The new Peerless HDS product line continues the tradition of Peerless’ High Definition Sound (HDS) products. A powerful ferrite magnet system is coupled to a finite element analysis designed suspension system, containing both a linear spider design and a rubber surround. The motor contains an aluminium shorting ring, which reduces coil inductance, thus providing both extended frequency response performance and reduced distortion. The long-throw voice coil ensures linear high excursion performance, needed for signal clarity. The cone necks are vented so as to reduce air compression effects under high excursion conditions. The cast aluminium basket offers structural rigidity, heat sinking capacity for the motor, and additional air venting under the spider so as to again reduce air compression effects. The cone in this model is glass-fibre composite (GFP), offering a unique visual and acoustic experience.

Specifications:

- DC Resistance: $R_m = 5.3 \Omega$
- Minimum Impedance: $Z_{min} = 5.7 \Omega$
- Voice Coil Inductance: $L_v = 0.24 \text{mH}$
- Resonant Frequency: $f_r = 89 \text{Hz}$
- Mechanical Q Factor: $Q_m = 3.0$
- Electrical Q Factor: $Q_e = 0.72$
- Total Q Factor: $Q_T = 0.58$
- Ratio $f_r/Q_v = 155$
- Energy Bandwidth Product: $EBP = (1/Q_v) f_s = 124$
- Moving Mass: $M_m = 5.91 \text{g}$
- Suspension Compliance: $C_s = 545.9 \text{um/N}$
- Effective Core Diameter: $D = 8.5 \text{cm}$
- Effective Piston Area: $A_p = 56.1 \text{cm}^2$
- Equivalent Volume: $V_e = 2.41 \text{L}$
- Motor Force Factor: $B_f = 4.91$
- Motor Efficiency Factor: $\beta = 4.60$
- Half Space Sensitivity: @ 2.83V dB\@2.83V/1m $= 85.9$
- Rated Noise Power (IEC 2685-18.1): $P = 30 \text{W}$
- Test Spectrum Bandwidth: 20Hz - 5000Hz $= 12 \text{dB/Oct}$
- Voice Coil Former Material: $VCF = \text{ASV}$
- Voice Coil Inner Diameter: $VCID = 25.7 \text{mm}$
- Maximum Linear Excursion: $X_{max} = 3.00 \text{mm}$
- Transducer Mass: $= 0.906 \text{kg}$

Frequency and Impedance Response:

![Graph](image.png)

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Address: Room 1307-8 Dominion Centre, 43-50 Queen’s Rd East, Wanchai, Hong Kong
E-mail: sales@tymphany.com

Model Number: PS30992
Description: Peerless HDS 4" GF cone
Specifications:

DC Resistance $R_m = 5.3 \Omega$
Minimum Impedance $Z_{min} = 5.7 \Omega$
Voice Coil Inductance $L_v = 0.24 \text{mH}$
Resonant Frequency $f_r = 89 \text{Hz}$
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