

EQUIPMENT REVIEW

# **Allnic HPA-300B** integrated headphone and loudspeaker amplifier

Kevin Fiske

ntegrated amplifiers that incorporate headphone outputs are not uncommon, but with very few exceptions the head-fi element is strictly secondary, almost an after-thought. According to most of the audio industry, if we want to listen to replay of the highest quality through headphones then we need to buy a dedicated headphone amplifier as well.

It's not just marketing at play here. Speakers and headphones present amplifiers with different technical challenges due to their respective impedances and power requirements. Things begin to look a little different though if we put efficient speakers with benign phase angles into the mix. Might a headphone amplifier that outputs just eight Watts into eight Ohms be sufficient to drive headphones and speakers to a high standard? Korean audio engineer Kang Su Park says yes, and as evidence offers his newlylaunched HPA-300B integrated headphone amplifier.

#### Gimme

Allnic audio products are a visual riot, sporting an unmistakable design language that some might want to call industro-skeletal, others steam-punk. The HPA-300B is true-to-type; all chunky satin aluminium, hulking transformers and chokes under matt grey shields, perforated tube cooling towers, stout handles and glowing amber analogue meters. It's a gimme for those who buy their audio with their eyes, but the HPA-300B's appeal is more than skin-deep.

It weighs a stout 23.6 kg and as might be expected most of that heft is in the output transformers. It is also a stout price, but while the RRP of £12,600 might be towards the top end for a headphone amplifier, Park absolutely wants us to regard it as a fully-fledged high-end integrated amplifier too. The obvious question is whether the attempt to meet the somewhat divergent demands both of headphones and loudspeakers has resulted in an amplifier that is just too



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hobbled by technical compromise. One that does both with a degree of competence, but no more than that.

The HPA-300B certainly offers the right mix of inputs and outputs to be taken seriously as a dual-purpose amplifier. On the back we find three sets of RCA and two sets of XLR inputs, plus banana output sockets for speakers.

On the front are two four-pin XLR headphone sockets and two 6.3mm single-ended sockets. A mute button disables the speaker output for headphone listening. A small rotary knob allows source selection, chosen inputs indicated by an annotated line of LEDs. The large rotary volume control is motorised. Behind it sits Allnic's Constant Impedance Attenuator, that keeps a steady  $10k\Omega$  throughout. The two analogue meters, left and right channel, show the auto-bias status. Deflection gives warning that a tube requires replacement.

The rectifier, driver and output tubes each sit inside their own clear polycarbonate towers, capped with perforated aluminium disks. The 300Bs have tube locators, stamped from what looks to be Teflon, slid over their narrow tops. All the tube sockets sit in a semi-liquid rubber compound, this being one of a number of design features intended to make the amplifier more resistant to microphonic sing-along.

I fed the HPA-300B the balanced output of a Mola Mola Tambaqui DAC, set to 2V, switching between a Grimm MU1 network player and a Jay's CDT3 MK3 CD transport as sources. An icOn5 Balanced did passive line stage duties. Allnic claims a signal-to-noise ratio of -90dB, a test result distinctly on the good side for tubes. I think we can believe it. Park's attention to suppressing the transfer of vibration, coupled to what is evidently a very thorough and effective approach to circuit grounding, results in the HPA-300B being the quietest tube amplifier that I have encountered in the last two decades.

## Sweet return

It's said that we should never go back, but I've owned three different amplifiers that used 300B output tubes, the last of them some nine years ago, and the Allnic in some ways proved to be a sweet return. The 300B is a tube that is praised for its liquid mid-range, but I think the worship is rather overdone, partly because in reality its sonic qualities can be equalled by alternative tubes and even particularly well-implemented solid state, and partly because in pretty much every implementation that I have heard the 300B lacks energy at both ends of the frequency spectrum. Me, I'd take the more capable VT-4C/211 over the 300B anytime.

However, the realised performance of the 300B – indeed any output tube – is greatly at the mercy of the quality of the circuitry driving it, as well as that of the output transformers it feeds into. Park designs all of the transformers and chokes used in Allnic products and on the evidence of the HPA-300B



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he is still right at the top of his game. The amplifier sounds fast and energetic both into headphones and into speakers. It is less a typical 300B amplifier, if there is such an animal, more a modern-sounding amplifier that just happens to use tubes.

