

# Dynaudio

## Core 5 & Core Sub Compact

### Active Monitors

Dynaudio round off their high-tech Core series with a compact nearfield monitor and an active subwoofer.

PAUL WHITE

The Core 5 is the baby of Dynaudio's Core series of monitors, measuring just 190 x 353 x 265mm and weighing only 8.6kg. It has applications both for nearfield monitoring and for use in immersive multi-speaker arrays, both scenarios in which its small size is an advantage. This is a two-way active monitor with a flared, slot-shaped front port. Where more low-end power is needed, the Core 5 is fully compatible with Dynaudio's Core Sub Compact subwoofer (see box).

The power supply accepts 100-240 V AC at 50/60 Hz, and feeds twin Class-D Pascal amplifiers, with one 280W unit driving the mid/woofer, which sports the familiar Dynaudio slotted dust cap, and a further 280W available for the 28mm Cerotar Pro

### Dynaudio Core 5 & Core Sub Compact

#### PROS

- Revealing, detailed sound.
- Clarity without harshness.
- Low end is well controlled.
- Core 5 integrates well with Core Sub Compact.

#### CONS

- There's no straightforward way to hook up the Core 5s to the Core Sub Compact if you want to keep all your connections analogue.

#### SUMMARY

Both from engineering and sonic standpoints, I couldn't find anything not to like!

soft-dome tweeter. These cross over at 3.8kHz, with crossover duties handled by the internal DSP. The Core 5 delivers a bass response down to 45Hz at -6dB, and 51Hz at -3dB, which is quite an achievement for such a compact speaker. The 5-inch woofer employs Dynaudio's proprietary MSP (Magnesium Silicate Polymer) cone material, which was developed to provide a good balance of weight, stiffness and damping. Finished in a dark-grey textured paint, the cabinets appear to be made from MDF and are very solid.

The tweeter features something that Dynaudio describe as a Hexis resonance-defeating inner dome. One of the benefits of this is said to be a non-fatiguing sound. The spec on the monitor quotes the high-frequency response as being only 3dB down at 26kHz. As a whole, the monitor claims a maximum SPL of 110dB at one metre when used in a 'half space' setting.

To compensate for location relative to room boundaries, the speaker incorporates two DSP filters; there's also a setting for desk mounting, to help compensate for desk reflections. Anechoic is the setting for use when working away from desks or nearby boundaries, with other settings including Free, Wall or Corner. For use with a subwoofer there's also the option to cut the response below 80Hz using a Linkwitz-Riley high-pass filter. Further adjustments, Bright, Neutral or Dark, are available for the overall sound balance, which can be helpful either to match the sound to your personal taste, or if your room is particularly bright or dull. These settings are based on full-spectrum 'tilt' filters with 1.5dB lift and 1.5dB cut options.

All the connections and controls are on the lower half of the rear panel; a balanced XLR analogue input has switching options to set the maximum level from 0dBu to +24dBu, with a further feature that sets



a maximum output SPL while still making the best use of bit depth in the digital domain. This can be set to 116dB, 96dB or 79dB SPL (reference -20dBFS). When connecting digitally using the rear-panel AES3 XLR, the AES3 stream channel can be set with a channel switch. The internal DSP follows the sample rate of the input and can either lock to digital audio clock or be clocked from a separate BNC word-clock input. There's also an AES3 digital output on XLR and a USB port labelled Service.

## Performance

Set up on my desk's bridge, which is around a metre from the wall and the windows behind, the Core 5s gave a very good account of themselves, with no need to stray from the default settings other than to switch the input sensitivity to something more appropriate to my monitor controller.

I've worked with a lot of different monitors over the years and I pride myself on being able to pick out the ones that sound accurate when tested using a wide range of material. Right away I knew that these speakers fell at the 'very good' end of the spectrum. In comparison with my 15-year-old Event Opals, which I still regard as exceedingly good monitors, the Core 5s sounded remarkably similar in overall tonal balance, other than at the extreme low end where the larger Opals have a little more reach. At sensible listening levels the

■ The Core 5 features an analogue XLR input, a digital AES input and thru out, as well as a word-clock input.

sound is beautifully clean and well defined, but with no sense of harshness in the highs and a real sense of spatial depth as well as stereo width. The low end sounds tight for a ported design, and when paired with the Core Sub Compact (see box), those bottom octaves fill out very nicely without the sub ever breaking a sweat. While some users are wary of using a sub in conjunction with smaller main speakers, one practical benefit is that the sub can be positioned where needed to give the flattest low-end room response without compromising the stereo imaging.

## Summary

At over £2500 a pair, the Core 5s are not inexpensive monitors, and you can almost double the price by adding the sub. However, they have been designed to perform to a genuinely professional standard, and in the smaller studio, a pair of Core 5s will probably be all you need to achieve high-quality monitoring without the sub. As mixing tools, they tell it like it is, so good mixes sound 'right' and flaws are shown up clearly, just as they should be. I also found them to be very comfortable to work with for extended periods, which is particularly important in a commercial environment. The Core 5 speakers are



priced singly as they are also ideally suited to multi-channel setups where more than one sub can be used if required. ■■■

£ Core 5 £1369.99, Core Sub Compact £2099.99. Prices are per speaker, including VAT.  
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## Core Sub Compact

The Core Sub Compact houses dual 'opposed' nine-inch drive units, a topography which helps cancel out cabinet vibrations and shares out the load. It is rated at 100dB SPL at 1m, with cutoff frequencies at 85dB quoted as 16Hz and 200Hz.

While measuring just 390 x 360 x 365mm, the Core Sub Compact is still a hefty beast weighing 26.1kg. Its cabinet is sealed rather than ported, which avoids the issues associated with ported cabinet resonances, and there are no speaker grilles to rattle — though this means you'll have to be careful to position the sub where the driver cones won't be exposed to accidental damage risks. As with the Core 5s, the rear panel sports a comprehensive range of DSP switch controls for position (including soffit mounting), full-range or low-pass operation, attenuation and input sensitivity. There's also left/right switching for use in a digitally linked, dual-sub system. Analogue input is on an XLR, as are the AES digital input and digital pass-through. A BNC word-clock connector is also fitted.

As with the Core 5s, power comes from a pair of 280W Pascal amplifiers, one for each drive unit. Developed to deliver powerful bass with minimal distortion, the drivers feature a hefty ferrite magnet system and a multi-layer cone utilising a rigid aluminium core that has a layer of paper damping on the rear. Dynaudio's MSP (Magnesium Silicate Polymer) material is used to form a cap on the front of the cone to tame resonances.

Having only a single analogue input means that if you want to use it that way, you'll need to handle bass management externally. The intended approach is to use the AES connection to provide a digital input to the sub, then use the sub's digital out to feed one of the Core 5s. Another XLR digital cable is then used to link the two Core 5s with their left and right switches set

appropriately. The sub's bandwidth switch should be set to low-pass and the high-pass filters engaged on the Core 5s.

■ Unusually, the Core Sub Compact only features a single XLR input, rather than the usual stereo I/O arrangement. This is because it's intended to be used via the AES digital input, handling crossover duties internally and passing the stereo signal on through its AES digital output.

