

# Audio Research Reference DAC Digital Media Bridge

By Jason Kennedy

If ever there were a sign that the wind has changed direction, it's when an established brand with a reputation for building excellent – if slightly conservative – products decides to jump on the latest trend in the business. Maybe I have the wrong impression of Audio Research, but I was quite surprised when it delivered a DAC that is also a streamer. The Reference DAC Digital Media Bridge (to give it its full title) is capable of playing almost all the digital formats in current use (except DSD), whether it be supplied by a CD transport, a computer or a NAS drive. It also has a volume control. It's a frenzy of features by high-end standards and one wonders whether it can do so many jobs as competently as the three separates it represents.

But this is a reference level component that has the same vacuum tube output stage and power supply as the Reference 5 SE line-stage preamplifier. It is built on the sonic qualities of the Audio Research DAC8 and incorporates technology from the Reference Anniversary preamplifier. It would seem that it's paperwork is very much in order as far as existing technology is concerned, so what does it bring to the picture in terms of more up to date requirements?

The answer is plenty. It has wired and wireless Ethernet access, it offers the V Tuner internet radio service, which covers pretty much everything out there, and has connections for S/PDIF cables of electrical and optical persuasions, AES/EBU is naturally onboard as well. There are USB connections for portable devices and for high speed computer connection plus another for USB sticks on the front panel.

The Reference DAC has a 3.5inch TFT display and both front panel and IR remote control switches to navigate around it. Any product that streams from a server needs something like this if you are going to be able to find the music you want to play, in truth it really needs an app for your iPhone or iPad, and at the time of reviewing this was still in the pipeline. Fortunately generic control apps like PlugPlayer will work too. The panel also shows you which of soft or sharp filter options have been selected and whether upsampling is engaged. It can perform positive integer upsampling up to 192kHz – in other words a 44.1kHz CD sample rate will only be upsampled to a maximum of 176.4kHz to avoid complex processing

which tends to muck up sound quality. The actual converter itself is capable of processing signals up to 24-bits/192kHz.

The analogue side of the equation is provided by a zero feedback triode output stage consisting of four 6H30 tubes with a 6550 and 6H30 in the power supply. It also has a volume control, but this fact is not mentioned in the literature and there is a suggestion in the manual that best results will be achieved with a dedicated preamplifier. It says to set the Reference DAC's output level to 60 in this situation.

Cut to the chase, the Reference DAC produced some of the most refined sounds I've encountered in all my years in the business. I started out using the coaxial output of a Naim UnitiServe, a source that allowed the DAC to deliver masses of detail in an effortless and melodic fashion. It is an uncannily relaxed converter and those looking for maximum dynamic impact may find it doesn't have quite enough leading edge definition for their tastes, however it doesn't take long before you are drawn into the music and start to enjoy the richness of detail that's on offer. It's by no means lacking in dynamics either, it's just that there's no digital grain or undue emphasis, it's devoid of that type of distortion, presumably because of that class A output stage. But there's more to it than that. Put on acoustic material and everything sounds right, there's just the right amount of space and a very natural sense of pace along with very convincing tonal rendering.

It images extremely well, there's a solidity to instruments and voices that places them firmly in the room, with the acoustic of the original recording all around them. You don't even have to play pure acoustic music to appreciate this, the kick drum on a track by Frank Zappa is reproduced realistically and with the full depth of the instrument in front of it.

Using a WD NAS drive via Ethernet things get better, the soundstage opens up further and the amount of decay that you can hear on well recorded instruments is simply extraordinary. Patricia Barber's version of 'Summertime' (from *A Distortion of Love*) has always been one of my favourite's but her voice with this DAC was simply intoxicating. The combination with low, deep sonorous double bass notes providing a strong contrast to great effect. The cymbal work on the second track was also very effective. It's difficult for digital systems to reveal the full envelope of instruments like this, but the Audio Research manages it effortlessly.