Unusually – perhaps even uniquely for the sector – Park's design doesn't have a fixed output impedance but is autoadaptive with the aim of working optimally with any type of load. I listened to a wide range of recordings via the headphone outputs, using a Sennheiser HD650, a Audeze LCD5 and a HiFiMAN Susvara headphone. The results with the Sennheiser and Audeze headphones weqre satisfactory in different ways. The 300 Ohm Sennheiser in particular seemed to like the quality of voltage delivered by the Allnic and showed better soundstaging abilities than I have heard it achieve with some other amplifiers. Its un-EQd balance, smooth and on the warm side, and with a mid-range standing slightly proud of the bandwidth extremes, made it feel as if the headphone was working with the Allnic rather than being bossed by it, resulting in a presentation that invited 'kick back and relax' listening.

## Spotlight

The 14 Ohm LCD5 sounded altogether more analytical and detailed, its natively richer and more weighty bass response providing some compensation for the disinclination of the HPA-300B to dig particularly deep. The Audeze's mid-range is even more prominent than that of the Sennheiser and it cast quite a spotlight on the character of the 300B driver tubes. I found the combination able to deliver simpler, primarily vocal tracks, to a notably high standard. Through the Allnic, Amy Lee's voice on *Synthesis* by Evanescence, particularly on the track 'Never Go Back' where her ability to show emotional vulnerability and then, almost within the same millisecond turn on an astonishing degree of womanly power, triggered multiple hairs-on-the-back-of-the-neck moments.

I did wonder if it might be a little unfair to note the Allnic's relatively modest low-end extension, but a quick check of the same tracks through the same headphones driven by two solid-state alternatives confirmed the verdict; the Allnic is enjoyable enough, but a deeper and more textured low-end is available elsewhere if that's what we crave. In defence of the HPA-300B it should be noted that both of the alternatives tried are dedicated headphoneonly amplifiers. Allnic doesn't compromise loudspeaker or headphone output at all in the HPA-300B. However, those who are never going to use loudspeakers have the option of the HPL-5000XL and HPA-10000 dedicated headphone amps. Into the household's PMC MB2se reference speakers, (90dB/eight Ohm nominal) the Allnic HPA-300B brought a smile to faces at the re-discovery of the uncanny way in which tube Watts sound differently to solid state Watts; somehow more powerful. Marcus Miller's track 'Boomerang' from the 2001 album *M2* thundered through the PMCs' 12-inch woofers, entertainingly, if not with the ultimate in extension or grip. More suitable material was found on the Canadian fingerstyle guitarist Antoine Dufour's 2020 album *Reflect*, where the Allnic rendered his Mario Beauregard guitar in all its organic sonic beauty; simply dripping with glowing, limpid tonal quality and a beguiling spatial airiness.

Context here, as with so much in audio, is everything. There's a reason why almost all manufacturers – Allnic included – produce dedicated headphone and speaker amplifiers. However, Kang Su Park clearly spies a certain cohort of buyers who demand excellent performance from headphones and loudspeakers... and compactness and affordability. The Allnic HPA-300B is for them. +

## Technical specifications

Type: valve headphone/loudspeaker amplifier

- Tubes: 1x 6DR7/13DR7 (gain and driver stage), 1x 5U4GB (rectifier), 2x 300BX (output)
- Inputs: 3x pairs RCA unbalanced inputs, 2x pairs XLR balanced inputs
- Headphone output: Two quarter-inch jack sockets, two fourpin XLR balanced

Loudspeaker output:  $4\Omega$ ,  $8\Omega$ 

Frequency response: 20Hz-20kHz (±0.5dB)

Voltage Gain: +28dN

Optimum headphone impedance: 10Ω-600Ω

Output: 8W per channel

Maximum input voltage: 3W RMS

**THD:** < 0.1% (1kHz, 1V)

S/N Ratio: -90dB (CCIR, 1kHz)

Power consumption: 168W

Dimensions (WxHxD): 43x42x24cm

Weight: 23.6kg

Price: £12,600

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