

Gallic Charm

The new Expert Pro 220 from innovative French company Devialet could be the only amplifier you'll ever need, says Jon Myles.

Devialet set the cat amongst the pigeons with the launch of its original D-Premier amplifier just over seven years ago. Here was a sleek, silver, undeniably modern-looking amplifier that resembled no other on the market. It offered prodigious output from the company's patented ADH technology (Analogue/Digital Hybrid) - a combination of Class A and Class D amplification operating in parallel where the former sets the output voltage while the latter provides most of the current.

With both digital and analogue capability (including MM and MC), the option of customising inputs and the promise of future software upgrades, the D-Premier proved an immediate

hit with both critics and listeners alike.

Since then Devialet's Paris-based engineering team has worked steadily to refine that original model, the latest iteration being their Expert Pro series.

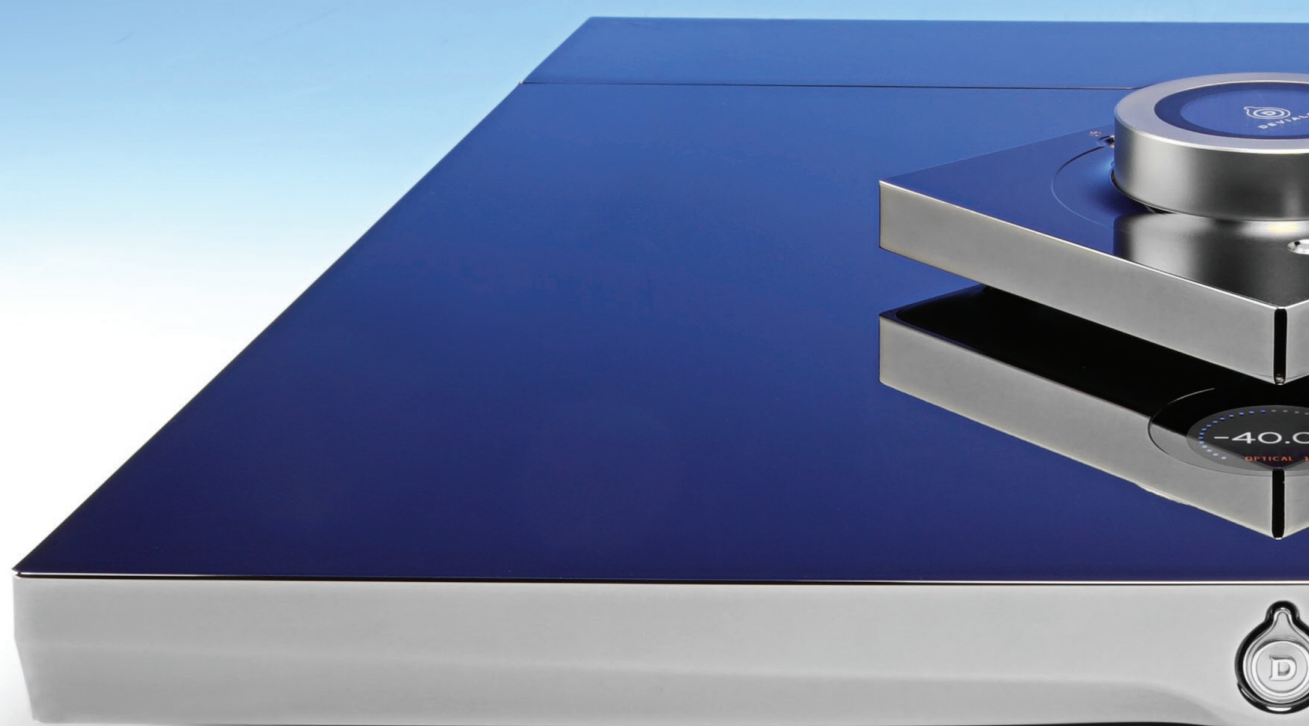
There are four models on offer, the 220 Pro on review here being the second up in the range and costing £6990 (the flagship 1000 Pro comes in at £22900 with the entry-level 130 Pro at £4990). The model numbers all refer to power output, the 220 offering a claimed 220 Watts per channel into 6 Ohms (see Measured Performance).

On the outside the Expert Pro 220 differs little from the original D-Premier, having a svelte 40mm x 383mm x 383mm (H/W/D) chassis

carved out of a single block of aluminium and finished in a gorgeous dark chrome that simply screams class. The matching remote is also a thing of beauty with a smooth, rotary control atop its shiny square base.

