

Accuphase Integrated Amplifier E-260

The Prince's Palace

By Johannes Maier

The least expensive amplifier from Accuphase doesn't come with an abundance of power. In spite of this, it may well show other amps where to go, owing to some ingenious technologies inside.

Nearly all fair-minded reviewers or testers of hi-fi equipment are inclined to approach the component to be tested in a friendly, decisive and detached-objective attitude – no matter which provenance. Not quite so with Accuphase. Some of these gentlemen would already take a deep bow in front of the still closed Accuphase shipping box upon its arrival. And, yes indeed, this always double-walled, over 6 kg heavy and extraordinarily “bullet-proof” cardboard certainly deserves some attention. And while taking a look at a new, unpacked Accuphase component even the most demanding reviewer will pause to have a minute's silence. In case of the new entry-level E-260 its ancestor E-202 from the year 1975 may initially come to mind, followed by its successors from E-203 to E-213 and finally the E-250 launched in 2009. Not even one of these integrated amplifiers has been disappointing. In fact, all these amps were subject to step-by-step improvements over the years with respect to increased power, signal-to-noise ratio and reduced distortion

And Accuphase continued to bring the circuits to perfection: The new E-260 is driving the speakers with the tried and tested “working horses” from Sanken (2SA1186, 2SA2637, 10 Ampere, two of each combined in parallel push-pull configuration). The complex balanced duplex amplifier at the input section of the power stage has also been refined by the Japanese. As usual, one is driving the proximate circuit while the other – via semi-conductor base points – affects the current flow of the stage after next, whereby the output sends the current feedback signal back to the transfer point. “Very clever!” the knowledgeable hi-fi buff may remark here. It's because with this ingenious current-voltage hybrid circuitry Accuphase has attained some headroom for tuning: by adjusting the current feedback loop, which is affecting the input circuit, the engineers can thus determine the sonic tendency of the amplifier.

Nevertheless, this all appears to be a trivial matter when compared to the efforts Accuphase has put in the preamplifier stage of the E-260. Silver, gold and even the best of intention are relatively useless for this crucial module if the music signal has to squeeze through a conventional potentiometer. To stay in the picture: after the brave leap off the slider the poor signal has to run through a truly adverse carbon film obstacle track. Then with the common position of the volume knob being “halfway up” a kind of spring-loaded “lifesaver” collects the exhausted signals just after the substantial loss of fine information.

Fortunately, Accuphase has made an end to this evil game in its integrated

amps and preamplifiers launched in recent years and also in the new E-260. Left and right input signals are initially sent to five buffer amplifiers in parallel configuration. Five of them because they are on one side to achieve a significantly higher signal-to-noise ratio (the noise level is increasing randomly, the musical information however as scheduled) and on the other side to drive the novel control circuitry named “Accuphase Analog Vari-gain Amplifier” (AAVA) with ample impact. On the respective circuit board a large number of professional ICs are already waiting for the invigorated input signals in order to divide them by means of 72 precision resistors into different portions – large, medium and also very small ones. Depending on the position of the volume knob the internal computer and ICs are adding from these portions a specific current flow in nearly infinite gradations. The current flow is not only controlling the following stage but is to put more or less life into it by variations of gain. Hence, this sophisticated amplification stage is not constantly under full thrust but adapts itself automatically, i.e. it sometimes behaves like a small, respectively quiet and low-distortion dwarf and at other times like a giant. In other words, it adapts a constantly wide dynamic window to the actual situation of the music signal. This principle is to yield an essential advantage when compared to conventional potentiometers in which – owing to its inherent damping properties – the finest musical signals are commonly masked by the noise.

Volume control without loss of fine details

From the theory we cannot but emphatically praise AAVA. And our test lab has also been marvelling at the excellent specifications of this unique circuitry. Similar results may only be achieved with a much more expensive solution, namely by employing so-called vari-transformers as have been implemented by the Greek manufacturer Ypsilon in its reference preamplifier PST 100 (see AUDIO 12/2012). It’s however without question that Accuphase has set a more practical benchmark here. With the reassuring feeling that the Japanese have well done their homework, we have a look also at the other features of this integrated. Like for instance the large power meters on the front panel and the display in the centre beneath the Accuphase logo, which is to indicate the volume level as numeric value, whereby the E-260 is the first one in Accuphase’s entry-level range of integrated amplifiers that has been equipped with such a display.

Principally, the indication of power in “dB” may only have an absolute meaning if measured by a dedicated laboratory resistor whilst during the daily work of the amp at up-and-down speaker impedances the meaning becomes relative. It can well be assumed that the owner of an Accuphase amp doesn’t want to have this situation remedied by a giant processor inside but nonetheless would like to see some friendly signs of life by means of the logarithmic bouncing of the left and right meter needles.

