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Accuphase CD Player DP-500

by Dirk Sommer

Accuphase has ventured a step back: the new digital player is to render CD only. However this was all but a half-hearted decision and rather carried out in an uncompromising manner, as the device itself is clearly demonstrating. And this is why already at this stage I'm paying my highest tribute to the Japanese.

In the past year I was more busy with "digital things" than may be assumed by merely looking at the various topics I've been contributing to *image hifi*. But haven't I often confessed that my hobby is to make musical recordings the classic way, namely with analogue tape recorders? Well, those who have not read my respective articles may perhaps not have missed the ironic remarks on this issue by my colleague Petra Kirsch in one or the other company's portrait she wrote.

But why all these "digital things"? On the one hand, it is advisable to always have a backup recording made in view of the vintage Studer and Nagra machines employed. For this purpose an easy-to-operate HD recorder can be integrated in the device rack. On the other hand, the more or less successful recordings should also be made available for the artists, after all. However a carefully edited copy of the master tape is regrettably not feasible and hence a self-produced CD will be a more practical choice. Nevertheless, the drawback here is that the method of digital post-production has eventually a great influence on the sonic properties of the CD when compared to the analogue master tape. In the beginning I experimented - quite reluctantly though - with various sampling frequencies and bit lengths for the conversion from analogue to digital. The result however will always be a CD according to the Red Book Standard, i.e. with 44.1 kHz and 16 Bit, and therefore - in my admittedly humble understanding - it should not make any difference if the music signal is "chopped down" and temporarily stored in a 44-thousand-fold or 96-thousand-fold format before it's send to the CD burner, either directly or after some extended computing. Somehow it would seam reasonable that the quality may be bettered if the conversion is made with the frequency being exactly doubled, i.e. 88.2 kHz. Far away from that! The higher the sampling rate and number of bits before, the better the sound on the CD. That this is true and certainly no autosuggestion I may have been subject to, I could already demonstrate during some of the platforms organised by the Analogue Audio Association, and I shall demonstrate it once again in Eschborn during a tape recorder workshop (!) from March 17 to 18. Anyone interested is most welcome to join us.

Another example to show the potential of the "old" CD format, provided one is prepared to spare no efforts, is the "24bit master edition" launched by the renowned jazz-label Enja in Munich, about which you could already read in the "Blue Notes" elsewhere in this publication. Enja is publishing landmark jazz productions, partly as first and partly as re-issues, which had once been recorded in the seventies or eighties and put on the market in LP format. In the early days of CD some of them

however were available as compact disk also, yet from a today's point of view with rather mediocre sound quality. It was Enja's Thorsten Scheffner (who also edited the current *image hifi* LP "Live at the Domicile") to take care of the analogue master tapes. He recorded and edited them with the help of a 24-bit converter by Lavry whereupon they were transferred back to the 16 Bit/44.1 kHz Red Book Standard. Now, the new CDs are sonically far superior to those from the old days and, in the lack of the latter, they wouldn't even disappoint you when directly compared to the original LPs.

Nevertheless, it can be assumed that even those who may have never heard or owned an SACD player would consider a likewise elaborately produced SACD to be sonically superior to conventional CDs. However from a global point of view there are certainly not enough "sound-oriented" buyers of SACD to make it a worthwhile business for the big companies of the music industry. Therefore this format has become "old hat" for them already some time ago. The rather comprehensive SACD-offer by some small audiophile labels will certainly not be a serious reason for a high-end manufacturer to stick to SACD technology for ever - even if one has once opted against DVD-Audio in favour of SACD. In addition to that, it may have become evident that the big manufactures of electronic appliances will eventually cease production of special SACD drives. Now, as far as I'm concerned, it's hard to imagine that a run-of-the-mill multi-player could be the basis for an Accuphase. Hence, it seems only logic that the Japanese have put all their efforts once again on a medium that is likely to survive and already has the highest circulation worldwide, namely the good ole' CD.

It's very nice to see that this move has come along with the decision of making oneself independent from the sometimes unpredictable makers of (CD) drives, once and for all. Provided of course one is able to consequently follow the new path, albeit this would mean to develop one's own drive, irrespective of the possible cost, and then have it manufactured in relatively small batches. Well, this is exactly what Accuphase is doing now. Fortunately for them, the times are over when a large part of developing work had to be thrown into the dustbin only because one of those electronic giants who manufactured a certain drive decided to cease production, just because it was no longer profitable. From now on Accuphase is autonomous also with respect to drives. Wouldn't it be nice if other makers had the financial resources and could follow the example of Accuphase?

