

8200AP PRODUCT RELEASE

audiolab

April 2012

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Above: Audiolab 8200AP preamp/processor, front and back

NEW AUDIOLAB AV PROCESSOR PUTS SOUND QUALITY FIRST

With many significant upgrades over its award-winning predecessor, Audiolab's 8200AP is an audiophile-grade 7.1-channel processor with a refreshingly affordable price tag

In the four years since its launch, Audiolab's 8000AP preamp/processor has built itself a reputation as the only affordable home cinema processor with genuine audiophile credentials, eschewing frivolous bells and whistles to focus purely on performance. Its successor has been long awaited and much anticipated, but it's finally here: the new Audiolab 8200AP incorporates significantly enhanced circuitry to ensure audio performance remains firmly centre stage.

The 8200AP is a 7.1-channel, HDMI 1.4 compliant analogue/digital preamplifier and surround sound processor that focuses on simplicity, ease of use and above all, sound quality – as befits the impeccable audio pedigree of its maker. It does not attempt to impress with a never-ending list of features and formats – once installed, it simply performs, and performs brilliantly.

The preamp/processor connects to a wide range of audio and AV sources via an impressive roster of inputs, both analogue and digital, and can deliver everything from pure, unadulterated two-channel stereo to full-scale 7.1-channel surround sound. It is superb with home cinema and equally adept with music; whatever the source, it delivers the audio signal with the utmost fidelity, thus enhancing the enjoyment of the listener or viewer in a way that few home cinema amps or receivers can match.

Designed Purely for Performance

The 8200AP's circuit design and component selection are focused upon achieving the highest standards of performance. Cirrus Logic CS494003 Dual DSP processor deliver ample processing power, taking care of surround sound decoding, LPCM processing and bass management. The dual processors are joined by eight high-performance 24-bit/192kHz D-to-A Delta-Sigma converters, and post-DAC filtering is handled by an array of active filters built around high-end FET audio op-amps – these filters feature a linear phase response for maximum audio clarity.

A high-quality, digitally addressed analogue volume control is applied at the end of the output stage, fed either from the post-DAC active filters, or directly from the analogue inputs if used in Direct Mode. When using the 7.1 bypass input or the analogue inputs in Direct Mode, the signal purity is fully retained with a pure, direct path that fully bypasses all processing circuitry.

The generously sized, four-layer PCB design ensures minimum electromagnetic interaction between sensitive components, and the linear power supply features a high-quality toroidal transformer and 14 regulated supplies, delivering low-noise power to the individual circuits plus a high degree of isolation between the analogue and digital domains. Other performance-enhancing features include a new jitter-reduction circuit, reducing jitter via HDMI by more than 30 times.

Simplicity is Strength

The 8200AP's inherent simplicity and elegant internal design are its strength, not just in ensuring it is easy to use, but also in attaining the best possible sound quality. Complex digital audio and video processing often comes at a cost in terms of audio fidelity, complicating the route taken by audio signals and thereby degrading their purity. The cost of implementing technical strategies to limit this damage is inevitably passed on to the consumer – when it comes to sound quality, prevention is always better than cure. Then there's the cost of licensing to consider – incorporating more processing than necessary would inevitably result in either a much more expensive product or corners cut in terms of audio quality, thus outweighing the benefits such processing may bring. (Please see the 'questions and answers' section of this release for more information.)

Instead, the 8200AP focuses on the essentials to make a great, affordable AV preamp/processor that is dedicated to exceptional audio performance. It doesn't skimp on important facilities; it simply removes unnecessary features and ensures that critical circuits are designed and engineered to the highest standards. For anyone wishing to build a flexible, multimedia AV system capable of genuine high-fidelity sound, as adept with music as it is with movies, the 8200AP is the perfect solution.

With a wide range of processing modes for both analogue and digital inputs this is a preamp/processor able of making the most of both stereo and multichannel sources. From two-channel music to 7.1 soundtracks and everything in-between, the Audiolab's performance is crisp, clean, dynamic and detailed – true to the original source in manner that few home cinema components can muster. There is power and punch aplenty, but also subtlety and insight – a truly high-end performance across all media the like of which is usually associated with much more costly, specialised AV components.

Build quality is excellent throughout, with sturdy aluminium casework and a clean, uncomplicated, slimline physique – quite a contrast to the confusing home cinema behemoths that typify the breed. The refreshing lack of unnecessary bells and whistles means the processor will date less quickly, and the HDMI board is removable, thus allowing for possible upgrades as new standards become available.

