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NOVEMBER 2014

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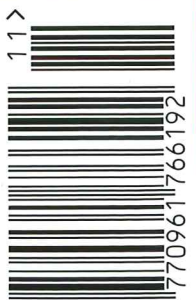
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13 PAGES OF LETTERS - THE BEST WINS A PAIR OF KEF Q100 LOUDSPEAKERS! (UK ONLY)



Parisian chic



It's sleek, it's shiny – and it sounds superb. Jon Myles is seduced by Devialet's new 120 amplifier.

Anyone with more than a passing interest in hi-fi cannot have failed to notice the buzz surrounding Devialet.

The French-based company appeared seemingly out of nowhere a few years ago with its innovative D-Premier amplifier.

It immediately caught the imagination of many critics who declared it one of the best amplifiers ever built and a pointer to the future of hi-fi as well as showering it with awards.

With a price tag nearing £12,000, however, it clearly wasn't within everyone's reach.

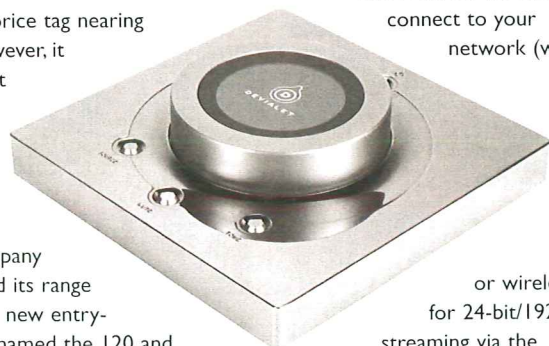
Now, though, the Parisian company has extended its range – including a new entry-level model named the 120 and retailing for a more modest £4,490. You lose some of the D-Premier's prodigious power output (120 Watts as opposed to 240 Watts) but the heart of both amplifiers is essentially the same.

That means Devialet's proprietary Analogue Digital Hybrid

(ADH) amplification circuit which features a low-power Class A stage working in parallel with a Class D module allied to a high-quality DAC. All internal operations are in the digital domain, so even analogue signals are converted to digital before being processed (see Measured Performance for more details).

Connection options include digital optical, coaxial and USB as well as a pair of RCAs that can be set for line level use or as a phono stage (MC and MM).

The Devialet will also connect to your network (wired



or wirelessly) for 24-bit/192kHz streaming via the company's own Asynchronous Intelligent Route (AIR) technology.

An on-line Configurator allows a host of adjustments to the unit (including tailoring the phono input to match your cartridge, changing power output and software updates). These are then saved onto an SD

card which slots into the rear of the unit and automatically uploads the configuration.

All this technology is packed into a sculpted, slim, mirror-finish aluminium case which to my eyes puts most other pieces of hi-fi equipment to shame and can either be lain flat on a rack or hung on the wall.

Control of the unit is via a matching remote (pictured left) which features a large rotary volume control and buttons for on/off, mute and source selection or via a smartphone app (both iPhone and Android). I have to admit that, while I'm a confirmed iPhone user, I found myself reaching for the remote most of the time so gorgeous is its design and feel in the hand. If Apple made hi-fi it would probably look something like this.

SOUND QUALITY

Duly configured and loaded with the Devialet's latest 7.11 firmware and first impressions of the 120 are an amplifier with a super-clean, super-detailed presentation.

This really is an amplifier that doesn't seem to impose any of its own character on the system but simply lets the music flow through unsoftened.



Rear panel connections include digital optical/coaxial, USB and ethernet as well as a configurable line level/ phono input - which can accept either MM or MC cartridges.

It also imposes a vice-like grip on the 'speakers, giving a welcome sense of unflappability.

Playing Lady Ga Ga's 'Monster' CD via a Cyrus transport the sound had such scale and power was enough to blow me off the sofa. But it's done with immense control – so the pounding drums, throbbing synth line and vocals are all in perfect sync.

