

# Dynaudio Emit 20

SMALL BUT MIGHTY, AND DECIDELY COMPETITIVELY PRICED, THIS POWERFUL COMPACT BOOKSHELF/STANDMOUNT DESIGN FROM ONE OF THE BEST-KNOWN LOUDSPEAKER BRANDS FINDS A FAN IN MARTIN COLLOMS

**Long-established Danish loudspeaker company Dynaudio – it's in its 45th anniversary year – enjoys a fine reputation largely based on manufacturing its own high quality drive units, these powering ranges of domestic and professional monitor loudspeakers. The latest in a long line of home audio designs is the Emit 20, at just £825/pr, and it has all the indications of a 'just right' creation. Our run-in review sample came with probably the heaviest and most comprehensive brochure from any speaker company, a customer experience comparable with that of the high end automotive sector. The Dynaudio Magazine, Issue 03, all 172 pages and nearly 0.8kg, is as weighty as some small loudspeakers!**

Sometimes it all just comes together: utility, value, style and sound quality – but I'm already running ahead of myself. A two-way bass reflex design, the Emit 20 is a classic recipe for a compact two-way speaker. with a nominally a 180mm mid/bass driver – employing a critically profiled, moulded cone of magnesium silicate loaded polypropylene – mounted below a 25 mm doped fabric dome tweeter. Both drivers are Dynaudio manufactured, and it's all very conventional, as is the rear-mounted port, offering a high-volume velocity and well flared both inside and out to inhibit airflow noise and maximise power handling.

The enclosure is built from HD composition board, heavy and quite non resonant. Measuring 20.5x37x31 cm, it's designed for use on shelves or stands, although early indications were of optimum sound quality placed on stands in free space, in particular for the notable soundstage.

## Sound Quality

When installing a review item it is almost impossible to sidestep expectations of sound quality, however a reviewer attempts impartiality, and I freely confess to imagining that this apparently unsophisticated, two-way, standmount compact design, even though from an experienced maker, would be par for the course. It would be just competent, reasonably neutral and perhaps undemanding of matching system and listener, and while the detachable grille was nicely finished, I felt it none too clever acoustically with its reflective step on the inside edge. I was right about the grille, but not about the speaker as a whole, which impressed me from the get-go.

On mass loaded 24 inch Atacama steel stands, positioned some 0.5-0.6m from the wall behind them, the Emit 20s simply disappeared acoustically, leaving

a wide deep and well-textured stereo image (at least with the grilles detached!). In my installation it reached optimum imaging and timbre when orientated for some 10 degrees of toe-out from the direct path to the listener, so that when seated, I could just see down the inside panels of the enclosures.



**The System**

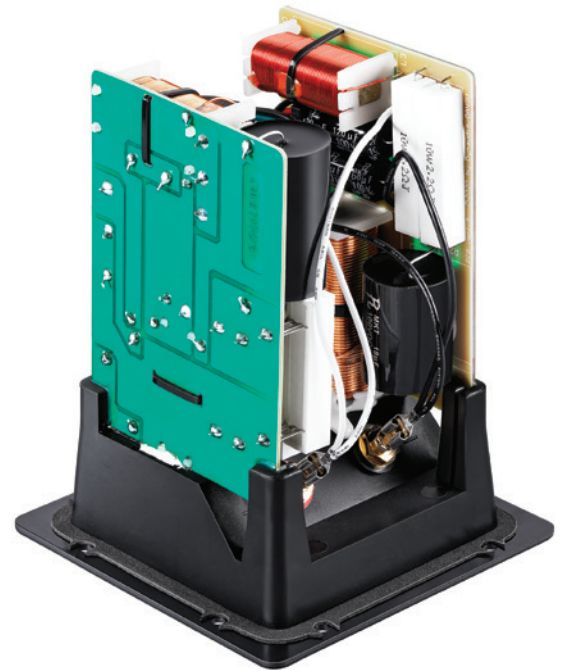
Townshend Allegri Reference control units; Naim NAP250DR power amplifier, D'Agostino Progression integrated, Naim SuperLine-Supercap DR phono pre with Linn LP12 player with Keel chassis, Karousel main bearing and Radikal motor control, Naim ARO arm, Lyra Delos cartridge, Naim UnitiCore network server and S/PDIF source, Roon Nucleus Plus server control with Qobuz; Linn Klimax DSM streamer-DAC, Naim ND555 Streamer-DAC, 555 PS x2 (DR), Wilson Audio Sabrina X, Magico S-5II, FinkTeam KIM, Quad ESL63, BBC LS3/5a (15ohm), loudspeakers Naim Fraim racks; Transparent XL MM2, Naim NAC A5 speaker cables, Naim Super Lumina, Transparent MM2 and Van den Hul Carbon TFU interconnect cables.

