

## Into the white: Eclipse TD510Z MK2 + Hegel H190



by John H. Darko  
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Out of the blue and into the black? Nope. Subverting Neil Young's song title we look to a [Pixies B-side](#) to go *Into the White* for an elegant hi-fi system that oozes Future-Fi inside and out; but in the passive loudspeaker domain. In this post, we look at how a pair of wonderfully unusual standmounts meet an integrated amplifier loaded with DAC and streamer.

The Eclipse TD510Z MK2 loudspeaker (£3840/pair) from Denso Ten. That's quite the mouthful. TD510Z MK2 is the model number, Eclipse the brand and Denso Ten the parent company, established in 1972 with initial investment coming from Fujitsu Limited and the Toyota Motor Corporation. Thankfully, the TD510Z MK2 are also quite the eyeful – and earful.

Coming on like a passive Devialet Phantom without the side cheeks and monstrous

bass, the Eclipse eggshell wraps a 10cm glass-fibre single driver whose mechanism sits in an X-wing support structure that is effectively screwed down onto the supporting custom stand. Sent south, vibrations have less opportunity to bother the surrounding egg-shaped cabinet. Unsurprisingly, the TD510Z MK2's forward-leaning stands are part of the deal.

Each stand's three short 'stalagmite' pins provide additional support to the ABS plastic surround and allow for (some) user-adjustment to the TD510Z MK2's firing angle. I experimented a little but found nothing bettered the driver aimed directly at ear height.

Tucked away on the underside at the rear, the TD510Z MK2's bass reflex port is a large one. Keeping loudspeakers clear of the front wall is standard audio advice, thrice underlined by the Eclipse. Without appropriate breathing room, the TD510Z MK2's TD510Z MKII standout qualities will remain obscured. I put a full metre and a half of daylight between the review pair and the front wall to net stellar imaging, especially on soundstage depth, and levels of musical insight that put the outgoing KEF LS50 a long way back in the Eclipses' rear-view mirror. You get what you pay for.

Listeners who cherish being able to mentally point to player locations will find a good deal of long-term satisfaction from these loudspeakers. Those who want to hear the recording studio itself might not. The Eclipse aren't the airiest loudspeakers I've ever heard. Let's be clear: we're not talking the muting of Crazy Horse cymbal shimmer but a lower ceiling on Bob Dylan going electric at Manchester's Free Trade Hall. It's a compromise that goes comes with the territory. Expecting 20Hz – 20kHz performance from a single driver (of this size) is to exit the bounds of reality.