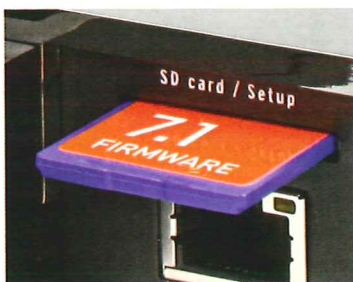
With Pierre Bensuan's 'Altiplanos' every nuance of his guitar playing was rendered in vivid detail down to the occasional scrape of his fingers on the fretboard.

Switching to 24/96 material played into the optical input via an Astell&Kern AK120 digital player the drum strikes at the start of 'Misery' by Dave's True Story were tremendously atmospheric – echoing away into an inky blackness. Kelly Flint's vocals were also so open, honest and pure they sent shivers down the back of my neck.

Those fearing the Devialet may exhibit the sterility of some technologically-advanced amplifiers need not worry – there's a wonderful organic swing and vibrancy at work here. So much so that it sent me scurrying through my music collection to find long-forgotten gems to see how they'll sound through the Devialet.

In fact, whatever music you ask the Devialet to reproduce it seems to impart the right sense of scale and atmosphere. Rock, jazz, classical, chamber music or thumping dance music just sounded right.

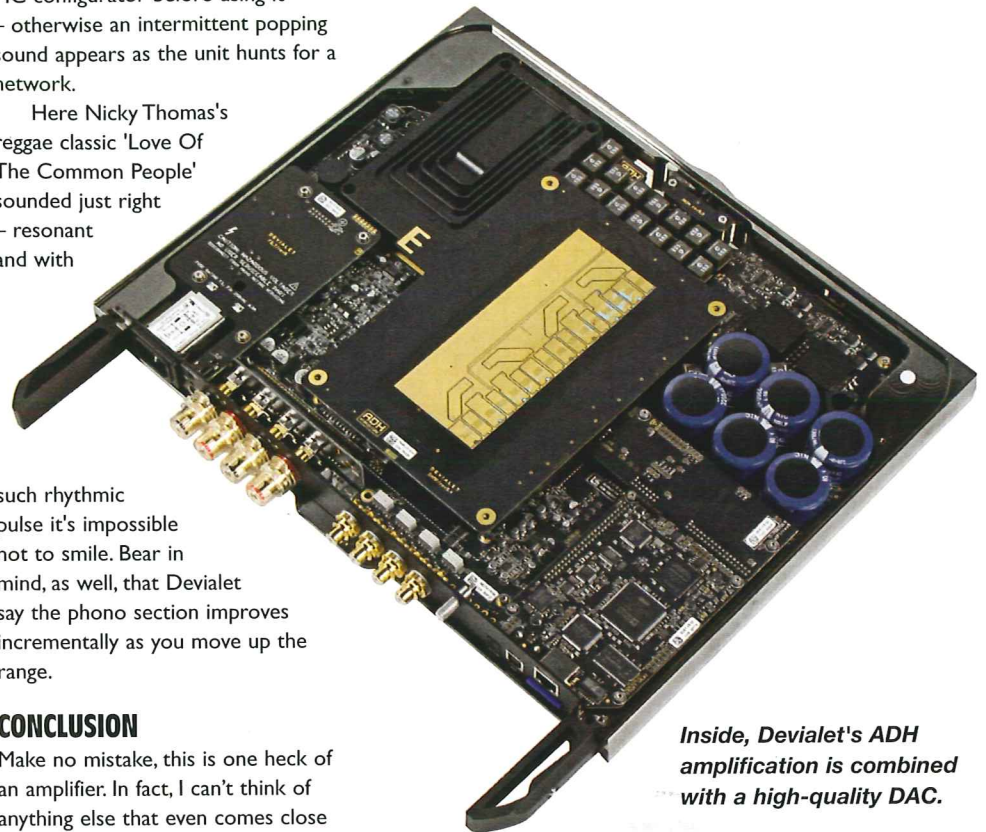
Even the phono stage brings an even-handed and authoritative approach to the party. Just remember



Configuration and software updates are loaded onto the Devialet 120 via an SD card which slots into the rear of the unit.

to select Auto wi-fi Standby in the MC configurator before using it – otherwise an intermittent popping sound appears as the unit hunts for a network.

