

Review of TAD' ME1, by Wojciech Pacula, 06/2021, on :



┌ TECHNICAL AUDIO DEVICES LABORATORIES, abbreviated as TAD, is a Japanese company founded in 2000. Its roots, however, date back to 1978, when a separate department was established in the Pioneer Electronics corporation to develop high-quality loudspeakers. The first TAD product was the Model One. In 2012, electronics joined the speakers - a preamplifier, power amplifier, SACD player and DAC. ┘

I DON'T KNOW IF YOU HAVE THOUGHT ABOUT IT, but while electronics, phono cartridges, cabling and accessories from Japan are with us every day, there are hardly any loudspeakers from this country. From time to time, we provide you with information about the new ECLIPSE model, for example about its latest **TD307MK3** monitor, we also know YAMAHA loudspeakers, we see PIONEER loudspeakers, and some from small companies such as **KISO ACOUSTICS**, however, compared to the offer from the West, they seem to be almost non-existent.



Out of curiosity, I checked it in the last issue of the "Stereo Sound" magazine, the top high-end magazine for most of Asia, to find out that its cover features Estelon loudspeakers, and the issue is devoted to the new version of the top Bowers & Wilkins D4 series loudspeakers (Spring 2022, No. 222; more [HERE](#)). On 394 pages of this issue I found almost all the major brands from the USA and Europe and I found only a few loudspeakers from Japan: FUNDAMENTAL, G.T SOUND, FALCON Lab. and TAD.

I think there is something to be done, because although in the country of sake and Shinkansen, ceremonial tea drinking and people sleeping on the street who did not make it to the subway after the company's party and waiting for their offices to open, there are a lot of loudspeaker manufacturers, but they are not interested in presenting their product outside Japan. Anyway, even the TAD owes its most important solution, i.e. the coaxial mid-tweeter, to a European, ANDREW JONES, who previously worked for KEF. It just so happens that the loudspeakers I would like to talk about were the first design that Jones did not design, because at that time he moved to work at Elac.

■ MICRO EVOLUTION ONE

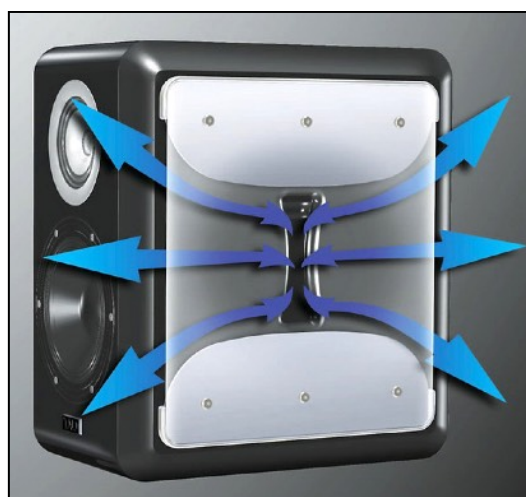
THE MICRO Evolution One loudspeakers tested by us, were shown for the first time in 2017 at the Tokyo Audio Show. Such longevity in the loudspeaker industry is rare, but TAD replaces models in its offer extremely rarely. Mr. Toru Nagatani, the chief of engineers, is responsible for all technical solutions that can be found in it.

The TAD-ME1, as their name is abbreviated, is the company's smallest design. However, they are not as "micro" as their name would suggest - they may seem "small" compared to other models. The constructions, measuring 251 × 411 × 402 mm and weighing 20 kg (pcs), look great. They are made with the precision we know from products of such companies as Accuphase or Esoteric, but transferred to loudspeakers. The basis of their three-way design are two drivers - 90 mm COHERENT SOURCE TRANSDUCER (CST) and 160 mm woofer - as well as a cabinet in which coupling is made using a solution called BI-DIRECTIONAL AERO-DYNAMIC SLOT (ADS).

The CST is a two-way coaxial driver. The midrange diaphragm is made of magnesium alloy and the tweeter dome is made of cast beryllium. In the more expensive models, both diaphragms are beryllium, and the dome is made in a technologically advanced process of chemical vapor-deposition. This system is manufactured by TAD itself, just like the woofer. The CST covers an extremely wide band, starting at 420 Hz and ending at 60 kHz. The midrange part has a diameter of \varnothing 90 mm, and the dome of 25 mm. The division between them was set quite high, at 2.5 kHz. The larger driver is equally interesting. It features the MACC: MULTI-LAYERED ARAMID COMPOSITE CONE membrane. It is a three-layer membrane made of woven aramid fibers (their proprietary name by DuPont is Kevlar) with a damping material placed between them. The cast basket is extremely robust, as is the magnetic system. There is also a curiosity - the diaphragm suspension has the form of small folds, similar to the suspensions of high-efficiency drivers, but it is made of foam, not soaked fabric or rubber.

