

Between calmness and passion

Acoustic Reality eAR 1001
Mono-block power amplifier

The two silver boxes in front of me are not much more than some stacked A4-sized paper, neither in size nor in weight. Nevertheless boxes like these produce an output of max 1200W (4Ω) or 600W (8Ω). (In continuous output they yet render 1000w or 500w). Theoretically speaking, they are able to power world's most loudspeakers, amazing indeed. Based on B&O ICE amplifier technique, they are mono-block power amplifiers eAR 1001 - a product of Denmark's Acoustic Reality.

Once upon a time, power = big size = high price. More than 10 years ago, I used a NGR 400w A-class (8Ω) mono-block power amplifier "Infinity IRS Beta". The huge body of NGR weighed more than 80 kg each. Today I still recall how the installation seemed to add two fire stoves to my home. Even at present, my Mark Levinson 436 power amplifier 700w (4Ω) whose size is slim comparing to similar unit, weighs nearly 40 kg.

Although high-end power amplifiers are still dominated by class A or AB amplifiers, it is non negligible that class-D amplifiers have already made their entry. If they were insignificant for Hi-Fi family circle 10 years ago, they are now well respected and have become more vigorous. Power is not merely a patent held by those expensive units, and we easily get 200-300w in a combination kit. Pampered loudspeakers? Or inflation of power? Anyhow eAR 1001 weighs only 4.5kg each! The retail price in Hong Kong is HK\$28,000 per pair.

The technique

The theory of the first class-D amplifiers was to compare the original audio signal with the triangle audio wave of higher frequency. As the result Pulse Width Modulation (PWM) are been sent to the MOSFET switches. Meanwhile the signals are magnified. When the PWM wave is removed, the original audio signals can be restored. The advantage of this technique is its high efficiency (over 90%), enabling power within small sized equipments, while the costs are lower comparing to A or AB-classes. The disadvantages was EMI disturbances, distortion and requirements of power supply etc.

Recent researches within class-D amplifier have proclaimed to have solved these problems by introducing several new patents. For example Linn's CHAKRA, Halcro's Lyrus, Philips' UCD etc. The most successful among them is the B&O ICEpower, applied by Acoustic Reality and other well-known brands including Jeff Rowland.

eAR 1001 is simple-shaped, with only one power signal lamp. On the backside there is a label of the company, a group of XLR and RCA and terminals for loudspeaker connection, all of which are Hi-Fi components.

Under the cover of eAR 1001, more than half of the kit is consisting of ICE 1000ASP parts. This highest model measures merely 23.4 * 15 * 6 cm and weighs 1.7 kg. Apart from the power, it holds excellent test results, which are introduced in details on the company's website.

Testing

Earlier, ICEpower has been proved on a new generation Jeff Rowland amplifier, which sounds much lighter and clearer comparing to my former Rowland model 8. So, what about Acoustic Reality?

I connected firstly eAR 1001 with a Do-It-Yourself power cord. It revealed a sound very close to Rowland, however, a “thinner” audio picture. While playing Venture L'Excellence, it seemed unable to reproduce the bass and I have had to turn up the volume.

Earlier I was told that ICEpower based amplifier was very sensitive to power supply and power cords. It is also described in details on the ICE website how the neutral and sensitive ICEpower components will re-introduce the individual characteristics respectively. However after I replaced the power cords with cords from Tara labs Titan, the performance difference is substantial, and I never experienced the same sensitivity to power supply among other equipments.

The test equipments consist of Esoteric X-01 SACD (CD-player), Rowland Synergy III preamp., Venture L'Excellence III loudspeakers, and Mark Levinson 436 was used as reference amplifier.

eAR 1001 has adopted the light and clear characteristics of ICE modules, controlling rather than empowering the bass. The whole audio picture is distinguishing without encircling. By comparison, the audio picture of 436 is a warmer treble and an empowering bass. Taking consideration that the retail price of eAR 1001 is less than 1/4 of ML 436, the former must be the winner.

The eAR 1001 is an expert in creating a sophisticated audio atmosphere, especially when it comes to human sounds and a smaller orchestra. I have played my favorite collection of Li Zongsheng of 1987. The sound of guitar and singer was exceptionally distinguished.

Other music such as “Vincent” by David Roth and “A Groovy Kind of Love” by Jheena and “When I Dream” by Sister Kidd, were tested with same results. Both female singers seem to be several years younger with cleanly sound yet slightly less charm. In other words, a totally different experience.

The explosive and staying power of eAR 1001 was taxed when playing “Ox against Tiger” in 5 minutes under high audio pressure. eAR 1001 stood up to the test without giving up.

While playing Carmen (Fim Super Sound), eAR 1001 illustrates spaciousness, clear metal beat and an ideal distinction of different musical instruments.

Likewise, eAR 1001 reintroduces the realistic recording of live concert “Live at the BBC” by Hugh Masekela, whose trumpet surprised the listener by its power of penetration.

Conclusion

When it comes to value of sound the price of eAR 1001 is very good. When considering its surprising powerfulness, it even extends its value. Nevertheless, the use of power cord is critical when using eAR 1001. The sound of eAR is steady without being cold, and never a fire worshipper. The successfulness of eAR follows the successful use of ICEpower.