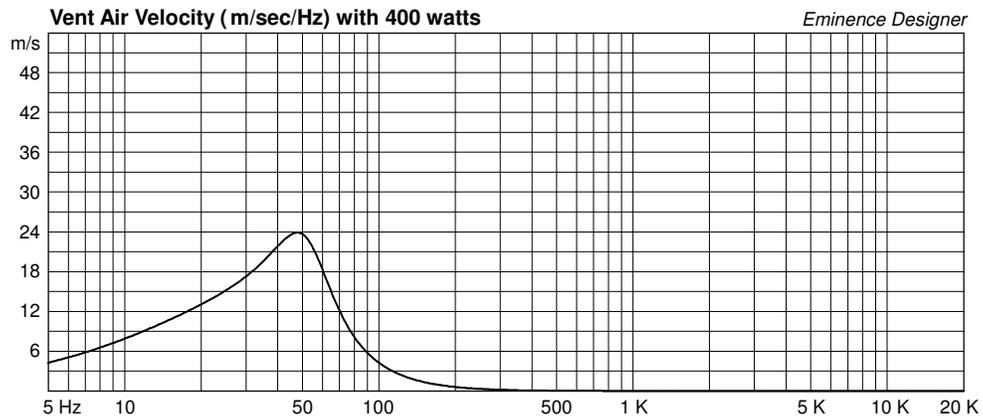
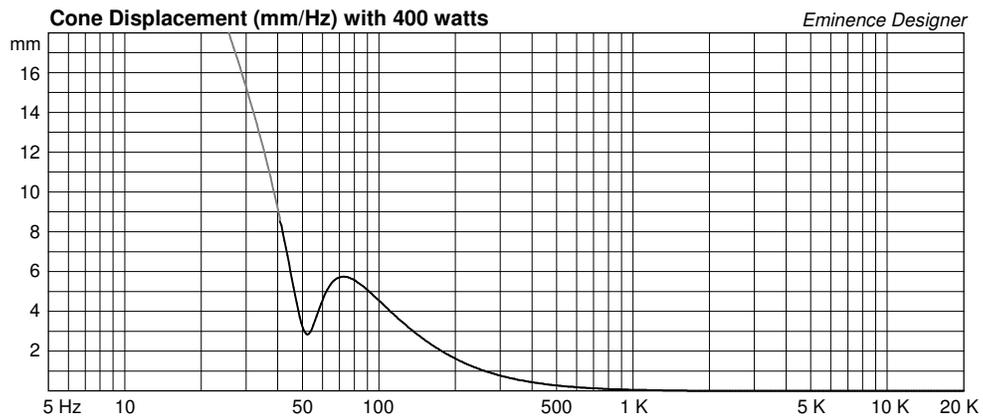
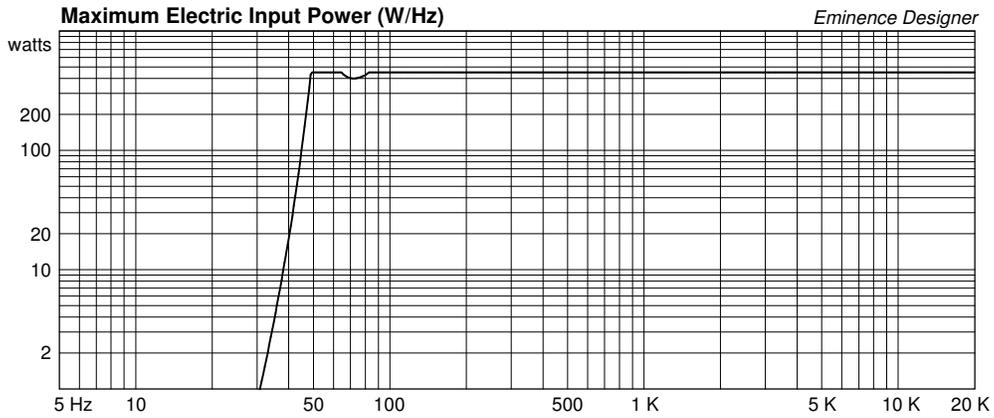
*--Driver Mounting--*  
Mounting: Flush