Inside though, things have changed considerably. The ADH section has been improved with new Class A and Class D amplifiers, there's an upgraded power supply while the thickness of the copper on the circuit boards has been doubled.

On the rear there's a selection of configurable analogue RCA analogue and digital Toslink and co-axial inputs, balanced digital AES/EBU, as well as an ethernet network and USB computer connections. The digital connections will accept file sizes up to 24bit/192kHz with USB taking



32bit/192kHz as well as DSD. Wi-fi is also incorporated, so the amplifier can accept music from NAS drives, computers, tablets etc.

All analogue line level and phono sources go through a Texas Instruments PCM4202 analogue-to-digital convertor, while the main DAC circuit utilises a PCM1792 chip from the same company.

Finally, the 220 also features Devialet's proprietary SAM technology - which matches the amplifier's response to the specific loudspeakers being used (see separate panel for full details).

SET-UP

Setting up the Expert Pro 220 involves a visit to the Devialet website and logging into the Configurator section. This allows you to assign the inputs to digital, line or phono, tailor the bass and treble, use the SAM set-up for your 'speakers, as well as a host of other features including start-up volume and maximum output.

With the Phono input you can further specify MM or MC cartridge, make of cartridge, the RIAA curve, sensitivity and resistive/capacitive loading - of which there are 256 combinations available.

All this information is then downloaded to an SD card which slots into the back of the amplifier and transmits the settings internally.

If that all sounds complicated, fear not. Once into the Configurator making changes is simple and it's a matter of a few minutes to get everything how you want it. Turntable users who often change cartridges could also maintain a number of SD cards with different settings to slot in and out as needed.

SOUND QUALITY

Some hi-fi traditionalists have looked at the Devialet and balked at its apparent complexity. That's a pity because this is an extremely accomplished amplifier in spite of all that technology at its heart.

First off, it is massively powerful so capable of driving just about any loudspeaker. But that grunt is allied to Class A finesse - the very essence of a steel fist in a velvet glove, if you like.

In that respect the Expert Pro is akin to some of the best McIntosh amplifiers I've heard although the sonic signature is very different.

Essentially, the Devialet is extremely clean, clear and open - giving a wide window onto

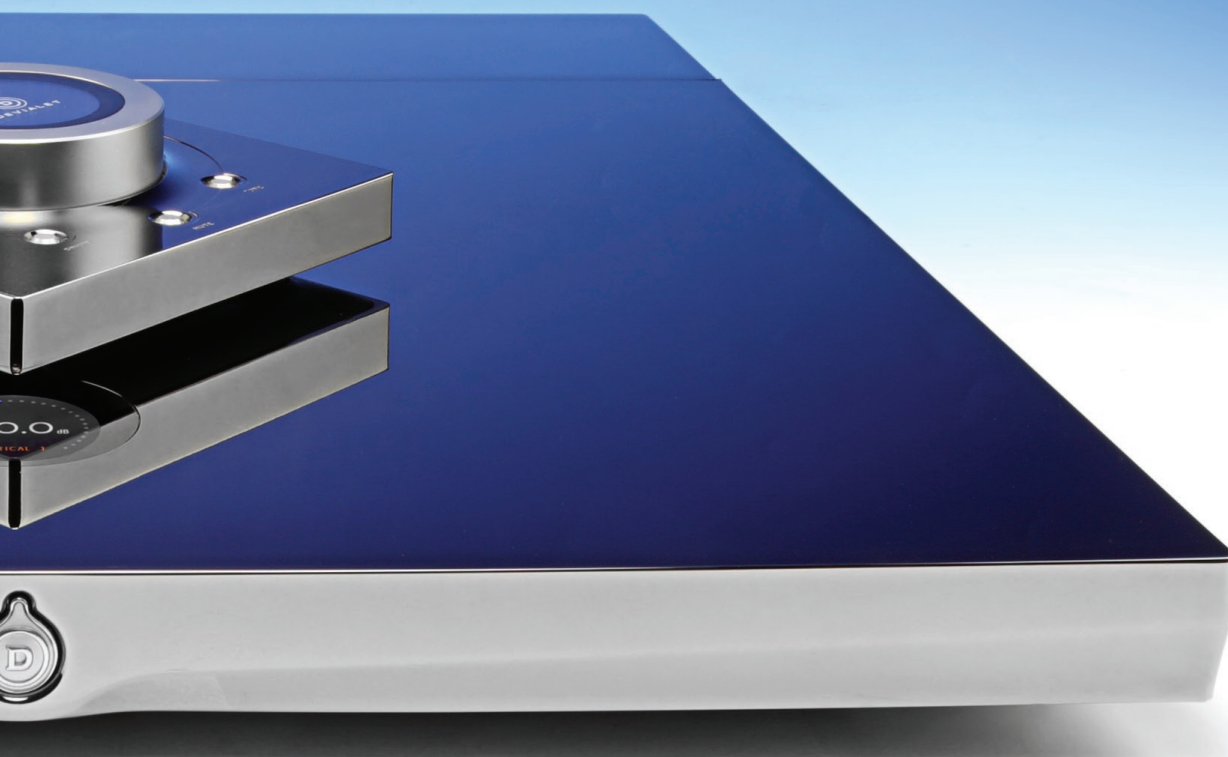
recordings and letting the listener hear deep into the mix.

