



Digital Audio Denmark AX24

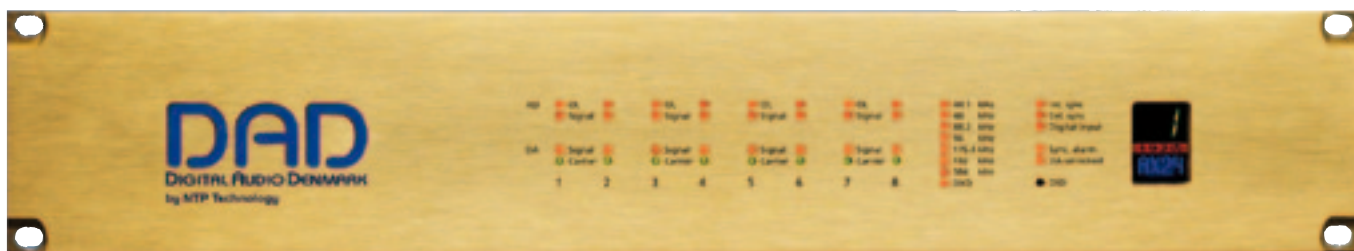
One of the mostly highly regarded converters has added Pro Tools interconnectivity. **GEORGE SHILLING** hears and enjoys a difference.

The AX24 is an eight channel configurable A-D and D-A with optional pairs of built-in microphone preamps (up to eight), and a huge range of connection options resulting in an incredible 224 different possible configurations. With a PHD card installed it can be connected via a DigiLink cable to present itself to Pro Tools HD as a 192. You can also control the preamps via MIDI with it emulating the Digidesign PRE. Furthermore, the AX24 supports EuCon for control via Avid/Euphonix 5MC and MC Pro fader controllers.

As well as Pro Tools HD, digital I-O is available for MADI, AES3, SPDIF and TDIF. DSD formats can be used with SDIF-3 and MADI. Standard sample rates are covered from 44.1 to 192kHz, with additionally (these out of the reach of Pro Tools) a 384kHz setting along with DSD at 64fs or 128fs, and DXD at 352.8kHz. Digital Audio Denmark (DAD) also offers the AX24|192 PHD configuration as a standard model, with eight analogue inputs and outputs on XLRs along with the pair of DigiLink connectors. Word clock BNCs are standard, of course, and there is a further BNC for Video In and

an XLR for AES11 sync. There are no controls on the unit; instead, an old-style RS-422 D-connector enables remote control of all functions at distances of more than 100 metres.

The unit itself is styled like a futuristic Marantz CD player from the 1980s; the extremely thick brushed gold 2U front panel featuring an enormous cut-out DAD logo that lights up gaudily in blue when the rear Power rocker switch is flipped. The kids loved it. Unfortunately, the fan in the rear is fairly noisy, and the unit generates a noticeable amount of heat, so the chances are that it will be



located out of sight in an air-conditioned machine room. The AX24 badge is also lit up in a window — perhaps DAD will use the same panel metalwork for other models. And there is an LED display indicating a number 1, which indicates the unit's ID number when stringing together multiple interfaces. There are two LEDs for each of the eight A-D inputs showing Signal present and Overload. There are also two LEDs for each D-A channel indicating Signal and Carrier (the latter illuminated when Pro Tools is running). Further rows of LEDs show the selected sample rate, DXD, DSD, and various synchronisation and error states.

The unit was supplied with a little bodge-box to convert between the RS422 serial connection and USB, and the DAD website suggests that conversion to Ethernet is also an option. A number of steps must be undertaken to get the thing up and running. First, I had to locate and install the particular software driver for the serial-USB converter from the manufacturer's website in order to make that work. Next, I delved into the Audio MIDI setup in OS X to configure a pair of IAC MIDI buses for Pro Tools control of the microphone preamps. Then there was the DADman software to install that is used to control the unit.

Even if you opt to use Pro Tools to control the mic preamps, DADman must be running and configured by checking the correct box for the serial connection converter in the Serial Ports window, then selecting the preconfigured IAC buses in the MIDI settings window. This setup can be saved, but the saved configuration does not automatically load, and so must be loaded following each boot-up. Once the unit is recognised, the main window comes to life, with a number of collapsible sections for A-D (including control of mic preamps), D-A and General settings, covering Synchronisation and I-O options, reflecting the front panel LED indicators and much more besides.

For Pro Tools control of the mic preamps (instead of DADman), you must first select those IAC MIDI ports in the Peripherals Setup, and set input channels in the I-O Setup. There are advantages and disadvantages to both control methods, but you can use both simultaneously. The advantage of using Pro Tools is that the controls will appear at the top of the relevant channel, so in the heat of the session you'll easily identify the correct controls. Settings are saved with the Session, so upon reloading, the mic amps are instantly reset. But communication is one-way, so the settings shown in Pro Tools won't reflect changes made in DADman (whereas the opposite does work). Also, the AX24 can only switch Phantom power on and off in pairs, and this won't be indicated in Pro Tools.

Other advantages to DADman are much finer resolution (0.5dB steps instead of 3dB) and the ability to reach the last 3dB up to 72dB gain. In DADman, you can link pairs of channels for functions other than Phantom switching and there are Delay knobs for each channel — up to 100mS but also with handy calibration for mic placement in metres or feet.

The software is very well thought-out, with easy hiding of unwanted sections, (e.g. if you don't need to see the MIDI channel selection or the D-A mute buttons), easy to adjust mic preamp faders, clear coloured and flashing indications of sync problems, and optional direct typing of parameter values.

As the mic and line inputs share a set of XLRs some care is

required to avoid shooting Phantom power into the wrong places. Sonically, the converters and mic preamps both possess clarity and detail along with an impressive natural musicality. Even at low sample rates, there is a rare openness and air. I started by recording flute, miked fairly closely with a 414; and although I had been expecting excellence, it just sounded stunningly real; bright and clear, but not in any way harsh. Layering sounds recorded with the AX24, a terrific detail and separation becomes apparent.

To assess the A-D and preamps, I was listening through my standard D-A setup, but eventually I replugged to listen through the AX24. The top end was gloriously open, detailed, perhaps slightly dry, and the lows were controlled, clear and stable. The overriding impression after extended listening was that things sounded very natural, and a bit less 'messy' than my standard Apogee setup, revealing more detail. It's easy to mistakenly convince yourself of subtle changes, but this was fairly obvious. Stereo imaging and positioning also seemed slightly clearer than I was accustomed to.

I have not tried this with all flavours of control surface, but even with the largest and most comprehensive examples I suspect there is still a sense of not being as directly in control of the mic preamps as one normally is with an analogue console or a rack of APIs, for example. You must also take care when adjusting gain during recording, as there are points along the scale at 3dB intervals where relays pop analogue gain stages in and out, causing artefacts. But if these little niggles are not a problem for you, then the AX24 is a supremely fine-sounding combo for the discerning audio engineer. It deserves a proper listen. ■



PROS

Ultra-clean clear, detailed and natural conversion and mic preamps; Pro Tools integration; wide range of options.

CONS

Fan noise; heat; preamp steps when adjusting gain.

EXTRAS

Key prices: 8 A-D input with mic pre and interface for Pro Tools HD Euro 5860; 8 A-D input and 8 A-D outputs line only with MADI interface Euro 6600; 2 D-A output only with AES-EBU interface Euro 3430.

Contact

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