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Monitoring & Acoustics

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A Family of AKG Headphones Compared



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At the Core

The overall design of the Core 5 and Core Sub Compact does not stray far from its larger siblings in the Core Series, which debuted in 2019 with the sizable 3-way Core 59 (reviewed September 2019), the 2-way Core 7 (reviewed November 2019), the smaller 3-way Core 47, and the Core Sub reviewed by Mastering engineer Justin Perkins at Mystery Room Mastering (mysteryroommastering.com) in our November 2020 issue.

Dynaudio Core 5

At 14" (H) \times 7.5" (W) \times 10.37" (D) and 19 lbs., the textured two-tone gray/black MDF Core 5 cabinet is only 1" shorter than the 7" Core 7.

The Core 5 starts with a Hexis-based 1" soft dome Cerotar Pro tweeter. Quoting Dynaudio, a Hexis device is "...an inner dome that sits just behind the diaphragm and optimizes airflow, smooths the frequency response and eliminates unwanted internal resonances." The goal is to offer a natural, effortless top-end signature due to improved imaging and transient detail.

The 5" woofer uses magnesium-silicate polymer (MSP) with an aluminium voice coil and ceramic magnets. A front-loaded bass reflex port disperses the low end.

Power

The Core 5 is biamplified with a Pascal Class-D power amp offering an even 280W for the mid/woofer and 280W for the tweeter crossed over at 3.8 kHz.

The Core 5 has a 104dB max SPL and a frequency response of 45 Hz-30 kHz.

Connections and DSP

The Core 5 sports a single analog XLR input and XLR-based AES I/O for digital connections (auto-detecting up to 192 kHz). It also has word clock I/O, USB (for firmware updates), and a three-prong power socket.

The Core range of monitors makes use of internal DSP and a standardized set of controls scaled for each monitor:

- Power Mode: On/Standby (sleep mode when no signal is present for 20 minutes)
- Bass Extension: Full/High Pass (best when used with a Core Series Sub)
- **Digital Channel**: Select left or right speaker placement in the digital daisy-chain
- Sound Balance: Bright (20 Hz -1.5dB, 20 kHz +1.5dB) / Neutral / Dark (20 Hz +1.5dB, 20 kHz -1.5dB)
- Position 1: Room Treatment Filters for Free / Desk / Soffit
- Position 2: Boundary Filters for Free / Wall / Corner
- Max Input Level: 0 dBu / +4 dBu / + 18 dBu / +24 dBu (OdBu to +24dBu)
- SPL Level (SPL @ 1 m for -20 dBfs): 79dB / 85dB / 91dB / 96dB

Sound and Use

Every Core model I have heard brings everything front and center in the most neutral and even way, top to bottom, like its series-mates. The sound of the Core 5 can be described as "dry," exhibiting very little hype or coloration. It has a bold, almost blunt presentation and no frequency favoritism.

It sounds like I am describing a fine, dry wine, but it makes sense when you hear them in person. Plus, if I described the Core 5 low end as punchy, the top end as detailed and the mids as impressively even—all true—those words alone would describe two dozen other 5" monitors that sound nothing like the Core 5.

Of course, if you want things a touch darker or brighter in character, you can use the rear controls to that end, including a tad more "studio monitor brightness," but I strongly preferred the neutral setting.

While the Core 5 does not present as "deep and wide," they do have a nice, consistent sweet spot as you move around the listening position with almost zero loss of imaging or any phase issues.

Gain

Despite its size, the Core 5 is capable of quite a bit of gain, perfect for filling a small to medium space with sound. It performed well in both my small home editing suite, as well as my larger mix room, both of which are professionally treated.

Part of the magic of the Core 5 is how full and detailed they remain top to bottom at levels of 68–82dB. Nothing is fatiguing at the top, and despite their size, you can still get an excellent sense of the full extension and foundation of the mix even though, owing to the 5" driver size, the bass is on the polite and controlled side.

They can easily hit 98dB but get a bit strident when pushing the levels too hard—the only time I would ever use that word with the Core 5.

Final Thoughts on the Core 5

As with their predecessors, the Dynaudio Core 5 is very easy and comfortable on which to mix. And that is the biggest takeaway: These are a mixing tool. They may not scratch the glossy sweet, kick back and listen to music audiophile itch. Instead, the Core 5 is designed to honestly present the music, not flatter it; what more could you ask from a top-notch mixing tool?

Dynaudio Sub Compact

Core Sub Compact is a very apt name, and in many ways, it's one-half of the previous Dynaudio Core Sub. Where the 20" tall Core Sub offered four 9" MSP Hybrid Drivers, the 14" (T) \times 15.37" (W) \times 14.37" (D) Core Sub Compact has only a pair of the 9" MSP Hybrid Drivers. It, too, is a sealed MDF cabinet design with the woofers in opposing yet complementary positions on the sides. It weighs 57.5 lbs.

The Core Sub Compact is powered by a 280W Class D Pascal amplifier that produces 106dB max SPL and has a reach of 16 to 200 Hz.

Its connections and controls are similar to other Core offerings, and you can even designate left or right placement when used in pairs digitally.

For changes, instead of a dark/bright control, you get a choice of -2 or -4dB of added attenuation to help dial in the perfect level balance with the main monitors. The Bass Extension control is now a Bandwith control that engages an 80 Hz Linkwitz-Riley cutoff that works hand-in-hand with the aforementioned Bass Extension control of the main Core offerings. The final sub-only setting is the two-position Free / Sofit versus the Free / Desk / Sofit setting.

This is a great place to mention that both the Core 5 and Core Sub Compact can be mounted (with custom-made K&M mounting brackets), flown or placed on stands thanks to a host of built-in mounting points.

Punch and Thump

The small, powerful Core Sub Compact is easily in line with the Core-ethos, offering a tight, punchy, low-down sound versus being a deep thumpin' room rattler. This is an intelligible subbass tone that you can sculpt and discern.



I love how easily it integrates with the Core 5, with no need to dink and diddle finding the right crossover point. It also offers a full-frequency mode for immersive and Dolby Atmos setups.

The one thing to note is that in the analog domain, the Core Sub Compact is not an inline sub. You will need an interface or monitor controller capable of a dedicated mono-sub output.

In Use

As it relates to the Core 5, adding the Core Sub Compact turns the three speakers into a perfectly integrated three-way system capable of impressive headroom with a tight, focused, room-filling low reach.

I had to set up the Core Sub Compact under my desk in front of my feet, and I found the "Corner" setting to seat the low-end best. Testing it free-standing out in my room also worked great.

Wrap Up

There is much to appreciate with the Dynaudio Core 5 and the Core Sub Compact on their own or, better yet, as a three-way system. The three together rival the price of a pair of the flagship Core 59 3-way monitors, but depending on your needs and situation, they may just offer a bit more versatility in many scenarios. I would love to experience them someday in a Dolby Atmos setup.

