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Accuphase Pre-Amplifier C-2110 / Power Amplifier P-4100

Perfection in Tailor-made Suit

by Michael Vrzal

They could well rest on their laurels, of course. But then Accuphase wouldn't be Accuphase anymore. These Japanese are in fact driven by an irrepressible desire for innovation.

Nothing compares to the sensation of having components from Accuphase in one's home. For decades, one has admired them from far away, or gently touched their impeccable surfaces, or peeped behind a flap. Even more so: watching from one's listening chair some illuminated power indicators dancing about can also be a uniquely satisfying experience.

Talking about the pre-amplifier: model C-2110 has taken my heart by storm. Oh those rotary knobs! Everyone, from hi-fi teenager to the most discriminating audio expert wants to touch them, if only "just for a moment". And the power amplifier P-4100 transforms its rounded edges and the warm Nextel coating straight into a palm stone. This is quite unusual if not unrivalled in a power- and weight-class, where still too many components, even those of noble provenance, can only be handled by wearing cut-proof work gloves.

Well, it's my official "Accuphase debut" in this publication. However, the run-up story has got some sad elements. It embraces the champagne-coloured integrated amplifier I encountered in the home of a classmate, which was constantly upstaged by a small Steinway piano. And then I spotted another Accuphase integrated in a hi-fi shop of my acquaintance, which was condemned for compulsory service beneath the switch board for speaker comparison. Eventually, the disrespect of this amp's true talents and needs was redeemed by a rather sluggish playing along. Certainly no awakening of discovery. Yet my curiosity towards this particular brand with its distinctive visual appearance remained, the more since my audiophile friends and colleagues are still raving about these dream devices of their youth.

It's hard to believe that C-2110 and P-4100 are in fact the smallest of their kind in the Accuphase portfolio (irrespective of the somewhat special A-35 Class-A power amp). Nonetheless, the technically innovative pre-amplifier seems to be bursting by its versatile functions, whereby the power amplifier neither lacks the Accuphase-typical power meters nor should it seriously fear – with respect to its power output – any speaker system on this globe. I have therefore deleted the "quasi diminutive" designation as "entry level system", because we should rather talk about luxury, in the best sense of the word, that is. Well, the C-2110 is rather not a pre-amplifier in the classic meaning. In fact, the in-house designation, namely "Stereo Control Center", really hits the spot. The C-2110 can well be considered "administrator of sources", a competent, subservient genius or a veritable

completely worry-free deal. In its “full-function” stage, altogether 10 signal sources may be

connected and, indeed, each format has also been provided in form of RCA and balanced XLR inputs (the latter twofold, in case – next to a CD player – someone would like to connect also a separate external phono-amplifier with balanced outputs). In addition, you'll find two installation slots for Accuphase's option boards AD-20 (for MC/MM cartridges) and/or the 24-Bit/96-kHz digital board DAC-20, featuring digital inputs in either RCA or optical variety, and which will be happy to receive high-resolution signals even from your PC. Wow!

Beneath the LED function indicator window, a flap is hiding everything keepers of the true high-end doctrine are always warning you about, and which in ideal situations, i.e. an acoustically perfect listening room and a perfectly matched harmony of all components in the chain, you may not really need. Yet in the hell of daily reality you may likely be inclined to kiss the hands of those engineers in Japan who have provided them: tone controls with selectable turnover frequencies, phase inversion button, mono switch, three-step selector for signal gain, loudness compensation and quite a few things more. I personally consider it an unfortunate misinterpretation of audiophile purism that such beneficial features have been almost completely banned from high-end components in these days. Kudos to the engineers at Accuphase who are still mastering and exercising the art of combining highest sound quality with user-friendliness, something that has evidently become quite uncommon in the meantime.

It's therefore no small wonder that the power amplifier, too, isn't merely equipped with a power switch. Four pair of the finest speaker terminals may be selected by means of a rotary switch for either separate or common operation in order to serve comfortable bi-wiring/amping. The second rotary switch at the front panel allows the selection among different settings for the amp's input gain. Thus, it is possible to achieve a perfect adaptation to the efficiency of the employed speaker system, particularly in combination with the same function of the pre-amplifier. Lastly, a rotary switch at the rear panel provides the facility of selecting among three operating modes, namely stereo power, bi-amping of a speaker (dubbed dual-mono) or bridged mono amplification. As to the latter configuration, the resulting peak output power of 1,000 watts into 1 Ohm might even require a gun licence from you....