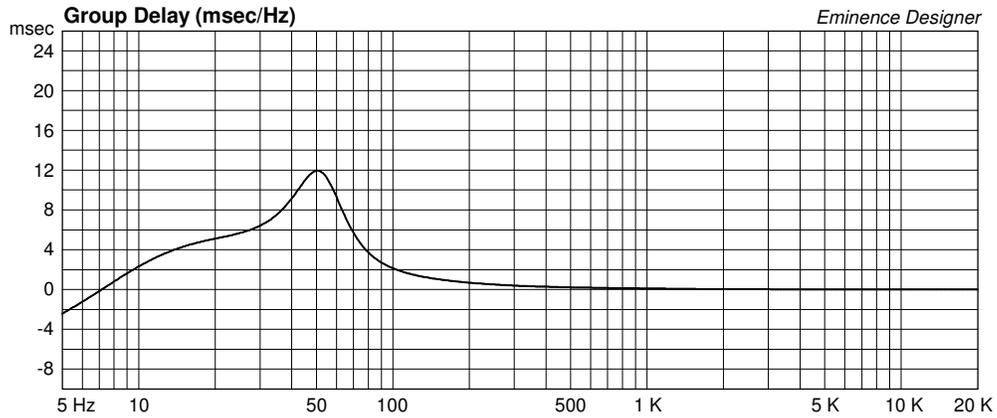
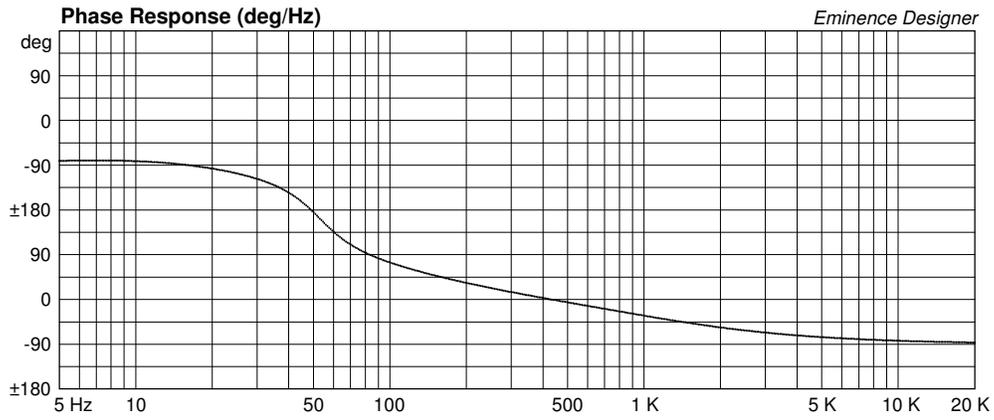
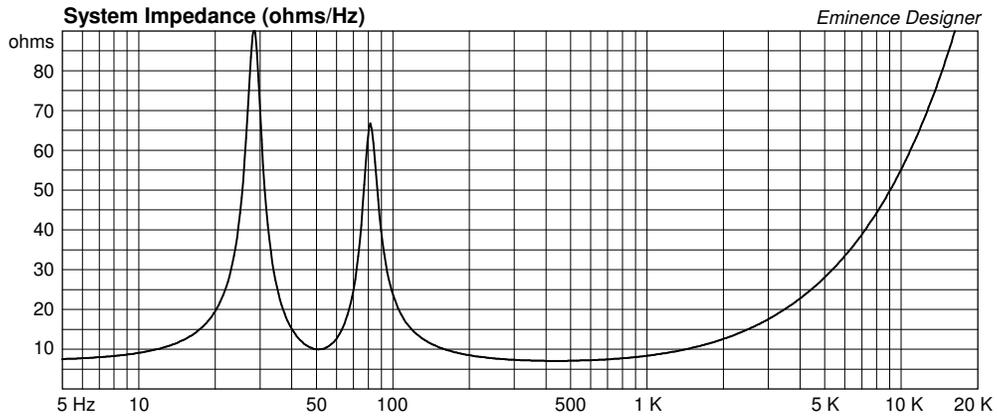