Not so nice but certainly understandable is the fact that Accuphase is not much inclined to reveal further, more substantial details regarding their new drive mechanism. The product information says it was developed "with dedication to quality and attention to detail" but this is what I would have expected anyway from such a noble maker like Accuphase. But let's stop the nagging and rather concentrate on the sparse facts: the torsion-resistant and heavy case with its four cast-iron insulation feet is said to protect the reading and transfer process of data from air-born as well as mechanical vibrations. The actual CD drive mechanism is firmly mounted to a strong metal frame. While weight plays an important role here, the traverse mechanism with laser is a consciously designed low-mass array, which also features and integrated RF amplifier for minimising noise interferences. And the laser is supported respectively de-coupled from the main mechanism by four viscous damper feet. A braced metal hood covers the drive module and is thus taking care of additional stability. The entire CD drive system is digitally controlled whereby the

servo motor is even linked to a balanced circuitry in order to eliminate interactions with other electronic circuits within the player. Whatever: I do not need any further details as to construction, etc. It's because I'm already most convinced by the smooth and almost deliberate movement of the disk tray, which is made from extruded, anodised aluminium, and the nearly noiseless operation of the CD transport. Admittedly, I have been judging this from a more emotional than a rational stance.

As has already been common usage at Accuphase, the DP-500 too has been equipped with multiple converter components, namely - per channel - four Delta-Sigma converter chips type PCM 1796, made by Texas Instruments. They are operating in parallel configuration which is advantageous in so far that the ratio between signal and conversion errors can be bettered by a factor of two (= v4). The balanced as well as unbalanced signals from two D/A converters each are routed to the same number of voltage/current converters of which the output voltages are then added. The combination of adding both current and voltage is said to result in a very high stability of the output stage. From the output stages the signal has then to go only through the so-called "Direct Balanced Filter" circuitry which according to Accuphase provides totally separate analogue low-pass filtering (5-pole Butterworth) for the balanced and unbalanced signal path. It seems to be worth the efforts, the more since analogue filters have always been playing an important role for sound quality, which in case of the DP-500 are no longer interacting with each other.

The converter section of the DP-500 may well be used for other digital sources. For this purpose the rear panel features digital inputs via optical Toslink and co-axial RCA. Next to them, the same connections are provided by the digital output where data from the CD transport are held ready to be picked up. By the way, the digital input is said to accept signals up to 24 Bits and a frequency up to 96 kHz. The supplied remote commander allows the attenuation of the analogue output signal in steps of 1 dB all the way down to -60 dB. The controlling however is done in the digital domain and therefore may be deteriorating the resolution, I'm afraid. For this reason I have exclusively auditioned the DP-500 without any attenuation.

In my listening room the Accuphase simply took a seat on a board in the Pagode rack. Since it was quite obvious that the player's feet have elaborately been made from cast-iron with high carbon content in order to provide the properties for a best possible coupling to any support, I wasn't much inclined to have some further experiments done with the positioning of the player. Like other digital components in my audio chain, the DP-500 received the energy via a Powercord-S plugged into a mains power conditioner/filter, at least for the time being. Not that I'm a hundred percent convinced of the sonic virtues of this mains filter. It's on duty only to prevent my analogue components from possible digital smut - meaning that it will be substituted later on by a more elaborate solution. As I've already mentioned elsewhere, after the first operation of the open/close button the Accuphase got me hooked: this finely crafted piece of aluminium is sliding out with nearly no noise and in moderate tempo, and likewise back again after having touched the tray or the button. I'm quite certain this performance hasn't got any influence whatsoever on the sound, but it did have a lasting influence on my attitude towards this player, more than I would have initially admitted to myself.

The first to disappear in the DP-500 is a home-made CD: the recording of a concert with harp and organ. It was made with just one stereo microphone featuring M-S technology. Well, this CD is rendered by the Accuphase with unusually realistic information about the soundstage as well as with a gut-shaking fundament of basses. If my memory doesn't fool me, even the latter quality could not be bettered by the Alesis although it's playing back the recording not from a silver but a hard disk on which the data are stored in a 24-Bit/96 kHz format. But let me now stop playing around with this….