We have already encountered a solution called Bi-Directional Aero-Dynamic Slot, during the test of the large **COMPACT EVOLUTION ONE** monitors. The loudspeakers look absolutely classic, but the classic bass-reflex used in them is not. Instead of the opening, a solution was used here, in which the air from the rear side of the diaphragm is forced out through vertical slots on the sides of the cabinet. There, it bounces off the flat elements that can be seen on the sides and travels forward and backward through successive gaps.

The baffles against which the sound is reflected are made of stiff, 4 mm thick aluminum elements, so they do not vibrate. As we read in the company materials, "the symmetrical front-back, left-right layout eliminates unwanted coloration of the sound, as well as minimizes standing waves inside the casing" (emphasis - ed.).



\ A figure showing the principle of operation of the Bi-Directional Aero-Dynamic Slot

When constructing the cabinet, thick birch plywood and MDF boards were combined. On the sides, the whole thing is stiffened up by the already mentioned 4 mm panels made of hard anodized aluminum, forming a two-way ADS bass-reflex port. Inside you can see a transverse reinforcement glued horizontally between the speakers. The damping was executed using felt and artificial wool glued to the baffles. The speakers are available in two color versions: black high gloss and silver metallic.

The signal is fed through the double speaker terminals custom-made for TAD. They are connected with short cables which look pretty good. The connectors are screwed to a thick plate, but made not of aluminum, but of a plastic material. Internal connections are made using thick copper braided cables. The crossover is mounted on a printed circuit board screwed to the rear panel.

The speakers are made and finished perfectly and they look stunning.

\ **STANDS** In order for the drivers to be at the desired height and for the system to work as intended by the designers, it is worth buying them together with the proprietary stands called TAD-ST3-S. They are made of aluminum, heavy elements, and the bottom rests additionally on MDF board. Three spikes are screwed in at the bottom, and on the back of the speaker there are handles to which you can attach a speaker cable, thus improving the aesthetics of the whole. They cost 1750 Euro a pair.



■ SOUND

└ **HOW WE LISTENED** Like other TAD loudspeakers that we've tested, the MICRO EVOLUTION ONE should be placed at such a height that the CST system is at the level of the listener's ears, or slightly higher. Although the manufacturer declares that the directional characteristics of the system are also very good off-axis, we will get a flat frequency response on the axis. For this reason, TAD suggests pointing them directly at the listening position.



Measurements carried out by the "Stereophile" magazine suggest a significant narrowing of the radiation angle above 8 kHz, but below this frequency they show a very even band in a wide listening field, which is confirmed by the information provided by the manufacturer (more [HERE](#)). I adhered to this suggestion, as well as the suggestions for the distance from the side walls and the speakers from each other and from the listener. Eventually, the TADs stood at a distance of 261 cm from the listening position and 220 cm from each other (counting from the mesh of the tweeter). They were 75 cm from the back wall.

I determined the distances between the speakers and their leveling using the Bosch PLR 50 C device. More about speakers setup can be found in the A GUIDE TO... FINE-TUNNING, or how to set up speakers, HIGH FIDELITY № 177, January 1, 2019, [HIGHFIDELITY.pl](#), accessed: 10/05/2022. More on the acoustics of the HF listening room in the article The "High Fidelity" listening room in the eyes of MARIUSZ ZIELMACHOWICZ, HIGH FIDELITY № 189, January 1, 2020, [www.HIGHFIDELITY.pl](#), accessed on 10/05/2022.

In the test they were driven by the SOULUTION 710 power amplifier. It is worth feeding them with as much as clean power as possible, because their efficiency of 85 dB combined with the nominal impedance of 4 Ω is quite a challenge for an amp.

During the test, the signal from the Soudation amplifier was sent using SILTECH TRIPLE CROWN speaker cables. My reference were the HARBETH M40.1 speakers, and the signal was provided by the SACD AYON AUDIO CD-35 HF player. I also used the Mytek Brooklyn Bridge file player.

THE APPLICATION OF ONE OR ANOTHER TECHNOLOGY is not a guarantee of success. Even more so, the claim that one or the other solution is the only "correct" one is a mistake, it is simply not so. Therefore, it cannot be said that only loudspeakers with coaxial drivers convey the recorded music in the right way. If that were the case, all speakers would be coaxial design today.

The truth is that a specific solution brings something special to the sound that we won't get with other designs. This is something completely different - and real. Therefore, the TAD loudspeakers have something that most classic designs do not have - I mean the stability of phantom images. Listening to the binaural recorded album by LIVINGSTON TAYLOR entitled Safe Home I was able to move my head freely, and I didn't even have to sit exactly in the middle between the speakers to see the inside of the Hirsch Center where the recording was made.



