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STELLAR

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PURE AUDIO

ALL THE WAY FROM ISRAEL
PUREAUDIOPROJECT

STELLAR12

OPEN BAFFLE LOUDSPEAKER
REVIEWED FOLLOWING
INTERNATIONAL HIFI SHOW

LOSE THE BOX

*The trials and tribulations of
open baffle loudspeakers.*

★★★★★ REVIEW: PUREAUDIOPROJECT STELLAR12 OPEN BAFFLE LOUDSPEAKER

PUREAUDIOPROJECT

STELLAR12 OPEN Baffle SPEAKERS

Distributed by Wyndham Audio, Melbourne
USD \$25,000.00 RRP

There's far worse jobs than reviewing HiFi gear. But with that said, there's a lot of same-same in the loudspeaker market. After a while it can be difficult to get excited. Too much of a good thing perhaps?

Worse still, it's hard for a loudspeaker manufacturer to stand out from the crowd in an overpopulated marketplace.

INTRODUCING

In 2014, I stumbled across a start-up that caught my eye. Based in Israel, what appeared to be a one-man show had put together a kit speaker that uses the ultra-affordable Eminence Alpha-15A drivers, combined with a Tang Band 8" full range driver. This was mounted to a modular open baffle, known as 'Trio15TB' and attracted my attention.

Whether it was my early years playing with bass bins and PA speakers as a wannabe muso, or perhaps the more recent exposure to Australia's [Kyrón Audio](#), albeit expensive, open baffle speakers. But either way, I wanted to know more.

As it turned out, I was actually the first reviewer in the world to hear that first offering. What I heard impressed me, so much so I was even doubting myself. Could what I had just put together on my lounge room floor sound so good, particularly for the asking price?

Well, yes. Other reviewers with years more experience than I went on to follow my review and backed up all my observations. Always nice to get a confidence boost.

You can [read that review here](#).

I've kept in contact with PAP's main man, **Ze'ev Schlick** ever since. Late night Messenger sessions see him keeping me up to date with the company developments, and of course, new products.

So when I heard about the new flagship loudspeaker being developed in conjunction with Morel, once more I was curious. The benefit of coincidence sees Ze'ev living just a stone's throw away from the Morel factory in Israel.

Working with Gil Hertz of Morel, the Stellar12 was born. As the executive designer of the solid aluminium frame, Ze'ev likes to say that she brought a woman's touch to the overall design.

THE TECH

Ze'ev Schlick proudly boasts,

“ *With no compromises whatsoever taken during the design process, the Stellar12 represents by all means the peak in Dipole and Open Baffle Speakers offering. It pushes the construction, the sonic and the life-style envelopes to their edge, and it sounds just like it looks!* ”

Standing 168cms tall, the entire chassis is machined from 12mm plate aluminium, while the 'leg' that supports the base and baffle is a rigid 24mm thick. They weigh in at 86kg each.

One of the benefits of working directly with the loudspeaker manufacturer is the possibilities are virtually endless. Stellar12 uses 4 x 12" Titanium/carbon fibre woofers that have been modified specifically for open baffle design.

Every design element of the drivers has been "pushed to the edge", as Ze'ev says. The woofers feature a custom made Neodymium motor for extended control over longer excursion, low distortion and linearity along the moving area, ultra-light 5.5" underhung voice coil, Faraday sleeve, and so on.

The 5" Titanium/carbon fibre mid driver uses similar technology for a homogeneous sonic signature, while the soft dome tweeter is one of Morel's latest 'Supreme' designs, optimised further for dipole use.

The crossover is designed with the shortest possible signal path and also optimised to shift crossover points above the critical hearing frequency ranges. Using Mundorf components, there is only one coil for the woofers, one capacitor and resistor for the Midrange, and a combination of capacitor, coil and L-pad for the tweeter. Keeping it simple.

The woofers use a first order low pass filter, while the midrange plays naturally from the bottom right up to its natural roll off, with a capacitor simply for protection and load reduction. The tweeter comes in with a second order high pass at ~7.5Khz.

The Stellar12 in my possession was a pre-production sample. The crossover on this particular one uses point-to-point wiring, whereas the finished production models will be complete with jumpers allowing voicing to a particular listening preference or to allow for different rooms.

