Full review in **AUDIO** magazine (Germany), Issue May 2008

Accuphase Monophonic Power Amplifier M-6000

On The Safe Side

by Malte Ruhnke

Nothing was left to chance: the mono blocks M-6000 are going to set a new benchmark in the portfolio of Accuphase. And they've got the making to bewitch even the most discriminating listeners.

Giants, a reason for celebration, the best power amps of all times - with superlatives like these AUDIO was welcoming Accuphase's monophonic amplifiers M-8000 in the year 2002. With all due respect, where and how can this renowned manufacturer top these amps by launching the M-6000 now in 2008? Actually, I always thought that progresses in amplifier technology could have been only marginal in the past six years while the top dogs up to now are surpassed by the newcomers neither by their sheer size nor by power specs.

Well, the virtues of these Japanese power plants simply cannot be debated even by down-to-earth contemporaries: their stability under any condition guarantees that even with critical, demanding speaker systems the sonic results are not spoiled by interactions between amp and speakers. The overwhelming output power will bring also low-efficiency transducers out of their shell. Month by month the newest hi-fi appliances are introducing themselves in the AUDIO listening room and hence for comparison purposes a power amplifier, which is stable under any conditions, is worth its weight in gold.

DA CAPO

Talking about value - this seems to be the biggest difference between a pair of M-8000 and M-6000, whereby the latter, with nearly the same promising power, comes with a price tag which is about 35% less expensive than the one of its bigger brothers. No question, this is still a lot of money for two monophonic power amps, yet, like with any other audio component from Accuphase, when put into perspective as to the stable value over the time and outstanding workmanship, one might think a bit different here.

Very few changes can be noticed when the M-6000 is viewed from the outside. Except for some prominent features on the front panel, which in the M-8000 are decently hidden, namely the switchable input sensitivity, absolute phase and a selector switch for balanced or unbalanced inputs.

PRELUDE WITH TECHNOLOGY

Inside, however, we are to encounter some big changes indeed. Instead of bipolar transistors there are field-effect semi-conductors, a.k.a. MOSFETs, taking care of the final amplification. While conventional solid-state devices of the bipolar variety are trying to amplify low base currents, the work of MOSFETs can be compared with a tunnel for electrons of which width and thus flow rate is regulated by an electric field.

Rather, the function principles are reminding us of those going on in a thermionic valve, and this is also why many high-enders believe the sound of MOSFETs coming close to the sound of valves.

Instead of employing a pure Class-A circuitry, in which the power transistors are permanently wasting half of the maximum output power in form of heat, Accuphase has gone for a push-pull circuitry in A/B mode of operation in the two big mono blocks. An array of 16 MOSFETs amplifies the signals below the cross-over line while the other batch of 16 devices is doing the same above the line.

Such an elaborate topology, the more since it features altogether 32 transistors, is nevertheless subject to cross-over distortions. In order to keep them as low as possible, the engineers at Accuphase have split the MOSFETs into two parallel groups with 16 transistors each and connected them with two driver stages and feed-back loops. This layout was dubbed "Double MCS" (Multiple Circuit Summing-up) by Accuphase and it is said to be extremely precise and smooth when comparing the input with the output signal, whilst taking care of the best possible signal-to-noise ratio. This all takes place in a balanced signal path throughout in order to process the positive and negative half-waves independent from earth.

In our lab the two mono amps delivered nearly perfect measured values - yet they can still do more. At a load of one Ohm or even lower the voltage is supposed to stay completely stable. There is also a facility to have two mono blocks bridged in order to mobilize altogether a hefty 2,400 Watt per channel.

GETTING RID OF THE TROUBLEMAKERS

A system at this high level would certainly not tolerate any bad conditions as the Accuphase mono amps were clearly demonstrating after we connected them to our KEF Reference 207/2 speakers. On the surface, this combination was able to deliver powerful and quick-off-the-mark sounds, yet no one of the listening panel was really happy with the inharmonious basses and the altogether rather harsh sonic picture. Owing to our joyful anticipation of listening to music the AUDIO crew has simply forgotten to remove some super-speakers which were still lingering about in our listening room. Actually, those speakers were behaving like uncontrolled bass traps whilst absorbing decisive energy for the sonic picture.

This speaks for the quality of the chain, yet on the other hand makes also quite clear that in spite of all enthusiasm for this fine amplifier technology, the big sonic differences are actually to be found in the speakers and room acoustics themselves.

GRAND FINAL

Of course, the bad conditions were immediately optimised whereupon two highly experienced amplifier specialists, namely Bernhard Rietschel and Lothar Brandt, went to evaluate the subtle differences between the Accuphase amps and the current reference mono blocks "Max" from Audionet (see review in AUDIO 03/2008). In particular the sonic beauty of the Audionet amps initially deemed unbeatable to the four expert ears. A fine resolution, tenderness and a very natural sound, that's how they characterized the rendition of Dvorák's 8th Symphony (AUDIO pure music #1, Bose) through the Audionets and KEF. With respect to the M-6000, they attested a broader and in the higher frequencies very realistic reproduction, although not quite as extravagant.

A matter of taste? Yes, perhaps, but I, being the specialist in speaker testing, would always prefer the mono amps from Accuphase because of their slightly fuller and warmer sound. Eventually, even my colleagues would admit that the M-6000 are getting a tiny bit closer to the tonal truth.

This was definitely approved when we played "*Snow (Hey Oh)*" from Red Hot Chilli Peppers ("Stadium Arcadium", Warner) and additional control and stability was asked for. The two M-6000 left absolutely no doubt that they would depart from their rich, dynamically controlled but still indefinitely transparent style of playing by not even a micrometer. Indeed, with such music material they even sounded more honest and more precise than the pair of Octave Jubilee valve amplifiers (see page 110) at almost double the price, yet to which they came stunningly close in terms of overall sonic rendition.

Even more so when the vintage Isophon Vertigo speakers (tested in AUDIO 02/1994) - considered a true amplifier-killer, owing to their minimum impedance of 1 Ohm - took over and were electrically pulling the speaker binding posts of the M-6000. When we played Stravinsky's "*Sacre du Printemps*" (Sir Simon Rattle, EMI) the Accuphase monos were able to disclose that this "old hero" is tonally no longer up to date. Nevertheless, the band-pass drivers of the Virgo, which are known as being pretty difficult to drive and control, seemed to be tamed under the authoritarian leadership as they were emitting the many thundering tympani eruptions in the recording in a very clear and dry manner.
In combination with any such demanding speaker system, the gigantic power reserves of the M-6000 really make sense. When switched to "peak hold", the big VU-meters on the front panel are capable of documenting the "loudest" deflection of the indicator. Well, during the AUDIO test this was usually beyond 50%.