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You don't need me to tell you that these are spectacularly flat frequency responses! Overall, I'd put them as being 16Hz to 95Hz ±3dB with the crossover control set to either of these positions.

(Image credit: Australian Hi-Fi Magazine)

Graph 2 shows the nearfield frequency response of the Velodyne DB-12 across a range of different settings for the crossover control, including the maximum and minimum settings. With the crossover set to minimum (dark blue trace), the response is 16Hz to 80Hz ±3dB.

In the maximum setting (black trace) you can see that there's a lift in the response that peaks at 70Hz which extends the upper 3dB down-point of the overall response. With the crossover control at this setting, the response extends from 22Hz to 140Hz ±3dB, a result that's pretty much in line with Velodyne's own specification of 26Hz to 140kHz ±3dB.

(Image credit: Australian Hi-Fi Magazine)

Graph 3 is identical to Graph 2, except that all crossover settings other than the maximum and minimum have been removed, for clarity.

(Image credit: Australian Hi-Fi Magazine)

Graph 4 shows the in-room frequency response of the Velodyne DB-12, this time measured with pink noise, rather than a swept sine signal. Pink noise is rather more demanding than a swept sine signal, as it requires the subwoofer to produce all frequencies within its passband at the same time.

This additional acoustic load seems to have smoothed out the peak in the response shown in the nearfield response of Graph 1 for the maximum setting of the control. Shown as the green trace here, the in-room frequency response measured for the DB-12 was 13Hz to 200kHz ±3dB.

Overall, the Velodyne DB-12 subwoofer returned excellent results across all the acoustic tests carried out by *Newport Test Labs*.

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Dm127

On the DB-12, this is 250mm, which puts the effective cone area (Sd) at 490cm².

Sd is an important specification because it means the Velodyne DB-12's cone can 'drive' nearly half a square metre of air! By way of contrast, a typical 254mm (10-inch) diameter cone has a cone area of around 230cm², which means that two DB-10s...

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