

Ayon Crossfire PA

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Ayon Crossfire to nie przelewki. Cztery transformatory w chromowanych kapsułkach, tyle samo dławików, masywna obudowa i 45 kg bez pudła zaimponują nawet laikowi.

Na audiofilu jeszcze większe wrażenie zrobią triody mocy AA 62B oraz fakt, że z jednej takiej lampy austriacka wytwórnia wyciska 30 czystych jak łza watów.

Taka moc z triody single-ended to rarytas.

Z powodzeniem wystarczy do wysterowania kolumn o standardowej efektywności. Z Avalonami Transcendent Crossfire PA stworzył zestawienie, które zapada w pamięć.

Zaprezentował dźwięk wolny od pluszowości i zaokrąglenia niskiego basu. Klarowny, dynamiczny i naturalny.

Ayon stroni od nadmiernego ocieplenia czy przymilania się słuchaczowi. Nie ogranicza też przejrzystości.

Z wysokiej klasy źródłem i przedwzmacniaczem przenosi nas na wyższy poziom kultury słuchania.

Za jego pośrednictwem kameralistyka i symfonia brzmią swobodnie, zaś nagrania rockowe i pop zaskakują energią i dyscypliną.

Crossfire PA to wzmacniacz, który do konfiguracji SET przekona nawet sceptyka, a entuzjastów utwierdzi w przekonaniach. Wielkie brawa.



- **Crossfire PA review in “Hifi-Muzyka” Magazine – December 2014, Poland**

- **Awarded as the best SE power amp 2015 !**

English translation:

Ayon Audio was created in Austria in 1999 by Gerhard Hirt, who has been cooperating with AVVT – which was lead by Alesa Vaic, well known man in audiophile’s world – since 1993.

Vaic produced tubes which Hirt used in his amplifiers.

Alesa Vaic Vacuum Technology had big history in producing high power tubes. One of the events was re-launching production of 2A3 triode in mesh plate (anode) version which produced 18 watts. Mesh plate was used also in 300B triode, giving even 22-28 watts depending of version. But even that did not helped and the company bankrupted in 2001. Hirt bought part of the company. Its factory belonged to TESLA earlier and hired highly qualified personnel. The Ayon owner decided to continue production, and after some time he upgraded some tubes to his needs and this practice works until today. Triodes with AA mark made in Prague are destined for Ayon amplifiers only. They are not available for other brands and hobbyists. Of course the factory is making other tubes as it would not be possible to live only from Ayon orders, but few models are exclusive for Ayon and they are created under full control of Gerhard Hirt.

Catalog

Ayon product catalogue is impressive. In audiophile world there is a saying: „ weekend without Gerhard’s idea for a new model (or improving an old one) is a weekend lost” and like every joke there’s a little piece of truth in it, as Ayon has almost every type of product in their offer: sources, amplifiers, pre-amplifiers and speakers. It’s a list of several dozens of models, starting from hi-level to ultra hi-end. Further it is also full range of speakers from Lumen White brand (it also belong to Ayon Brand). If budget is not a problem, you can easily build completely satisfying stereo set by this brand. The core of Ayon catalog is amplifiers: pre-, power and integrated. Ayon is focused on vacuum tube technology, letting semi-conductors perform additional function only.

Crossfire amp is available in two versions: integrated (Crossfire III) and power (Crossfire PA).

This model is something special for several reasons. At first, despite high price, it’s very popular among end users. Second, it’s the cheapest Ayon amp containing AA62B tube.

Ayon Crossfire is not a weakling. Four transformers hidden in chrome caps, the same amount of chokes, massive and rigid 45-kg housing can impress even an amateur, no doubt about that.

Audiophiles will be even more surprised with AA62B power triodes capable to produce 30 crystal clear watts. Such power coming of single-ended triode is a rarity. No problem to drive standard efficiency speakers at all. A set with Avalon Transcendent was worth to remember.

The sound was free of “plush” and rounded low frequencies. It was clear, dynamic and natural. Ayon is rather far away from cheating with warmth and sweetness of typical “tube”. It also doesn’t limit the clarity. Accompanied by a quality source and preamplifier it will take us up to higher level of listening culture. With its presence chamber as well as symphonic music sounds superb while the rock and pop music surprises us with huge energy and discipline. Crossfire PA is an amplifier able to convince even great skeptic for SET configuration. And enthusiasts will become even more assured. Huge applause here.

AA62B

It is not an ordinary tube as it’s strong and very universal. Its built is similar to legendary Western Electric 300B: it’s Directly Heated Triode just like the original, but overall dimensions are much bigger. It generates more than 30 watts of power so it can be clearly named high performance version – as the original one was only 8 watts.