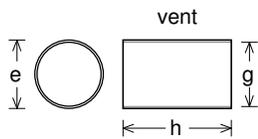
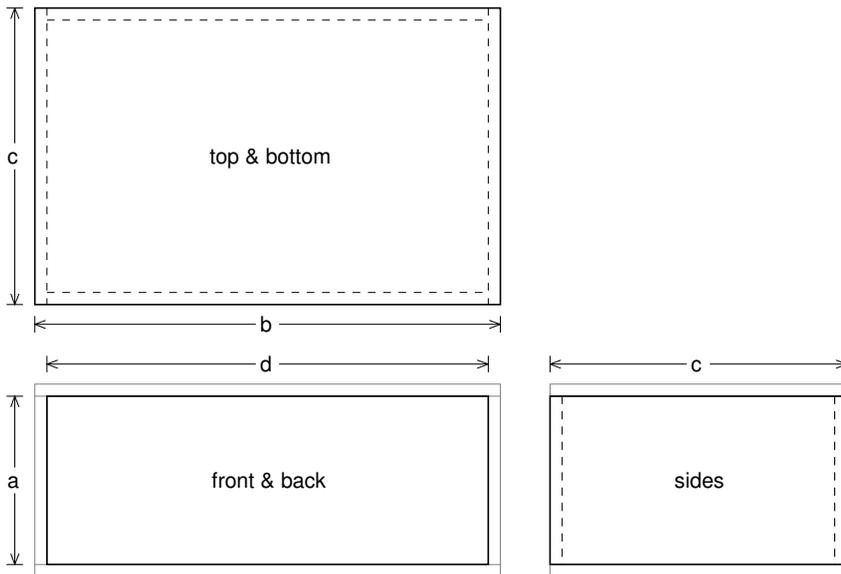
### Wiring Diagram











### Box Parts

Box Shape: Optimum Square Prism  
1 Top, 1 Bottom: depth (c) = 18.46 in  
width (b) = 28.93, thickness = 0.75 in  
1 Front, 1 Back: height (a) = 10.48 in  
width (d) = 27.43, thickness = 0.75 in  
2 Sides: height (a) = 10.48 in  
depth (c) = 18.46, thickness = 0.75 in