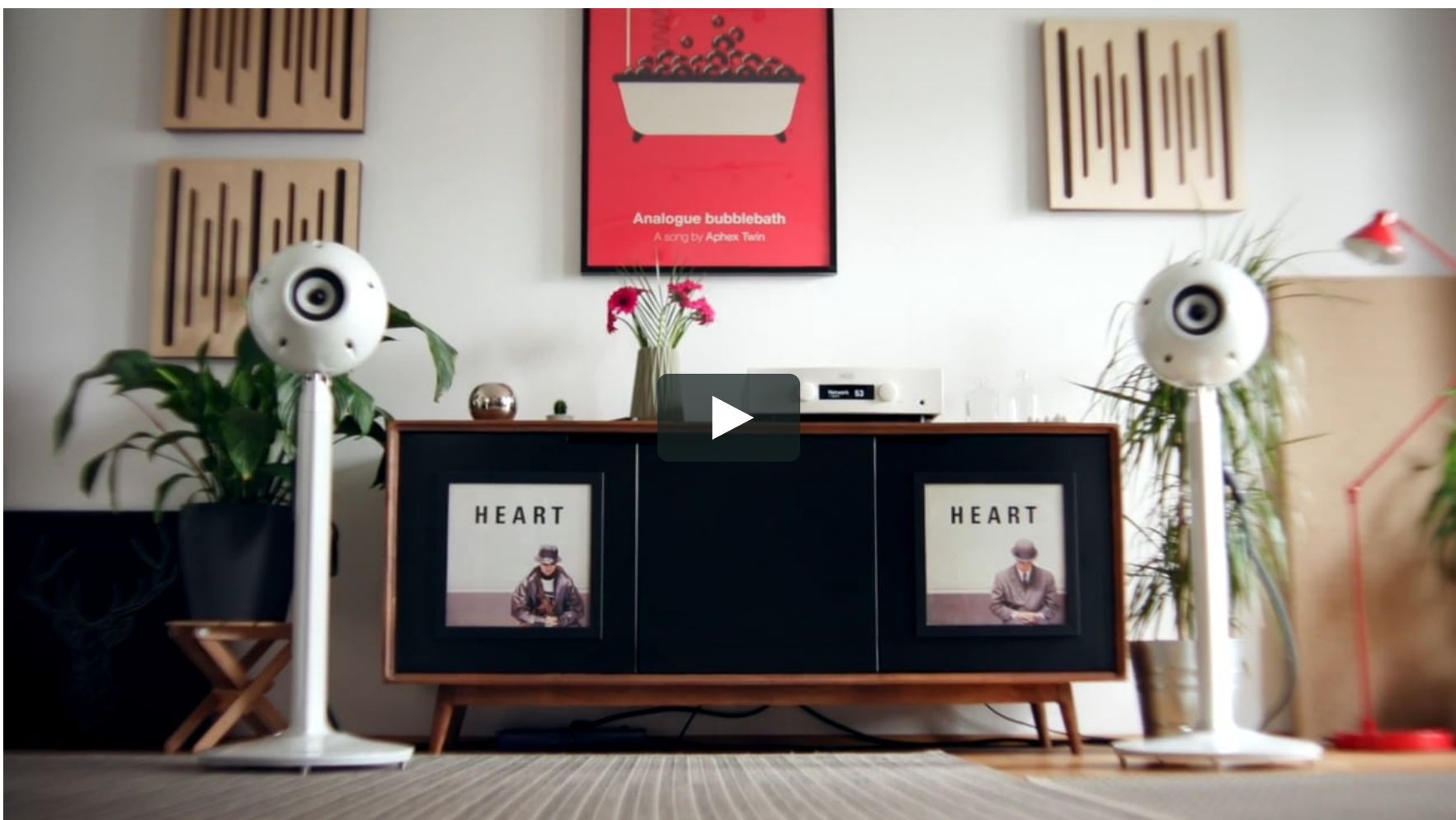
Neither are the Eclipse the most effective at mining the lowest registers. I'd imagine those with a greater hunger for sub-bass (<60Hz) will want to add a subwoofer, Make sure it can keep up with the MK2 though. These are most emphatically NOT sluggish loudspeakers. Like the stands to which they are bolted, the TD510Z MK2 lean into the music, extracting micro/scopic-dynamics from Clark's *Death Peak* and Bola's *D.E.G.* to make the LS50 sound nailed to the floor (which they aren't). The Japanese eggs run us through Aphex Twin's *Analogue Bubblebath* with some serious rhythmic alacrity.

What we trade-in at the frequency extremes is returned many times over in musical momentum and velocity. From the percussive rattle of David Byrne's cover of Cole Porter's "Don't Fence Me In" we hear a loudspeaker that's fast of heart and quick of kick. This ability to tightly track a rhythm also benefits electronic music. Moderat's "A New Error" gets a lot of air-time 'round these parts, not least because it's a mid-paced cruncher that tells me which loudspeakers put a layer of molasses under what would otherwise be a foot-stomping 4-4 kick. The Eclipse show zero signs of a sweet tooth.

The TD510Z MK2's crossover-free design point to one significant reason why this loudspeaker gives us such a fluid n' fast presentation. Why it images so cleanly. Why it seems to sprint through music's very core.

The hits don't end there. The Eclipse are also experts at reproducing the complexities of the human voice. Readers wanting to know how well the TD510Z MK2 deliver Patricia Barber in hi-res might wish to alight here. I'm going to exemplify with some indie rock because, in addition to electronic music, indie and alternative rock are what I live for.

Andrew Montgomery, the lead singer of indie-rocking Geneva, comes on like a classically trained Brett Anderson (of Suede). Both Geneva and Suede were signed to Nude during their 90s heyday. Geneva's second (and final) album *Weather Underground* is a long way from an immaculate recording. Neither was it mastered to meet the HDR thirst of audiophiles. And yet via the TD510Z MK2, it's Montgomery's throat – an oddly biological quality – that stands out. I've heard this album a thousand times on a hundred systems but never quite like this. That's on the slow-moving and icy "If You Have To Go". A ballad. The Eclipse's speed and dynamism come raging back on "Killing Stars" to remind us that some single-driver loudspeakers can rock out with the best of modern 2-ways.



Behind every great loudspeaker sits a great amplifier. Connected to the business end of AudioQuest Rocket 88 loudspeaker cable is a Hegel H190 integrated (US\$4000).