Ze'ev shipped out this particular pair for debut at the [International HiFi Show](#) in Melbourne, held in July this year. Following the show, they were shipped here (in very well-built road cases) and a few days later Ze'ev also came out for the day, accompanied by fellow Israeli and PAP's Operations Manager, **Jonathan Garbasz**.

It was a great opportunity to have the designer hear Stellar12 in the actual review environment with our own ancillaries.

Now I'm no loudspeaker designer, but I have built my share of DIY disasters. You tend to learn a thing or two (*or not, in my case*), but one thing had intrigued me up to this point and it was time to ask the man himself.

Aluminium is an unusual choice for speaker enclosure (or baffle) manufacturing. Rigidity and reducing any deflection or flex is one of the aims, at least in my experience, and the aluminium certainly ticks that box. Typically, though, thick timbers, and other acoustically 'dead' materials are generally the choice. A rap on the baffle clearly indicated a liveliness of the aluminium with the Stellar12.

I posed this question to Ze'ev. With a knowing smile, his response was simply, "*listen, and you tell me if it works*". In Ze'ev's eyes (*or ears*), the sum of parts becomes the timbre of his speaker. Like it, or not. Sometimes you just need to throw theory out the window.



THE LISTENING

Speaking of throwing theory out the window...

We built a dedicated Media Room last year for the purpose of course of reviewing products, but also as a space for the family to listen to music, watch TV and movies. A lot of theory went into it, from the dimensions of the room itself, to the acoustic treatment. It's a great room. In fact, it's excellent, because it does virtually nothing to the sound. Some speaker designers have been most impressed to hear their own speakers in this room, the way they should sound. Perhaps not typical of the average living room-cum-listening space, absent of odd shaped walls and hard reflective surfaces, but it's the fairest way in which I believe I can critically compare products.

From experience I have a rough idea of where to place speakers, because as we know speaker placement within a room is critical. It can be the difference between mediocre and remarkable sound.

Placing the Stellar12 loudspeakers in the typical position resulted in a smeared soundstage, lack of bass, and overall a veiled and unengaging sound.

With Ze'ev on hand and that knowing smile once again, he suggested the removal from the room of the large corner bass traps, the opening of the heavy curtains behind the speakers (revealing a solid double brick wall) and moving the speakers to the extreme widths of the room. We also pushed them much further back than I would typically place speakers.

I was reminded of the only other speaker I've had trouble getting right. The [KARRI acoustic NULLAKI](#) I reviewed late in 2015. Yes, another dipole speaker. So I've come to learn that with dipole / open baffle speakers, forget what you think you know. You'll likely need to experiment and be open minded, while on the other hand you'll also likely save a few dollars on acoustic treatments for your room.

I'm a big advocate for treating rooms, however in the case of open-baffle loudspeaker I'm beginning to think that there is actually a need for the speaker to interact with the room and space ambience.

Once the placement was sorted it was time for the fun stuff. Ze'ev and Jonathan stayed for the day while enjoying some tunes, cakes and espresso before leaving me to my own devices.

Some 3 months later, and countless tracks and pages of notes, I have a handle on the PureAudioProject Stellar12 loudspeakers.

TURN IT UP

Cueing up the standard review playlist from the Antipodes DX server and Roon player, I'll get straight into it by saying this speaker is not for the faint-hearted. At 89dB efficiency, they like power. Feeding it via my AVM Ovation MA8.2 mono amplifiers (600w @ 8Ohm), or the Aussie designed Holton Audio Ex Nihilo monos (275w @ 8Ohm), I kept nudging much higher than normal with the AVM Ovation PA8 pre-amplifier.

That's not to say that they won't perform at low listening levels. However, where they really come on song is when you get the cones and spiders moving and a touch of heat into the voicecoils.

It became quite evident that the Stellar12, despite imposing in stature, do in fact disappear sonically. Not in the 'transparent' cliché way though. You're very aware of their presence but they impart a multi-dimensional 'stage' that is particularly noticeable on live recordings. There's an energy that I've just not heard before. At least not without being at a live performance.

