

# totaldac d1-integral-headphone music server/DAC

Michael Lavorgna | Aug 4, 2016



**Device Type:** Network Player/Digital to Analog Converter/Headphone Amp

**Input:** Ethernet, AES/EBU, Toslink, Coax S/PDIF, USB

**Output:** 1/4" headphone jack, unbalanced RCA and XLR

**Dimensions:** height 110mm, width 360mm, depth 290mm, power supply dimensions: height 65mm, width 122mm, depth 180mm

**Weight:** 6.5kg

**Availability:** Direct and through authorized dealers

**Price:** 8400euros incl VAT in Europe, 7700euros excl VAT out of Europe, DSD Option 350euros incl VAT in Europe, 320euros excl VAT out of Europe

**Website:** [www.totaldac.com](http://www.totaldac.com)



## totaldac + Roon

If you've read my reviews of the totaldac [d1-tube-mk2 DAC](#) or the [d1-dual DAC](#), you'll know they are among my Favorites. When I received an email from totaldac's Vincent Brient asking if I'd be interested in reviewing his new Roon Ready d1-integral-headphone music server/DAC, I responded, "Yes".

You can think of the d1-integral-headphone music server/DAC as combining the d1-single-mk2 DAC, which employs 100 0.01% VAR Bulk Metal Foil resistors from Vishay Foil Resistors, and a network player<sup>1</sup> in one box (plus the external power supply). The D1-integral houses two re-clocking systems; an asynchronous re-clocking FIFO implemented in the FPGA and the re-clocking performed in the XMOS USB receiver. The review sample also includes the DSD (DoP) option making it capable of handling PCM resolutions up to 24-bit/192kHz and DSD64.



image credit: totaldac

Every totaldac is a discrete R2R ladder DAC, look ma, no chips. There's no I/V conversion stage, no oversampling, no op amps, and no digital reconstruction filter. Vincent does employ a user-defeatable "non-oversampling DAC compensation filter" which is embedded in an FPGA. The class A discrete transistor output stage is taken from the company's d1-six DAC and the headphone amp is "for 15ohm to 600ohm headphone. 3Vrms output, 1.2W peak under 15ohm still far away from amplifier saturation." The server section is based on the CuBox mini computer which runs the Roon Ready software.

