AYON CD-T II, CD-Transport

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There's life in the old dog yet! Originally this saying was related to a small dairy in Austria but it can very well also be applied to our new test object, the Ayon CD-T II. Also, from Austria, by the way.

No, it is not a new UFO from the "space patrol" as one may suspect from this first picture above. The CD-T II comes along in the classical Ayon-dress. With the five buttons on the surface the mostly used functions can be executed, the rest is handled by the remote control.

Sharp tongues from the streaming-fraction will, of course, immediately change the meaning of this phrase into "bad weeds grow tall". So, they shall. Ayon started with the CD-T model that we had at our disposal already in 2012. Already at that time many puzzled rubbed their eyes. Anachronism! But not enough, six years later with the CD-T II appears a further development. Or, to cite Gerhard Hirt, a complete overhaul except the Philips Pro drive. At the first glance the CD-T II looks exactly as its previous model, also at the second, by the way. At least from the front: classical Ayon-design, quadratically, practical, good. Nonsense talking (note of the translator: this is the slogan of a famous German chocolate brand). In any case it is my opinion that a proven design must not be changed every year just to keep the advertiser busy.

The connector panel differs significantly from the previous model, right the classical version with AES/EBU and S/PDIF, left the connector panel for the optionally at extra charge available PCM-DSD module. For the S/PDIF connection professional BNC sockets are provided.

Fortunately, likewise the manufacturing quality did not change, the elegant housing with the black anodized aluminum plates still gives a bombproof impression. The most current functions can be selected directly on the upper side of the device by means of illuminated push buttons, all other functions are then taken over by the remote control. Also, in tank quality, by the way. The pushbuttons really make sense, when just on Sunday the batteries are empty or granny tries again to make a phone call with the remote control.

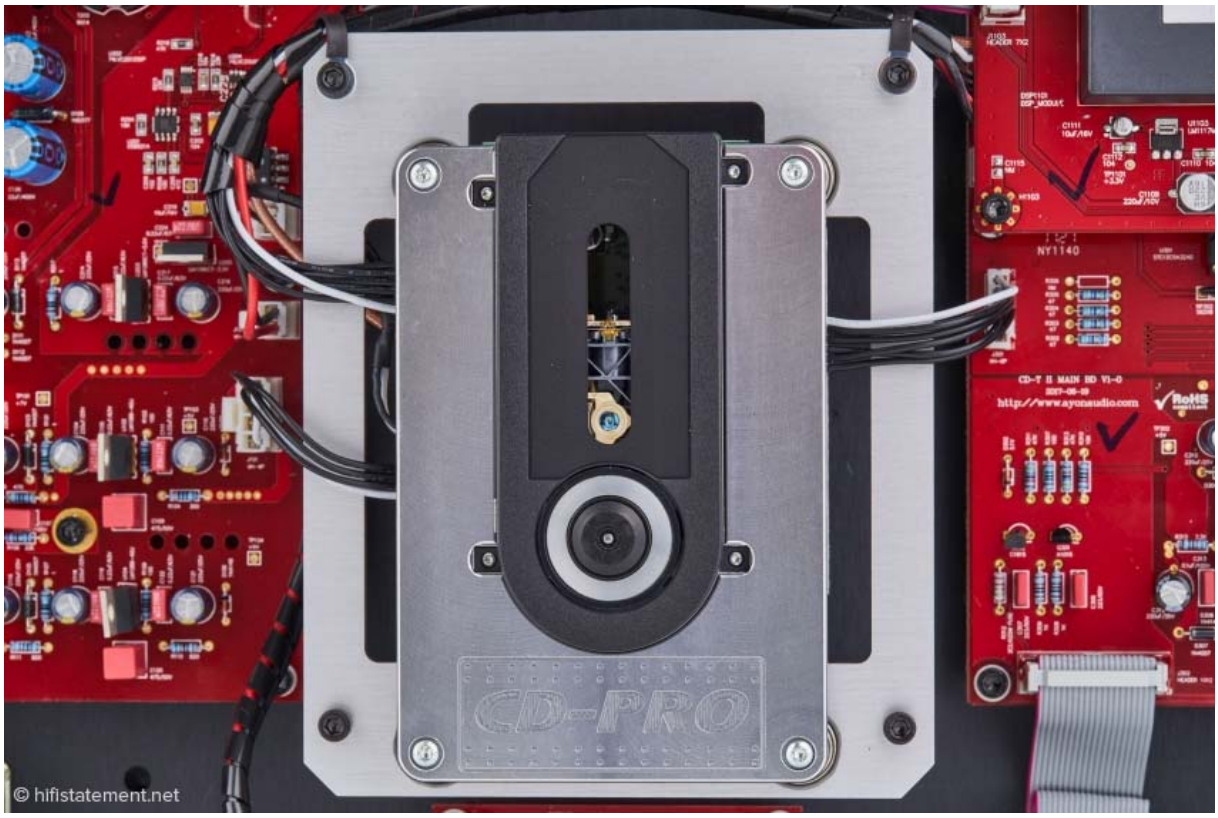
For the connection with the DAC the CD-T II offers all imaginable possibilities: S/PDIF – also with BNC socket! – and AES/EBU at the tube exit, the solid state exit additionally contains a toslink connection. Furthermore. there is a I2S connection. The tube is only active in connection with S/PDIF or AES/EBU, of course, to this later more. Unfortunately, there is no international standard for I2S, consequently each manufacturer does his own thing. However, Ayon has described the pin allocation in the user manual. So, the tinkerers among us could assemble a RJ45 plug themselves. Enjoy!