The stereo soundstage was nicely focused, was well layered in the depth dimension, with impressive perspectives and satisfying image width. Some might say such niceties are the icing on the cake but here I felt that their contributions were important. But more than that, these speakers are fundamentally entertaining, easy on the ear and low in fatigue: I wasn't really aware that there were two drivers of dissimilar size working, so well were they married, both electrically and acoustically, blended and balanced for that sweetly summed output.

Jan Garbarek's sax on *Twelve Moons 01.04.1993* [ECM 1500] was just right: this track can sound a little strident with some loudspeaker examples, and alternatively too dull and relaxed with others, but here the dynamics were naturally expressive and rewarding without being fatiguing, and the Emit 20 drove along with a good measure of pace and rhythm, holding the attention and initiating rhythmic foot tapping. It felt larger in scale than expected, and with a powerful presence.

I played many tracks at a wide range of sound levels and found the Emit 20 just got on with entertaining. The bass was more than powerful enough, if not hugely extended, but still impressive replaying the massive organ on Philip Glass' opening track for his *Koyaanisqatsi* film score, with no obvious distortion noticed even when pushed too hard, but rather just some mild compressive loss of low frequency extension and power. In-room the Emit 20 played evenly down to 40Hz at generous sound levels and with some useful 35Hz lower bass contribution too, and readily conveyed the weight and scale of larger orchestral works.

The awkward few moments on the opening track, that partially clipped vibe on the studio



*The Emit 20 is nothing if not solidly-packed!*

take of MJQ's *Pyramid*, were traversed without hesitation and this otherwise very natural and unprocessed early recording was reproduced with the right measure of simplicity, dynamics, verve and forward propulsion. Similar historic material was faithfully reproduced but with a superior level of musical commitment. Somehow the loudspeaker performance was desirably unobtrusive and did not get in the way of the musical message.

Alabama 3's 'Woke Up this Morning', from their 1997 album *Exile on Coldharbour Lane*, showed a positive forceful delivery, punchy and commanding but without false emphasis, with upbeat tuneful basslines and a sense of driving momentum. Those naturally recessive vocals were registered with the right degree of muted power and with very good articulation. Classic jazz allowed the Emit 20 to shine. On 'Ntsikana's Bell', from Dollar Brand's *Good News from Africa*, it offered excellent projection, was beautifully poised, pleasingly musical and with the right level of presence from the piano.

**Finely balanced**

The Emit 20 did not try to mimic a larger and more accomplished design and yet nothing was out of place here, all was in order in a finely balanced quota of attributes leading to a coherent musical whole. Notwithstanding time constraints I found that I put in more hours than I intended, an encouraging mark of quality. Jan Garbarek's sax on *Knot in Place and Time* was almost perfectly balanced, atmospheric yet commanding in this loudspeaker which is sufficiently truthful and informative to consider use as a recording monitor.



## REVIEW

### Conclusion

The Dynaudio Emit 20 stands out from the crowd by virtue of a bold and captivating musicality which reaches beyond its price.

### Lab report

Measured at 86 dB/W, right on spec, the sensitivity is an average result, but as we'll see it's also kind to amps and cables, uncompromised by an adverse load impedance. An easy to drive 6 ohm load.

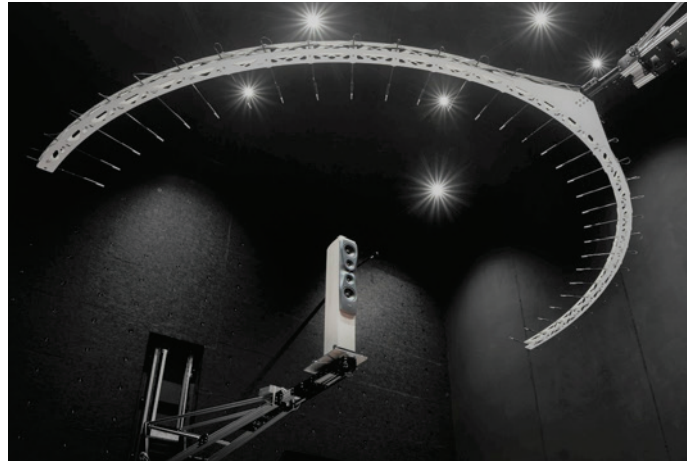
Balanced to sound natural for its modest dimensions, the bass is tailored to room-matching and extends to a solid 40Hz in-room. The high frequencies extend to 22kHz and sensibly the most uniform result is slightly off-axis, about 10 degrees lateral for an excellent +/-1.5dB 90Hz to 18kHz, and it did sound really well-balanced here. Lateral off-axis responses are fine showing excellent integration, the poorest axis is above. On 60cm stands the spatially averaged room response was extended and well-balanced, confirming its respectably even acoustic power.

