21LW2500

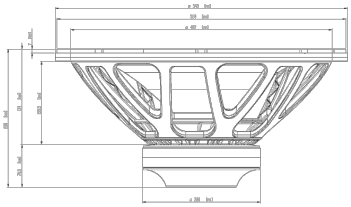
Extended LF Ferrite Transducer

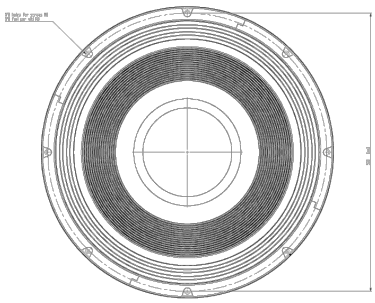
KeyFeatures

- 95 dB SPL 1W / 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
- 3200 Watt program power handling
- Composite reinforced straight ribbed cone
- Optimized high grade ferrite magnet assembly
- Recommended for subwoofer usage in compact vented or bandpass enclosures

Description

The 21LW2500 is a 21" (533 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 3600 Watt program power. The 21LW2500 features a unique motor featuring a high grade ferrit magnet assembly in a structure optimized for thermal and magnetic efficiency. 21LW2500 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	Information
21LW2500		8 Ohm

21LW2500

Extended LF Ferrite Transducer

General Specifications

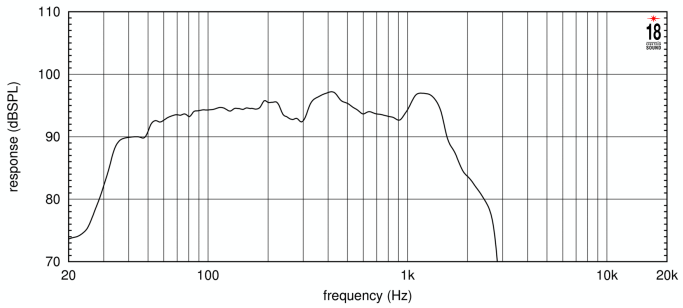
Nominal Diameter	533 mm (21 in)
Rated Impedance	8 Ohm
AES Power	1600 W
Program Power	3200 W
Peak Power	7200 W
Sensitivity	95 dB
Frequency Range	30-1000Hz
Power Compression @-10dB	TBD
Power Compression @-3dB	TBD
Power Compression @Full Power	TBD
Max Recomm. Frequency	200 Hz
Recomm. Enclosure Volume	130 - 500 lt (4.59-17.7 cuft)
Minimum Impedance	6,1 Ohm @ 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

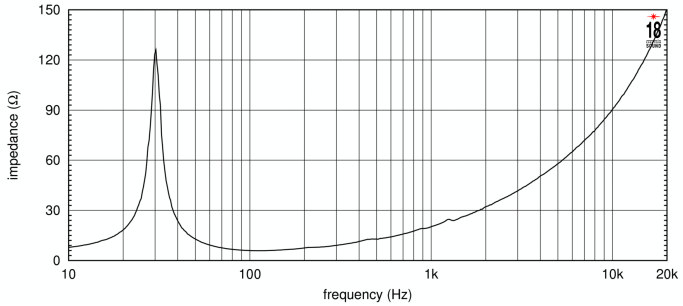
Fs	30 Hz
Re	4,8 Ohm
Sd	0,166 sq.m (175,15 sq.in)
Qms	9,35
Qes	0,37
Qts	0,35
Vas	290 lt. (10,24 cu.ft)
Mms	368 gr. (0,80 lb)
BL	30,5 Tm
Linear Mathematical Xmax	±14,5 mm (±0,57 in)
Le (1kHz)	2,58 mH
Ref. Efficiency 1W@1m (half space)	95,4 dB

Mounting information

Overall diameter	545 mm (21,46 in)
N. of mounting holes and bolt	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	520 mm (20,47 in)
Front mount baffle cutout ø	492 mm (19,37 in)
Rear mount baffle cutout ø	490 mm (19,29 in)
Total depth	252 mm (9,92 in)
Flange and gasket thickness	18 mm (0,7 in)
Net weight	17,9 kg (39,4 lb)
Shipping weight	19,4 kg (42,7 lb)
CardBoard Packaging dimensions	570x570x290 mm (22,4x22,4x11,4 in)



FREE AIR IMPEDANCE MAGNITUDE CURVE



Notes

1) AES power is determined according to AES2-1984 (r2003) standard
2) Program power rating is measured in 250 lit enclosure tuned 28Hz using a 30-300Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.
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 whituout 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 (1) 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 30 to 300 Hz, after a 5 min pink noise preconditioning test at the specified power.
7) Linear Math. Xmax is calculated as (Hvc-Hg)/2 + Hg/4 where Hvc is the coil depth and Hg is the gap depth.