Chesky Records' sound recording method is not the only "right" one and has many disadvantages. But its amazing advantage is the absolute lack of compression and freedom of the sound. Although I miss the tangibility and fullness of phantom images in the sound, I always listen to such recordings in an incredibly easy, unforced way. The TAD loudspeakers turned out to be extremely transparent to these advantages, showing them in a wonderful way, without adding either coloration or compression. Taylor's vocals and his guitar, placed in the foreground by the producer, were the largest, and all the other instruments correspondingly smaller, depending on how far they stood from the B&K artificial head. It was a real reproduction of the scene's layers, the same as in reality, where the distance is "encoded" by phase shifts in relation to our head, but also by reducing the volume - the Japanese loudspeakers conveyed these elements flawlessly.

It is hard to find a greater contrast regarding the recording technique than between the Taylor disc and THE OSCAR PETERSON TRIO's We Get Request. Recorded in 1964, it used techniques developed in the 1950s. That is: close microphoning, reverb added using a "reverberation camera", i.e. special rooms in which the loudspeaker and microphones were placed, and positioning musicians on the stage with sliders, not by physical placement in a real space.

And yet this type of presentation appeals to me more, even though it is clearly "structured". The tested loudspeakers helped me to define the differences in question very precisely, nicely and clearly. Because these are exceptionally, really exceptionally resolving designs. They also have a well-balanced timbre and are extremely dynamic. With all this there is some sweetness in their sound, which protects us from aggressiveness of the sound, from brightness and harshness.

The TADs are very honest in all of this. They do not bring the foreground closer, even if it is shown close, like on the Peterson disc, and even if the vocal was captured in an extremely intimate way, like on the STAN GETZ and JOAO GILBERTO's Getz/Gilberto, released the same year as the We Get Request. The loudspeakers do something like a "step back", keeping all proportions and timbres, but moving the sound away from us. These are loudspeakers for those for whom the direct presentation of the Harbeths or the JBL seems too "here and now", for whom it is too offensive.



Their holography is above average. Not only do the instruments have a stable position in space, there are precisely described layers of the stage and the latter is deep, but the proportions between the individual instruments are very good. TAD-ME1 are relatively small bookshelf speakers, so you should not expect as much space as from floorstanders or even large monitors from this company. It does not work like that. But as if in contradiction to what I said, they show this bass very well, through the higher harmonics.

Therefore, I was not surprised that the double bass played with a bow in the piece opening the Peterson's album was very nice, natural, but did not have the same mass and saturation, or volume as from the reference speakers. Also RAMMSTEIN from the latest Zeit album did not have the same strong punch and extension. But I didn't expect it at all either. It's clear that the Micro Evolution One is different. Because they showed the recording of German scandalists in a great way, retaining its internal compactness, they also showed the way in which this album was mastered, meaning in a warm, dense way, with little selectivity. So despite showing the "mechanics" of the recording, it was still highly enjoyable.

This ability to combine precision was even better achieved with the latest album of the RÖYKSOPP duo, entitled *Profound Mysteries*. The opening track (Nothing But) *Ashes* was based on a very strong and low bass. The TADs very well, because honestly and precisely, showed its soft character, and also delivered surprisingly low bass. Already with the Peterson it was clear that the bass is controlled in an extremely effective way in these speakers. But not by thinning it out - both Rammstein and Røyksopp had enough foundation in the bass to be shown with a large volume. It was achieved precisely by controlling bass' behavior.

With both discs, the loudspeakers delivered beautifully saturated colors, a low center of gravity and a great depth of the stage - that means they showed them exactly as they were. And that's probably what you have to pay for. We very rarely get such resolution, such selectivity with very good sound saturation. The bass sounds like from loudspeakers with a closed enclosure, there is no trace of something that could be called the "bass-reflex syndrome", i.e. coloration of a part of the bass. And yet the sound is full and saturated. It is like combining studio precision and high-end richness of colors - something absolutely unique.

SUMMARY

TAD-ME1 COMBINE PRECISION AND EFFORTLESSNESS. Their treble is sweet and the bass is saturated. But at the same time, the treble is selective and open, and the bass is perfectly controlled. The Japanese loudspeakers build a large sound stage, but rather in depth than in width. Within it, phantom images are perfectly defined and perfectly stable. We do not have to sit still in the sweet spot for everything to "work". The limitations in the bass extension, and thus in the structure of the volume of the instruments, are obvious and for the money it is possible to get it with other designs.

At the very end, I listened to ROBERT KANAAN from the *Whispers of the Five Oceans*, which sounded beautiful - smooth, sweet, strong and pleasant. The loudspeakers built a concise space, tightly filled with sounds, to which we were transferred. But it was still precise and accurate, faithful to the recording. If only such monitors were installed in recording studios ... ■

