
Subject: Lowther T/S Data

Posted by [Martin](#) on Thu, 27 May 2004 00:30:24 GMT

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Wayne, Here is the Lowther test data I promised in a post below. This is the average of two drivers.

DX2 (120 hrs break in) $f_s = 55.6$ Hz $R_e = 7.1$ ohms $Q_{es} = 0.33$ $Q_{ms} = 4.02$ $Q_{ts} = 0.30$ $V_{as} = 45.1$ liters $BL = 9.08$ SPL (1w 1m) = 95.5 dB

DX3 (120 hrs break in) $f_s = 60.5$ Hz $R_e = 7.1$ ohms $Q_{es} = 0.26$ $Q_{ms} = 3.83$ $Q_{ts} = 0.24$ $V_{as} = 41.1$ liters $BL = 10.04$ SPL (1w 1m) = 97.3 dB

DX4 (120 hrs break in) $f_s = 59.7$ Hz $R_e = 7.1$ ohms $Q_{es} = 0.22$ $Q_{ms} = 3.64$ $Q_{ts} = 0.21$ $V_{as} = 46.2$ liters $BL = 10.43$ SPL (1w 1m) = 98.3 dB

PM6A (brand new) $f_s = 52.3$ Hz $R_e = 7.1$ ohms $Q_{es} = 0.36$ $Q_{ms} = 2.99$ $Q_{ts} = 0.32$ $V_{as} = 58.0$ liters $BL = 7.84$ SPL (1w 1m) = 95.4 dB

PM2A (brand new) $f_s = 56.3$ Hz $R_e = 6.9$ ohms $Q_{es} = 0.22$ $Q_{ms} = 2.42$ $Q_{ts} = 0.21$ $V_{as} = 50.5$ liters $BL = 10.18$ SPL (1w 1m) = 97.8 dB

PM6C (brand new) $f_s = 57.1$ Hz $R_e = 6.8$ ohms $Q_{es} = 0.37$ $Q_{ms} = 2.89$ $Q_{ts} = 0.33$ $V_{as} = 50.3$ liters $BL = 7.76$ SPL (1w 1m) = 95.8 dB

PM2C (brand new) $f_s = 65.4$ Hz $R_e = 6.9$ ohms $Q_{es} = 0.31$ $Q_{ms} = 2.96$ $Q_{ts} = 0.28$ $V_{as} = 38.1$ liters $BL = 9.13$ SPL (1w 1m) = 97.2 dB

Comments : I have listened to all of these drivers except the PM6A which arrived yesterday. I hope to install the PM6A drivers over the weekend, if I survive my daughter's dance recital. Right now I have been listening to the PM2C's for the past few weeks. A few interesting observations can be made.

- 1) All these Lowthers appear to have the same frame and foam suspension parts.
- 2) The PM2A/6A and DX2/3/4 drivers all share the same cone material and geometry and suspension structure. However the T/S parameters vary. The only difference should be the magnets. The variability in the T/S parameters appears to be primarily due to the foam suspension. The moving mass was fairly consistent (about 10 gm which is very light, the cone is almost transparent) but the foam surround and spider varied quite a bit as seen in the V_{as} values. This in turn impacted the f_s . The surround and the spider are both a foam extrusion.
- 3) The PM6C/2C drivers have a different cone material so they should be a little different from the others but consistent between the two of them. Same story with the foam surround and spider and the T/S parameters.
- 4) As the magnet strength increases so does the clarity and detail. The top of the line drivers in each series seem to have more top end extension. With a correction circuit and my SS amp the ML TL bass is good enough using any of these drivers for the acoustic jazz that I enjoy.
- 5) The "softest" of the drivers are the C series which do not have the detail of the others. But the C series drivers are still very good.
- 6) The best of the bunch, in my opinion, are the DX4 and the PM2A. I guess you get what you pay for in Lowthers.
- 7) I have Fostex 164 and 208 Sigma drivers and even the bottom of the line Lowther driver is a clear cut above either Fostex. I have not heard the newer Fostex drivers, like the FE-206E or FE-207E, so I cannot compare them. Hope that is of interest, Martin