Listening to Echo And The Bunnymen's 'A Promise' (24/96) through a pair of Spondor's new D9 loudspeakers the sliding bass line was exceptionally firm, laying down a solid foundation for Will Sergeant's chopping guitar chords above. Ian McCulloch's wailing vocals were pitched perfectly, the Devialet capturing every nuance of his distinctive phrasing.

Every element of this track was laid bare before me - not in a clinical, cold fashion but simply in a way that let me appreciate what each musician was doing.

It was the same with streaming the San Francisco Symphony's superb rendition of 'Marsch' from Alban Berg's 'Three Pieces For Orchestra' (24/96). It's a powerful, majestic piece and the Devialet brought home the full scale of the work with the horns, trumpets and trombones all clearly set out in their exact place - the amplifier also bringing out the full impact of the two sets of timpani.

On completing the work Berg is alleged to have said, "There had to come a day when we could hear how a chord of eight notes really sounds in the brasses". Well, here I certainly



could. The power of the Devialet also meant I could turn the volume up to wall-shaking levels without any strain from the Spondors.

Also, I turned on the Spondor D7 profile in the amplifier's Speaker Active Matching (SAM) setting. It was just a few days after Spondor's MD Philip Swift had delivered them and he'd been enthusiastic about the benefits of Devialet's SAM technology.

Suffice to say he was correct. With SAM switched in the bass had a firmer, deeper presence on the second part of Fleetwood Mac's 'The Chain'. The impact was almost physical in its low-end power, bringing a visceral quality to the music.

But, as mentioned, the Devialet is not all about power. It also has a beguiling lightness of touch with more gentle, music. With 'Never

Known' from The Durutti Column's 'LC' CD, Vini Reilly's simple guitar riff had air and space around the chords, the reverb washing gently in the background. The vocals - barely audible through many an amplifier - still whispered quietly and were intelligible and so much more haunting.

The amplifier's resolution also meant its timing was uncannily accurate - nothing was lagging or temporally out of kilter in the signal.

I tried the same track via LP with an Ortofon Cadenza Bronze MC cartridge and the results were very similar - probably due to the fact that the signal is going through an ADC first before the amplification stage. However, there was a noticeable absence of surface noise and a totally quiet background throughout.

But this is essentially true of all the Devialet's inputs and with whatever music you are playing. It doesn't matter if it's deep bass, orchestral brass sections, solo guitars or gentle vocals - this amplifier handles them all with a smoothness but sense of reserved power that makes you believe nothing can disturb it.

In fact, I'd say the only limiting

Internally the Devialet Expert Pro 220 is superbly constructed with new circuit boards and improved amplifier sections.

factors are likely to be your loudspeakers or sources. As such this is an amplifier that could prove the core of your system for years to come while you upgrade around it. Which is a very sensible way to spend your money.

CONCLUSION

The Devialet Expert Pro 220 is a triumph of ingenious engineering harnessed in the pursuit of excellent sound and 21st century flexibility. If you like to hear your music just as it was recorded, you'll love this amplifier.



The Devialet's remote control is machined from a solid block of aluminium with a volume control on the top....



...Alternatively there's a free app for Android and Apple smartphones which replicates all the functions on the remote control.



Inputs on the back of the Devialet include analogue, digital Toslink and coaxial as well as AES/EBU. A USB connection also allows for file sizes up to 32bit/192kHz as well as DSD.

SPEAKER ACTIVE MATCHING

One stand-out feature of the Devialet is SAM - or Speaker Active Matching. Essentially it is a sophisticated DSP programme which the company says processes the musical signal in real time so the sound pressure reproduced by the 'speaker matches exactly the one recorded by the microphone. Essentially it is acting on phase and time domain errors induced by the design of the loudspeakers to produce a cleaner sound.

