Product Description:

This 5.25 inch 8 ohm member of the NE family has leading-edge transducer technology packaged in a cutting edge, stylistic design. The woofers in this family feature an innovative cast aluminium basket design which minimizes acoustic reflections inside the driver, through large basket windows and sculpted basket spokes. The basket also is designed to act as a highly coupled heat sink to the Neodymium-Iron-Boron magnet (NdFeB) motor, so as to improve power handling capacity. An additional heat sink has been added to further improve power handling. The cone and dust cap are constructed of natural wood fiber material with proprietary coating formulas & processes, so as to yield high clarity products. The cone designs also utilize pentacone technology for improved frequency response. The voice coil bobbin is titanium, for improved performance. The FEA-designed motor features copper caps to minimize inductance and extend performance to high frequencies. Rounding out the design is a 4-way terminal block connector, for ease of electrical connection.

Specifications:

- DC Resistance $R_m \Omega$: 6.3 5.0%
- Minimum Impedance $Z_{min} \Omega$: 7.41 7.9%
- Resonant Frequency $f_r Hz$: 54 15.0%
- Mechanical Q Factor $Q_m$: 8.2
- Electrical Q Factor $Q_e$: 0.40
- Total Q Factor $Q_t$: 0.38
- Ratio $f_r/Q_t$: 141
- Energy Bandwidth Product $EBP (1/Q_{es}) f_r$: 134
- Moving Mass $M_m g$: 10.34
- Suspension Compliance $C_s um/N$: 842.5
- Effective Cone Diameter $D cm$: 10.4
- Effective Piston Area $S_p cm^2$: 85.0
- Equivalent Volume $V_e l$: 8.54
- Motor Force Factor $B_L T m$: 7.42
- Motor Efficiency Factor $\beta (T \cdot m^2)/\Omega$: 8.70
- Half Space Sensitivity @ 2.83V dB @ 2.83V/1m: 87.0 $\pm 1.0 ^\dagger$
- Sensitivity @ 1W/1m dB: 87.1 $\pm 1.0 ^\dagger$
- Voice Coil Inner Diameter $V_{Ci} mm$: 38.4
- Gap Height $G mm$: 6.0
- Maximum Linear Excursion $X_{max} mm$: 5.00
- Ferrofluid Type FF: N/A
- Transducer Mass - kg: 0.72

Frequency and Impedance Response: