



Reference standard

This Digital Media Bridge is a prime example of audiophile engineering, but how does it sound? **Malcolm Steward** investigates

The Audio Research Reference DAC is a veritable high-end archetype: it features overkill engineering, uses valves, weighs a ton and has grab handles. The DAC is also referred to as a Digital Media Bridge: that is a high-falutin' sobriquet that almost explains and justifies its price tag.

The Reference DAC truly deserves the moniker "Digital Media Bridge" and not just because it has a volume control and so can act as a pre-

amplifier. The DAC offers seven connections on the rear and one on the fascia for USB memory sticks. The seven rear connections are USB2.0 HS, S/PDIF through RCA and BNC, AES/EBU, Toslink, Ethernet, iPod, and USB. One would certainly be hard pushed to find a domestic digital connection that was not covered by the Reference DAC, which up-samples 44.1kHz (CD-quality) and 48kHz sources to 176.4kHz or 192kHz.

For the most part of this review I will use the Reference DAC in its

DETAILS

PRODUCT
Audio Research Reference DAC

ORIGIN
USA

TYPE
DAC/digital pre-amp/media bridge

WEIGHT
14.6kg

DIMENSIONS
(WxHxD)
480 x 178 x 394mm

FEATURES
• UPnP streamer
• Wired and Wireless LAN connections
• Output impedance:
600ohms balanced
• Digital sample rates: 44.1kHz to 192kHz wired and 96kHz wireless

DISTRIBUTOR
Absolute Sounds

TELEPHONE
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WEBSITE
absolutesounds.com

UPnP streamer and pre-amp capacity exploiting its compatibility with my Asset/Twonky equipped NAS set-up and its ability to be controlled with an Apple iOS device – even though it comes with a perfectly usable remote and a 3.5in TFT fascia display. I am connecting it to the Reference 75 power amplifier with Transparent MusicLink Super XLR balanced interconnects.

Normally one has to fit the valves into any Audio Research equipment but the DAC and Reference 75 were shipped to me ready to play. Did I not mention the valves, or vacuum tubes as the former-colonials prefer to call them? Throughout its 40-year history, Audio Research has favoured both tubes and Class A amplifier configurations, neither of which are exactly environmentally-friendly, but the likelihood of anything from AR turning up in a landfill site is extremely remote.

I am using Neat loudspeakers throughout my testing of the Audio Research system: my reference Ultimatum XL10 and the much smaller Petite SX are also both being driven by the Reference 75.



Vinicius Cantuária, *Lgrimas Mexicanas* subtly but convincingly demonstrates the authority with which the system handles low frequencies. The sound is neither warm nor euphonic or overblown: it simply has credible substance and authority – a wholly desirable feature.

The next rip is also from Frisell's album, *East/West*. It's his take on the Marvin Gaye classic, *I Heard it Through the Grapevine*. There is no background noise whatsoever so low-level detail leaps out enthusiastically from this live recording. The supremely transparent replay of this track defines the terms detail and tonal colour: every instrument is gloriously etched and natural in its sound and presentation. There is also a beautifully crafted soundstage, with Frisell playing to the right in front of the drums and the bass guitar standing forward to the left. Each instrument is painstakingly detailed – dynamically as well as in terms of note shape and space – creating the overall sound of an entirely believable ensemble. The presentation is among the most plausible I have experienced: thoroughly involving, wholly believable, and musically inviting. Unlike some high-end set-ups I have come across, the music is completely coherent and cohesive: it does not suffer from exaggerated dynamics or detail – although genuine dynamics have authentic drama and impact. Perhaps what impresses the most is the vivid tonal colour of the guitar and the variety of sounds the instrument produces, along with the power and vibrant texture of the bass and drums. Equally impressive is the outstanding ability to convey timing nuances and the feel and groove the players inject into the performance.

William Carter playing early works of Fernando Sor shows that the Reference DAC can be equally as

scrupulous when rendering the sumptuous texture of a solo baroque guitar and the space around it, in Linn Records 24/192 recording of the piece. The instrument virtually comes alive in the space between the Neat XL10s in front of me. Many DACs have rendered the sound of this challenging instrument as rather flat, lifeless and devoid of character, but the AR brings out its full body resonance and the vibrant vitality of its strings.

The ability to reproduce female voices accurately is another benchmark at which all high-end equipment needs to excel and the Reference DAC certainly doesn't disappoint. Its ability to act as a USB player reminds me of the Bryston BDP-1, which offers the same facility... and absolutely nothing else. When this – minor as far as I am concerned – facility is integrated, as it is in the Audio Research, it makes far more sense to me and I use it to test a memory stick collection of tracks.

On this stick, Mary Coughlan singing the Joy Division classic, *Love Will Tear Us Apart*, to the

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accompaniment of just an acoustic piano, is a performance I had witnessed intimately only a week or so before and been so moved that I bought a CD of another live Coughlan performance of the song there and then as a memento. The Reference DAC demonstrates all the communication and unforced fluidity I expected from the ripped CD and renders the performance with the same detail, drama, emotion and musicality that I had witnessed only a

Sound quality

The sound of the Reference DAC/75 has a delightful warmth and harmonic completeness that is unlike the sound of most hi-fi, which seems painfully thin and artificial by comparison. It even renders jazz guitarist, Bill Frisell's guitar harmonics on *Pipe Down* (from the album *East/West*) with a genuinely rich and complex tonality. The track *Mi Declaracion* from his album with

The do-it-all Digital Media Bridge even comes with grab handles

CONNECTIONS



- 1 RCA digital input
- 2 XLR analogue output
- 3 RCA analogue output
- 4 12V remote control trigger output
- 5 Ethernet port
- 6 BNC digital input

Q&A

David Gordon

AR Corp managing director of sales



MS: Explain the guiding philosophy behind the Reference DAC?

DG: We wanted it to be a remarkably flexible digital device, acting as a true digital media bridge that will provide great connectivity and flexibility for the ever-growing formats. In addition to standard digital inputs, it had to work in a UPnP/DLNA network, acting as a wired or wireless streaming media renderer, with music servers and a vTuner for internet radio.

How would you characterise the sound of the Reference DAC?

It uses the same vacuum-tube analog section as our other Reference components, so it maintains the same sonic standards established by the Reference 5SE and Reference Phono 2SE. Some of those attributes include exceptional resolution of detail coupled with a very fine grain structure, great dynamic impact and a natural musical flow.

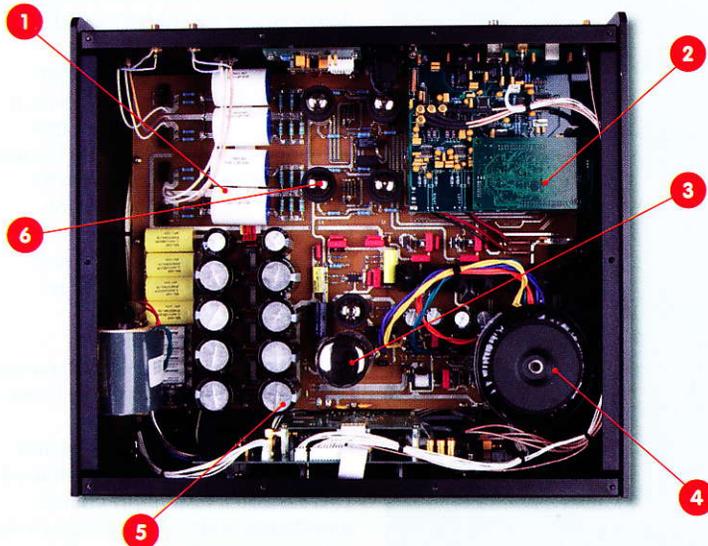
What sort of customer would you say that it is aimed at?

First and foremost, someone looking for the most accurate and involving musical reproduction from a digital source. That could be someone with a single source like a CD transport (or a PC), or a person using a media server who wants to stream his music, or someone who wants the flexibility to allow other members of the household to play their own music from a device like an iPhone. That person can now use an iPad or Android app to remotely select music and control the Reference DAC.

Which power amplifier and speakers would be a good match?

We designed the Reference DAC to work with virtually any power amplifier and speaker combination, not just our own. Many people will pair it with one of our Reference amplifiers, but in our facilities we also use it with our DS-series solid-state amplifiers and our marketing manager is using it with a DS225. We love the way the Reference DAC sounds with a variety of electronics and speakers, modest to extravagant, because the inherent quality is apparent with each one.

IN SIGHT



- 1 Proprietary coupling capacitors
- 2 USB board mounted to the digital board
- 3 High voltage power supply regulator tube
- 4 Toroid transformer for all low voltage and digital circuits
- 5 High voltage capacitor storage bank
- 6 Four 6H30 tubes in Class-A triode analogue section



To my knowledge, there's no component that compares to the AR, so I had to use a collection of units - predominantly a streamer and a DAC with volume control. I chose units from Naim Audio, acknowledged as scrupulously musical performers excelling at the emotional aspects of performances. The Reference DAC delivers extraordinarily close presentations, full of passion, but also offers qualities expected of high-end valve-hybrid equipment, in particular a delicate, refined purity of tone along with startling dynamics. It offers a winning presentation: close to Naim's musicality along with superb high-end poise and sonic finesse.

week or so before in a packed 100-seater venue.

Quite surprisingly, Mary Coughlan's Live album, *The Whole Affair*, and the song *You Go to My Head*, recorded with a small band, sounds not unlike an audiophile demonstration disc. Each instrument is allocated its own distinct position and acoustic space within an impressively wide and deep soundstage. It is easy to listen to any of the instruments within the predominantly acoustic line-up on songs such as *A Thrill's A Thrill*, and to follow them in meticulous detail such are the levels of separation and dynamic gradation. You can, for example, follow the most subtle of quietly played cymbal patterns even while the saxophone player is dishing it out in front with near reckless abandon. The most important element, though, is Coughlan's soulful voice, which the AR combination effortlessly renders with phenomenal sensitivity and realism. Its sheer power and dynamic contrast matches that of the live performance I had recently witnessed in a venue compact enough for her, truthfully, not to require her PA system.

The Nils Lofgren Band Live album's *Girl In Motion*, meanwhile, shows that the AR's abilities with emotional content are not restricted solely to female artists nor just to vocals. It reveals the full measure of expression Lofgren appears to wrest from the strings and body of his Stratocaster.

The track *Bass & Drum Intro* on the album is genuine audiophile pleasure and its sole purpose appears to be that it demonstrates the sonic spectacularity of any equipment through which it is played.

Conclusion

The Reference DAC and 75 amplifier emerge triumphantly with no deficiencies in any respect; their abilities in terms of masterly handling of frequency extremes, tonal colour, leading edges, and dynamics are absolutely beyond reproach.

Ultimately the DAC emerges as a magnificent component in terms of its performance and great value in terms of what it offers for your money.

Its musical performance is little short of sublime and as a product it is not just a single unit: it is, and I will try not to miss a single category; a multiple input DAC, a network streamer, an internet radio, a memory stick player, a pre-amplifier and an iPod dock.

Finally, it is worth noting that the Reference DAC's display panel, provides me with all the functionality I need and its operation is, to me at least, entirely intuitive. All round then, the Audio Research Reference DAC is an absolute winner, no matter which angle you approach it from ●

Hi-Fi Choice

OUR VERDICT

- | | |
|---------------------------------|---|
| SOUND QUALITY
★★★★★ | LIKE: Performance and transparency is exemplary |
| VALUE FOR MONEY
★★★★★ | DISLIKE: No choice of interconnects other than XLR |
| BUILD QUALITY
★★★★★ | WE SAY: Fabulous components that might benefit by being separated into their constituent parts |
| FEATURES
★★★★★ | |

OVERALL