In addition to balanced and single-ended analogue inputs, the H190 internalises a DAC with 1 x 24bit/96kHz USB (for computers and modern-day streamers), 1 x 24bit/192kHz coaxial (for disc spinners) and 3 x 24bit/192kHz TOSLINK (for games consoles, TVs and streamers without a USB output). Note the absence of DSD support. How refreshing to see a manufacturer put their money into a no-frills design.

I added an AURALiC Aries Mini, in white, to the H190's USB input for wifi-transmitted Roon Readiness. The third party streamer is far from an essential move. This Hegel integrated also houses an Ethernet-accessible streaming board that enjoys a dedicated power supply. Further, its digital output is galvanically isolated from the internal DAC.

Streaming protocol support is a 1-2-3: 1) 24bit/192kHz UPnP (which I rarely bother with), Spotify Connect (**which I frequently do**) and, keeping Roon-sters in the picture, Apple AirPlay; not an off-the-shelf implementation but Hegel's own.

I tried to squeeze further information from the horse's mouth about Hegel's AirPlay implementation but marketing manager Anders Ertzeid came back with, *"I asked Bent [Holter] over a cup of coffee this morning. He coughed in his coffee and said... "aiaiai... that is a bit of a secret. But the biggest contributor to Hegel's implementation of AirPlay is correcting errors in the time domain"*.

Holter is Hegel's CEO and product designer. At their Oslo HQ, [visited by yours truly in February](#), he also oversees an in-house software team that writes code for the streaming boards. Not Linux but a custom OS made of pure assembly code.

In real-world use, I had a harder time than usual separating the RAAT-receptive Aries Mini's digital output, sent via Curious USB cable, from the Hegel's AirPlay input fed via Roon directly. And yes, I ran the Aries Mini via Ethernet for this particular stand-off.

The catch – for some – is that AirPlay's PCM support tops out at 48kHz. That's all fine and dandy for this Redbook fiend but perhaps too restrictive for those who like to dig into some high-res audio now and then. The message here is that if you're going to add a third party streamer to the Hegel, you'd better make darn well sure it's a good one.



A handsomely understated anodized aluminium front panel with OLED display, flanked by source selector and volume control, elegantly masks the monster within. Try to lift this integrated from the floor to rack and you'll feel the unusual need for a proper knee-bend.

For those that do head-fi, be advised that the H190's 6.4mm headphone socket offers enough power to juice the Sennheiser HD800S to robust SPLs but not quite enough to bring forth the satisfaction heard from the Chord Hugo 2. Both the [MrSpeakers Aeon Flow Open](#) and (especially) the [AudioQuest NightOwl Carbon](#) is a more suitable dance partner.

A sizeable chunk of the H190's 14 kilos (count 'em) comes from the amplifier's internal toroidal. [This YouTube video](#) gives us a closer look at the beefy transformer that causes the H190 show the Eclipse's 84dB/W/m sensitivity some serious Class A/B muscle: 150 wpc into 8 Ohms, 250wpc into 4 Ohms. The Norwegian company also puts a strong emphasis on a second specification: damping factor = 4000, which, in theory, speaks to the amplifier's ability to control a loudspeaker mid/bass driver and thus prevent it from 'ringing'.

I found nothing in the Hegel/Eclipse pairing to disprove the theory. The bass thud that courses through the veins of John Digweed's *Bedrock XX* displayed zero evidence of loose handling. No doubt this tight control also helps the Japanese eggs maintain their illusory fast pace and tight corner turn on Clark's "Shonny" (from the *Ceramics Is The Bomb EP*).

Holter's amplifier design separates voltage and current gain stages within which a summer combines original and inverted signals to keep track of – and ultimately remove – distortion. A similar feed-forward loop dynamically tackles Class A/B's crossover distortion at the H190's output stage. Hegel has named this SoundEngine2 error cancelling.

As one might expect, the H190's low-frequency control of the Eclipse is a clear step ahead of Vinnie Rossi LIO's 25wpc (!) MOSFET module. The Norwegian also displays greater evidence of muscularity in delivering macro-dynamic shifts whilst maintaining much of the American's finer sonic attributes, Specifically, tonal saturation and treble finesse.

Were they humans, the LIO amp might see the Hegel as a brother from another mother. Unlike the AURALiC Polaris or, to a lesser extent, the Devialet Expert 200, neither LIO nor H190 strips away music's connective tissue in order to highlight layer separation. Both come on as thick and meaty with the Hegel offering more punch and a wider soundstage than the LIO module. Over-simplifying from where I'm sitting, the H190 sounds like a LIO with more power.

Further information: [Hegel Music Systems](#) | [Eclipse Home Audio Systems](#)