Audiolab 8200AP: Key Improvements Over the 8000AP

Building upon the strengths of the 8000AP, the 8200AP includes the following enhancements:

- **New HDMI 1.4 (3D video pass-through) PCB with four inputs and one output**

The old 8000AP featured HDMI 1.2 hardware with only two inputs and one output – no Deep Colour, no 3D video pass-through and no jitter reduction circuit (see next point).

- **Jitter reduction circuit for recovered HDMI audio clock**

A digital frequency synthesizer combined with a digital PLL is used to construct a low jitter clock from the original HDMI audio clock, thus reducing jitter (sonically deleterious distortion in digital audio) by more than 30 times (~ 30dB). This improves sound quality by a significant degree.

- **True bypass option for all analogue audio inputs**

In the 8000AP, all analogue inputs had to pass through the DSP (via A/D and D/A converters). The 8200AP's new Direct Mode gives the option of sending analogue input signals straight to the volume control, allowing it to perform as a high-end audio preamplifier.

- **7.1-channel bypass**

The 8200AP has a full 7.1-channel bypass option, allows audiophile-class performance of SACD and other multichannel digital audio sources without undergoing any signal processing. The 8000AP's bypass option only covered 5.1 channels.

- **Trigger outputs for remote control**

Unlike the 8000AP, the 8200AP includes trigger control of external components like the Audiolab 8200x7 multichannel power amplifier.

- **Revised Audiolab 8200 Series front panel including new OLED Display**

The 8200AP's new OLED display is clearer, brighter and has larger characters than the 8000AP's lower contrast Vacuum Fluorescent Display.

- **PCB layout and power supply improvements**

Improved signal routing in the 8200AP's circuitry ensures lower noise and better supply de-coupling, thus enhancing the overall performance.

- **Digital S/PDIF output available from all sources, including analogue**

The 8000AP had no digital output from analogue sources. The A/D converted version of analogue input signals is now sent to the optical output when analogue sources are active.

Specifications – Audiolab 8200AP	
Processing Power	Dual DSP Cirrus Logic CS494003 – 24-bit front end / 32-bit post processing
D/A Converters	24-bit/192kHz bit-stream
A/D Converters	24-bit / 48kHz bit-stream
Audio Processing Modes	<p>Dolby: Dolby Digital • Dolby Digital EX • Dolby Pro Logic II • Dolby Pro Logic IIX</p> <p>DTS: DTS • DTS ES Matrix • DTS ES Discrete • DTS 96/24 • DTS NEO:6</p> <p>Other Audio Modes: PCM Stereo (24-bit/192kHz) • HDCD • 2 Ch. PCM 24-bit/192kHz via HDMI • 8 Ch. PCM 24-bit/96kHz via HDMI • 7.1 Analogue Bypass • Analogue Direct Mode</p>
Video	HDMI 1.4a (max. resolution 1080p/60Hz, 36-bit Deep Colour, 3D pass through) • OSD (On-Screen Display) Composite Video (PAL/NTSC)
Connectivity	<p>Inputs: 4x HDMI inputs • 3x coaxial digital S/PDIF inputs • 4x optical digital S/PDIF inputs • 5x RCA phono analogue inputs • 8x RCA phono analogue inputs (7.1 bypass)</p> <p>Outputs: 1x HDMI output • 1x optical digital S/PDIF output • 8x RCA phono analogue outputs (7.1) • 1x RCA phono analogue tape out • 1x OSD output (composite video)</p> <p>Other Connections: 1x RS232 communications port</p>
Other Features	Adjustable D/A filter response • 2x upsampling (on digital PCM, HDCD and analogue sources) • Separate analogue and digital power supplies with 14 regulated supplies • Jitter reduction circuit for recovered HDMI audio clock • Q-SET (easy set-up via front panel display) • Digital S/PDIF 'tape' output (from all sources inc. analogue) • Remote control trigger outputs

Audiolab 8200AP: Some Questions and Answers

Q: What's the advantage of a separate processor and power amp, compared to an all-in-one home cinema receiver?

A: The arguments are similar to those supporting separate stereo preamps and power amps over integrated amplifiers, albeit more acute because of the increased complexity of multichannel preamp and processing technology. A separate preamp/processor allows the manufacturer to focus on this critical area of system performance and optimise the circuitry to deliver superior sound quality compared to all-in-one home cinema amps and receivers. Separating the preamp/processing circuitry from the power amplification also aids performance by isolating delicate audio signals from internal components that may induce distortion, and gives greater flexibility and upgrade potential in terms of partnering the preamp/processor with power amplification that best suits the end user.