Devialet also factor in variables such as maximum driver movement and voice coil temperature to act as a 'speaker protection measure.

And in practice it works. With the Dynaudio Excite X38s bass went lower and was also firmer but with no sense of overhang. There was palpably more power on offer. Devialet claim switching on SAM gives a bass output of 19Hz from these 'speakers compared to 37Hz without on Massive Attack's 'Angel' (see <https://en.deviale.com/sam-ready-speakers/page/dynaudio/dynaudio-excite-x38>).

I played the same track and have no reason to doubt those figures. But it wasn't just with the bass depth of Massive Attack that SAM made a difference. Even acoustic jazz and female vocals benefitted with the firmer foundation giving higher frequencies more definition.

At present there are some 794 'speakers in the SAM database - ranging from the likes of the budget Monitor MR2 bookshelf to the £200,000-plus Wilson Audio Alexandria XLF - with more being added all the time.

Users have the option of having SAM on or off - but can also alter the amount of processing being used on-the-fly until the required level is found.



An SD card slot on the rear allows users to configure the amplifier to personal taste.

MEASURED PERFORMANCE

The Devialet Expert 220 Pro amplifier has complex output protection circuits that pull power down after around 0.5 seconds. Within that time, tested with 0.2 sec sine wave bursts, power measured 144 Watts (34V) into 8 Ohms and 290 Watts into 4 Ohms. Driven continuously the figure fell to 72/144 Watts, due to protection, and the case became hot. Into 6 Ohms, burst power is 190 Watts, slightly below the 220W figure quoted but not a consequential shortfall.

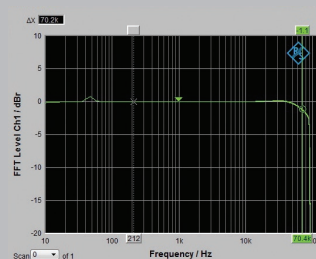
Distortion of the output stage, from a full level (0dB) 24bit digital input, measured a very low 0.001% in the midband into 4 Ohms, rising little to 0.07% at 10kHz (see our analysis), with odd order components - low. With a -60dB digital input, at -60dB output (34mV) distortion measured 0.06%, also very low considering this includes the whole amplifier. Dynamic range measured 111dB - impressive.

Frequency response through the digital input stretched flat to 73kHz, as our analysis shows, from a 192kHz sample rate digital input via QED Quartz glass optical cable - very wide.

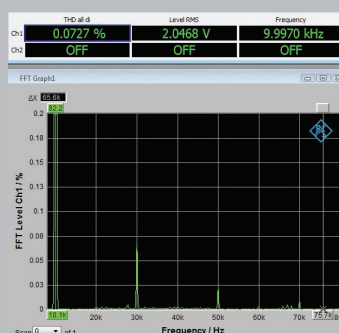
The MM phono stage overloaded

at a low 16mV in, where 30mV is a common and sensible minimum to avoid occasional overload on peaks from a high output MM cartridge like an Ortofon 2M Red. A 5.7mV input provides full output,

FREQUENCY RESPONSE



DISTORTION



near enough right. RIAA correction was accurate, giving flat frequency response, but with the 'Ortofon 1974' setting of our review sample a warp filter rolled off bass below 100Hz, measuring -1dB at 40Hz. This is enough to give a slightly light bass quality. Noise was high at -62dB where -76dB is common, but since MM cartridges produce more thermal (Johnson) noise than most transistor inputs the -62dB figure will not be obvious, but better is easily possible.

The Devialet Expert 220 Pro measured very well through its digital inputs but the Phono stage could easily be better. **NK**

Power 144 Watts

DIGITAL
Frequency response 4Hz- 73kHz
Distortion (24bit, -60dB) 0.07%
Separation 85dB
Dynamic range 111dB

PHONO
Frequency response 40Hz- 20kHz
Distortion (1kHz) 0.2%
Separation 88dB
Sensitivity 5.7mV
Noise -62dB
Overload 16mV

DEVIALET EXPERT PRO 220 £6990



OUTSTANDING - amongst the best

VERDICT

An engineering tour-de-force. Masses of power and a state-of-the-art performance. It looks good too.

FOR

- clean, accurate sound
- bass depth
- flexibility
- design
- speaker matching facility

AGAINST

- needs time to master all its facilities

Devialet
+44 808 168 4944
www.deviale.com