

# AMPHION ONE18 Studio Monitors & AMP100 Amplifier

Passive studio monitors are a rarity these days, passive radiator designs even more so. Amphion shows why active isn't necessarily best.

Review: Brad Watts



**PRICE**  
One18 (Pair): \$3900  
Amp100: \$1800  
Cables: \$500

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**PROS**  
Brutally honest  
Wide sweet spot  
Unflatteringly precise  
midrange  
Healthy bottom end  
Passive

**CONS**  
Not cheap  
Passive

**SUMMARY**  
Amphion's studio monitors comes from a hi-fi background, where active designs don't get a look in. But far from repurposed audiophile fare these passive radiator, sealed enclosures, with a low crossover point and metal drivers, focus in on the midrange.

▶ It's a bit of a rarity to come across passive monitors these days. In a world where convenience is king, almost every new studio monitor design has an amplifier jammed into the design specification. But don't get me wrong. There's a lot going for amplifier integration within monitor cabinets. Besides the convenience, you know the amp is designed specifically for the drivers, and you know powered monitors will sound the same should you need to jump to the same monitor in another studio, plus you're not sullyng your signal path with inferior and extended length speaker cable – there's a line level signal straight from your DAW or console to the monitors.

However, there are issues with the powered monitor concept. Perhaps most apparent is the precious cabinet capacity being impinged upon by the addition of amplifier components, along with the associated and somewhat space hungry heat-syns and power supplies. There's also inevitable compromises required when designing an amplifier to fit within the confines of a nearfield monitor cabinet. In order to meet these constraints many manufacturers use Class D amplifiers. While far superior to the Class D designs of yore, this style of amp is still not regarded as the ultimate choice for monitoring amplification. On the plus side, a Class D amp makes it very easy to introduce a digital input to the monitor. All that's to say, you may prefer a different amplifier topology, but with a powered monitor you're stuck with the manufacturer's choice of amp.

Then there's the issue of the vibrations from the drivers gradually shaking each and every solder joint and component in the amplifiers to pieces. Or, if one amp decides to pack it in, your monitors are rendered useless until they're shipped out to the repairers — there's zero chance of switching out the amplifier with a spare to get you through the mix.

## PASSIVE PASSION

It's clear there are both disadvantages and advantages with each style of monitor design, but as I've mentioned, if a passive monitor is required there are fewer choices these days. Filling a section of this gap is a new monitor range from the far-flung Republic of Finland. Amphion has been in the audiophile market for some years now, with an established range of speakers for the audio aficionado and those looking for quality surround and theatre systems. The range includes bookshelf and floor-mounted designs, along with specific centre speakers for surround setups.

Recently introduced to the Australian market, the Amphion studio monitor range includes no less than five quite distinct models; the One12, One15, and One18, along with the larger Two15, and Two18. The 'One' series utilises 4.5, 5.25, and 6.5-inch low-end drivers respectively, with the 'Two' range providing dual low-end 5.25 and 6.5-inch drivers in a D'Apollito format. While the dual designs will certainly require larger spaces, it's the One18 which will no doubt be the initial source of reference for potential buyers of the Amphion monitors. It's this model I was given the

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opportunity of auditioning recently, along with Amphion's 100W per side amplifier.

Now when I say recently, this was no 'quick listen.' Let me assure you I left these monitors playing at low volume for a good 48 hours or so to give them a bit of a burn in (I didn't know if they were straight off the docks or not), and then enjoyed a wholesome couple of weeks listening to all my favourites — again, and again, and again. Without wishing to give the game away to hastily, I quickly became fond of the Amphions.

So let's have a look at the specs of the One18s more thoroughly. As initially mentioned, the One18 uses a 6.5-inch Seas aluminium bass driver and 1-inch titanium high-end driver. At first I'd imagined the driver choice to be somewhat overbearing for my tastes (I predominantly prefer traditional paper-cone drivers and silk-dome high-end due to a bad experience as a lad). However, the One18s didn't seem to 'wear' my listening stamina like titanium-endowed monitors I've used in the past. And, as it transpires via various conversations with Amphions founder, Anssi Hyvönen, there are plenty of reasons for this.