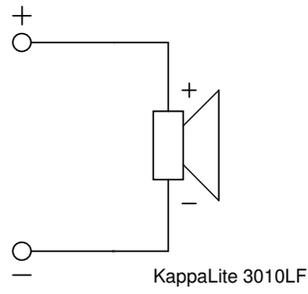
### --Vent Parts--

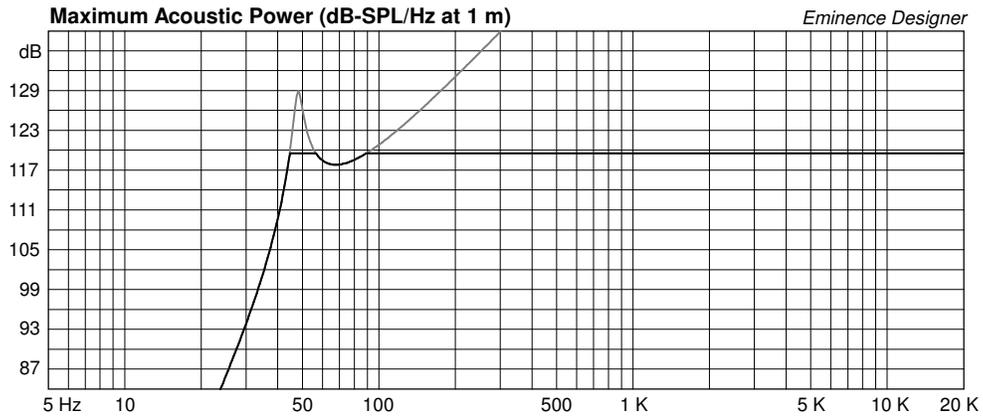
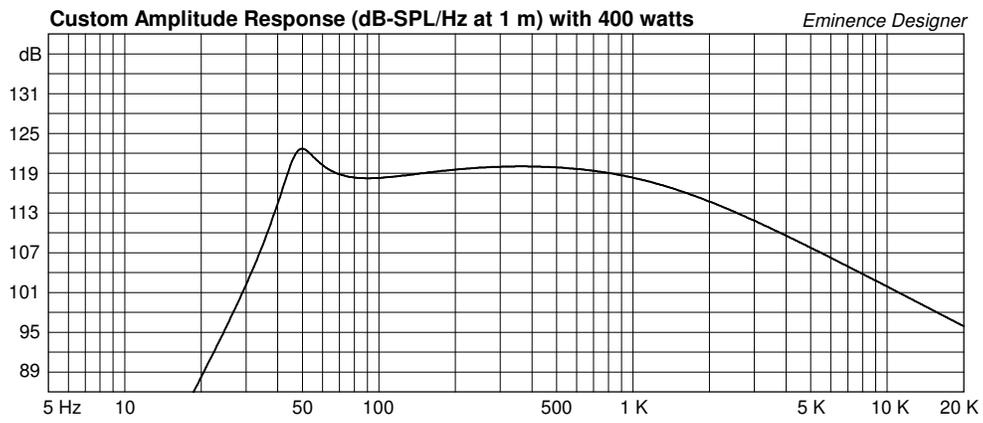
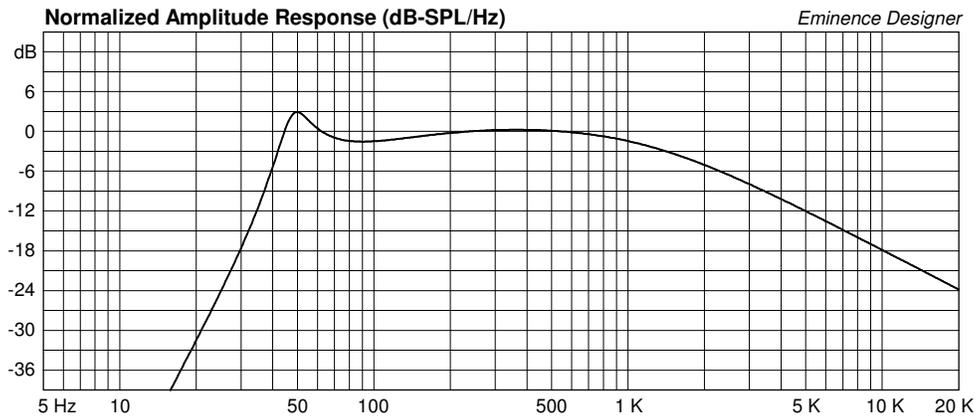
2 Ducts: outside diameter (e) = 4.25 in  
inside diameter (g) = 4 in  
length (h) = 6.738 in