With the new model the magnet puck is no longer integrated into the cover plate but must be positioned separately.

After switching on the device, the display indicates a warm-up time, an absolutely reasonable feature, not only with regard to the buffer tube. Ayon newbies probably may need to consult the user manual in search of the power switch, which is hidden so well. Inserting a CD, a difference to the previous model will be noticed, now the cover of the CD compartment is bifid. First the CD is fixed with a small magnetic puck, then the compartment is closed with the acrylic cover. At the previous model the puck was integrated. With this new design Ayon aims at an improved resonance control. Now I did compare the old version with the new one and did not notice a significant difference. At least none that would have relativized itself after half a glass of red wine.

At the first glace the inner design resembles the old machine, disregarding the additional DSD module. However, e.g. the power supply has been redesigned completely.

As with the previous model the CD-T II contains the legendary Philips drive CD PRO2, which is no longer produced since quite a while. I thought. But Gerhard Hirt told me that even before end of production Philips had outsourced the production to a small manufacturer producing this drive still today in small quantities. For reasons of capacity probably only for a manageable number of customers.



Just as a reminder: that's how a reasonable CD-drive looks like. Unfortunately, only very few manufacturers offer a valuable drive in their devices. And for these exorbitant prices are asked.

Also, in the CD-T II there is a tube working in the digital exit. What's its business in here? The consideration is as follows: many disturbances of the digital signal are generated on the path from the S/PDIF output chip to the DAC, because the generator is too weak for this. Therefor, Ayon has built-in a buffer in form of a cathode follower. This way the chip only needs to trigger the mesh of the tube, what he can do without any problems. The tube does not amplify the signal but operates only as impedance converter. The real question now is, which tube is suitable for this rather unusual position? An audio tube can not be considered because of its insufficient bandwidth. A tube of Russian military inventory was found, that was use in the area of radar. This 6N14P – an equivalent to an ECC84 double triode – can process frequencies up to 200 megahertz and therefor is optimally qualified for this job.

Remained are the highly efficient and R-core transformers of low dispersion, especially produced for Ayon. The device contains two transformers for the separate supply of drive and signal. In general, the power supply has been improved, what should be noticeable in a better playback of impulses.

For all solid-state junkies of us, for whom a tube is something to be avoided like a plague, Ayon has a solution at the ready. Scilicet, the device can be switched between solid-state or tube operation. For this there is a small switch on the back panel, in addition the connecting cable must be connected with another output. Of course, also the solid-state digital output is slightly buffered to minimize cable influences.

The former possibility of upsampling to 24bit/192kHz does no longer exist in the new version. As the actually normal DACs generally have this function integrated, Ayon in this device does without it. But, the company offer a module as an additional option, by means of which the PCM-data are upsampled to DSD128. This relieves the budget by additional 995 Euro. There are endless discussions about these kind of functions, because in the end the content of the original information can not be augmented. Benefits are gained, however, for the design of the filter, which should be much steeper at a pure 1-bit-/ 44 kHz sampling or need to get involved much earlier at a flatter design. For several reasons filter with a steep slew rate are not completely without problems. The test device was already equipped with the additional PCM-DSD module, more to it later.

Let us just listen what the drive has to offer at normal untreated CD-playback. As the device is completely new, firstly I had it run over night before seriously listening music. Of course, with this the electronics are still not yet completely burnt in; Ayon recommends a burn-in period of 30 to 50 hours. As for every mechanical device a stable base is the requirement for optimal reproduction. I am using bases by Kaiser producing a significant improvement compared to the standard feet. But this may be so with every device.