According to the Amphion brains-trust, (aka Anssi), the philosophy behind the One and Two series designs is to have every possible physical attribute of the monitor as close to optimal as is possible. These tolerances primarily take into account alignment of upper and lower drivers.

## OFF-AXIS SOUND, RIGHT ON

I quizzed Anssi about the One18's waveguide design and the reasoning behind it's size (the waveguide covers a similar area to the bass driver). I'll let Anssi explain what he describes as 'controlled dispersion'.

**Anssi Hyvönen:** "The strange fact surrounding speaker design is the utmost focus on measurements. What happens on-axis at one metre tells you nothing about what happens in your room in a real life situation. Regardless of what the manufacturer tells you about the latest technology, we are inevitably listening to the sum of reflections from the room. We never listen only to the direct sound. What we are trying to do, not only with the waveguide, but also with the passive radiator-equipped closed box, is a speaker which works in a



more stable manner and 'pressurises' your listening environment more evenly than a traditionally vented speaker — where dispersion characteristics of the tweeter and woofer are very different (and therefore their off-axis/reflected sound's response is very uneven).

"At Amphion we're focused on getting an even response, not only on-axis, but also from the off-axis. This way we can achieve a more correct balance. Our waveguide makes the dispersion more uniform throughout a wider frequency band. It's important to realise that the only correct way of producing sound is via a point source. Nature never has two or more separate sound sources to produce the one sound. So in order for human hearing to think that we are dealing with music, instead of some technocratic caricature of the sound, we must get a number of things right. One is point source. The other is phasing and timing. The other key factor is the low crossover point of 1600Hz."

Apart from the large waveguide, the other interesting aspect behind the One18 sound is the use of a passive radiator on the rear of the cabinet. This is basically a speaker cone without a transducer. As the 'active' low-end driver pushes and pulls, the radiator reacts in sympathy. It's almost like having two low-end drivers. This concept provides a far more controlled bass response, without relying on porting. That's right, these cabinets are sealed.

Anssi's balancing act of design certainly pays

dividends. While the One18 doesn't sound pretty when compared with your usual range of studio monitors. The sound is not hyped in either low or high end. In fact, at first they can seem a little flat — even bland. That said, after settling in to the One18 sound I did warm to these monitors. There's a lot of focus on midrange, which makes a lot of sense given the range holds much of the detail. It also makes a lot of sense considering the raft of midrange-centric playback mediums one must mix for these days. It didn't take long to become impressed with the accuracy, and what's more, they kept this level of accuracy even at low volumes, which is where I prefer my master volume knob set. 'Honest' is a great way to describe the One18. You have to work a bit to balance up that midrange, but once you do, that mix translates to other mediums admirably.

#### THE NEXT NS10

With this in mind, I couldn't help imagine these monitors could be the next NS10. It's perhaps ironic that the One18 looks very much like the aforementioned workhorse (and savagely honest) monitor. Not that these monitors sound like NS10s, perish that thought entirely, but the midrange accuracy and flat response tends to put these speakers into that same workhorse category. For a bit of a giggle I went so far as to place the One18s on their sides, NS10 style, and was even more encouraged as to the NS10 comparison. Yes I know, horizontal alignment of two drivers is a no-no,

but it did reinforce my opinion. These monitors would easily replicate what you may love about your ageing Yamaha stalwarts, albeit with terrific bottom end.

I could go further into specifics and specs, but to get a solid handle on how beautifully honest the One18 is, you must audition a pair as soon as possible. Put them with your favourite amplifier, or avail yourself of Amphion's 'Amp100' bespoke design, which I'll add, is a Class D design — an approach Amphion feel is where further accuracy lies. I did try the One18s with my modded Quad 405 and my favourite Rotel, but returned to the Amphion amp pretty quickly. So save your pennies, because you won't have a lot of change from four grand per pair, but I assure you your mixes will translate. ■

