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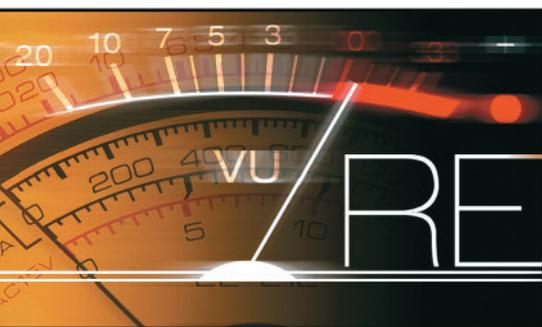
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Amphion One12 Passive Monitors (and Amp100 mono)

The unmistakable Amphion sound goes mobile

Ever since Finnish speaker manufacturer Amphion entered the pro studio market two years ago, it's been one revelation after another. Paul Vnuk Jr. reviewed the One18 in March 2015 and the dual-woofer Two18 in March 2016, both in combination with Amphion's own stereo power amps, the Amp100 and Amp500. Paul was enchanted with the sound of the Amphions, whose design elements are radically different in many ways from current trends in studio monitor design.

This month we're trying out the smallest member of the Amphion pro passive monitor family, the One12, along with the Amp100 mono amplifiers. And by "we" I mean me. Why should Paul have all the fun?

Innovation writ small

Readers may remember that Amphion speakers are designed to provide their sound through cabinet and element design rather than any sort of onboard electronics. Amphion speakers are passive designs with no tone controls or room correction circuitry of any kind, just a passive crossover (in the One12's case, it's set to 1600 Hz). The 1" titanium dome tweeter is recessed in a Corian waveguide, far enough back so it's time-aligned with the aluminum woofer (4.5" in the One12's case) for perfect phase matching.

As is the case with other Amphion speakers, there's a matching aluminum passive radiator on the rear of the cabinet, directly opposite the woofer. The passive radiator and sealed cabinet, according to Amphion, provide a more reliable and consistent control of the low end than one gets with a ported design, making the speakers quite a bit more forgiving of placement in a room.

The One12 is a very small speaker in comparison to its siblings, measuring only 10.2" tall, 5.2" wide, and 8.7" deep. Because there's no onboard power amp, it's also quite light, a bit over 13 pounds. If portability is at all a concern (for example, if you're called upon to do engineering work in rooms that don't

have monitors you know or trust), the One12 will be a very appealing choice.

The One12 has an 8Ω impedance and a sensitivity of 84 dB at 2.83V/1m. It's rated to work with power amps from 20 to 100 W; for our listening sessions, we paired our One12s up with two of Amphion's Amp100 mono amplifiers (see the sidebar).

The One12's frequency response is quoted as 78 Hz to 20 kHz ±3 dB. A quick glance at that number might lead one to conclude that these speakers are unusably thin in the low end; after all, 78 Hz is nearly two octaves above the lower limit of human hearing. Fortunately, we all know that we don't listen to spec sheets, we listen to speakers, right? Right. So—on to the listening sessions!

Power in, ears on

The One12s were connected to the Amp100 monos via the provided cabling and set up in an equilateral triangle roughly 36" on a side, tweeters level with the ears of someone in the sweet spot. They were placed on a pair of IsoAcoustics Aperta speaker isolators. I wasn't the first person to use these speakers, so there was no need for a break-in period; I was able to start listening immediately to a wide variety of music from my reference library. After about a week of listening and learning the One12, I started mixing on them and comparing my work with my usual small reference monitors, followed by checking the translation of mixes done on the One12 with larger (8" woofer) monitors.

I suppose I should have been prepared for what I got, having edited Paul's reviews of the One18 and Two18. I wasn't. My first listening session of several hours passed with me scratching my head and saying to myself, "I don't get it. There's no wow factor here, no solid powerful bass that pushes me back in my seat, no attention-getting high sparkly treble, no earworm sonic signature... so why can't I turn these speakers off?"



It took me a while to realize that what I was hearing wasn't the speaker... it was the music. I was being presented with the audio of albums I knew and loved, with detail and precision and nuance. I never stopped to think about woofers or tweeters or crossovers; I was too busy thinking about Paul McCartney and Johnny Cash and Pink Floyd and Neko Case and Yes and Aga Zaryan and Tangerine Dream and Peter Gabriel and Shirley Bassey and Renaissance and... you get the idea.