It's without doubt that the technical highlight of this combination can be found in the pre-amplifier. This is gracing itself with the currently most astonishing volume control at all. No fixed resistors, let alone a mundane potentiometer, but AAVA - “Accuphase Analog Vari-gain Amplifier”. Picture yourself, quite simplified though, a matrix of many individually switchable signal braces which can also be summed up with each other in any order. The signal from the input stage is first converted, in parallel configuration, into 16 weighted current stages. Beginning with half the signal strength, each following stage lets only pass half the signal strength of its neighbouring stage until the 16th stage is to supply only 1/65536 of the full volume level. The 16 signal outputs are controlled by the same number of current switches, whereby the combination of switch settings determines the overall volume. Now, those who are likely to enjoy the smooth feel of a seemingly most noble potentiometer are in fact directing a CPU which in turn is to control the minute current parts until the desired volume has been achieved. And because altogether 65,536 volume steps can be realised between “mute” and “full throttle” whilst the CPU is computing at lightning speed, the operation is in no way different from the feeling one gets when turning

a knob linked to a well-made conventional potentiometer. Better still: AAVA eliminates the annoying changes of impedance inherent in any potentiometer by principle. And much better still: with the AAVA circuit boards – presumably 90% of the space inside the C-2110 is occupied by the power supply and AAVA boards – balance control and gain pre-set can as well be realised in an elegant and sonically neutral manner.

By the way, Accuphase favours current to voltage not only in the AAVA circuitry. It's because current lines are by far less susceptible to disturbances than voltage conduction. This and other merits are employed by the Japanese in many ways and you'll find these principles also in the power amplifier P-4100 where an emphasis is put on current feedback. In addition, another abbreviation is encountered in both pre- and power amplifier where it stands for low noise: MCS, in full "Multiple Circuit Summing", meaning the parallel configuration of identical circuits. Input and driver stage are designed in this way.

As an ultimate distinctive feature, Accuphase refers to the implementation of "instrumentation amplifiers" in the power stage of the P-4100. This elaborate circuitry variant of balanced differential amplifiers with both high input impedance and common mode rejection ratio, as well as wide-frequency band and low noise is indeed a good choice in the overall balanced circuitry of the P-4100. Actually, instrumentation amplifiers by themselves are all but a novelty and are available in excellent quality in form of ICs. Nonetheless, Accuphase has tailored them with individual components – well, that's how they are, those perfectionists in Yokohama.

The handling of amplifiers from Accuphase is among the most pleasant experiences one is to encounter in the daily practise of reviewing. The jacks and switches – simply marvellous. Checking the electrical phase by ear is a breeze, and in particular the pre-amplifier is acutely responding towards the wrong phase. What follows is a generous break-in time – an absolute must, as it turned out after round about one week of sucking at the wall socket. Power consumption, while running idle, can be considered economically justifiable as the power amp would suggest, which runs merely hand-hot.

Speaking of current and phase, I've found just a minute beauty patch on the otherwise spotless champagne-coloured waistcoat of the Accuphase amps: the IEC sockets at the rear side have no phase mark. Even though Accuphase is said to spare no efforts to painstakingly check each device and hence should know about each (different!) phasing. This has been conveyed to me by P.I.A. [the Accuphase distributor in Germany] upon request, Well then...!

Because it' is often missed out – whilst I personally consider it an essential feature for buying – the headphone output is to be evaluated first. With the Grado SR 80 it offers a splendid performance, indeed. It takes care of drive in the basses, stunning dynamics and a finely divided spatiality throughout. The sonic character is on the clear, non-euphonic side. Had I had an extension cord at hand, I could have been intimately immersed in sound for many pleasant evenings in my listening room, which unfortunately is separated from the bedroom by merely a 3.12-inch thick "wall".

More than just an honourable mentioning deserve the two boards optionally offered by Accuphase for the C-2110, namely phono board AD-20 and D/A-converter DAC-20, which I immediately mounted after having finally positioned the pre-amp. A really easy task of which the only caveat was to switch the pre-amp off beforehand. I would like to state right now that both boards are so good to please even the most discriminating listeners.