Marty Krystall's notorious test CD *"Seeing Unknown Colours"* (MA-Recordings M015A) is immediately thrilling me once again and the music gets under my skin. OK, there is still a bit of life-atmosphere missing but thanks to the purist recording and the brilliant DP-500 much less than with the majority of recordings and their playback equipment. The instruments with nearly lifelike dimensions are there in the recording venue and you want to grab them. This soundstage was certainly not generated in the mixing console but captured by Todd Garfinkel's fantastic 2-microphone recording in a real space. I cannot remember if I ever heard this quartet playing along so excitingly in a larger space than is now rendered by the Accuphase. To this minute the player was connected via its RCA outputs to the Brinkmann Marconi. After I changed to balanced interconnects I noticed - to my utter surprise - that the volume level became slightly attenuated. But as soon as this was compensated I perceived the soundstage being even a tad deeper via the balanced leads and therefore was to leave it in this configuration for any further listening.

Although I haven't heard it for quite some time, another classic for testing is Jonas Hellborg's CD *The Silent Life* (Day Eight Music, DEMCD 026). Here, too, the acoustic bass guitar played in slap-technique is immediately revealing that the Accuphase prefers to receive its energy from the Powerstar [a mains socket bus by Audioplan] rather than from the mains power conditioner. To wit: additional details are clearly audible and come together with enhanced resolution and slightly increased speed whereby it also conveys deeper sound colours. I don't want to waste time finding out as to whether this happened because I changed from Powercord-S to HMS Jubilee, or was it more or less because I took the mains power conditioner away from the chain? Anyway, from now on I'm going to savour the DP-500 being directly connected to the mains.

One of my favourite disks is Dean Peer's unspectacular solo-bass-LP *Ucross* (Jazz Planet 5502-1) which made me curious for *Think…It's All Good*, a new release by this American for the Dutch audiophile label Turtle Records. I'm pleased to hear that Peer and his electric bass guitar are once again playing a central role in this recording, but then this CD gives you also an idea of his intense communication with Ty Burhoe and his colourful collection of percussion instruments as well as with Steve Trismen's violin and Howard Levy's harmonica, ocarina or Jew's harp. The quite unusual instrumentation alone plus the recording in a natural, acoustical space are providing each song with a highly attractive touch, and of which "*Mars*" appears particularly outstanding. In this piece Peer and Burhoe are playing together with effect-loaded bass and tablas, whereby I anticipate the missing compressor in the recording chain. Such dynamic peaks you simply can no longer find on the disks of bigger commercial labels. When auditioned through the Accuphase the electronically moaning bass attacks come right out of the deepest silence and darkness and the drums are bursting with fundamental power, thanks to the evidently airy width of the

recording venue and the lack of any sonic narrowness, even at high volume levels. Indeed a rhythmically irresistible treat for the ears!

I may well blame it on the DP-500 that after a long time of abstinence I have recently been browsing through CD stores again, just to see what's new. Fortunately, I must say by looking back, because otherwise I would have missed Tom Waits' *Orphans*, a 3-CD box featuring a collection of new songs and some which have not yet made it into an album, except perhaps for a compilation or so. Now, the Accuphase is able to clearly distinguish, i.e. without glossing over the facts, between the different qualities of each recording and still lets you savour the nearly 60 pieces. Quite often the music of Tom Waits may reach one's heart and brain only after some extended listening. Yet already after the first go I consider *Orphans*, in spite of the lacking coherence, quite an achievement and by far superior to Waits' last two disks. You actually should not miss this album.

Let me briefly go back to the Accuphase before I dedicate myself again to the music: it's the ideal component for all who have the most discerning demands in sound quality and at the same time are realising that a CD-only player could well be an absolutely safe investment for the future. In the past couple of years I have not encountered any CD player being sonically more beguiling than the DP-500.

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What I like:
The guts, the sound, the craftsmanship.

What's missing:
Imitators

What a surprise:
That I'm still fascinated by a smoothly moving disk tray, although I'm quite certain that it has nothing to do with better sound.

What to do:
Do not miss this statement of sophisticated CD technology. Do yourself a favour and audition the DP-500 intensively - at least once.