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## **Super Audio CD Player Accuphase DP-700**

# **Masterly**

by Wilfried Kress

### **A dream player for accomplished epicures, built for eternity and at the limits of the technically feasible: the Accuphase DP-700.**

When during last year's High-End in Munich Yasu Ishizuka was happily receiving our Editor's Choice Award for the Accuphase DP-78, the chief of the Accuphase European Marketing had himself been carried away by an offer with consequences to follow: "If you like the DP-78, then you must in any case audition the new DP-700". Now, would you reject such an offer? Admittedly, I couldn't say no of course and this is why some time later I got a call from P.I.A.'s product manager Winfried Andres. He said a brand-new DP-700 has just arrived from Japan and that he could put it at our disposal for about two weeks, whereupon the player is to hit the road again. A tight schedule indeed, but we all know necessity is the mother of invention and therefore we achieved the lab test as well as the photography job within only two days. Still enough time left for warm-up, listening and comparison.

Unpacking a device in the category of the DP-700 can already be a great experience. After having put aside remote control and accessories, I removed the padding parts and heaved the still plastic-covered 27 kg player monument out of the shipping box and put it carefully on the table. I took the cover off.....and there it was: a CD/SACD player, which immediately is to convey the feeling of total quality throughout without having emitted a single tone yet. And when for the first time the CD tray is moving out with a gentle purr, so that your "mechanical heart" is jumping of joy, then you are definitely lost. Even if you don't quite fancy champagne-coloured front panels and high-gloss rosewood cases. My first impression, which is oh so often the right and most important one: purchasers of the DP-700 will really get something exceptional for the money. Very impressive!

Impressive also from a technical point of view, because this player inherited the ingredients of the big transport/DAC combination DP-800/DC-801, which Accuphase presented last year. The DP-700 has also got the massive Accuphase-proprietary CD/SACD transport with dual laser, which in Winfried Andres' opinion takes a big share in the sonic improvement of the top combination: "This transport has put us a far step ahead." Well, I don't hesitate to believe that, because it was the same with the DP-500 (issue 3/2007) which also took advantage of the proprietary CD drive.

Even more so, the digital signal processing has put on some considerable weight when compared to the DP-78, although the same converter chips by Analog Devices (AD1955, 24 Bit/192 kHz and DSD) haven been employed in both CD/SACD players. OK, in the DP-78 there were just six of them whereas for the DP-700 two more had been added in order to get altogether eight converters per channel in parallel configuration. Accuphase dubbed this principle "MDS++", which, after the

summing up of the signals, is to achieve an overall cancellation of errors occurring in each single converter chip.

We all know however that 1-Bit-DSD signal processing cannot do without noise shaping in order to yield the highest possible dynamic range. Noise shaping is to push the quantisation noise out of the audible range, whereby the noise portions are not eliminated but only moved out of the way, so to speak. The price to pay for this measure is that the noise in the highest frequency range is even becoming stronger - and has nevertheless to be filtered still. The good thing is that this filter is - as opposed to CD - active far away from the audible range. On the other hand, it is quite difficult to design such a filter which can capture and suppress the "high-frequency mud" up to the highest frequency ranges.

For SACD playback with the DP-700, Accuphase is even using upsampling for the already doubled DSD sampling rate of 5.6448 MHz, yet the delineated problem isn't becoming smaller with that. Nevertheless, the engineers at Accuphase found a very clever answer by employing so-called delay devices which, in a time-delay manner, are to trigger the eight converters progressively by one clock cycle. The following summing up of the eight converter output signals has been designed to achieve an 8-pole high-cut filter with perfectly linear phase characteristics in order to suppress the high-frequency noise portions, too. All this is followed by an analogue filter with Butterworth-characteristics, which is discretely present for both the inverted and non-inverted path at the balanced outputs. The result of this effort is an absolutely first-rate signal-to-noise ratio, whereby the DP-700 has set a new benchmark with respect to lowest distortion.