'*Such a Beautiful Thing*' from **Ian Moss**' Let's All Get Together (2007) album is a perfect example. There's a raw honesty that is just so convincing.

I have no idea why, but a favourite track from back in 1996 popped into my head that I just wanted to hear. **Powderfinger**'s Double Allergic album that shot them to fame has always struck me as raw and not over-processed, unlike many albums that followed in that decade. Opener, '*Skinny Jean*', complete with cowbell really hits the mark and the devil on my shoulder just kept nudging up the volume button.

“*There's an energy that I've just not heard before. At least not without being at a live performance.*”

The 4th track on the album, '*D.A.F* always fascinated me, the title being the chord progression of the song which I always just thought was cool. The drums and build up is lapped up and reproduced with ease by the Stellar12.

In fact, the snap of the kick drum and the timing of all the percussion is simply superb. Like other open baffle speakers, there's simply no box coloration. It's responsive, there's no overhang, and you can literally hear the different tones and timbre of the individual drums.

Flicking through the typical audiophile recordings revealed the detail, accuracy and 'niceness' typical of those non-complex recordings. Acoustic guitar, female vocals, blues and jazz, tick, tick and tick ...

Where the fun is though is Stellar12's ability to play stuff that's not quite so forgiving. **Shannon Curfman**'s '*Playing With Fire*' from Loud Guitars, Big Suspicions (1999) with its strong, grungy riffs and her gritty vocals simply reveals layer upon layer of texture.

Skunk Anansie's best work in my opinion was there 2013 release, '*An Acoustic Live in London*', which saw the band simmer somewhat in later years. While a live recording and predominantly acoustic, it's still got real energy reminiscent of their earlier years. I'm well acquainted with this album and to date, Stellar12 has captured the spirit and presence of the band, along with the liveliness of this recording better than any other speaker.

The recording itself is quite bass heavy, and that challenges many speakers I've heard. I wouldn't call the Stellar12 bass 'shy', so I put this down once more to lack of box coloration thanks to the dipole arrangement.

'*Squander*' actually connected with me like never before, being drawn into the performance and hanging on **Skin**'s every lyric and breath. One word, **engaging**.

ALL HAIL STELLAR12

Not quite. *It's not all praise.*

Admittedly the model we received was pre-production, so you can expect and even forgive minor imperfections. There were noticeable remnants of grinding marks on the baffle where they've been cleaned up post-machining. The crossover, as already mentioned is not the final product so it appearing a little DIY can also be forgiven.

For PureAudioProject's flagship loudspeaker, one would expect the best given the level of perfection that has been strived for with the components. What may actually be high quality cable connecting all the drivers with the crossover looks at least to me, like basic 'hook-up' wire. If it's not, then it should at least be dressed up.

The wires are also secured to the back of the baffle with adhesive nylon fixers, similar to what you find in electrical cabinets. I am sure the finished production model will have a better solution.

PureAudioProject claim an in-room frequency response of 29Hz to 20kHz. Stellar12 doesn't seem to really dig deep, or perhaps we're just unfamiliar with the cleanliness of bass at such frequencies. Either way, for movies I found myself turning my SVS subwoofers on. For music it's absolutely not necessary though.

CONCLUSION

PureAudioProject have stayed true to their roots and points of difference despite early success. They've built upon their open baffle product range and taken the design concepts and techniques to another, higher level.

Stellar12 really is a flagship speaker, and it's competing at very high-end levels. At \$25,000 USD a pair delivered, assembled and setup by PureAudioProject (anywhere in the world), it comes at a price only a fraction of many of its competitors.

It can stand proudly at the top of the product range for PureAudioProject. They've absolutely nailed the bass, and the midrange and tweeter are working well in unison. If only they wedged a horn into that baffle, I'd be placing my order. That's just a personal preference though.

If you're looking for a speaker that is as much a visual statement as it is truly honest and capable sonically, Stellar12 deserves your audition.

PureAudioProject's Stellar12 is engaging and has a serious fun factor. You'll hear music with all its honesty, emotion and engagement. Just be sure your amp has the grip and grunt to do Stellar12 justice.

For more information, visit [PureAudioProject](http://PureAudioProject.com).

Australian enquiries can be directed to PAP Australian agent, Wyndham Audio.