First of all, let’s listen to Louis Armstrong. Miles Davis once said about him that his music would be really super, if there was not this permanent grin. By the mouth of Miles surely a great compliment. All Armstrong recordings are historical, to describe the sound quality this

way. Actually, also with our politician's euphemisms are totally "in ". Nonetheless with the CD-T II succeeds an incredibly plastical presentation of the musicians, one can virtually see how Armstrong stands on the stage with his white handkerchief and sweats. Also, while listening the reproduction quality steps totally back into the background, you just listen to all the ideas of the boys in the band at that time.

One of the strengths is the enormous joy of play which obviously does not exclusively come from the rest of the installation. Well, the Armstrong recordings do not ignite a brilliant firework but the drive and the groove of the music comes across very authentically. The reproduction is very clear with high resolution, a typical hallmark of all devices of the Ayon company I had at my disposal for a test so far.

The converter board is completely potted to escape curious looks. Supposedly it is produced by the Austrian specialist StreamUnlimited.

Before someone turns his nose up because of the music selection, we come to serious music. Who for heaven's sake came up with this classification? Anyway, now it's the turn of the old classics, Brahms, Beethoven, etc. I always like to use different recordings to get a complete picture whether a credible impression can be communicated. The same symphony recorded once in the Vienna Musikverein and once in the Berlin Philharmonica, by different performers of course, but this is here not the actual aim. In any case the different room acoustics are reproduced very well, also there is a good impression that a space is opening up behind the speakers. To say it this way: according to the performer – and the volume set – the orchestra appears also with enormous power without decomposing the image in singular groups. Of course, the total is still miles away from an experience in a concert hall, but we all have to live with this deficiency, no matter how much money we invested in our stereo equipment.

I find it interesting how much information is really contained in a CD that you cannot hear with a “normal” drive. This becomes very clear with good recordings of baroque orchestras, where the typical acoustic colors of the antique instruments have been recorded very realistically. These then contain an abundance of detailed information accounting for the typical sound of these orchestras. This must not be confounded with components having an emphasized mid-high-range. They are said to be to make the installation sound more spectacular at a presentation. In these cases, one believes to hear more details what is not the case, of course. In any case, in the aforementioned recordings especially strings can become tedious quite quickly, for which the recording engineer is to be blamed. Do I really need to mention that the CD-T II works perfectly and delivers a homogeneous image?

Now let us see the effect of upsampling the data to DSD128. As my DAC was not made for that, I had to borrow a suitable converter from my colleague Sommer. Firstly, I operated the converter in the Red Book mode to get acquainted with it. Interestingly, with this device it really sounds different from my converter, although bits are bits and differences in sound only exist in the fantasy of some Hifi-writers. Such a computer expert is a nice person, however. Switching to DSD128 operation it turned out that the converter can process signals up to DSD256 but only via the USB interface. According to Ayon the DSD signal is made available only via three BNC sockets, as it is usual in the professional scene already for a long time. So, this test had to be cancelled. Happy owners of a CD-T II transport, flirting with an upgrade to DSD should inform themselves beforehand whether the existing converter is suitable for it. Well, Ayon offers also suitable devices for tis situation; they would be really interesting for an additional test.

Ooops! Did the tubes accrete? The previous model got along with one double triode. The solution: the second tube only works for the digital BNC output and will only be implemented with the PCM-DSD board.

STATEMENT

With the CD-T II Ayon offers a transport of the absolute top class. Who wants to know the real content of a CD should absolutely listen to this transport.

Tester's equipment

Digital transport	Ayon CDT
D/A converter	Borbely Audio
Turntable	Apolyt
Tonearm	Triplanar
Pick-up	Clearaudio Goldmund, Van den Hul Grashopper
Pre-amp	Thomas Mayer 10Y
Power-amp	Thomas Mayer 211SE Elrog

Speaker	Wolf von Langa, Ancient Audio Studio Oslo
Cable	Audio Consulting Reference RCA, Swisscables Reference NF, Swisscables Reference LS, Auditorium23 LS, Swisscables Reference und Reference Plus Netz, VertexAQ Jaya Netzfilter, VertexAQ Taga Verteilerdose, VertexAQ Roraima Netzkabel
Accessories	LeadingEdge Gerätebasis, LeadingEdge Minipaneele

Manufacturer specification

Digital transport Ayon CDT

Transferrate	192kHz / 24 bit
Drive	Philips CD-Pro 2
Tube specification	ECC84 (6N14P)
Outputs	S/PDIF (75 Ohm, BNC), AES/EBU, I2S
Dynamic rate	>110 dB
Harmonic distortion @ 1kHz	< 0.002%
Abmessungen (B/H/T)	480/130/390mm
weight	14 kg

PCM-DSD 128 Converter	Text