

the ear

HI-FI MUSIC GEAR

hardware review



Lyngdorf TDAI-3400

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Back in 2009, just after I moved into the audio industry having been a customer of it for almost 30 years, I heard a Lyngdorf all digital amplifier for the first time and was sufficiently impressed to buy one to use in my own system. It was radically different from what had gone before and that was part of its appeal. Built in to it was a piece of software called RoomPerfect, which promised to 'learn' my room and using very sophisticated DSP methods, to shape the sound so as to overcome its sonic anomalies. A very good friend of mine had a fun evening assembling the supplied microphone stand and taking readings all round the room using the high sensitivity microphone which was also supplied. However, I found the resultant sound almost too accurate and convinced myself that perhaps I actually liked the imperfections inherent in the sound from an analogue amplifier. I also, if I am honest, didn't enjoy the scepticism and indeed outright ridicule I received from some quarters for my choice – my 'audiophile' friends were often quite scathing. In the end, I sold the amplifier to a very nice chap who lives just outside Le Havre in Normandy, and returned to the world of analogue amplification. However I never shook off the feeling that I had let myself be pressured into changing back to equipment drawn much more from the mainstream of worthy UK brands.

Fast forward 10 years, and I bumped into an article about the latest Lyngdorf amplifier, the TDAI-3400, when I was having one of those butterfly evenings on my iPad; jumping from one hi-fi article to the next. The piece I read was very positive and I decided there and then to contact Rob Sinden of Gecko Home Cinema, the UK distributor for Lyngdorf and the even more upmarket Steinway Lyngdorf brands and asked if I could review the TDAI 3400 for The Ear. It was Rob who had sold me the amplifier (and matching CD player and phono stage) 10 years before. I thought he might be wary but straight away he invited me to visit his purpose built demonstration facility in the garden of his home in Berkshire.

I drove up to see Rob, taking with me Richard Trussell of Kingscote Audio in Torquay, who is very knowledgeable about and deeply interested in digital audio, and whom I thought might find the Lyngdorf experience interesting. We were made very welcome on arrival and spent some fascinating time with Rob, not just listening to 2 channel audio but also getting to see and hear the astonishing Steinway Lyngdorf home cinema demonstrations in the aforementioned facility. Yes it is *that* Steinway – the piano manufacturer of international renown – who have chosen to go into a joint venture with Lyngdorf.

However, our primary purpose was to hear two channel audio and that we most certainly did. I was sufficiently impressed that I asked Rob to send me a TDAI-3400 with the optional high resolution ADC (analogue to digital converter, the opposite of a DAC) board which offers two pairs of RCA inputs and one pair of balanced XLRs, and if he could spare it, the matching CD2 player, for me to review.

When the boxes arrived they were swiftly unpacked and set up on the rack, and all appropriate connections were made. XLR cables were connected from the Yamaha SACD/CD player and RCAs from the Gold Note PH10 phono stage. The CD2 was hooked up via its digital output to a suitable socket on the rear of the TDAI-3400. Last but not least the optical cable from the TV was connected. The REL 305SE sub was plugged into the pre-out sockets and the Harbeth P3ESRS via their Tellurium Q Ultra Black 2 cables. So far, so standard hi-fi install. From then on however, the Lyngdorf side of the equation was introduced. In the box with the TDAI is a mic stand and a long XLR terminated cable, with an XLR/mini jack adaptor for one end and a high sensitivity mic for the other. The fascia of the amplifier houses the socket for the mic. Using the (very good) Lyngdorf app (iOS and Android), the Room Perfect set up was



started. Data such as distance from the listening position to the loudspeakers and subwoofer and crossover frequency all have to be entered.

With that done, the microphone is placed carefully at the main listening position and the first reading taken. RoomPerfect emits a series of test tones until it is satisfied with the result. The software then prompts a series of readings with the microphone placed randomly at different heights and locations in the room and the tones are repeated at every placement. The instructions guide the user through the process, with reminders to avoid getting too close to walls, ceiling or floor. After nine different readings the screen announced that the room had been 96% 'learned' and the amplifier was ready to go once a few more parameters had been set. The first is 'Focus' or 'Global'. The former will direct sound exactly to the main listening position, creating a very specific listening sweet spot. The 'Global' setting is more democratic, aiming to optimise the sound wherever the listener is located in the room. The other parameter to choose is the 'Voice', there are a raft of options, whereby the sound is shaped by DSP to better suit different music genres or venues. For most of the review I stuck to Global and Neutral, but I did play with the others and in most cases the differences were subtle but noticeable. The new owners get to have hours of fun experimenting.

