

Arendal Monitor

MARTIN COLLOMS TRIES OUT AN INEXPENSIVE STAND MOUNT FROM THIS NORWEGIAN OPERATION'S 1723 SERIES

HIFICRITIC
BEST BUY



Arendal comes from the L-Sound company, which has significant experience and a good track record for web marketing a wide range of audio technology products, including custom brands and AV examples from Yamaha.

It's headed by Jan Ove Lasseen, who has now come up with an ambitious line of stereo and home theatre loudspeakers. These are generously sized and are made in China to evidently close tolerances. These are offered at very competitive prices, for a 60 day trial on a direct sale or return basis.

Carriage is included in the 1,600 Euros price, which looks reasonable enough, especially considering the immaculate piano lacquer finish of our examples. (The options are satin or gloss, black or white.) While there are larger tower examples, we chose this smaller stereo speaker that's designed for stand mounting. They may also be used on their very costly (650 Euros) matching hollow box style support, which may be mass loaded.

We actually used a steel frame stand, as we felt that this would give the best stereo results for this 1723 series example, simply called *Monitor*. It comes with a ten year warranty, assuming that it has not been abused or burnt out at a party. (I mention this since there are early indications of a high power handling combined with a high sensitivity which means that it will play seriously loud.)

The enclosure has faceted edges which are both pleasing to the eye and reduce acoustic diffraction (for a smoother sound and better stereo). Nicely flush mounted in a notably heavy HDF built enclosure, three large drivers comprise two 210mm bass/mid units that have polymer faced selected long fibre cones, and motors optimised through Klippel analysis. The 170mm tweeter frame size results from a massive and deep alloy-faced waveguide, acoustically loading a 28mm soft dome tweeter mounted at its centre. This advanced component has a short-coil neodymium magnet, and an aluminium eddy current control ring that's unusual at this price; the whole design is optimised for the chosen waveguide loading. (Technically there is no distinction between a waveguide and a horn, while waveguides tend to be quite shallow and classic horns are deeper with a higher rate of flare.)

The two bass drivers add up acoustically to a big 300mm unit so these speakers should show

plenty of potential welly. The two ports on the back are supplied with firm texture foam plugs and may be opened up as necessary, depending on room construction, placement, and personal taste. However, we also enjoyed a more upbeat result when the plugs were left in.

The CNC-milled terminals (and the bi-wire bridges) are pure copper with top grade rhodium plating. The crossover also uses first rate components, with polypropylene capacitors and generous air-core inductors. The slopes are nominally fourth order (24dB/oct) and are set at a desirably low 1,500Hz the better to integrate with the bass/mid drivers (made possible by the waveguide-loaded tweeter). Advanced FEA modelling might have helped define much of this design, but it also became clear that extensive high power listening tests had also been conducted.

The speaker was delivered with a massive operating and technology manual that is valid for the whole series. It's quoted at a high 89dB/W sensitivity alongside a 4ohm nominal impedance, measures 27.5x63.5x40cm (WxHxD) (the terminals are recessed), and weighs a considerable 23kg. Fresh from recent cool storage, a day or two of use was needed before auditioning.

Sound Quality

With all that potential power and speed, could it do funk? *Hang Up Your Hang Ups*, on Herbie Hancock's album *Man-Child* was first up on the Naim server, and the *Monitor* sailed through with plenty of grunt and power, plus taut timing. Syncopation comes easily to this large transducer, which has good transparency, but excels on power, dynamics and tonal consistency, sounding very well balanced and easily doing justice to Massive Attack; Emeli Sande's *Wonder* also fared well.

Piano sounds crisp and dynamic, violin avoids the squeaky nasality that's often encountered, and it will play very loud, with tight bass and is free from aural fatigue. The bass is fast and upbeat though there remains some mild boxy coloration in the lower midrange. Impressively, stereo images jump out from the box locations; focus is quite sharp in the nearfield and improves as one moves further away, as when driving a larger space, which it is well capable of doing. Image depth rated 'good plus' and the

speakers easily demonstrated the difference between CD and hi-res material, which is a good sign. It also proved well compatible with mid-price Naim Audio components, excelling with Jazz tracks that included Jan Garbarek's sometimes awkward wailing sax.

Conclusions

The Arendal Monitor has sailed smoothly through this exacting review, demonstrating a calm confidence in the face of all the tests. It is not particularly compact and consequently has high linearity, great dynamics, good timing and a huge dynamic range. It is sensitive, relatively easy to drive and will party when required. Well designed, well made and well finished, with a powerful informative sound that is very rock capable, a Best Buy rating is ensured.