Our measuring lab went enthusiastic: "The best component we've ever had on the test bench yet!" As opposed to the DP-78, the DP-700 excelled by 7dB as far as signal-to-noise ratio was concerned and is thus at the same high level as the CD-only players from Accuphase. Likewise, distortion values are head and shoulders above the rest - that's digital technology at it's best.

The comparison with the CD-yardstick Mark Levinson ML 390S was a pure joy because both feature digital inputs and outputs, which enabled us to directly compare the transport and converter section of each player. Furthermore, the DP-700 has got a digital volume control, which nevertheless can be argued for the playback of CDs. In my humble opinion, a digital volume control, which tends to weaken the resolution, should have no place in a 16-Bit system. It's because in every day's life I suppose that even the DP-700 will in the first place be fed with CDs.

By the way, the DP-700 comes supplied with a good interconnect in the accessory kit and therefore I would first go for a better mains power cord. Regrettably, this lead is of the RCA-variety, yet the DP-700 definitely deserves to be connected in balanced/XLR mode (it could be considered a great service if the customer had the choice here).

Let's begin with the sonic description of the DP-700 rendering SACD, because this is - purely and simply - exemplary. When I compared various hybrid-disks the gain face to face with the CD track was unmistakable with respect to authenticity and richness of timbre in the music. In particular "critical" material excelled here, like for example works for solo oboe (Caro Mitis 32003, recorded with Polyhymnia- and Meitner-equipment) which when played as CD sounded a bit compressed and more

nasal via the 390S, whilst the SACD track of this disk played through the Accuphase had more musical flow and brilliance.

Interestingly, the CD rendition of the same piece sounded smoother with the DP-700, whereby the Levinson put an emphasis on prosaic precision (a character that could collect some brownie points with other music). Later, we were to encounter this "fingerprint" of the DP-700 over and over again. It is in fact an extraordinarily diverse player, which in all its fidelity is constantly striving for harmony. The more complex and "difficult" the music, the better it could put itself into the limelight. Just an example: already from CD, a good harpsichord recording (Denon One Point) sounded simply marvellous, tremendously colourful, yet without getting annoyed by all that brilliance.

Direct comparisons revealed that an astonishingly big part of this performance can in any case be attributed to the Accuphase transport (it goes without saying that this was done under absolutely identical conditions including same power chords and supports). I was actually prepared for something special going on, but then I was even more surprised that from a CD - recorded in a dry studio environment - the voice of a speaker, who was merely reading off a text, could take on such a different character. The DP-700 gave this voice a tonally nicer touch whereas the transport of the 390S (via Accuphase converter) rendered the fine modulations of the speech with somewhat better articulation.

Owing to our comparisons at the highest level, one is easily and quickly torn between these poles. There was nothing like the simple "better or worse". To further emphasise this, let's take two classic hits of Elvis (master-tape copies from CD): the rather concise ML 390S was able to convey "Fever" with more "heat" and a driving groove. On the other hand, when we played "Suspicion", the elegant Accuphase had The King's voice sounding with a lovely erotic mellowness and alluring charm, so that you immediately would ask yourself: why cannot all digitalised music sound so stunningly beautiful? As CD player the DP-700 is like no other able to retain just the right measure of the product "well-balanced nature x beauty", and for this reason this Accuphase seems like heaven-made for every lover of classical music. Who, I'm quite sure, would also cherish its unparalleled brilliance when playing back SACDs (just listen to Heifetz' Living Stereo recordings).

### **Summing Up**

The Accuphase DP-700 is a fascinating dream player, shining with exquisite craftsmanship and technical specifications, which can without any doubt be considered the finest available in the digital world of today. Furthermore, it unfolds a sonic elegance which by a great deal can clearly be attributed to its outstanding CD/SACD transport. Yes, such dreams do have a price – how good for all those music lovers who can make their dreams come true.

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