[English Translation Test P-7500 / Fidelity 03/2024]

Perfection

There is nothing more to say about the Accuphase P-7500 than what is in the headline. This stereo power amplifier is a pure demonstration of engineering prowess: it is superbly designed, and each of its countless details mirrors over 50 years of experience.

But best of all: the plain, matter-of-fact craftsmanship of the Japanese engineers results in an incomparably linear musical experience – high-end in its purest form!

I always feel a slight cringe in my stomach when testing power amplifiers. These are urgently needed, but relatively unexciting components which, apart from one or two connections, rarely have any details worth writing home about. Inside, they usually feature examples of classic circuitry architecture that have been described a thousand times over. And as for their output performance, in the age of Class D, sheer wattage figures are no longer enough to impress anyone. Nine out of ten power amplifiers could be described in just a few lines. With a powerhouse from Accuphase, however, things are completely different. Anyone who has ever experienced the P-7500 in real life will become addicted. This power amplifier exudes a calmness and grandeur which is hard to put into words – connoisseurs of the Japanese manufacturer know what I mean. What's more, its flexible, functional and easy-to-understand features prove that purism is by no means an absolute must for perfect sound. But before I drift off into a reverie, let's start the story right from the beginning.

It's been about three months since Winfried Andres from Accuphase distributor P.I.A. gave us a visit. In addition to the P-7500, he brought along the C-2300 preamplifier and the DP-570 CD/SACD player. He explained that, after all, we needed to experience the power amplifier in its natural habitat, which is why he carried in the two unexpected guests. The massive stereo powerhouse weighs an impressive 50 kilograms. Nevertheless, setting it up was a pleasure: when you lift the lid off the box, you find the P-7500 in a kind of carrying frame, which two people can easily transport to its destination. The Japanese craftsmanship begins already before turning on the power amplifier. Immediately after its positioning, the necessary cables were connected to

their designated places: power, an XLR pipeline to the preamplifier, and the speaker cables to the Wilson Audio Sasha V. This reminded me of the quality of the gold-plated sockets and the nice grip of the Accuphase terminals. The developers place enormous value on an outstanding, yet functional feel. The velvety-rough giant terminals can be tightened so securely without tools that you should more likely worry about the lugs than a poor connection. Only moments later the first sounds were floating through the room, leaving everyone present spellbound in awe.

For the first functional test, we put the very first SACD we could find into the DP-570's drive, which then projected gentle piano tones into the room. However, it wasn't the sounds themselves that immediately fascinated me, but rather what was happening between the notes: tranquility and grandeur against a jet-black background. Several years ago, a sound engineer had praised the SACD (and the DSD sound format) to me, explaining that it was the only data carrier with which he could capture the 'breathing' of a concert hall. The dynamic range of the format was large enough to reproduce the abysmal, gentle rippling of the air. However, most chains simply cannot process such information. In the wonderfully modulated decay of the piano sounds, the dimensions of the recording room opened up to us – so vividly and palpably as if we were standing right in the middle of it. The chain conjured up the frequencies in our listening room in such a clear and orderly manner that the moment of the recording became physically tangible.

These first impressions are the result of more than 50 years of unremitting research and development. The experts from Yokohama have been improving and optimizing their circuits since 1972. Fundamentally the concept of the P-7500 is based on three cornerstones: a perfect signal current feedback is an undispensable matter of honor, preventing crossover distortions in the interaction of positive and negative half-waves. The brand name itself reflects the unconditional commitment to 'accurate phase'. In addition, the manufacturer has given attention to an impressive output power of 300, 600, and 900 watts (into 8/4/2 Ω). The enormous damping factor of 1000 ensures that the power amplifier will not overwhelm itself with its own power: with this combination, the 7500 should be able to drive even the most challenging loads, i. e. the most exotic speakers, without ever losing its exemplary nimble-footedness and linearity.

The third aspect is covered by a whole catalog of measures and is something like the 'public enemy number one': the (preferably complete) elimination of hiss and annoying background noise. According to the manufacturer, the secret lies primarily in the

perfectly tuned labor division within the amplifier. While most power amps scale the gain factor of their input and power stages in a similar way, Accuphase packs an almost ludicrous gain factor of 12.6 x into the signal input stages of their P-7500. The actual power stages only double (2 x) the result. The underlying logic is compelling: with their balanced design, the input stages are simply much quieter than the output stages. A large part of the huge S/N ratio of up to 135 decibels (manufacturer's specs) is obtained here. The MCS+ circuit architecture (Multiple Circuits Summing-up) also plays a part. This basically refers to the fully balanced layout of the signal processing which, as the developers say, eliminates up to 30 percent of the unwanted noisefloor, compared to normal unbalanced signal processing.

This wonderful power pack is fed by a complex power supply unit built around a massive toroidal transformer encased in solid aluminum and two impressive electrolytic capacitors, each with a filter capacity of 60,000 microfarads. Of course, other manufacturers can do this as well. But countless details give proof of the Japanese superiority: for example, large coils with vertical windings are used in the circuit breaker module which is mounted on the same circuit board as the speaker terminals. With the same number of windings, these expensive components offer the triple conductor cross-sectional area. All circuit boards in the housing are made of fiber-reinforced plastic and fluorocarbon resin, which is characterized by good resonance properties and, as a superb dielectric, ultra low losses.