Lab Report

The technical specifications suggested that nothing had been left to chance, and the lab results confirmed this view. Sensitivity was a high 89.5dB/2.83V and this has not been achieved by unduly compromising the amplifier's load impedance, which is smooth, momentarily dips to 4.5ohms and averages 6ohms with moderate phase angles. The tuned alignment is a desirably low 31Hz with a low Q factor and thus good phase response and timing.

Pair match was a very good ± 1.5 dB to 10kHz, with an average 2.5dB difference, 10 – 15kHz (considered a relatively minor error). The frequency response extended to 25kHz, -3dB, with no peaks in the central region, and running a fine ± 2.5 dB from 50Hz to 11kHz.

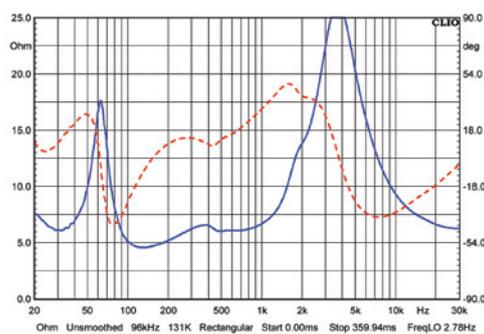
The off-axis output in the vertical plane was symmetrical and near perfect, thanks to the waveguide; it was only 5dB down in the crossover region, and over a very narrow span. Laterally off-axis results were near perfect: smooth and uncoloured, decreasing evenly in textbook fashion. Axial and 15degree lateral traces were near identical, 30degrees was smooth and almost the same, while 45 degrees was only 6dB down by 10kHz. By 75degrees it was understandably dimming in the treble but smoothly so. The grille performance was rated average, with some 1.5dB attenuation from 2-10kHz and then ± 5 dB aberrations to 30kHz, perhaps lending a touch of high treble tizz.

The in-room response was very even, as one would expect from the very fine off-axis responses. The data shows that opening the ports adds lower bass 'richness' of about 5dB from 30Hz to 50Hz, while a single port offers proportionately less boost. Ports closed, it is slightly dry in the bass but still extends to 30Hz -6dB, and is desirably 'fast'. The overall in-room response was ± 4 dB 60Hz-15kHz, a

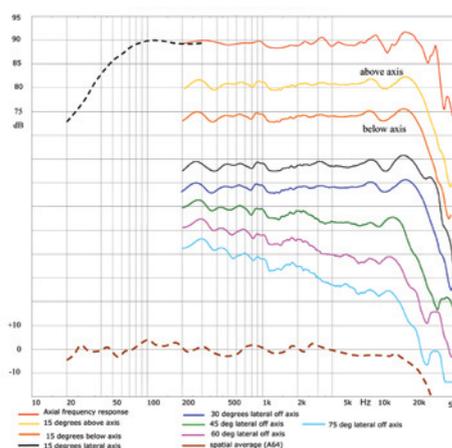
fine result, albeit just slightly prominent at around 2kHz. The waterfall data for early resonance decay is really very good, with a near linear phase first arrival observed at the back of the graph, and a fine decay rate then seen for the first 25dB, 0.5ms.

Distortion excelled at the price, and a massive 80W RMS could be sustained at a thundering low 35Hz with a still barely audible 3% distortion. At 1W, a loud 89.5dB, second harmonic was typically 0.2% and third a little better at 0.15%; these are good thresholds at any price, and were well maintained into the high treble. At 2kHz (the power loading frequency for the horn), second harmonic was just 0.1% and third 0.03%! It should be capable of a massive 105dB stereo in-room sound level.

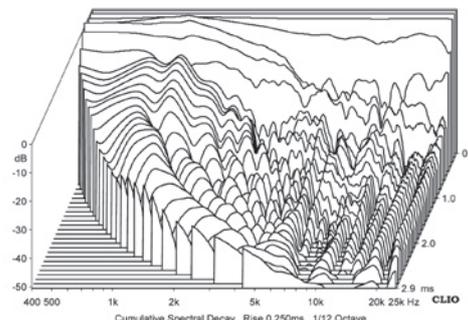
Arendal Monitor: Impedance and Phase (dashed)



Frequency Responses



Waterfall Display of Energy Decay with Frequency



The Review System

Townshend *Allegri* control unit; Naim *NAP500DR*, *NAP300DR* power amplifiers; Naim *SuperLine* phono pre-amp with Linn *LP12* player with *Keel* chassis and *Radikal* motor control, Naim *Aro* arm, Lyra *Delos* cartridge vinyl replay; Naim *UnitiServe* network server and S/PDIF source, NAIM *NDS Streamer-DAC [555 PS(DR)]* server/streamer; Magico *S5 II*, Quad *ESL63*, BBC *LS3/5a* speakers; Naim *FRAIM* racks; Naim *NACA5* speaker cable, Naim *Super Lumina*, Transparent *MM2* and Van Den Hul *Carbon TFU* interconnects.