

# Oberton 15 XL 600



## KEY FEATURES:

- 100 db 1W / 1m average sensitivity
- 100 mm high temperature sandwich aluminium voice coil
- 1200 W AES program power
- Powerful, vented 220 mm magnet structure
- Aluminium demodulating ring for lower distortion and improved heat dissipation
- Double silicone spiders for improved excursion control and linearity

## Application : Midbass

**15XL600** is a high power 15 inch mid-bass loudspeaker, with very high efficiency and good linearity. It features a 4" aluminum sandwich voice coil, 220 mm magnet structure, vented aluminium frame, double silicone spider assembly with integrated aluminum demodulating ring that reduces distortions and improves cooling of the voice coil. **15XL600** is suitable for use in high power portable and fixed installation professional loudspeaker boxes.

## SPECIFICATIONS

Nominal Diameter	15"/385 inch/mm
Impedance	8 Ohm
Minimum Impedance	6.7 Ohm
Power Capacity AES <sup>1</sup>	600 W
Program Power <sup>2</sup>	1200 W
Sensitivity	(200-2000 Hz) 100 dB/W/m
Frequency Range	50 – 3000 Hz
Voice Coil Diameter	100 mm
Voice Coil Material	Aluminum
Voice Coil Former	Kapton™
Voice Coil Winding Depth	16 mm
Magnet Gap Depth	11 mm
Cone Material	Kevlar Paper
Basket	Die Cast Aluminium
Magnet	Ferrite
Flux Density	1.25 T

1. AES standard. Power is calculated on rated minimum impedance. Measurement is in 120 L box enclosure tuned 56 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:  $(Hvc - Hg)/2 + Hg/4$  where Hvc is the voice coil depth and Hg is the gap depth.

## THIELE-SMALL PARAMETERS

Resonance Frequency	40.9 Hz
Mechanical Efficiency Factor (Qms)	10.9
Electrical Efficiency Factor (Qes)	0.220
Total Q (Qts)	0.216
Equivalent Air Volume (Vas)	150.32 Litres
Diaphragm mass ind. airload (Mms)	96.91 grams
Voice Coil Resistance Re	5.40 Ohms
Effective Diagram Area (Sd)	829.6 cm <sup>2</sup>
Peak Linear Displacement of Diaphragm (Xmax)*	±5.25 mm
Mechanical Compliance of Suspension (Cms)	0.156 mm/N
BL Product (BL)	24.70 T.m
V.C. Inductance at 1 kHz (Le)	1.09 mH

## MOUNTING INFORMATION

Overall Diameter	388 mm
Baffle Hole Diameter	354 mm
Number of Mounting Holes	8 with dia. 7mm
Bolt Circle Diameter	370/372 mm
Overall Depth	176.4 mm
Net Weight	10.85 kg

# Frequency Responce

