

# KappaLite 3015LF-4 Small Vented Woofer

By Matt Marcum, Eminence Speaker LLC  
Limited to 550 Watts; F3 of 49 Hz.  
Use a steep high pass filter set to 40Hz.

## Box Properties

--Description--

Name: Vented Box 2  
Type: Vented Box  
Shape: Prism, square (optimum)

--Box Parameters--

Vb = 3.5 cu.ft  
V(total) = 3.892 cu.ft  
Fb = 49 Hz  
QL = 7  
F3 = 48.49 Hz  
Fill = minimal

--Vents--

No. of Vents = 4  
Vent shape = round  
Vent ends = one flush  
Dv = 4 in  
Lv = 11.11 in

## Driver Properties

--Description--

Name: KappaLite 3015LF-4  
Type: Standard one-way driver  
Company: Eminence Speaker LLC  
Piston: Treated paper cone.  
Suspension: Sealed cloth surround.  
Dust Cap: Treated paper dust cap.  
Frame: Diecast aluminum basket.  
Voice Coil: 3 inch (76.2 mm) copper coil. *Keep on former.*  
Magnet: 11 oz neodymium magnet.

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

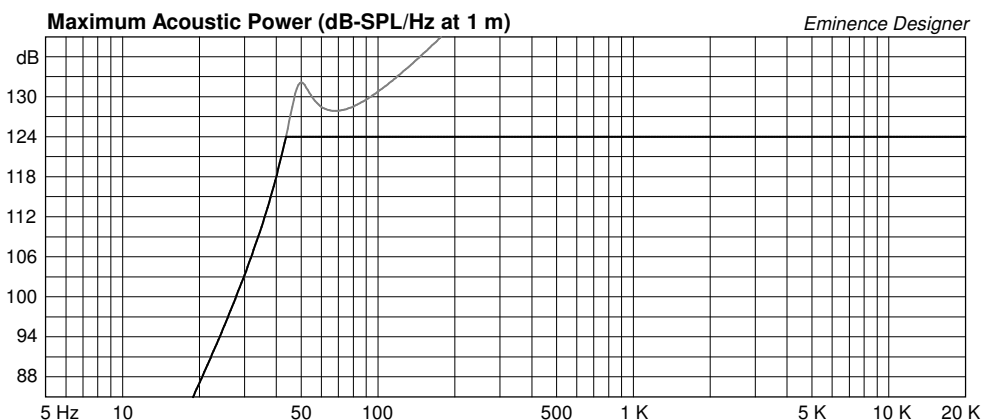
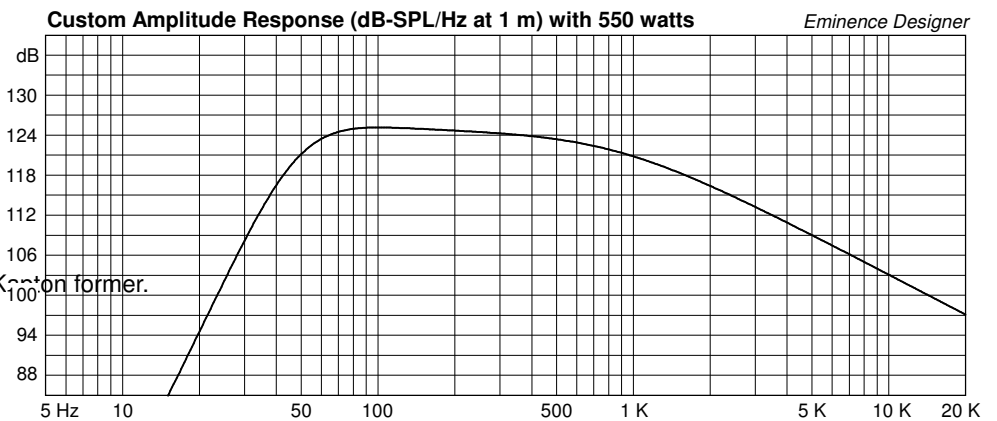
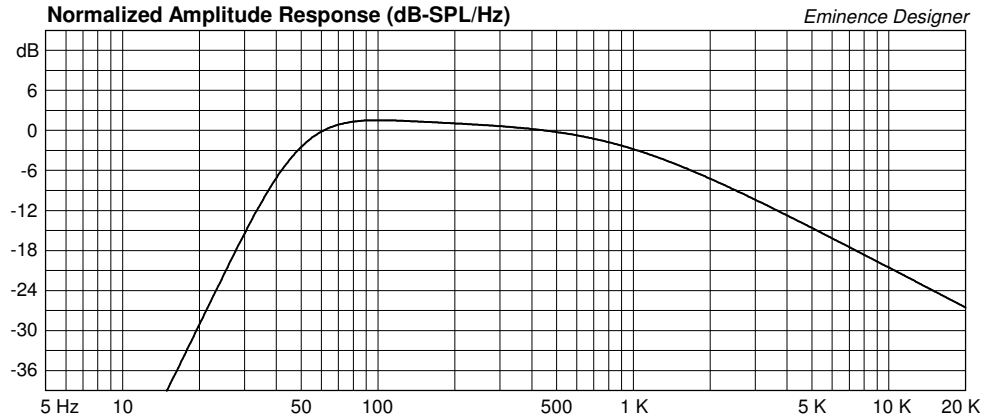
Fs = 47.43 Hz  
Qms = 10.19  
Vas = 118.6 liters  
Cms = 0.11 mm/N  
Mms = 106.1 g  
Rms = 2.994 kg/s  
Xmax = 10.65 mm  
Xmech = 17 mm  
P-Dia = 333.1 mm  
Sd = 881.2 sq.cm  
P-Vd = 0.928 liters