During our research, we were confronted with a multitude of superlatives that we could hardly believe. Consequently, we sent the P-7500 to a measuring table to meticulously examine its inner values. The results were more than amazing: if there is one thing you can accuse Accuphase of, it's that the Japanese are extremely 'conservative', yes, even overly cautious when it comes to their measuring values. We were able to pin down the amplifier's power at 312, 620, and 903 watts (into 8/4/2 Ω), a few percent above the official manufacturer's specifications. Our measurements also exceeded the official specs of the remaining parameters – more on this at the end of the article. To cut a long story short: the excellence of this exceptional powerhouse can also be confirmed officially.

A not insignificant aspect of a power amplifier is its mechanical construction. Here, too, the P-7500 lives up to its role model character: essentially it consists of a solid metal

base plate with the aforementioned giant power supply unit in the middle. To prevent interaction with other components, the manufacturer uses well-dampened isolating feet the felt of which will definitely not cause any scratch marks in the rack. The actual power amplifiers are suspended on the sides. These are two large modules with ten transistor pairs each mounted directly on the powder-coated heat sinks. Anyone who has already lost garments while handling ill-tempered heat sinks will love the soft-edged and deburred Accuphase ribs. The practical aspect is also evident in details such as the front and rear 'handles' as well as a long bracket which extends centrally across both heat sinks. It dampens the metal ribs and can also be used as an extra handle in an emergency case, e. g. for moving the heavy power amplifier to the center of its base or rack level – seizing is explicitly permitted here. And speaking of grabbing: you should definitely do the same with the various controls on the power amplifier – their haptical quality is indescribable.

There is a total of six switches which is kind of surprising for a stereo power amplifier. In addition to the central power switch on the front of the housing, there is an input selector switch (XLR/RCA) and a three-stage knob for the two large level meters. These can be used with a normal or an extended hold time (3 sec.) or switched off completely. Next to the input is a four-step switch for the gain. This can be reduced by 3, 6 or 12 decibels for which there may be two good reasons: first, this is also designed to eliminate interference signals. Reducing the input gain naturally also minimizes background noise. Second, there are preamplifiers with wayward level controls. More often than not too much is happening on the first one or two centimeters. This makes a precise volume adjustment somewhat tricky, especially at softer sound levels. A gain reduction by 6 or 12 decibels gives such potentiometers a broader range. In our setup/listening room we were unable to detect any audible effect of the switch, so we left it in the 'Max' position during the listening sessions.

There is also a button on the rear panel for assigning the phases of the XLR connectors – this should actually be standard. Information on the assignment can be found in the preamp's manual and documentation. Right next to it there is the three-position selector switch for the P-7500's operating mode. In addition to stereo mode ('Normal'), the power amplifier can be bridged (‘Bridge’), which increases its power to 1200/1800 watts (into 8/4 Ω). A bi-amping mode is also possible ('Dual Mono'). In the latter two modes, only the signal from the left input (XLR and RCA) is processed and routed to

both power amplifier stages. To prevent accidents, the manual contains block and measurement diagrams as well as well-illustrated instructions for the two 'special cases'. That's about all there is to say in terms of features.

As already mentioned, it's not so easy to describe the sound of the power amplifier with the usual terms. Of course, this is partly because the P-7500's true talent lies in what happens 'between the notes': that incomparable stillness and clarity of the imaging and the depth of the soundstage literally takes the listener into the recording. On the other hand, there's no need to worry about muscle posing: the dynamics and headroom of such a mighty power source leave nothing to be desired. Of course, a large-caliber device of this class also has a distinct sense for subtleties and details.

Apart from the Wilson Audio, the P-7500 was, of course, teamed with a wide range of loudspeakers during these weeks and months, among others with the rather demanding Audio Note AN-K. But as the manufacturer's specifications and our measurements already suggest, the power amp is not irritated by the speaker. The P-7500 plays in an impeccably neutral and linear style into all loads. More interesting is the combination with other preamps or regulated sources. Only when these are brought into play, one can speak of attributes such as 'brighter' or 'more transparent'. Sure, this doesn't make much sense, since we are then talking about the preamps and not the 7500.

More important is this piece of information: after trying out various options – such as the direct operation on the regulated Lumin X1 streamer or the Aavik C-580 preamplifier – we came back to the C-2300. United the siblings exude a brilliance and suppleness unachievable with any other combination. A perfect match, we could say, that cannot be pinned down to any particular musical preference: the chain reproduces large orchestras with amazing finesse and wonderful timbres. AC/DC's guitar riffs (Back In Black) conjure up a true-to-life Marshall stack with attacks that push the listeners back into their seats. On Brendan Perry's 'This Boy' (Ark), I was captivated by the long, crystalline reverb tail on the rimshots in the song intro. Likewise remarkable was the performance of 'The Bogus Man' from the same album, an abysmal synthesizer texture serves as the foundation here. Already at medium levels, Brendan Perry's sonorous voice, percussions and synth pads tend to get in each other's way. With smaller amps, you can even hear those pads pumping with every bass drum kick

– compression effects caused by the amplifier running out of steam. Of course, this is not to be found in the P-7500. Wilson Audio's Sasha V is rated as a 4-ohm speaker, the Accuphase power amp therefore puts out a little over 600 watts. It can amplify all frequencies of the track in exactly the linear, crunchy and swirling manner as the producer had wanted them to sound at the mixing console back in the day.

Rarely have I encountered a component (and certainly not a power amplifier) that makes it so difficult not to fall head over heels in love with it. This surprises me all the more in the case of the P-7500 since its character is hardly tangible, and it does not beguile me with dynamic thunderstorms, either. What we have here is a piece of technology which has been refined down to the last detail and which simply does precisely what it's supposed to do: amplify signals without adding even a hint of signature of its own. Sounds prosaic, but in practice it's absolutely mind-blowing.

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