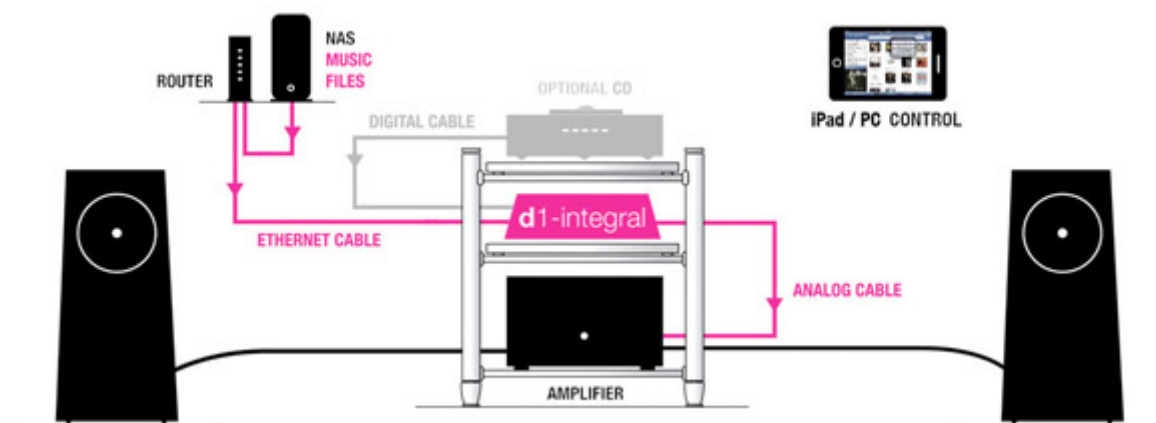
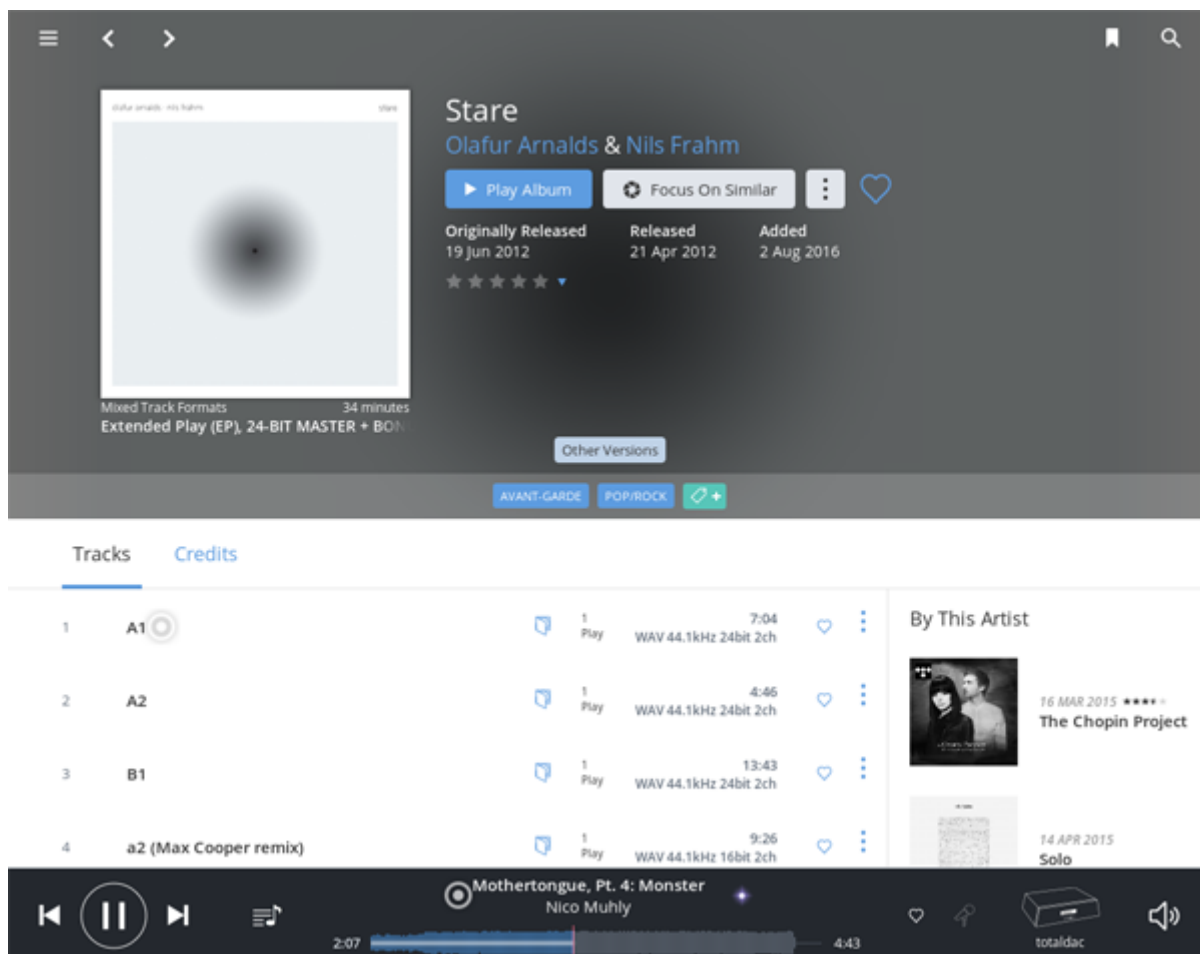


image credit: totaldac

Since I am already Roon Ready, meaning I have Roon Server running on my sonicTransporter, all I had to do to hook up the d1-integral was connect the external power supply, an Ethernet cable, connect the included totaldac USB cable/filter (0.25m 360euros incl VAT in Europe, 330euros excl VAT out of Europe) between its two USB ports tapping into the XMOS re-clocking for use with the Ethernet input (which I used throughout this review), and power it up. Once ready, which happens very quickly, I just had to tell Roon to play through it using my iPad as remote and I was ready to roll.

The d1-integral's chassis is comprised of aluminum and PMMA with a "massive pure copper antivibration plate" mounted inside. The review unit is all black but there's an optional silver aluminum faceplate for those so inclined. As I've stated in my previous reviews, I like the looks of the totaldacs down to the matching external power supply.

