



KEY FEATURES:

97 db 1W / 1m average sensitivity

115 mm (4.5") high temperature sandwich voice coil

3200 W AES program power

Powerful, vented 245 mm magnet structure

Double aluminium demodulating ring for lower distortion and improved heat dissipation

Double silicone spider assembly for improved excursion control and linearity

Water protected cone with Kevlar and Glass fibers

Application : Power bass

The 18XB1600 ferrite bass loudspeaker is specially designed to deliver high impact bass response, with exceptional high power capacity. It incorporates an 4.5" sandwich voice coil, double silicone spider assembly, paper cone with Kevlar and Glass fibers and die cast vented aluminium frame. Powerful, vented magnetic structure which reduces power compression with double demodulating rings. The result is high efficient transducer for bass applications, with the ability to handle high excursion with low distortion and reduced thermal power compression.

SPECIFICATIONS

Nominal Diameter	18"/461 inch/mm
Impedance	8 Ohm
Minimum Impedance	6.65 Ohm
Power Capacity AES ¹	1600 W
Program Power ²	3200 W
Sensitivity	97 dB
Frequency Range	30 - 1000 Hz
Voice Coil Diameter	115 mm (4.5")
Voice Coil Material	Copper
Voice Coil Former	Glassfiber
Voice Coil Winding Depth	32 mm
Magnet Gap Depth	14 mm
Cone Material	paper with Kevlar and Glass fibers
Basket	Die cast aluminium
Magnet	Ferrite
Flux Density	1.10 T

1. AES standard. Power is calculated on rated minimum impedance. Measurement is in 180 L box enclosure tuned 43 Hz using a 40-400 Hz band limited pink noise test signal applied continuously for 2 hours.

2. Program power is defined as 3db greater than AES Power Capacity.

* Linear Mathematical Xmax is calculated as: $(H_{vc} - H_g)/2 + H_g/4$ where H_{vc} is the voice coil depth and H_g is the gap depth.

