



- 95 dB SPL 1W/ 1m average sensitivity
- 100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
- 1000 WAES power handling
- Carbon fiber reinforced cone
- Double Silicon Spider (DSS) for improved excursion control and linearity
- Double Demodulating Rings (DDR) for lower distortion
- Rubber surround suspension system
- External neodymium magnet assembly
- Improved dissipation via onboard aluminum heatsink
- Ideal for low distortion direct radiation subwoofers

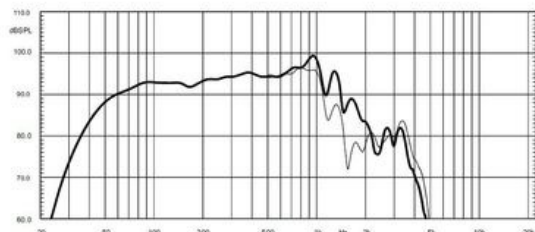
The 15NLW9500 is an extended low frequency loudspeaker which sets a new industry standard in 15" (380mm) neodymium 4" voice coil high performance transducers. The 15NLW9500 has remarkable 35Hz downwards extension with 96dB average sensitivity and achievable peak power levels of 7kW. Extensive care has been taken in order to symmetries both mechanical and electromagnetic non linear behaviour. The transducer has been designed to cover the low frequency band in bass reflex configuration. Application range moves from studio monitors up to cinema subwoofers as well as professional sound reinforcing systems, where deep low frequencies are required. It can be used in enclosures from 90 liters in size upwards, with tuning frequencies of about 33Hz. The neo magnet assembly assures high flux concentration, low power compression and excellent heat exchange. This results in high levels of force factor and power handling with an optimum power to weight ratio. The heatsink has been specifically studied using F.E.A. simulators and the necessary heat transfer to the dissipative structure has been improved. The heatsink concept has been further improved by using an air-diffractor that offers high thermal capacity and has been designed to force air moved by the dust cap through the fins and cool it down. The direct contact between the heatsink and the basket, together with the magnetic structure, represents a fundamental improvement in heat dissipation, increasing power handling capabilities and lowering the power compression figure.

The carbon fiber reinforced, straight-sided ribbed cone has been adopted in order to enable the transducer to withstand high loading designs as well as high power peaks.

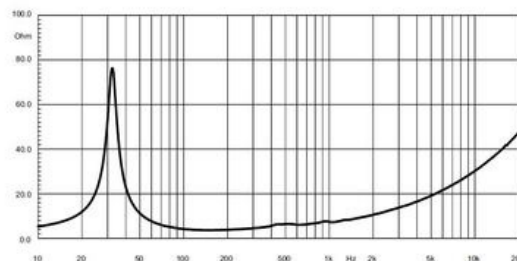
Maximum strength, smooth response and high displacement piston motion have been obtained using Double Silicon Spider technology (DSS) and a large excursion surround.

The rubber suspension system has been designed to provide symmetric large signal behaviour throughout the whole working range, providing low harmonic distortion at different excitation levels.

FREQUENCY RESPONSE MADE IN 125 LT. ENCLOSURE TUNED AT 50 Hz IN FREE FIELD (4m) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER, THE THIN LINE REPRESENTS 45° OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE CURVE





# 15NLW9500 4Ω

LF drivers - 15.0 Inches

## SPECIFICATIONS

Nominal Diameter	380 mm ( in)
Nominal Impedance	4 Ω
Minimum Impedance	3.68 Ω
Nominal Power Handling <sup>1</sup>	1000 W
Continuous Power Handling <sup>2</sup>	1400 W
Sensitivity <sup>3</sup>	96.0 dB
Frequency Range	42 - 2000 Hz
Voice Coil Diameter	100 mm (4.0 in)
Winding Material	copper

## PARAMETERS<sup>4</sup>

Resonance Frequency	34 Hz
Re	2.7 Ω
Qes	0.3
Qms	7.84
Qts	0.29
Vas	147.5 dm <sup>3</sup> (5.21 ft <sup>3</sup> )
Sd	850.0 cm <sup>2</sup> (131.75 in <sup>2</sup> )
Xmax	9.0 mm
Mms	172.0 g
Bl	18.2 Txm
Le	0.58 mH
EBP	113 Hz

## DESIGN

Surround Shape	Single roll - Rubber
Cone Shape	Straight
Magnet Material	Neo
Recommended Enclosure	120.0 dm <sup>3</sup> (4.24 ft <sup>3</sup> )
Recommended Tuning	37 Hz

## MOUNTING AND SHIPPING INFO

Overall Diameter	387 mm (15.24 in)
Bolt Circle Diameter	370 mm (14.57 in)
Baffle Cutout Diameter	353.0 mm (13.9 in)
Depth	177 mm (6.97 in)
Flange and Gasket Thickness	24 mm (0.94 in)
Net Weight	7.0 kg (15.43 lb)
Shipping Weight	7.6 kg (16.76 lb)
Shipping Box	405x405x214 mm (15.94x15.94x8.43 in)

1. 2 hours test made with continuous pink noise signal within the range Fs-10Fs. Power calculated on rated minimum impedance. Loudspeaker in free air.
2. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.
3. Applied RMS Voltage is set to 2.83 V for 8 ohms Nominal Impedance.
4. Thiele-Small parameters are measured after a high level 20 Hz sine wave preconditioning test.