High-quality home cinema amplification is not just about digital processing and power amplification – the preamp stages are critical across all media types, too, whether stereo or multichannel. Ultimately, the greater the complexity of a home cinema amp or receiver, the harder it is for the manufacturer to attain genuine

high-fidelity sound. In contrast, the Audiolab 8200AP is designed from the ground up to achieve a very high standard of audio performance.

Q: Why doesn't the 8200AP include Dolby TrueHD and DTS-HD MA audio formats?

A: Audiolab has taken this decision in order to attain a high level of audio performance at a reasonable retail price. Dolby and DTS processing is expensive to license and costly to implement, particularly where the HD surround sound codecs are concerned. As the standards continue to evolve, it is difficult for specialist manufacturers to offer upgrade solution to end users that don't require them to spend a great deal of money on purchasing new hardware.

As part of the Blu-ray standard, all Blu-ray players are required to decode Dolby TrueHD and DTS-HD MA. If your home cinema processor, amp or receiver also decodes these formats, you are effectively paying for them twice – a cost that is inevitably wrapped up in the retail price. As these audio formats are only relevant to Blu-ray discs, Audiolab has taken the decision to exclude them from the 8200AP's specification, on the basis that the end user will already be able to decode these formats in their Blu-ray player. This is only relevant to the Dolby and DTS HD formats and all other relevant processing modes are included in the 8200AP's firmware specification to cater for every possible media source.

If Audiolab had instead taken the decision to decode Dolby TrueHD and DTS-HD MA within the 8200AP, either the retail price would have been necessarily higher, or quality would have inevitably sacrificed to accommodate the additional processing without increasing overall costs. For Audiolab, degrading sonic performance by skimping on internal components is simply not an option.

Q: Is there any disadvantage to undergoing HD surround sound decoding in the Blu-ray player, rather than in the 8200AP?

A: No, absolutely not – the process is exactly the same and the results are identical, it's just that the decoding is undertaken a little further up the replay chain. Instead of passing DolbyTrueHD or DTS-HD MA encoded data to the processor to decode there, the data is decoded in the player and passed as LPCM to the 8200AP via HDMI. The LPCM audio is identical to the Dolby TrueHD or DTS-HD MA original, so no quality is lost. An important point to note is that the 8200AP's jitter reduction circuit ensures that jitter does not adversely affect the digital audio signal as it is transferred from the player to the preamp/processor.

Q: How about video processing?

A: The 8200AP is first and foremost an audiophile-grade audio processor, and the decision has been taken not to include complex, costly and, for many users, unnecessary video processing at the expense of audio quality. It will, however, accept both SD and HD video via each of its four HDMI 1.4 inputs and output this signal with perfect fidelity, up to and including maximum-definition 1080p/60Hz video from Blu-ray discs. Pure, unadulterated Full HD – the ideal accompaniment to the 8200AP's superb high-definition audio performance!

Q: What does the 8200AP have in common with the highly acclaimed TAG McLaren Audio AV32R processor of days past?

A: There is, of course, a strong connection between Audiolab and TAG McLaren Audio (TMA). Audiolab was rebranded as TMA in the late 1990s and the AV32R was subsequently launched, prior to the purchase of TMA by the International Audio Group (IAG) in 2004. IAG returned the company to its original Audiolab name and launched the 8000AV processor, which was later succeeded by the 8000AP, and now the 8200AP.

The AV32R was arguably the first multichannel audio processor to be widely recognised as a genuine high-fidelity audio component, as adept with two-channel music as with home cinema surround sound. Much has changed in the AV world since it was launched – not least the development of HDMI as the primary connectivity standard – and the design of the 8200AP has evolved significantly to accommodate changing standards and technological advances. But while the circuits have changed, the 8200AP remains very much the AV32R's 'spiritual successor' – it shares the same ethos in terms of performance-first engineering and the overarching requirement to produce a high-fidelity audio component in the truest sense. It is also worth noting that the 8200AP is less than a third of the price of the AV32R before it was discontinued, which clearly illustrates its fine value for money.

Price and Availability

The Audiolab 8200AP preamp/processor is available now, with an SRP of £1,249.95 (inc. VAT).

Initially stock will be limited so please speak to your Area Manager for more information.