In addition to the above there are also 'tone controls' available to boost or cut bass and treble, and therefore to create your own voice settings. There is also a balance control. I did not feel that I needed to alter the preset options but the possibility for fine tuning the sound to personal preferences is really extraordinary. It is the complete antithesis of what we have come to accept, where the amplifier designer makes all the decisions for us and we end up trying to change/improve the sound by changing cables or other things to get the 'perfect' sound.



This set up process is not as daunting as it sounds but does need to be done carefully. It will only need to be done once in most circumstances, so it is worth doing well. I changed loudspeakers during the review period so did the whole RoomPerfect thing again. However the system will store data for two sets of loudspeakers so that was a relief. You can read all about the technical specification of the TDAI-3400 elsewhere, but it is worth noting that everything within the system runs at 24/192 resolution, so this is a genuinely high definition device. But what does it sound like?

Sound quality

The truth is that it sounds shockingly good. My preferred source is my Linn Sondek LP12 and Gold Note PH10 phonostage. I am hooked on the sound of vinyl and the ceremony associated with playing vinyl albums. How on earth could this be reconciled with feeding the signal into an ADC sitting in a totally digital amplifier? Would it sound like a CD? What would be the point of vinyl replay in this brave new digital world? The answer, dear reader, is that it sounded like vinyl should. The richness, the warmth, the occasional click and pop and everything else which makes vinyl feel special to me was right there – the TDAI reproduces it exactly as I expect to hear it, doing nothing to detract from the experience. What it does do, and what rapidly became very addictive, was convey the music with astonishing clarity and perfectly judged pace, rhythm and timing. The soundstage created is enormous, in width height and depth. The tiny Harbeth P3ESRs sounded so... big. The integration with the subwoofer was absolutely seamless and no matter what record I played the result was always the same – slack-jawed astonishment.

Switching to silver discs, the effect was just as compelling. Using the Lyngdorf CD2 into the TDAI-3400 I was very impressed with the sound quality again and perceived no digital 'nasties'. Playing acoustic blues from Doug McCleod, with his beautifully recorded 'You Can't Take My Blues' album, which I consider one of my reference discs, it was as if he and his band were playing in the room. Switching between genres, I played classical, jazz, rock, pop and folk, and the Lyngdorf pairing delivered, disc after disc. Playing SACD via the Yamaha's DAC and into the analogue XLR inputs on the ADC board, I had more hours of musical pleasure.



Several times I was so wrapped up in the listening session that I was astonished to find how many hours had passed. My 'to do' list was totally ignored, which never goes down well with the long-suffering Mrs Kelly as you might imagine. Speaking of whom, she was very complimentary about the television sound via an optical digital connection. She commented about the voices seeming to emanate from exactly where the relevant person was located on the screen and on the clarity of voices.

The TDAI-3400 has one more string to its very impressive bow – a built in streamer. It turns the device into a very upmarket all-in-one answer if the user eschews physical media. Using the Lyngdorf app provides access to internet radio via the vTuner service, to music stored at home via UPNP and to Spotify. Users of other streaming services like Tidal or Qobuz will need

to splash out on the mConnectHD app – £5.99 very well spent. How good is the streamer? It is more than good enough for my purposes. I would be very happy to use it instead of my stand alone and highly regarded British made device. Streaming from my CD ripper the sound was excellent – the WAV files leapt from the speakers; the musical message transmitted with tremendous verve.

There is so much that is different about using a true digital amplifier. As you increase volume levels, nothing is changed other than the volume. There is no hardening of the sound, no sense that there is strain anywhere in the system. The volume control itself offers tiny increments and if using the front mounted dial it takes some getting used to. It literally will spin freely in either direction. On many amplifiers which pass through my reviewing system, there is a relatively limited range in which the volume knob can be set, but on the TDAI-3400 it feels almost infinite.



By now, you will probably have realised that I was absolutely blown away by the TDAI 3400. It is an absolute stand-out product in every way. If it has vices I failed to find them in the weeks in which it sat on my rack. It will deliver 200 watts per channel into an 8 Ohm speaker load and 400w into a 4 Ohm load. To experiment I tried different interconnects and speaker cables during the review period. The TDAI-3400 let me hear the differences every time. RoomPerfect will divide opinion of course, but it is a very sophisticated tool and I never got any sense that the sound I heard was somehow 'digitally modified'. In fact I know that what I was hearing was the true voice of my loudspeakers – luckily I love that sound. When I set up 'guest' loudspeakers with RoomPerfect I am totally confident that it helped me to hear them without my room colouring the sound and possibly my judgement. It will do the same for whatever loudspeakers you have decided are right for you.

So what is the downside? From a technical viewpoint, there is none. However if you are reading this in the UK you will find dealers very hard to locate, which is a great shame. But if reading this has piqued your interest I do urge you to make the effort – you will be very glad you did. Set up requires patience and a methodical approach although a good dealer will help with this. Your reward for the investment of time and money will pay you back for years to come.