Line 1, 2, 3, Tuner, CD and Tape in and out – there is an abundance of solid RCA jacks as well as a set of XLR connectors (input L/R). They should however be used only “in case of emergency” because Accuphase has reserved the fully, i.e. 100% balanced “instrumentation” input amplifiers for the more expensive brothers of the E-260 and hence provided the latter with merely a standard IC for this purpose. Like the other members of the family the youngest also comes with a noble slot for Accuphase’s dedicated option boards. It can be filled with valuables of the house like for example the phono module AD-20, which will certainly enlighten the heart of any vinyl aficionado. On the front panel the input can be switched between MM and MC pickup cartridges for a gain of 36 dB respectively 62 dB.

Others may opt for the DAC-30 board which via USB-B as well as optical and coaxial

inputs can receive digital signals in order to process them at a sampling rate between 32 kHz and 96 kHz and up to a resolution of 24 bit, whereby the coaxial input can provide an even faster rate of 192 kHz.

No compromises: by simply pressing a button, the E-260 can internally be separated to a stand-alone AAVA-preamplifier as well as to a fancy power amp owing to the pre-out and external pre-in RCA jacks at the rear panel. Under certain conditions this will increase its practical value by quite a margin. And those who are missing some shiny metal on the speaker terminals should consider that neither eyes nor fingertips ought to be tickled by the electric output potential but rather have it sent to the speakers without any losses. Therefore Accuphase has donated a set of sufficiently large and handy rotary knobs which are easily fastened for secure contact. It also goes without saying that an appropriate supply of power was not forgotten. The two large electrolytic filtering capacitors (2 x 22,000 µF; made by the Japanese specialist Elna) and the mighty, encapsulated and absolutely silent power transformer give enough evidence of this and furthermore are emanating a kind of quietness and confidence.

That's all well and good but, admittedly, the E-260 was initially causing a debate among us testers regarding its ease of operation and the many features. So what? There will certainly be some opportunities when not only grandpa wants to savour his music at rather low listening levels. Then everybody will be happy that the E-260 is able to augment trebles and basses, thus following the laws of physiologic hearing. And this can happen immediately by simply pressing the "Comp" button on the front. The canny high-end aficionado will appreciate the facility to inverse the deflexion of the speaker membranes by 180 degrees by pressing the "phase selector" button. He'll likewise find the "mono" function quite useful for the occasional speaker test. And he is to enjoy a sound so typical for Accuphase: no obstacles, snags or crowbars – instead the E-260 is rather going to welcome the listener with a gentle hug. As a consequence the sound is in the first place perceived as being exceedingly warm, velvety and very cultivated.

The E-260 sounds round, warm yet with fine resolution

"Perhaps a tad too smooth", some of my colleagues remarked but they were to correct themselves pretty soon. So, when the Accuphase in combination with Sonics' "Allegra" put singer Ulita Kraus on stage nothing was missing – neither her body nor the movements of her lips. While inferior amps tend to be nervous here, the E-260 had Miss Kraus performing with ease yet still with resolute phrasing where appropriate. It's simply marvellous how this amp can audibly picture the metallic sheen of hi-hats and the virtual roundness of cymbals swinging about when beaten with drumsticks. The electronic piano comes over with delicate sweetness. The bass is keeping the pace in an unobtrusive manner but could as well be gruffly, bulgy, colourful, pushing or retarding whenever demanded by interpretation. Thus it is providing a reliable and splendid foundation of the rendered music. After having auditioned quite a few more disks it can well be stated that the E-260 was certainly not made for the brief fervent intoxication and likewise not for a cheering flying visit but rather for long and comfortable musical journeys.

Accuphase E-260: designed for delightful listening

OK, the new RG-10 (see AUDIO 01/2013) from Symphonic Line, which however is twice as expensive as the E-260, was perhaps able to deliver more punch, volume

and persuasive power and with these capabilities may also not be inclined to hide behind the bigger and more powerful integrated amps from Accuphase. On the other side however, the Denon PMA 2020 AE for 2,300.- Euro, which in a previous test gave a brilliant performance, tended to sound coarse in the lower regions and nervous in the trebles, in brief: rather disappointing when compared with the E-260. Ultimately, its predecessor E-250 (tested in our sister publication *Stereoplay*, issue 04/09) could also not quite achieve the slightly more dynamic and more spatial rendition of the E-260. So, the distinguished music lover, who in this price range is searching not only for the optimal but also for a timeless, no airs and graces integrated amplifier, will be served by Accuphase better than ever before.

Summary

The consistency with which Accuphase engineers have worked on innovations like AAVA and even so have done without any trendy attitude around their amplifiers deserves our admiration. This philosophy is rightly to be paid off by the loyalty of customers.