It was fun to compare my listening session notes with Paul's findings and note several areas where we were in complete agreement, although my wording was often pithier than his. Some excerpts:

"Where's the sweet spot? Insane! It's ALL sweet spot!": I learned, as Paul did, that the combination of the passive radiator and the wide waveguide for the tweeter produced a genuinely usable sweet spot that was marvelously wide and deep. To say that these speakers were forgiving of the room acoustics would be an understatement... presentation of highs and mids and lows remained balanced even when I went as far to the left or right as one of the speakers. I had to get out nearly that far before I heard any issues with stereo imaging, which was rock-solid.

These speakers won't turn a horrible room into Abbey Road Studio A, but they'll allow more than one person in any room to reliably hear the same thing at the same time.

"Mids glorious mids": Anssi Hyvönen of Amphion has been quoted as saying that the 2–5 kHz region is the most critical for human hearing, and first and foremost a speaker must present mids with detail and accuracy. This was the root of my transparent and immersive listening experience with the One12s... vocals, guitars, drums, winds, piano, organ, strings, they all live and interact in the mids, and if you can get the mids right in a mix, you're practically all the way there. The high treble was clear and present without being obtrusive, but oh, those mids....

"No low end boom. Absolutely no damns were given": With a 3-dB-down point of 78 Hz, I wasn't expecting a lot of thunder from the One12s. What I got was surprising and gratifying: those all-important mids included upper overtones and harmonic structure of instruments that lived in the two octaves below what I was hearing. Bass guitar and upright bass, low piano notes, kick drum, were all present and felt balanced, even though I wasn't hearing the fundamental. I've had this experience with lows only once before—with the tiny Genelec 8010A, which presented a very different listening experience than the Amphions.

"Translates way better than Google": Because of this "filling in" of missing frequencies, it was actually startling to hear how little I had to tweak my mixes for the really deep lows. Whether on full-range headphones or listening to the 8" monitors, the lows were there, only requiring subtle bumps or dips (usually on the thump of the kick or low notes on a 5-string bass) to bring them into line.

"Loud sounds good. Soft sounds good. Mix soft, sounds good loud; mix loud, sounds good soft": It's quite surprising how the delivery of audio through the One12 resists the usual monkeyshines of the Equal Loudness Contours. I think it's because the speaker concentrates so hard on delivering accurate mids, and there's no extreme low end to go bananas when they're turned up loud. Regardless of the reason, the fact remains that these speakers can be run at 85 to 90 dB and give great results... or turned down to a lovely and unfatiguing 75 dB and still give great results, hour after hour.

Conclusions

Okay, I am seriously impressed. These are not inexpensive speakers, especially when you consider the cost of amplification as well—a fully tricked-out stereo setup like the one we reviewed would

cost about \$2800. But statements like "they sound like a million bucks" just don't work here.

I've heard speakers that sound like a million bucks; I've also heard speakers that sound like hammered tinfoil. In both cases, I've heard *speakers*. The One12 is the first speaker I can remember hearing that has no obvious sound of its own... it just presents my music so I can work on it. That's one heck of a revelation. ➤

Price: \$750 each

More from: Amphion, www.amphion.fi



The Amp100 mono

For this review, Amphion provided a pair of Amp100 mono block amplifiers (\$650 each). Effectively equivalent to the firm's stereo Amp100 sliced in half, the Amp100 mono comes in a neat black aluminum case with built-in heat sink fins that weighs only one pound. There's a single white power-on LED on the front face, and the rear has an XLR input, a Neutrik Speakon locking output, and a standard IEC power socket with power switch. There are no controls at all: turn it on and feed it audio.

The spec sheet is impressive: 50 W RMS into 4Ω at 1% THD, 115 dB dynamic range, and a frequency independent response that's flat out to 100 kHz independent of load. I didn't do any bench tests of the Amp100 monos, but found they paired well with the One12 monitors. I could drive them pretty hard and hit levels well above the OSHA limit of 90 dB SPL at one meter with none of the signs of an amp working too hard.

It's true that the One12 will work with any good power amp that's properly rated for its impedance and power handling capability, but if your existing monitors are all active and you don't have an amp to spare, consider pairing your One12s with the stereo Amp100 (\$1300) or with a pair of these Amp100 mono blocks. There's something to be said for simplicity and for an amplifier that's designed and optimized for a particular speaker design.—MM