Here Nicky Thomas's reggae classic 'Love Of The Common People' sounded just right – resonant and with



Inside, Devialet's ADH amplification is combined with a high-quality DAC.

such rhythmic pulse it's impossible not to smile. Bear in mind, as well, that Devialet say the phono section improves incrementally as you move up the range.

CONCLUSION

Make no mistake, this is one heck of an amplifier. In fact, I can't think of anything else that even comes close to it at the price. Ultimately, it may not be quite the thing for those who crave the lush warmth of valves or whose music collection is purely vinyl-based. But for everyone else it's an essential listen.

LOUDSPEAKER MATCHING

All Devialet's amplifiers now include its latest SAM software – or Speaker Active Matching technology.

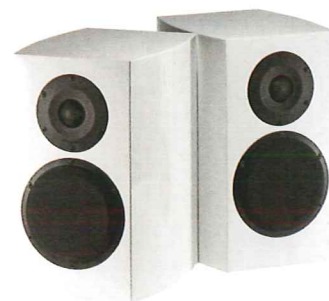
In short, this is a loudspeaker-specific DSP operation that matches the amplifier to the specific loudspeaker being used.

Users download their specific 'speaker profile from the Devialet website and then load it onto their amplifier via the SD card – switching it on or off via the tone control on the remote.

Currently some 60 different 'speakers are supported from the mighty Wilson Sasha to KEF's mini LS50s.

Among them are the standmount GT1s from fellow French company Atohm which garnered a Five Globe review in the April 2013 issue of Hi-Fi World. They feature a beautifully-engineered curved cabinet with a proprietary 28mm silk dome tweeter and 150mm alloy mid/bass driver.

In a new promotion dubbed Ensemble the 120 is being offered with Atohm GT1 Special Edition 'speakers made especially for Devialet for £6290 – a saving of some £700 on the combined list price. The 120 comes pre-loaded with the GT1s SAM profile. Contact your nearest Devialet dealer for more information.



NOEL SAYS -

The Devialet uses a precision Class A voltage amplifier and Class D current dumpers. The low power Class A output transistors are 'fast', and give low distortion figures. Devialet also use switch mode power supplies to keep case size down and provide good regulation. The 120 runs hot; it has a lot crammed inside and, with sensitive MC cartridge selected, wi-fi must be switched off in the Configurator to avoid thudding noises.

...and so to the Configurator! You can see this on Devialet's website. It configures a removable SD card in the amplifier, allowing a wide variety of options to be chosen by the user, far beyond that of other products – a unique feature. I found it easy and quick, if with a few difficulties. There are two Save operations; miss either and nothing changes. My Mac tried to save as a .css (cascading style sheet) file and this suffix had to be removed.

The wording of the Configurator is electrical engineering tech speak, on MC especially. The 'overload' slider is more commonly called 'gain/sensitivity', overload being a linked factor when a finite input ADC is in the signal chain. Load values need to be in the MC/MM section, not in the Advanced section. The Configurator offers a very wide range of options but it is a bit techy and difficult to understand; dealers are trained to help. Nevertheless, once mastered the 120 can be user-set with an unusually wide range of options.

We used SAM with the Atohm GT1 loudspeakers supplied and it worked well, producing improvement. The Devialet 120 is a tour-de-force of modern electronic engineering - impressive.

MEASURED PERFORMANCE

The Devialet 120 produced 84 Watts into 8 Ohms and double, or 170 Watts into 4 Ohms, so it meets its manufacturer's spec of 120 Watts into 6 Ohms. Output damping factor was very high at 90 and frequency response unaffected by load, both suggesting feedback after any output stability network. It will keep tight control over bass; high DF amps can sound dry with over-damped loudspeakers, but tame bass heavy, under-damped designs.