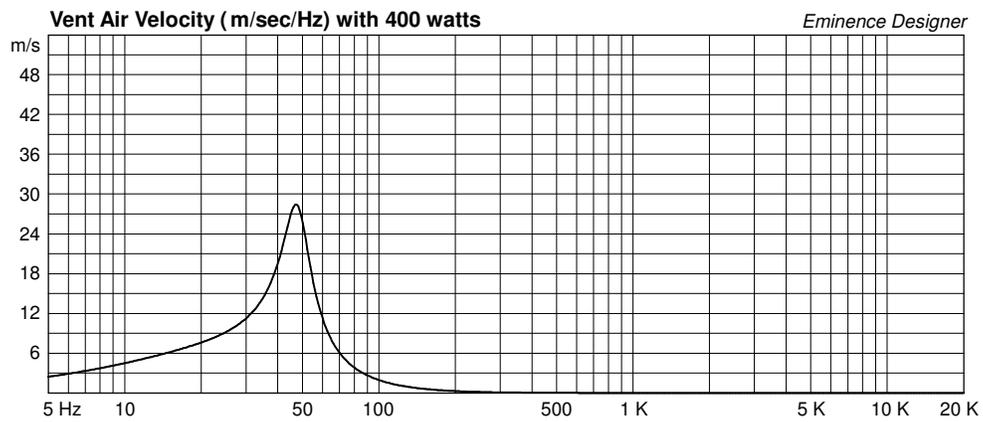
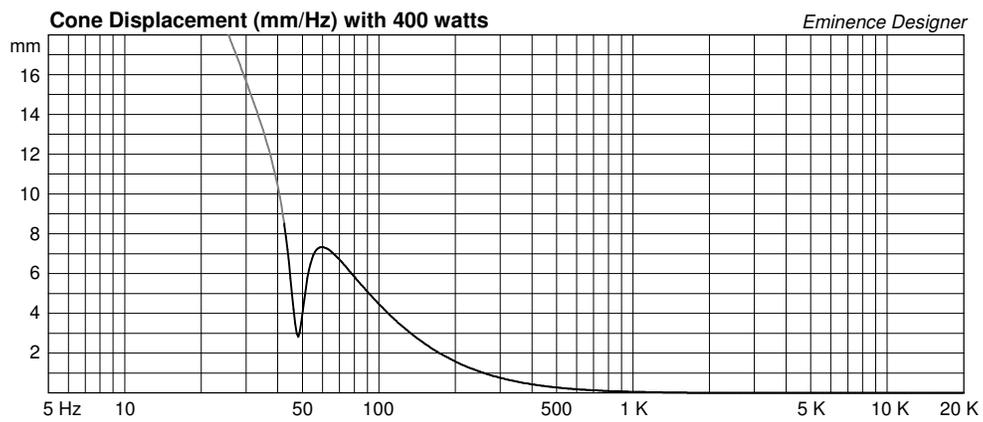
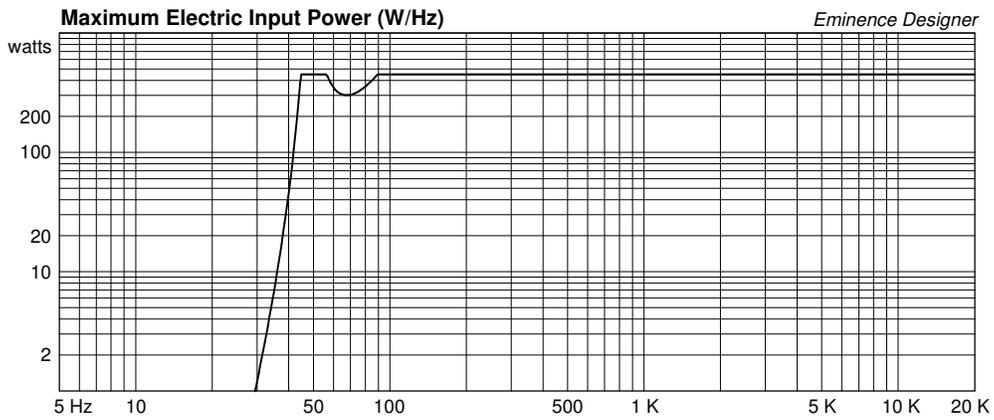
### --Driver Mounting--

