

18LW2500

Extended LF Ferrite Transducer

KeyFeatures

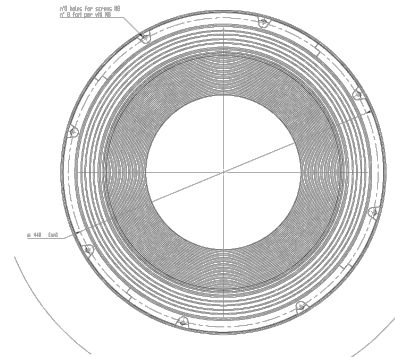
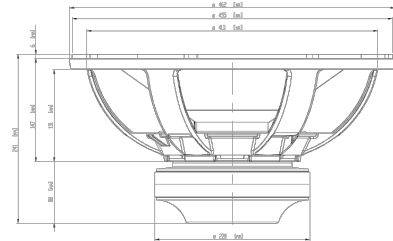
- 95 dB SPL 1W / 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
- 3200W program power handling
- 70 mm (2,76 in) peak to peak excursion
- Ultra linear dual magnet motor design
- Composite reinforced straight ribbed cone
- Optimized high grade ferrite magnet assembly
- Recommended for subwoofer usage in compact vented or bandpass enclosures

Description

The 18LW2500 is a 18" (466 mm) extended low frequency loudspeaker, designed for use in vented or bandpass enclosure. The loudspeaker is designed to withstand high power levels without damage while providing clean and undistorted LF reproduction at a very high SPL. For optimum results we recommend amplifiers able to deliver 3400 Watt program power. The 18LW2500 features a unique motor featuring a high grade ferrite magnet assembly in a structure optimized for thermal and magnetic efficiency. 18LW2500 features include a large displacement suspension system which, in conjunction with a composite reinforced, straight ribbed cone and the Eighteen Sound proprietary Double Silicon Spider (DSS) technology, allows an ultra-linear piston action and provides full mechanical control across the entire working range. The 100mm (4 in) state-of-the-art voice-coil utilizing Interleaved Sandwich Voice coil (ISV) technology, provides high levels of thermal stability and durability. The ISV technology achieves a balanced linear motor unit exerting an exceptionally high force factor.

Models

Model	Code	Info
0221882400	0221882400	8 Ohm



General Specifications

Nominal Diameter	462 mm (18 in)
Rated Impedance	8 Ohm
AES Power	1600 W
Program Power	3200 W
Peak Power	7200 W
Sensitivity	95 dB
Frequency Range	30 Hz - 1000 Hz
Power Compression @-10dB	0,6 dB
Power Compression @-3dB	2,2 dB
Power Compression @Full Power	3,3 dB
Max Recomm. Frequency	250 Hz
Recomm. Enclosure Volume	160-350 lt (4.59 - 12.37 cuft)
Minimum Impedance	6,1 @ 25°
Max Peak To Peak Excursion	70 mm (2,76 in)
Voice Coil Diameter	100 mm (4 in)
Voice Coil winding material	Copper wire
Suspension	Triple roll, Heavy Polycotton
Cone	Curved ribbed fiber loaded cellulose

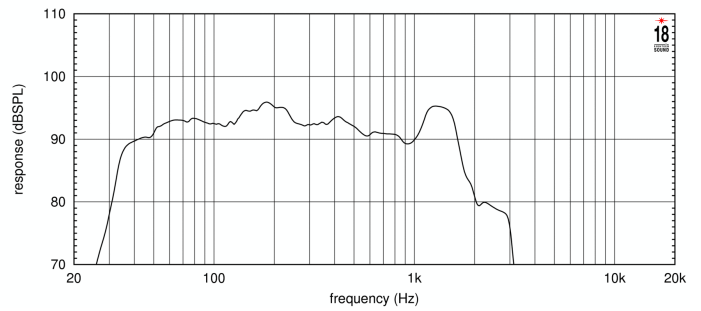
Thiele Small Parameters

Fs	34 Hz
Re	4,9 Ohm
Sd	0,113 sq.m (175,15 sq.in)
Qms	22
Qes	0,34
Qts	0,33
Vas	135 lt. (4.76 cu.ft)
Mms	290 gr. (0,64 lb)
BL	30 Tm
Linear Mathematical Xmax	±14 mm (±0,55 in)
Le (1kHz)	2,87 mH
Ref. Efficiency 1W@1m (half space)	93,8 dB

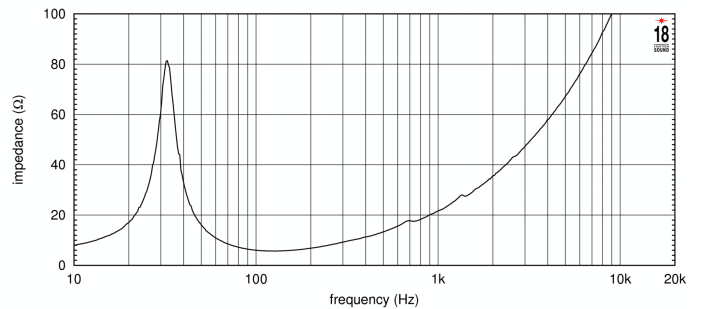
Mounting information

Overall diameter	462 mm (18,18 in)
N. of mounting holes and bolt	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	440 mm (17,32 in)
Front mount baffle cutout ø	416 mm (16,38 in)
Rear mount baffle cutout ø	422 mm (16,61 in)
Total depth	234 mm (9,21 in)
Flange and gasket thickness	26 mm (1,02 in)
Net weight	16,7 kg (36,8 lb)
Shipping weight	18,2 kg (40,1 lb)
Packaging Dimensions	18,2 kg (40,1 lb)

FREQUENCY RESPONSE CURVE



FREQUENCY RESPONSE CURVE MADE ON 180LT ENCLOSURE TUNED 35HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER FREE AIR IMPEDANCE MAGNITUDE CURVE



Notes

- (1) AES power is determined according to AES2-1984 (r2003) standard
- (2) Program power rating is measured in 180 lit. enclosure tuned at 35 Hz using a 40-400 band limited pink noise test signal applied for 2 hours and with 50% duty cycle.
- (3) The peak power rating is based on a 4,5 dB crest factor above the program power rating and represents the maximum permitted instantaneous peak power level over a maximum period of 10ms which will be withstood by the loudspeaker without damage.
- (4) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2.83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for 2 above.
- (5) Frequency range is given as the band of frequencies delineated by the lower and upper limits where the output level drops by 10 dB below the rated sensitivity in half space environment.
- (6) Power compression represents the loss of sensitivity for the specified power, measured from 40 to 400Hz after a 5 min pink noise preconditioning test at the specified power.
- (7) Thiele - Small parameters are measured after the test specimen has been conditioned by 1 hour 20 Hz sine and represent the expected long term parameters after a short period of use.
- (8) Linear Mat. Xmax is calculated as; $(Hvc-Hg)/2 + Hg/4$ where Hvc is the coil depth and Hg is gap depth.