High power is a result of using high current capacity cathode and high temperature resistant anode. AA62 is closed inside huge glass, about 1.5 size of original 300B which means that bigger electrodes can be used. The cathode is directly heated and it consists of spirally bent large diameter rods. Original 300B had only four of those and AA62 has eight. The anode is much bigger as well and it’s cooled with wide heat sink plates, therefore overall cooling surface is much larger. Additionally, small tubs cool the first grid. The transparent tube itself, containing all these goods, is made of high temperature proof laboratory glass. It’s not exaggeration as the temperature inside may rise to 1200 Celsius. Wherever temperature is highest, the tube is shaped wider as it helps to minimize internal tensions. Inside the glass we can see three getter rings – two lower and one upper. Their aim is to preserve vacuum inside, which is necessary for proper working conditions of the tube. Similar job is done by zirconium coating, which absorbs possible contamination emitted by heated electrodes. Base is ceramic and pins – thick and gold-plated. The idea of AA62 originates in the best valve traditions, with addition of modern thinking and use of very durable materials.

As mentioned before, this version of tube offers over 30 watts with low distortions. Manufacturer says it should work without problems for over 10 years. In many cases owners use them for 15 years and nothing bad happens. Lifespan is extended thanks to delayed anode power up and initial bias control. Starting sequence takes about one minute and after that time the amp is ready to play. Ayon gives 2 years warranty for these tubes (3 months for the rest). More to say, power triodes don’t need to be replaced in pairs for the first 6 years. If any of them gets damaged, one can replace it easily and Auto-Fixed Bias system is going to pair it with the remaining one.

Like the two other power triodes, AA32B and AA52B, AA62B can be found only in Ayon amplifiers. It is the strongest one, but it can be changed in nearest future as Gerhard Hirt is working on more powerful AA82B which is going to create output of 35-40 watts. If this tube hits the market, I am pretty sure that it’s going to be used in the new amplifier model and it will become highly desired by music enthusiast who don’t own high efficiency speakers. But before we take a trip into the future, let’s focus on Crossfire PA and its 30 watts. Serious stuff.

Other tubes

You can find 9 tubes in Austrian amplifier and 8 of them are in signal path. The 9th – General Electric 5U4G – is a rectifier tube which powers up low level section. At the input and pre-amp section there are 6SJ7 pentodes, two for the channel. They are NOS (New Old Stock – brand new from old stock) made in March 1983 in Novosibirsk. Their main feature is low amplifying factor and relatively high power of 2.5 watt. Their designed reaches back in the past to end of 40s. They are closed in nonstandard black metal cases which makes them able to dissipate heat better. They are usually used in low frequency amplifying circuits due to their low hum and nice sound.

And they don't have microphone effect. The driver tubes are modern double 6H30 produced by Electro-Harmonix. These are long-life tubes with high amplification factor and tensioned grid. Every 6H30 drives one power triode in this amp.

Build

Crossfire PA is very reliable and carefully designed device. The housing is made of brushed and anodized aluminum. The coloring process allowed gaining very deep black tint and it makes a great match to chrome transformer caps. 12 mm thick profiles come from Hungary, Slovenia and Austria and in Austria all of that is put together. Ayon amplifier doesn't look Spartan, but it's not extravagant at all. We can find discretely lit logotype and engraved model name (without PA letters though). On/off switch is placed underneath the unit which helped to keep the front panel clear. Rear panel is equipped with 2 line inputs: RCA and XLR. The second one is technically not that important and it serves only as optional: only two pins of three total are used (signal and ground). It is the best to use classic good quality RCA cables as any 1 cm of signal is not balanced inside the amp. The input can be chosen by the first small switch. The second serves to decrease amplification by 6 dB which helps us use the amp in case of high efficiency speakers. The rest of switches are used to choose the power tube we want to set BIAS and to cut off ground in case any hum in speakers is heard. Crossfire PA is able to work with wide range of speakers. We can select between 4 and 8 Ohm impedance. WBT NExtGen terminals are nicely marked with colorful rings, but we can use spades or bananas only. No chance to use bare wires. Beside the tubes, on the top of chassis we can find four huge capsules made of extruded steel. Two of them hide output transformers and other two – the power supply ones, separate for anode voltage and heating. All transformers are high-class E-I type designs, shielded and insulated with specially produced (and apparently very expensive) resin. We can also see last and clearly smaller capsule. This is the housing for big electrolytic capacitor which along with rectifier 5U4G tube prepares the voltage for pre-amp.