To lose against the Meridian 508/24 is really no shame. This digital warrior from Great Britain can still stand up to some of the most recent and noble makes of CD players, owing to its emphatically fluent, “analogue” rendition. Yet only by direct comparison the Accuphase-board seems to be a tad less lucent and is keeping its composure while the Meridian was acting with more verve. Are there perhaps differences of character between England and Japan? Yes, why not? Hopefully, the globalisation of tastes has not yet progressed so far...

No, the DAC-20 can make music at the highest level, whereby the clear delineation from my CD player happened in full awareness of the fact that a prospective buyer of the C-2110 has either already got an outstanding digital player, or – encouraged by the potential of the C-2110 – is to acquire one (why not from the same maker?) in the near future. In this context the DAC-20 could well be the ideal link for other suppliers of digital signals, like for instance a computer based playback system or a digital broadcast tuner, which could eventually be supported by the DAC-20 to skyrocketing sound.

The AD-20 phono board is really good. I had to go through some sweeping comparisons with my Lehmann Black Cube SE whereupon in the end I was to encounter two philosophies rather than two quality levels. The Accuphase equalizer draws a large picture. This was particularly standing out during a side-by-side comparison with the small black Lehmann-cube, which grouped the musicians closer together and half a step behind the speaker's plane. From there the music was projected like clockwork to the guts, legs or hearts of the listeners, according to requirements. The Japanese emerged as being a true high-ender right into the tips of your hair as well as a purveyor of information. In that I couldn't believe how scrupulous this board is following the oscillations in the grooves, I listened all the way through those records which I usually sample-play at selected tracks only. Whereupon I had several more LPs playing through during this listening session. Such was my astonishment!

The studio production *Duets* by bass player Rob Wasserman was sleeping in my record rack much too long. Alone the mind-blowing “Angel Eyes” with Cheryl Bentyne would be an eligible nominee on my list “Eleven Favourites” for the notorious desert island. Likewise, the distorted guitar in the duo with Lou Reed had a sound as if his valve amplifier would be standing on the floor three yards away from me. The virtual space in “Brothers” from which Bobby McFerrin, by employing his unique vocal acrobatics and body percussions, is passing balls to the bass player. The marvellous twang and irresistibly bothersome voice of Rickie Lee Jones in “The Moon Is Made Of Gold”. Altogether a stunning stimulant by high-end standards. Simply put: this AD-20 board is more than just a well-intentioned option. It's in fact a potential giant killer.

The combination of C-2110 and P-4100 turns out to be a surprisingly unobtrusive work of art. Owing to their authoritative visual and haptic appearance, I had rather expected a powerful demonstration of predominance. Instead, these components are doing exactly what the connotation “accurate” in the company's name implies: the objective is to achieve maximum listening pleasure through maximum accuracy. It is not the point to “do” something but simply to avoid shortcomings and to eliminate disturbances. How else could the remark by Winfried Andres [the sales manager of P.I.A.] be understood – namely that a particular development has resulted in a clearer rendition of “F” consonants – but a commitment to perfection?

For that matter, which is actually the best, these amplifiers are sounding in no way technocratic. An abundance of details can be heard, yet they would not jump at you. The power amp also lacks the “iron claw” onto the voice coil of the bass drivers. Frankly speaking, I've missed that in the beginning. Just imagine the situation when the honourable and noble amps from Accuphase arrived to grace me and my listening room: I anticipated a big high-end show ahead....but no, there was simply music playing with a consistent sonic picture and basses so deep that visiting friends suspected a sub-woofer behind the curtains. There was a crystal-clear honesty in the pitch of various voices whereby the higher frequencies, too, were homogeneously integrated, even in critical recordings. And there was that spatial rendition without limits – surprisingly combined with a virtual approach to the musicians and a more present tone. This was heard in particular when I directly compared the Accuphases to my Naims, which one could accuse of anything but a conservative way of playing. Yet the British are performing magic by other means.....Overall: I've played all my reference recordings of the past years, be it vinyl or polycarbonate – at no time during this review have C-2110 and P-4100 compromised themselves.

Impeccable! Nothing else can be said after this Accuphase combination came to perform in my listening room. The strive for perfection has, without reservation, been achieved by those engineers at Accuphase from A to Z. This is how reference components are made!