Distortion levels were very low right across the audio band, best results being obtained with a full level 24bit digital input, from which the amplifier produced 0.0005% delivering 1W at 1kHz, and 0.0006% 1W at 10kHz. The worst result was 0.06% from full output into 4 Ohms

at 10kHz, a gruelling test in which the 120 managed extremely well.

Like an A/V receiver, the Devialet is primarily a digital input device, so frequency response is set by sample rate and with 192kHz digital input via Digital 1 (electrical S/PDIF) it measured flat to 63kHz our analysis shows, before a slow roll off up to 96kHz. The optical input receiver accepted 96kHz maximum, so this has a 48kHz analogue bandwidth.

Digital distortion levels were very low, being set by power amplifier noise, and measuring 0.015% at -60dB with gain set to avoid overload at 0dB FS. Similarly, EIAJ Dynamic Range measured a high 119dB with the amplifier set to avoid overload.

There is an analogue input, labelled Phono, that can be set to accept MM or MC pickup cartridges with digital RIAA equalisation applied, or to act as a Line input. The programmable-gain analogue input amplifier feeds a 96kHz sample rate ADC that has 192k as an option, for extra bandwidth but more noise. Unlike A/V receivers, that use a similar scheme, there is no bypass switch to connect analogue input to analogue output (i.e. after the DAC) so both Line and Phono are digitally processed via the input ADC, increasing noise.

The ADC, when set to Line, has a high 4V overload ceiling, so CD can be connected, but noise was a mediocre -75dB with 1V in and -87dB with 4V in.

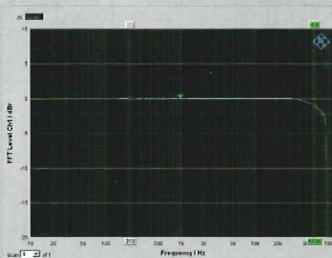
Set to MC (moving coil) cartridge, with maximum input at 5mV, meaning minimum gain, input sensitivity was a useful 0.9mV and actual input overload not 5mV as stated by 12mV - good figures. There is plenty more gain to be had so the MC stage can cope with low output MCs. However, hiss was high,

equivalent input noise measuring 0.93µV. higher than a transformer or very quiet transistor stage; this is likely from the ADC.

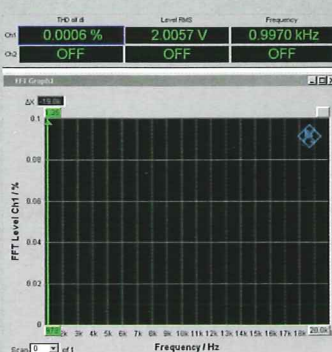
Frequency response via MC measured absolutely flat (i.e. RIAA equalisation was accurate) with '1976' e.g. applied, and an IEC warp filter introduced with '1953' applied (these are the wrong way around: the 1953 curve should be flat and the 1976 curve have a warp filter). Devialet's warp filter curve is faithful to IEC spec. so suffers the drawback of lightening bass a little.

The Devialet 120 measured unusually well in most areas. It produces impeccable figures, as Devialet claim, except for noise on the MC phono input. Those wanting the best from MC cartridges can, however, use an external phono stage, in conjunction with the 120's Line input. NK

FREQUENCY RESPONSE



DISTORTION, 1W 10kHz



Power	84watts
Line in	
Frequency response	4Hz-44kHz
Separation	102dB
Noise	-87dB
Distortion	0.0006%
Sensitivity	110mV

Digital (24/192)	
Frequency response	4Hz-63kHz
Separation	110dB
Noise	-118dB
Distortion	0.02%
Dynamic range	119dB

Disc (MC, 1mV Max)	
Frequency response	4Hz-20kHz
Separation	68dB
Noise	0.8uV ein
Distortion	0.08%
Sensitivity	0.15mV
Overload	6mV

**DEVIALET 120
AMPLIFIER/DAC
£4490.00**



OUTSTANDING - amongst the best.

VERDICT

A real wonder. Superb sound allied to class-leading versatility and gorgeous design.

FOR

- crystal-clear detail
- powerful sound
- versatility
- sleek looks

AGAINST

- nothing at the price

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