Interior

As we gaze at open Crossfire, we can get very surprised at first while. Gerhard Hirt calls himself a supporter of short signal path but we can find a lot of circuit boards and components inside. Well, after we take a closer look, we can see that whole sound path is fitted into two boards and the rest is very sophisticated power supply and parameter control circuits.

The designer of this device kept in mind that tubes have to work in optimum environment to cast a spell with their sound and they shouldn't be any worry for their user in long time run. Long power-up sequence equals not only to the time needed for switching on delayed anode voltage, as cathode is initially heated up. It's also used for control / correction of power tubes initial bias and checking the proper working conditions inside the amp. As we turn the amp on, the keeps blinking and "mute" LED stays on. Once everything's correct, the logo is permanently lit and LED is off, the input is switched on and amp is ready to use.

The interior is filled mostly with power supply circuits. Similar to its integrated brother, Crossfire PA is the 3rd and so far most refined generation so far. The rectifier in power amp section is a semiconductor one and it's placed on the same board with anode filter. The latter consists of eight 220 μ F / 400 V capacitors signed by Ayon Audio and fused by 330 k Ω resistors. There are also 4 H / 200 mA chokes in case of electricity oscillations. Another six 4700 μ F / 16 V capacitors smooth the heating voltage. Ayon's designer is not the enemy of semiconductors and uses them consequently wherever needed – i.e. outside the signal path. Voltage rectification, delays, fuses, but not for musical signal itself. Crossfire PA is not exception here.

During the whole test, which took 3 weeks, Crossfire PA worked perfectly. Not even a single hum nor crack was heard in my room. I can say it was a dead silence. Only two relays during power-up procedure and that was the only sound – apart from music. Even if I put my ear close to the speaker, I was not able to hear any noise. Most of transistors give some signs of life but this tube amp – none. The only thing I was able to catch was crackling of incoming call on my mobile phone – ah, the power tubes have some microphone effect. Beside this, Crossfire was dead-silent to the point when you're able to perceive the amp is on only by the glowing tubes and logo on the front.

Configuration

Crossfire PA was hooked up directly to Accuphase DP-700's variable output at first. After that I used the newest Ayon Auris preamplifier. Both setups were driving Avalon Transcendent speakers. Signal was flowing through Kondo KSL-LPz and Acrolink 7N-DA2090 interconnects as well as Acrolink 7NS8000 speaker cable. The electricity was filtered by Gigawatt PC-1 Evo and Acrolink PC-6100 together with Gigawatt LS-1MKII. Unit was put onto table rack from Sroka and StandArt STO MkII. It was insulated additionally by Symposium Acoustics Ultrapad elements. The room was 16.5 square meters, acoustically treated a little bit.

Sound review

I was fond of Single-Ended. Let's say it's sort of weakness of mine, once every couple years. Listening to something that far away from technical perfection, being able to sound magical on vocals and chamber music at the same time. SE triode has many limits but it speaks seductive voice which invites you to another world. You can be so conscious of rounded bass, warmed up midrange and lack of power, but you want to feel full taste of vocals and enjoy full microdynamic scale. The dissonance on mind-heart line seems to be relatively deep but there's no sign of discomfort about it. We suspect what can go wrong but enjoy music anyway. And there's only one flash of thought from time to time: couldn't this magic be equipped with versatility of transistors? But it can be possible yet. Really?

Crossfire PA tempted me with its power. As to regular Single-Ended based on lonely triode per channel, this amp is unusually efficient. I hope for at least proper driving of my Avalons. The Transcendents are not that demanding for the amps, nevertheless 88 dB efficiency makes you keep at least the minimum of sense. 8 watts from 300B couldn't make it, but 30? Come on, it should work. During this review it turned out all my concerns are worthless. As I was exchanging e-mails with Gerhard Hirt, he mentioned one of his very demanding German customers asked him for specialist opinion for hooking up Crossfire PA to his Avalon Eidolon speakers. As Gerhard used to be the distributor of the American company to Austria, he knew the speakers very well, and their appetite for high power, to say the least. Acting against his own business, he told the customer not to use Crossfire and recommended a way to use a more powerful amp. To Gerhard's surprise the customer was back after a few months, saying he wouldn't follow the advice, tried the amp on and it was the sound he had been looking for more than two years. He'd bought Crossfire that time and wasn't able to stop listening since then. He also claimed Eidelons worked in the proper environment at last. I can really imagine that. Or I don't even have to, because I managed to achieve some spectacular sound with Transcendent model. And the amp refused typical accusations for "SE triode" sound, by the way. The sound of Ayon amp is very clear and transparent and free of technical vapors at the same time, which is not surprise as it's a SET, but it's extremely precise and easy-going. Crossfire PA is going to show you every single change inside your system. It's so neutral I was able to perceive immediately what happened after switching to Auris preamp, or even after replacing one mains filter by another. Transparency of this power is worth big respect and makes the work of reviewer who's comparing different hi-fi elements so easy.