The D1-integral was placed on my Box Furniture "fallen A" rack and connected to my Ayre AX-5 Twenty driving my DeVore Fidelity gibbon X. Vincent also sent along his Ethernet cable/filter (2m: 390euros incl VAT in Europe, 360euros excl VAT out of Europe) which I used throughout this review. All other cabling was Tellurium Q Black.

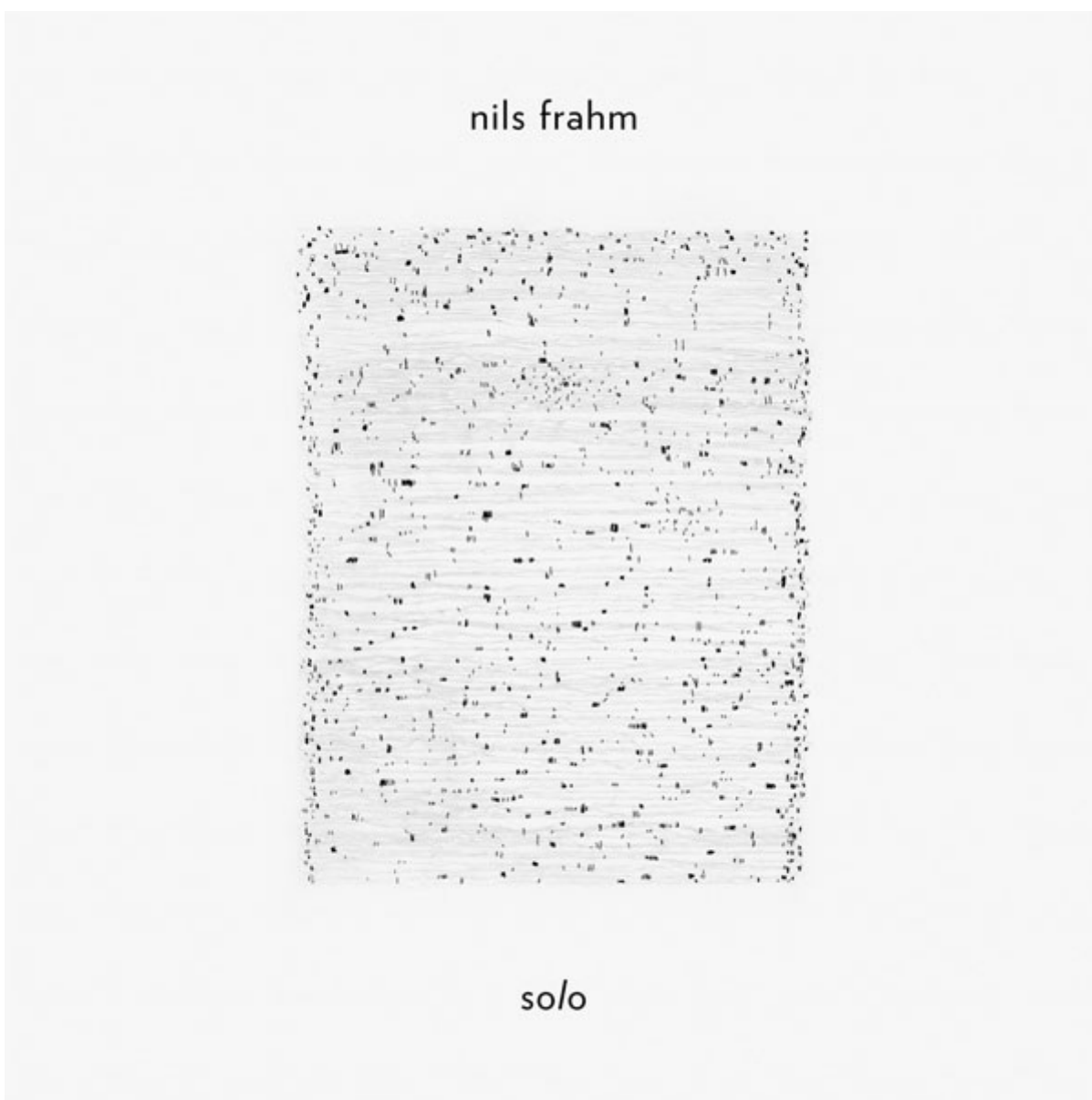


## totaldac + Roon = Happiness

What do you get when you combine a totaldac and Roon and Tidal HiFi? Endless

enjoyment.