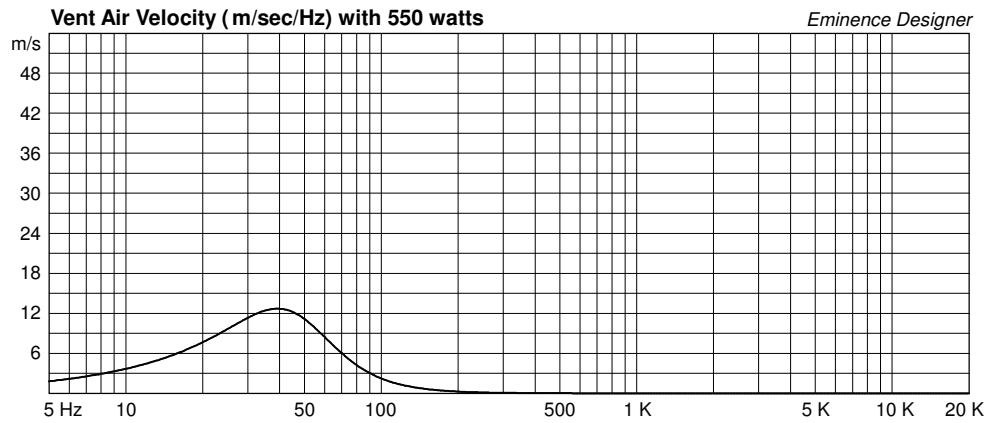
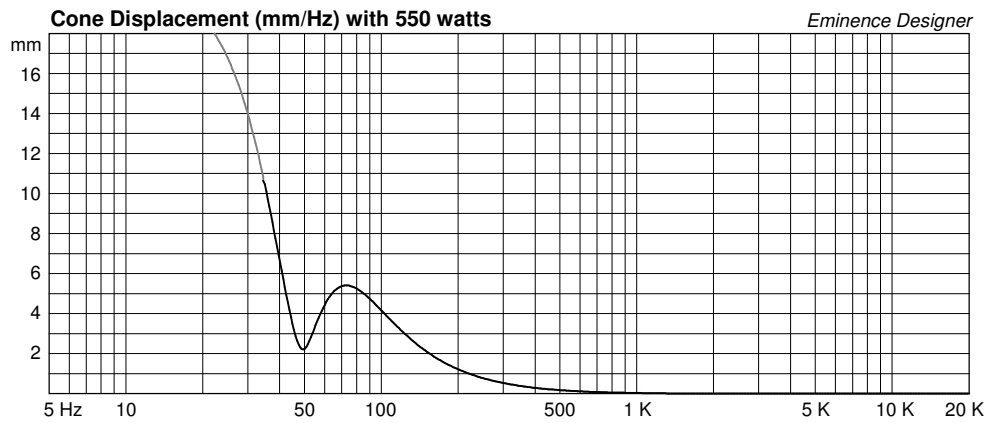
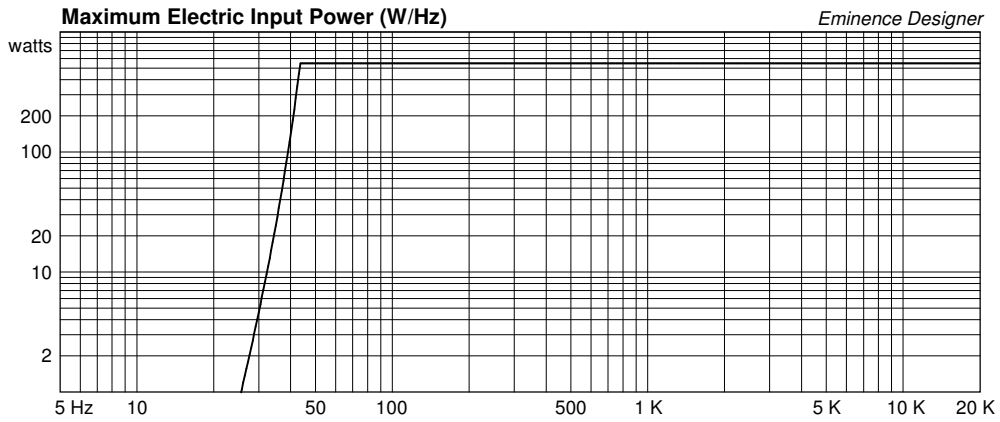
--Electrical Parameters--