Ayon fed directly from DP-700 showed a bit thinner midrange and cooler tones. The soundstage was wider but I wouldn't be offended by some more accurate depth. After switching to Auris preamp the sound got some more body and warmth. It showed some more details, precisely melted into the background. Soundstage got closer to its centre and depth was shown way better. Another advantage was very full and "round" sound from the very beginning of volume level. I didn't have to turn it loud to get all the round shapes and fluent finishes. Crossfire didn't make it with DP-700 connected directly. Once I listened quietly, I was able to notice serrated edges – probably as a result of resolution limited by digital volume control of Accuphase. It's a bit disturbing in a long run and it's so much better to use the power amp partnered by its mate Auris. Besides, both are just a perfect match. Crossfire PA has really detailed and precise sound, but so refined at the same time. The timbre doesn't even try to get too bright and it won't sting your ears with no reason to do that.

Even muted trumpet – though very realistic – didn't do any discomfort. The grand piano formant gives just a tiny bit of pleasant sharpness but smoothness and culture are the main players here. Crossfire PA shows maximum details, but it doesn't push it to the border of non-homogeneity. The sound is not bright. We get a huge palette of information's which makes the musical picture complete and clear. At the same time we can relax and enjoy the harmony of sound. No range favored, nor neglected.

Ayon shows music full being of nuances and contrasts, without a bit of exaggeration. Overall message is attractive and multicolored. You won't get tired but even more interested after long hours.

In one of his messages Gerhard stated that Crossfire PA can get people into serious addiction. After three weeks of listening I wanted to disagree but it was too late. I would like to but this amp so much but I just can't, because I need very versatile transistor for my work. This is the only thing which makes Ayon go back to its distributor. Such a shame, especially as it doesn't neglect the lowest and highest end of acoustical range. The highest and lowest tones are not rounded nor overheated, but always clear and present with the rest of sound spectrum, precise all the time. Especially the bass is a huge surprise. Beautiful trebles of triode – that's not a big deal. But to get precise bass of it – it's sort of magic trick. And Ayon made it possible. Power triodes and transformers have to be really top quality, resulting in very massive and consistent low frequencies. Usually the base of SET – if there is any base at all – is very soft and round. The depth is not a problem but its contours and permanent lasting during longer accumulation – it's usually a problem. Crossfire generates very strong and energetic low frequencies with satisfying amount and depth. Of course you can get some better bass, let's say Mark Levinson mono blocks or power amp from Solution will show you no mercy, but that's not the idea. Crossfire is so much full range, it doesn't leave any deficiency here. You don't have to put some sort of handicap on it and constantly say "even as a SE triode".

It just sound linear and any justification won't be necessary here.

You don't have to read a review of mid range in this case as well. SE triodes are famous for it and this is what makes your heartbeat louder. Thanks to this people are put into a spell and forgive any drawbacks. Let's make it straight: you don't have to forgive Ayon anything. The mids are just fascinating, not overplayed at all and warmth is only icing on a cake. Even in this range of frequencies the amp so neutral and gets no coloration. It tries to remain as close to original as possible and show all the smallest details.

Microdynamics is another advantage of triode. Full dynamics might be another side of the coin but you really don't have to worry about Ayon as its powerful enough. Of course you'll need more sensitive speakers if you have larger room but in the average one (25-30 m²) the amp should do very well. I wasn't able to reach the end of scale in CD, not to mention pre-amp... Crossfire will give you some serious power capacity and you can hear it straight away. The sound is so live, full of energy, not restricted by transients and fortissimos. There are no colorations even if we listen very loud and soundstage remains clear and precise. Ayon guides the signal, shows all the contrasts and doesn't do shortcuts. Full of dynamics, verve and momentum – the only accusation may be that listening pleasure is so exceptional.

Conclusion

Ayon Crossfire PA shows all advantages of triode without its weaknesses. I'll remember how it sounded with Avalon Transcendent speakers for very long time. Beautiful sound - full synergy. Listening to this amp I was happy as a child. Now I have to stay under very adult impression.

Awarded!