Nominally 6ohm, the Emit 20 has a reasonably easy amplifier loading, avoiding extreme phase angles. A resistive minimum value of 5.4 ohms was present at 40Hz, the port tuning frequency, and also at 170 Hz (close to the inherent DC impedance of the bass driver voice-coil). A minor resonance is suggested at 700Hz, from the cone-suspension junction or possibly the internal acoustics of the enclosure. Nevertheless, an easy drive.

From the lower mid-range – 250 Hz and higher – distortion was very well controlled, with better than 0.12% of second harmonic and with negligible third, for a 1W input. At 5kHz an area associated with 'projection' and possible hardness, 2<sup>nd</sup> was just over 0.1% while third was absent, also true at higher frequencies to the edge of audibility, these fine results. That solid sound power output at low frequencies was confirmed at 100Hz for 87dB with just 0.5% second and a very fine 0.15 % of third harmonic, with the results for the more taxing 50Hz frequency being almost as good. These figures agree well with the listening test results, which is always encouraging, suggesting a clean sound of low aural fatigue.

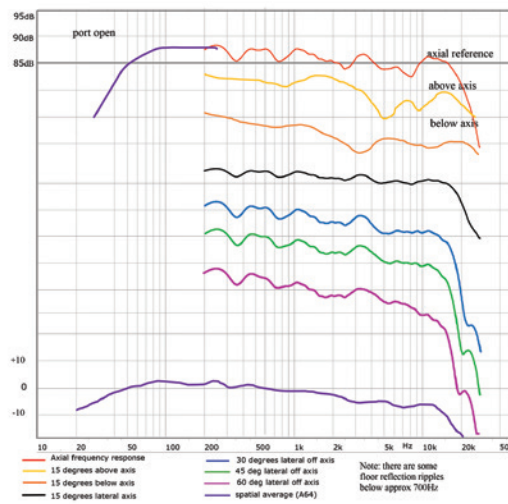
With low levels of distortion and a better than average amplifier loading, this little Dynaudio design played beyond anticipated limits for its size and was capable of a fine dynamic range. Amplifiers of up to 75W are possible, and 30-50 W is about right.

From the spectral decay analysis it is clear that the stored energy levels are very low, aiding transparency and contributing to low subjective coloration.

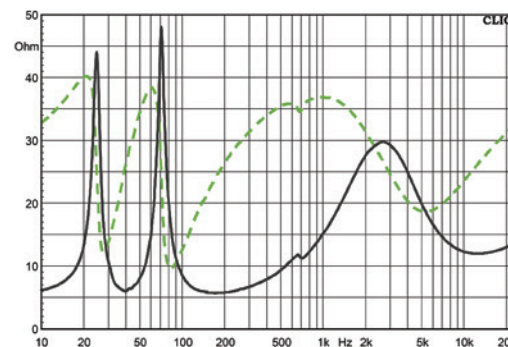


The huge Dynaudio acoustic chamber, in which a powered elevator supports the test loudspeaker in free space, while an articulated arcuate array of microphones may sample the whole energy output of the design under test

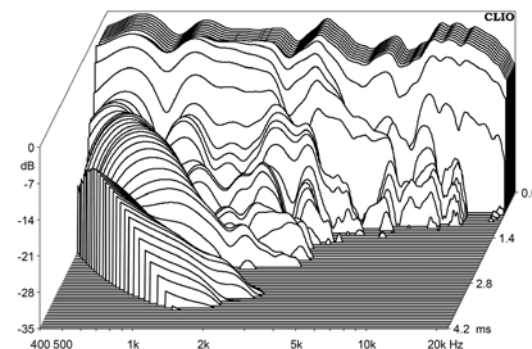
Emit 20 Frequency Responses (86dB/W sensitivity)



Emit 20 Impedance 7ohms, phase in green



Emit 20 CSD



HIFICRITIC  
BEST BUY

### Specifications

#### Dynaudio Emit 20

Type	Bookshelf/standmount speaker
Price	£825/pr
Sensitivity	86dB (2.83V/1m)
IEC power handling	160 watt max
Impedance	6 Ω
Frequency response (± 3 dB)	53Hz - 25kHz (-6 dB 42 Hz - 35 KHz)
Type	Bass reflex rear port double flared
Crossover	2-way, 3.8 kHz
Crossover topology	1st order tweeter / 2nd order woofer
Midrange / Woofer	18 cm MSP reinforced cone
Tweeter	29mm soft fabric dome
Finishes	Black, white or walnut
Weight	10.32 kg / 22.8 lb
Dimensions	205.1 x 370 x 311.5 mm 8.1 x 14.6 x 12.3 in (W x H x D)

dynaudio.com