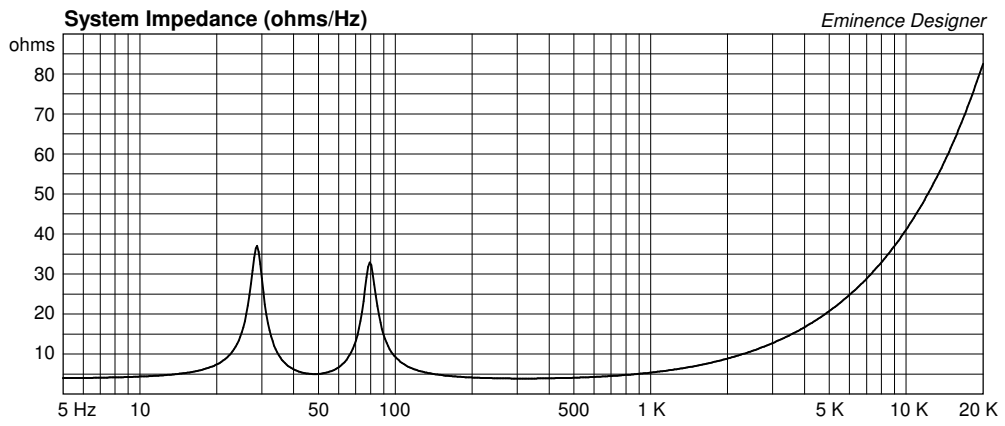
Qes = 0.49  
Re = 3.85 ohms  
Le = 0.65 mH  
Z = 4 ohms  
BL = 15.75 Tm  
Pe = 550 watts

--Electromech. Parameters--

Qts = 0.47  
no = 2.49 %  
1-W SPL = 96.11 dB  
2.83-V SPL = 99.28 dB







# KappaLite 3015LF-4 Subwoofer Design

By Matt Marcum, Eminence Speaker LLC  
Limited to 500 Watts; F3 of 38 Hz.  
Use a steep high pass filter set to 35 Hz.

## Box Properties

--Description--

Name: Vented Box 1  
Type: Vented Box  
Shape: Prism, square (optimum)

--Box Parameters--

Vb = 6.1 cu.ft  
V(total) = 6.467 cu.ft  
Fb = 38 Hz  
QL = 7  
F3 = 38.43 Hz  
Fill = minimal

--Vents--

No. of Vents = 4  
Vent shape = round  
Vent ends = one flush  
Dv = 4 in  
Lv = 10.34 in

## Driver Properties

--Description--

Name: KappaLite 3015LF-4  
Type: Standard one-way driver  
Company: Eminence Speaker LLC  
Piston: Treated paper cone.  
Suspension: Sealed cloth surround.  
Dust Cap: Treated paper dust cap.  
Frame: Diecast aluminum basket.  
Voice Coil: 3 inch (76.2 mm) copper coil. Kappa on former.  
Magnet: 11 oz neodymium magnet.

--Configuration--

**No. of Drivers = 1**

--Mechanical Parameters--

Fs = 47.43 Hz  
Qms = 10.19  
Vas = 118.6 liters  
Cms = 0.11 mm/N  
Mms = 106.1 g  
Rms = 2.994 kg/s  
Xmax = 10.65 mm  
Xmech = 17 mm  
P-Dia = 333.1 mm  
Sd = 881.2 sq.cm  
P-Vd = 0.928 liters

--Electrical Parameters--

Qes = 0.49  
Re = 3.85 ohms  
Le = 0.65 mH  
Z = 4 ohms  
BL = 15.75 Tm  
Pe = 550 watts

--Electromech. Parameters--

Qts = 0.47  
no = 2.49 %  
1-W SPL = 96.11 dB  
2.83-V SPL = 99.28 dB

