

# Reference mini

TEAC's latest 'Reference Series' DAC is more than just a pretty box, says **Richard Black**, it's also a 'star' performer

**T**EAC has long managed to bridge the gap between mass-market and audiophile. Its mass-market products are exactly that (good, but mass-market), but its more refined offerings are often found in some of the finest systems. It may be guilty of over-using the word 'reference' in connection with hi-fi products, but the latest additions to the compact Reference range really do look as if they mean business, especially this new DAC.

## Hi-res Tenor

The floodgates are well and truly open as regards hi-res USB DACs, so it's no surprise that TEAC brings its expertise to the market. The UD-H01 handles sampling rates up to 192kHz and also deals with 24-bit words, and it achieves this by using an input chip from Tenor Semiconductor. The key feature of this chip is that it allows the data transfer to operate in 'asynchronous mode', which means the DAC tells the computer when it's time to send more data. In simple terms, that's how you get low jitter from USB.

Of course, not everyone wants to stream audio from their computer and both flavours of S/PDIF input are represented; just one each of optical

and electrical. Outputs are copious, with both unbalanced and balanced on offer plus a front-panel headphone socket (a proper, full-size, jack socket) with its own volume control. D/A conversion is carried out by a generous pair of high-performance DAC chips.

Digital filtering is carried out by an asynchronous sample-rate converter, a part from Cirrus which appears to do minimum-phase filtering – that's the sort with no pre-ringing.

## The latest analogue, too

Analogue components are right up-to-date as well, including one op-amp so recent that its data sheet isn't even translated into English yet; part of a dedicated high-grade audio range from JRC. It's accompanied by several (1970s-vintage) 5532 op-amps. Passive parts, and build quality generally, are good and the unit is easy to operate.

You need to install TEAC's drivers on your computer to use high-sampling rates via USB and not all applications seem to notice them – iTunes would only play at 44kHz. Some playback applications seemed to cause a momentary dropout at the start of a track, when you can hear the DAC's muting relays cut out and in again.

## DETAILS

**PRODUCT:**  
TEAC UD-H01  
**ORIGIN:**  
Japan/China  
**TYPE:**  
DAC  
**WEIGHT:**  
2kg  
**DIMENSIONS:**  
(WxHxD)  
215x60x220mm  
**FEATURES:**  
• Optical, electrical  
and USB inputs  
• Sample rates  
up to 192kHz  
(optical 96kHz)  
• Unbalanced and  
balanced analogue  
outputs  
• Headphone output  
(6.3mm jack) with  
volume control  
**DISTRIBUTOR:**  
TEAC UK  
**TELEPHONE:**  
0845 130 2511  
**WEBSITE:**  
teac.co.uk

## Strong in a strong field

By any reckoning this is a very capable piece of kit. The competition in this field is extremely strong, however, with some of our favourite DACs of 2011 setting the bar particularly high. The more costly Rega DAC at £500 won Best DAC in our recent Awards issue (*HFC* 352) and our sub-£500 winner was the Matrix Mini-i at £260.

Having set it up with a PC and made sure it was actually operating properly at high sampling rates, we played a couple of in-house recordings made at 96kHz, which showed at once that this DAC has no problem reproducing frequency extremes, detail and imaging. Indeed, it's very good at the latter, giving really excellent depth, which is generous yet precise and absolutely stable. All too often, depth seems to vary with dynamics, but not here.

Lateral imaging is similarly assured and as a result one seems to get even more detail from well-imaged recordings. The reason being that it's so easy to pinpoint the position of individual performers.

## No added character

Turning to commercial CDs of various styles of music, we were impressed with the rhythmic skills of this DAC, too. What it doesn't always have is precision of pitching on very low notes, which are certainly full-bodied, but can sometimes sound like a slightly dull thud when previous hearings have shown them to be specific notes – upright bass is the instrument most inclined to show this up. That does seem to be just about the only chink in its otherwise shining armour, though.

Treble is extended and sweet, and midrange is neutral and just as full of character as the original recording, no more and no less. The headphone output is good, too, making the UD-H01 something of a star. ●



## Hi-Fi Choice

### OUR VERDICT

#### SOUND QUALITY



**LIKE:** Precise, detailed and lively sound; simple, straightforward and adequately featured

#### VALUE FOR MONEY



**DISLIKE:** Bass could perhaps be a little more precise in some areas

#### BUILD QUALITY



**WE SAY:** This DAC has plenty to recommend it at a great price

#### FEATURES



#### OVERALL

