

HARMAN KARDON LS0300

LAB REPORT

The Harman's power response throughout the room is remarkable for its smoothness and extension; though the large treble dome falls away above 15kHz the midrange output is well integrated with the bass unit. Not so the responses taken at 1 metre, which show some roughness throughout the crossover region on-axis. The smoothest response here is with the listener sitting off axis, so do not angle the speakers inwards or sit too close! MLSSA's waterfall plot shows some delayed resonance, making itself known at 4kHz and 7kHz, which will be audibly obvious simply because the midrange area is otherwise remarkably clean. High 'Q' resonances for both bass unit and port suggest that the bass is underdamped, a shame since the port tuning at 40Hz gives great bass extension.

Supplier:
Harman UK,
Unit 2,
Borehamwood
Ind. Park,
Rowley Lane,
Borehamwood
WD6 5PZ. Tel:
081 207 5050

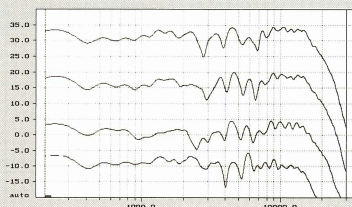


Fig 3a. Harman Kardon LS0300: response family at 1m. From top: on-axis; 15° vertical off-axis; 30° vertical off-axis; 30° lateral off-axis

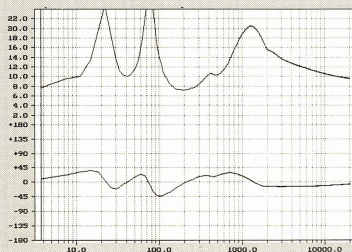


Fig 3b. Harman Kardon LS0300: impedance (upper trace, 20hm/div) and phase (lower trace, 90°/div)

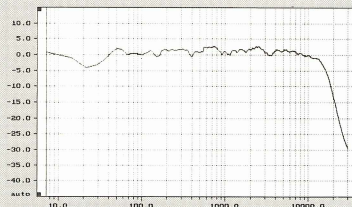


Fig 3c. Harman Kardon LS0300: room-averaged response (RAR) at 2m, 1/3 octave weighting

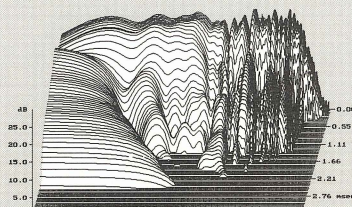


Fig 3d. Harman Kardon LS0300: cumulative spectral decay (MLSSA)

Test results Harman Kardon LS0300

Power suitability	15-75W
Recommended placement	free space
Response consistency	good
Bass frequency extension (-3dB point in room)	35Hz
Sensitivity (for 2.83V or 1W, 8 ohms, at 1m)	88dB
Impedance (minimum/typical/ease of drive)	7.2 ohms/8 ohms/medium
Dimensions (hwd mm)	380x210x300
Typical retail price (inc VAT)	£200

HARMAN KARDON LS 0300

The LS 0300 uses two units from Audax, part of the Harman group. The tweeter is a cut above the treble units usually found in budget speakers. No metal domes here; the HD34H's 34mm dome is a carefully doped textile profile backed by a magnet assembly that wouldn't look out of place on a bass unit. Harman has chosen an equally prestigious bass unit for the 0300, so at this price something has to give. That something is the cabinet. Taking the shape of a thin and deep box, the drive units are surface mounted on its baffle and there is no internal bracing or damping. With a straight rear port, free-space positioning on rigid stands is recommended. In any case the cabinet is too deep to sit on most shelves.

SOUND QUALITY

Are high quality drive units enough to carry this model past the opposition? At first it seems that the units have been skilfully blended using the carefully matched crossover, and certainly the transition between the two is well controlled. Tonal balance, too, has been well judged, and the free-standing position yields a well proportioned and extended bass response while the treble is crisp and bright.

Listening deeper, however, I became aware of various colorations that intruded to a degree dependent on the type of music. Switching to unaccompanied choral music brought in a high level of vocal inflection and clear diction, showing the admirable qualities of the 34mm dome. Between the speakers the soundstage appears to have good depth. Soprano voices are, however, coloured by a thin and lispy lift to the top of their range and, if positioned left or right, tend to be concentrated in the speakers. Sibilance is marginally exaggerated and, more annoyingly, is separated from the voices.

Not surprisingly, stringed instruments suffer similarly. Orchestral strings are given a bright 'shimmer' along with emphasis of some of their upper harmonics. Brass gains an occasional edgy quality and woodwind is made overly 'breathy'. Bass is given plenty of impact, but the transients pass only to be followed by a drone from the cabinet and/or port. None of these occasion listener fatigue or are more than nudges away from neutrality, but they are hard to ignore.

Where the drive unit quality does win through is in sheer vibrancy and dynamic range. The LS0300 wins hands down over 'smaller' speakers in that it can really start to move air as the frequencies descend, and this

gives a tremendous foundation to percussive instruments. If one can ignore the 'tinkle' given to the treble range, piano is reproduced with an organic vitality and bodily impact that sets these speakers apart as something unusual in this price range. Rhythmically, the LS0300s really swing along, and are at their best on fast-paced music which demands a powerful rendition.

Matched up to an Arcam Alpha 5 CD player and NAD 304 amplifier, many of the Harman speaker's problems were suitably tamed, though the upper treble lift and bass overhang could never be fully resolved. Open frame, rigid stands are a must for these speakers. Bi-wiring was the final element in a recipe which produced a lucid and brightly enunciated musical translation which riveted listeners with its wide dynamic swings and stunning transient impact. The system could now allow good insight into the musical message, and thus became exciting and frequently moving as well as captivating.

TECHNOLOGY

After years of experimenting with different dome coatings, Audax, with the help of a BBC specification, has refined the manufacturing process for its venerable HD34H, producing a classic cloth dome tweeter. At 34mm diameter this dome drops in output above 15kHz, but its mid-range output is phenomenal.

Handling the low frequencies is a 150mm woven glass fibre cone with PVC surround and dust cap. The most striking feature of this unit is the magnet, which is of a generous size for this class of speaker, with sensibly thick matching front plate. Since the reflex port exits at the rear, distortion from the medium length and diameter tube is partially hidden from the listener.

Internal enclosure walls are clothed with BAF wadding, though this does not cover the port tube. A bi-wired terminal block feeds the crossover; this is far from minimalist, but holds a sensibly matched second order ferrite group of components. A large ferrite cored inductor works with a reversible electrolytic capacitor and power resistor to equalize and roll-off the bass unit, while an air-cored coil and electrolytic capacitors feed the midrange/ treble dome. There is evidence of cost saving here, with capacitors and coils jammed together on a small circuit board. Placing these directly behind the bass unit magnet could be a possible cause of coloration-inducing magnetic interaction. The signal is routed via thin, stranded cables and push-on connectors.