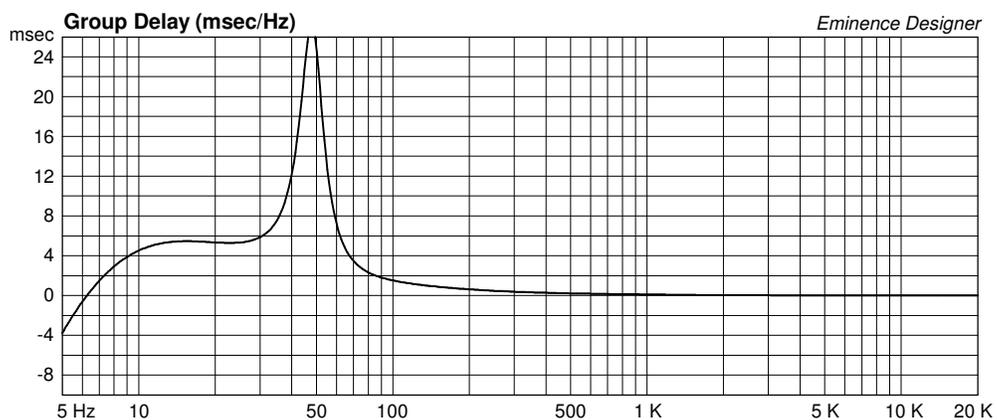
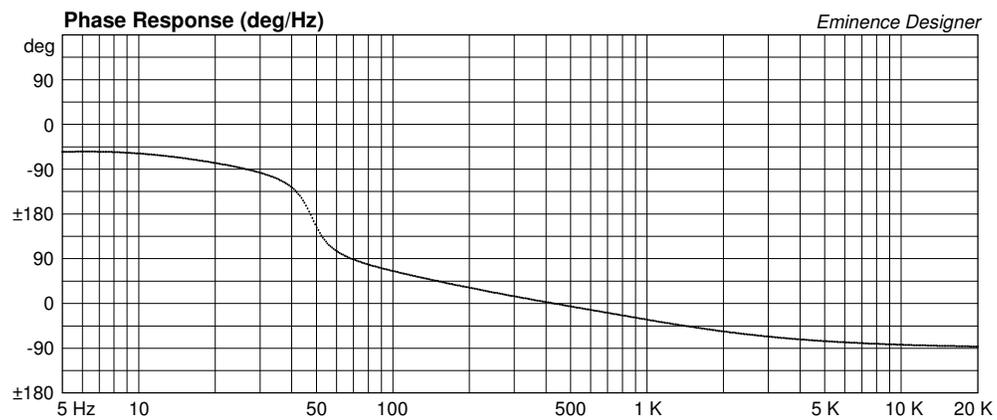
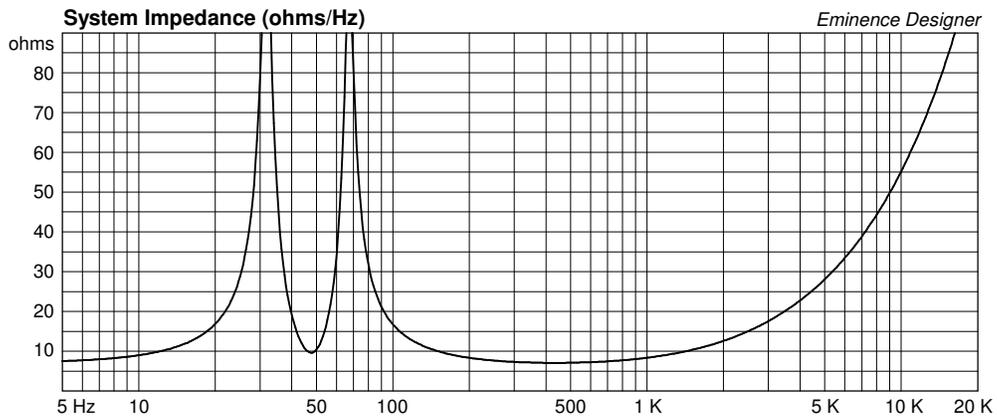
Mounting: Flush

### Wiring Diagram









# KappaLite 3010LF Small Vented Floor Wedge Or Sat

By Jerry McNutt, Eminence Speaker LLC

450 Watts Power Handling, F3 of 72 Hz, High Pass Suggested at 60 Hz.

---

## Box Properties

--Description--

Name:

Type: Vented Box

Shape: Prism, truncated edge

--Box Parameters--

Vb = 0.65 cu.ft

V(total) = 0.746 cu.ft

Fb = 70 Hz

QL = 7

F3 = 68.66 Hz

Fill = minimal

--Vents--

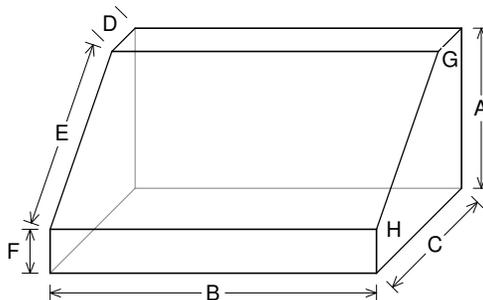
No. of Vents = 2

Vent shape = round

Vent ends = one flush

Dv = 2.5 in

Lv = 5.667 in



--External Dimensions--

A = 11 in

B = 22.41 in

C = 11 in

D = 3 in

E = 11.31 in

F = 3 in

--Internal Dimensions--

A = 9.5 in

B = 20.91 in

C = 9.5 in

D = 1.939 in

E = 10.69 in

F = 1.939 in

--Wall Thickness--

Wall = 0.75 in

--Angles--

G = 135°

H = 135°

## Driver Properties

--Description--

Name: KappaLite 3010LF

Type: Standard one-way driver

Company: Eminence Speaker LLC

Comment: 10" Cast Neo Subwoofer

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

Fs = 44.82 Hz

Qms = 6.95

Vas = 47.33 liters

Cms = 0.24 mm/N

Mms = 53.23 g

Rms = 2.16 kg/s

Xmax = 8.52 mm

Xmech = 15.7 mm

P-Dia = 217.8 mm

Sd = 376.9 sq.cm

P-Vd = 0.302 liters

--Electrical Parameters--

Qes = 0.33

Re = 7.03 ohms

Le = 0.87 mH

Z = 8 ohms

BL = 17.98 Tm

Pe = 450 watts

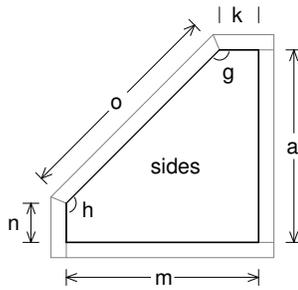
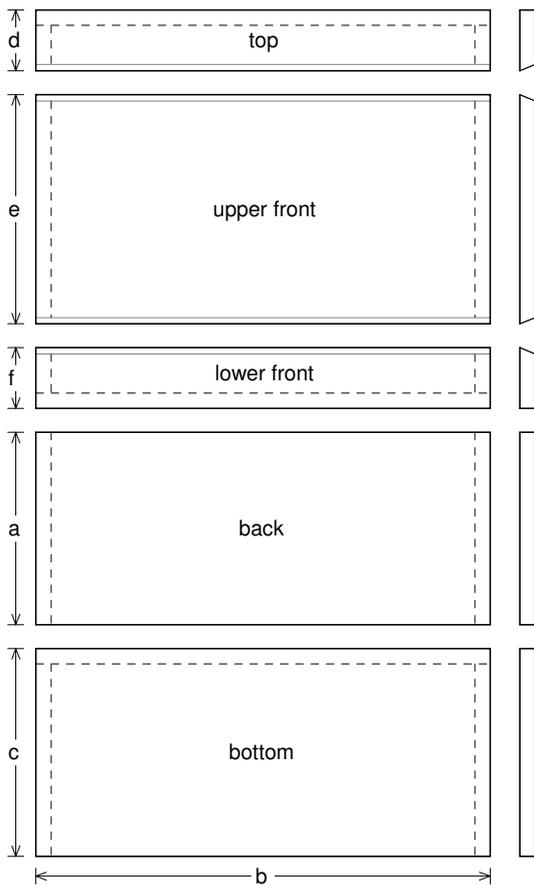
--Electromech. Parameters--

Qts = 0.31

no = 1.243 %

1-W SPL = 93.09 dB

2.83-V SPL = 93.55 dB



### Box Parts

Box Shape: Truncated Edge Prism

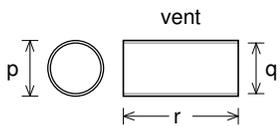
- 1 Top: height  $(d) = 3$  in  
width  $(b) = 22.41$ , thickness = 0.75 in  
cut angle (front edge only) =  $22.5^\circ$
- 1 Upper Front: height  $(e) = 11.31$  in  
width  $(b) = 22.41$ , thickness = 0.75 in  
top edge cut angle =  $22.5^\circ$   
bottom edge cut angle =  $22.5^\circ$
- 1 Lower Front: height  $(f) = 3$  in  
width  $(b) = 22.41$ , thickness = 0.75 in  
cut angle (top edge only) =  $22.5^\circ$
- 1 Back: height  $(a) = 9.5$ , width  $(b) = 22.41$  in  
thickness = 0.75 in
- 1 Bottom: height  $(c) = 10.25$  in  
width  $(b) = 22.41$ , thickness = 0.75 in
- 2 Sides: top depth  $(k) = 1.939$  in  
height  $(a) = 9.5$  in  
bottom depth  $(m) = 9.5$  in  
lower front height  $(n) = 1.939$  in  
front length  $(o) = 11.31$  in  
thickness = 0.75 in  
Angle  $g = 135^\circ$ , Angle  $h = 135^\circ$

--Vent Parts--

- 2 Ducts: outside diameter  $(p) = 2.75$  in  
inside diameter  $(q) = 2.5$  in  
length  $(r) = 5.667$  in

--Driver Mounting--

Mounting: Flush



### Wiring Diagram