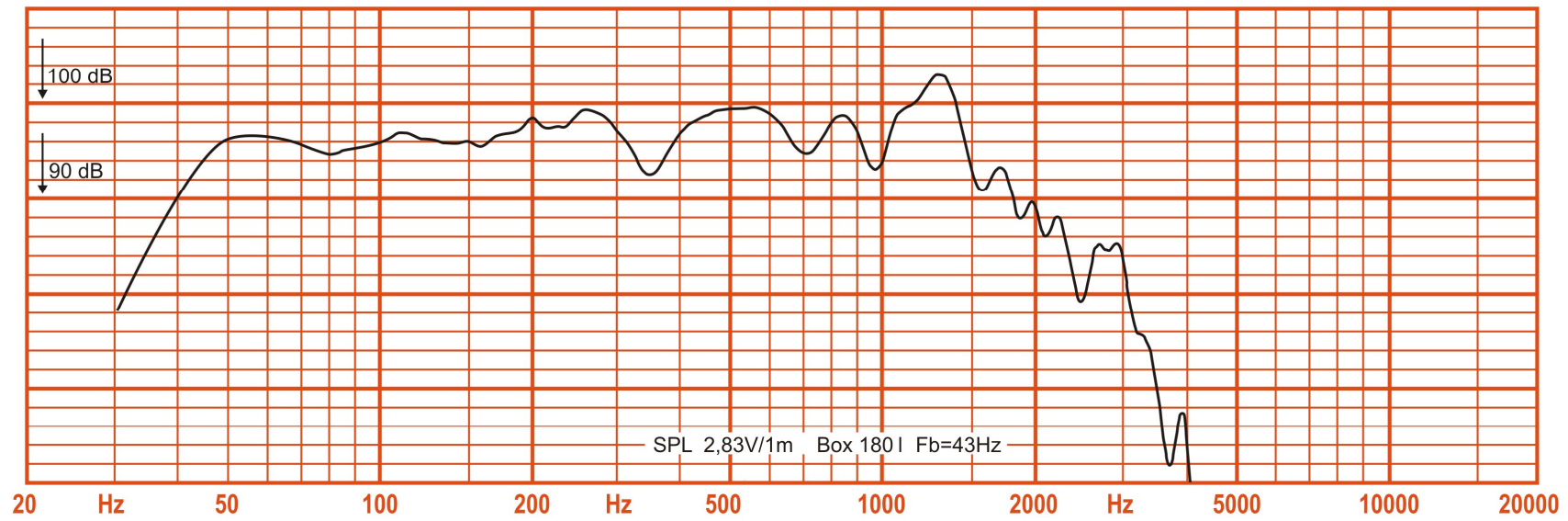
THIELE-SMALL PARAMETERS

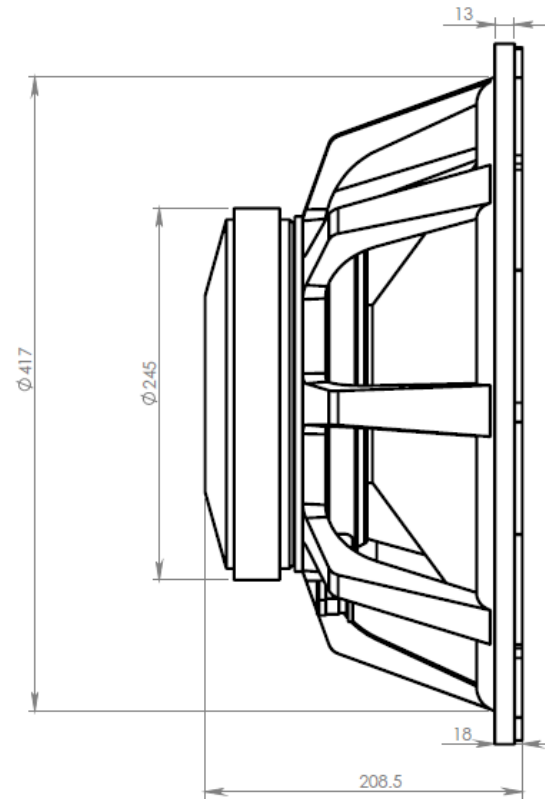
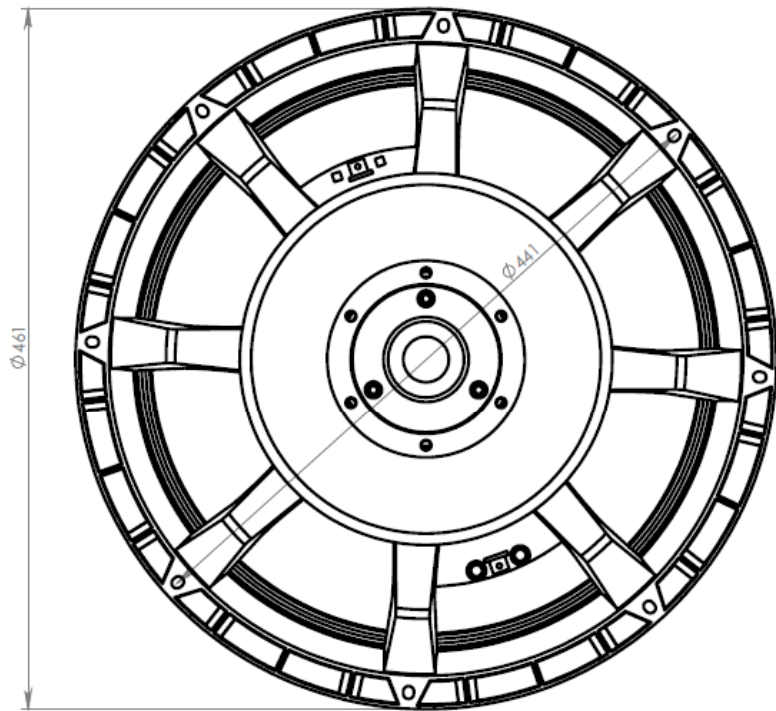
Resonance Frequency	32.5 Hz
Mechanical Efficiency Factor (Qms)	8.74
Electrical Efficiency Factor (Qes)	0.287
Total Q (Qts)	0.278
Equivalent Air Volume (Vas)	267 Litres
Diaphragm mass ind. airload (Mms)	231 grams
Voice Coil Resistance Re	5.3 Ohms
Effective Diagram Area (Sd)	1158 cm ²
Peak Linear Displacement of Diaphragm (Xmax)*	± 12.5 mm
Mechanical Compliance of Suspension (Cms)	0.104 mm/N
BL Product (BL)	29.6 T.m
V.C. Inductance at 1 kHz (Le)	1.46 mH

MOUNTING INFORMATION

Overall Diameter	461 mm
Baffle Hole Diameter	416 mm
Number of Mounting Holes	8 elliptic 7 x 8,5 mm
Bolt Circle Diameter	438/441 mm
Overall Depth	208.5 mm
Net Weight	16.8 kg

Frequency Response





OBERTON

model: 18XB1600

Dimensions are in mm

Scale: 1:4