Of the two filter settings the sharp one suited my system and taste the best, the difference between the two is not dramatic but is pretty clear after a little while. It helps the converter to maintain the tension in some pieces but is by no means sharp in the usual sense. With contemporary music like that of Norwegian vibemaster Bugge Wesseltott it reveals the shine of high notes on a piano and humanizes less natural electronic sounds to an extent that's very rare. His album *Duo* was made with German DJ Henrik Schwarze manipulating the sounds and adding digital effects to the mix, the result is surprisingly good soundstage depth and heaps of light and shade even though most of the reverb is added rather than natural. This DAC lets you forget about the gear and revel in both the sound and the music but always keeps the latter at the forefront.

The Reference DAC's display provides album art where it's available and has track title information as well as a progress bar for each piece of music. You can discover details like sample rate with a click of the remote handset and changing inputs is rather more intuitive this way than it is via the front panel.

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Hooking up a Mac Mini running Audirvana Plus software to the USB input (using ARC's driver software) also proved a rewarding experience. It's not in quite the same league as the options tried earlier but displays many of the converter's qualities of open, effortless and nicely timed sound quality. Imaging isn't as clear-cut but there is a strong sense of presence with some recordings, the most startling being Laura Marling's song 'Friends' from her latest album *A Creature I Don't Know*. This is a good vocal recording and the music isn't too dense but nonetheless it comes across in astonishingly real form, the USB 2.0 input may not be as strong as the Ethernet but neither is it a weak link.

The net radio is rather good too, it flows without interruption which isn't always the case and you can access on-demand material where stations provide it which some streamers cannot. I enjoyed some great tunes from BBC ▶





► Radio 3's *Late Junction* including a pretty frantic track by a jazz band called Troika that never missed a beat, and it's the sort of material that can get tiring with less relaxed streamers. The only thing that I couldn't do with these shows was to stop or pause them.

My final choice of source was a USB stick in the front panel and this proved pretty stunning, I didn't make a direct comparison with the other alternatives but Yes' 'Roundabout' has rarely sounded as sweet. It had both drive and dynamics but ultimately turned me back on to a track that I've long enjoyed on vinyl. Something that the CD or even the SACD have never been able to do so effectively, and this is true even of discs played via the Reference DAC, they just don't have the ease and resolution of a good rip or high res file.

Audio Research has created a genuine bridge for digital audio whether it be on a CD transport a computer or a hard drive. It brings both refinement and high resolution to everything it plays and does so in a supremely engaging fashion. The fact that it can get such astonishing musical beauty out of files stored on a USB stick is remarkable and a sign that even in the high-end, the CD's days could be numbered. +

## TECHNICAL SPECIFICATIONS

**Gain:** Max. Digital Gain: 25dB Balanced, 19dB SE.

**Input Impedance:** Digital: 75 ohms BNC, RCA, 110 ohms AES/EBU, OPT 660nm TOSLink fiber 44.1 to 96kHz

**Output Impedance:** 600 ohms Balanced, 300 ohms SE

**Output Polarity:** Non-inverting.

**Rated Outputs:** 2V RMS .5Hz to 100kHz into 200K ohm balanced load

**Digital Sample Rates:** 44.1kHz to 192kHz, SPDIF, USB 2.0 HS and Wired Ethernet. 96kHz max over Wireless Ethernet

**Controls:** Rotary volume selector (104 steps) and rotary input selector.

**Compatible formats:** MP3, AAC, WAV, WMA, FLAC, LPCM, WMA-9, ALAC, AIFF

**Tube Complement:** (4)-6H30 dual triodes, plus (1)-6550C and (1)-6H30 in power supply.

**Dimensions WxHxD:** 48 x 17.8 x 39.4cm

Handles extend 3.8cm forward of the front panel

**Weight:** 14.6 kg

**Price:** £13,998

**Manufactured by:** Audio Research Corporation

**URL:** [www.audioresearch.com](http://www.audioresearch.com)

**Distributed by:** Absolute Sounds

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