The question on my mind, and I assume other's minds, is how does the single DAC compare to the dual DAC (100 v 200 resistors)? Let me put it this way; the D1-integral is a superb sounding DAC while the d1-dual and d1-tube DACs are super superb sounding DACs. There's no doubt that the d1-integral is cut from the same sonic cloth as its siblings which means it also offers a supremely natural sound, one which drew me in from day 1 and kept me *in* my music throughout the duration of the review period. What the d1-integral doesn't offer, when compared to its better-endowed, 9900euros incl VAT siblings, is that extra bit of "Holy crap that sounds amazing" sparkle of musical life, that uncanny undigitalness.



Before you start feeling let down, let's talk about listening to music through the d1-integral-headphone music server/DAC and forget about other DACs for a while: As if we were more interested in listening to music than comparing.

Niels Frahm's *Solo* was one of my favorite albums from last year (see [review](#)). It is a beautiful sounding record of beautiful music played on a very distinct sounding Klavins M450, a piano-like instrument with an 18-foot sound board (you have to climb steps to reach the keyboard). Through this system, you get every last drip of subtlety, nuance, initial sound, harmonics, and reverberation in recorded space making for a damn-near revelatory listening experience.

Here's something Art Dudley said in his [review](#) of the DeVore Fidelity The Nines, "It had more drama and sheer humanity than I've ever heard from such an outwardly conventional loudspeaker". Those words, particularly "sheer humanity" have remained in my head since I first read them and they came bubbling up to the surface when listening to the d1-integral DAC in my system. Music's drama, its sheer humanity, lives in the details and the d1-integral knows how to translate a digital signal into an analog waveform without losing the original analog sound's humanity.





There's also something about the totaldac sound that loves strings. While the more costly totaldac makes strings sing out even more truly, the d1-integral offers a very healthy helping of life and sparkle beyond the capabilities of many-a-DAC I've had here for review. This is not to say it falls behind in other areas, just that it excels so well in this one such that Julia Kent's *Asperities* was edge-of-the-seat engrossing.



Of course, the D1-integral also does raucous really well. FKA twigs *M3LL155X* first track "Figure 8" is a real barn-burner (wink) and its sounds unfold into a giant sphere of electronic crush which extends well beyond the physical placement of my speakers...in every dimension. It is a big, badass, blast-furnace of funk and the totaldac grasps this blast of funk in every dimension delivering a Maxwell-commercial-like experience.



the highly recommended Japanese CD

I have one my Ayre's inputs set to "Processor Pass-Through" which means anything coming in through this input bypasses the Ayre's volume control. Hooking up the D1-integral to this input allowed me to test drive its volume control which performed very well. To my ears, not quite as well as the Ayre as I felt there was a slight hardening of the presentation and less air surrounding sounds so if you own an AX-5 Twenty my feeling is you'd prefer using its volume control when paired with this totaldac. If you own an amplifier and are preamplifier-less, I'd imagine you'd be pleased with the totaldac filling in.



As regular readers know, I'm not a big headphone guy so when it comes to talking about the headphone capabilities of review products, I tend to be short and sweet. I leashed my trusty AudioQuest Nighthawks to the d1-integral and wheeled my chair over to it so I could sit and listen and I listened for longer than I'd anticipated. Delicacy, detail, nuance, and that sense of pure tone that the totaldacs do so well is thankfully also present in the headphone output. Julia Barwick's "See, Know" from *Will* filled my head with all manner of loveliness, as if my brain was being kissed by angels. No, really.

If I screw on my reviewer's cap real tight, squeezing out mostly all of the fun involved in listening to music, I'd say that the d1-integral does not have as fine a grip on bass as its more expensive siblings or even the recently reviewed Moon by Simaudio Nēo 280D MiND. While I remain very impressed with the Nēo 280D, it does not reach as deeply into music's richness and nuance as the totalac. On a personal note, my heart and mind still have me craving either the d1-tube-mk2 or the d1-dual DAC, a craving which can only be filled if/when my bank account becomes fuller.





## I Bet You Saw This Coming

Combining a totaldac with Roon/Tidal HiFi is not only wonderful in theory, it is wonderful in practice. For those looking for a one-box solution for serving their preamp or amp streaming music, the d1-integral-headphone music server/DAC is one very appealing product if you like your music served up with a heavy dose of humanity.

---

1. I prefer to reserve the term "Server" for those devices which include internal music storage.