



## TEST.

# Ayon S-10 II

18.02.2020 // ROLAND DIETL

**Ayon S 10 – didn't we talk about it already? Right – and at that time this equipment had thrilled me completely, but meanwhile that was already three years ago. A good reason to check out the technical and tonal evolution in the brand-new version S 10 II.**

At the first glance – it seems – nothing has changed. There still is the excellently manufactured housing all-in-black made of pieces of brushed aluminum with the characteristically rounded edges. I would have been very much astonished if Ayon had changed something here, as this design meanwhile has become the distinctive recognition feature of the Ayon devices. On the front the big incredibly sharp QVGA-5-inch-TTF-display indicating the different menus of the networkplayer stands out providing a good legibility also from a greater distance. A second smaller display right aside shows among others volume, input, and balance. We do not find any other operating elements than a stand-by-button and an USB-socket on the front, what certainly contributes to the elegant appearance of the Ayon S 10 II. In best Ayon tradition the power switch is located a little hidden underside of the device close to the front left foot. The only remarkable difference to the previous model is a practical stand-by LED.

Also, on the backside practically everything remained unaffected. From left to right we find the analogue outputs in both single ended (RCA) and balance (XLR) version, of which – attention! – a parallel operation of both outputs is not envisaged. Two additional single ended RCA-inputs make the S 10 II a fully-fledged pre-amp. As inputs in the digital section we see a coaxial cinch S/PDIF, an optical Toslink and an USB-pc "B"-type. Additionally, the S 10 II offers – as on the front – an USB-input type "A" for the direct connection of USB-storage



*The Ayon S 10 II – an elegant appearance*

devices, such as sticks or hard disk drives. Furthermore, the S 10 II offers a coaxial digital output (S/PDIF). And there is an additional USB "B" type input labelled „USB-SSD“. We will get back to this immediately. A RJ45-ethernet-connection and two wi-fi-antenna-connections complete the offer. After a look in the interior of the device and a long conversation with Gerhard Hirt, the owner and head of Ayon, it became clear to me that the S 10 II technically has been redesigned to a large extent. Almost all areas, beginning with the power supply to the digital section up to the analogue output section have been subjected to a fundamental redesign.

First, Ayon has implemented a completely new streamer-platform into the S 10 II, that again stems from the Austrian specialist StreamUnlimited with whom Ayon cooperates successfully for years. This platform provides



*The big excellently legible display*



The S 10 II is completely controlled by the remote control in a noble metal housing

sufficient computing power for processing of PCM-data in the formats WAV, FLAC, or AIFF up to 24 bit/384 kHz and DSD-data up to DSD256. The S 10 II really is a very powerful one. Furthermore, the comfortable access to streaming services such as Tidal and Qobuz is implemented as well as the Roon compatibility. The digital-analogue-conversion now is carried out by an AKM 4490 by Asahi Kasei Microdevices, of which two are used in a dual-mono-design. It is not surprising at all that the AKM 4490 can decode all current sampling rates – be it PCM or DSD. More important for the choice was, as Gerhard Hirt told me, the very good experience Ayon made with the design of the low-pass filter of the chip. Furthermore, the direct coupling to the analogue tube output stage was ideal with this chip.



The functions of the networkplayer also can be controlled by the proprietary app

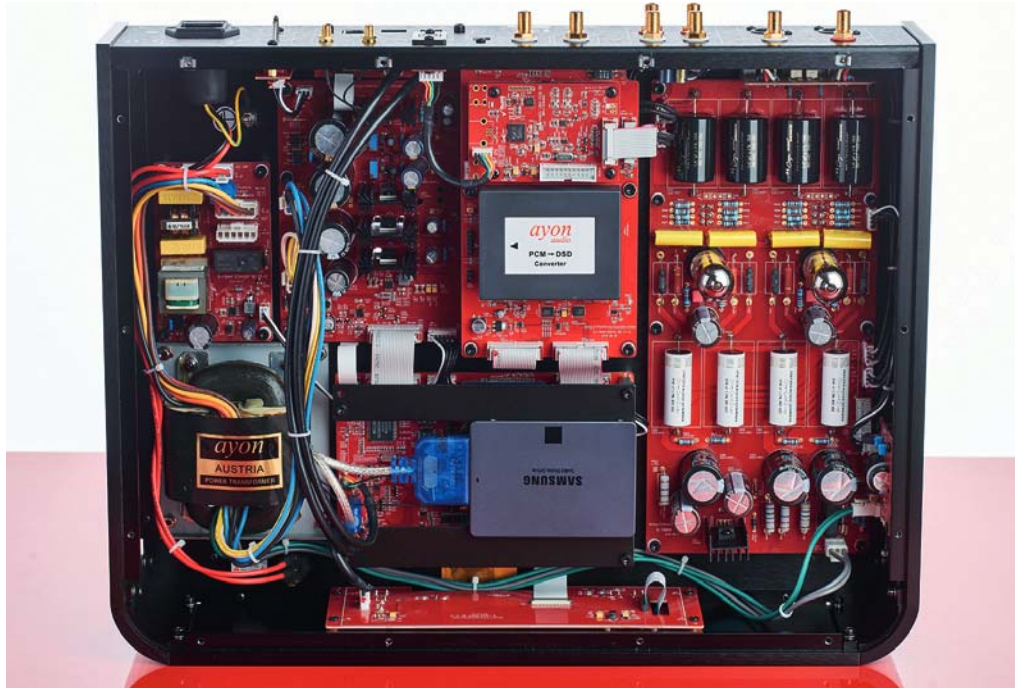


*The extensive connection panel leaves nothing to be desired*

It is interesting, that Ayon does not use the digital volume control of the AKM 4490. Instead, as implemented already in the previous model, a quadruple fully symmetrical analogue volume control is preferred. This is composed of the PGA 2320, which has an excellent reputation, attenuating the signal on the purely analogue level by means of a resistor network. I find it highly interesting that this analogue volume control can not only be controlled via the by-packed remote-control, but functions also in the streaming mode via the Ayon app installed on a tablet or smartphone. But that's not all: it even works with apps of third-party providers. For this the control commands are forwarded from the streaming platform via an interface to the control unit of the PGA 2320. As a typical Ayon understatement, it is not considered worth mentioning, but only a consistent technical realization of the own standard of not just simply stick together modules.

Apropos modules: Ayon's modular concept with different configuration levels firstly offered with the S 10 is also available for the S 10 II. In the "Signature" version in the analogue section of the S 10 II the eight coupling capacitors are replaced by especially high-quality types. In my test device there were mounted capacitors of the type Mundorf MCap Supreme Silver/Gold/Oil and Jantzen SilverGold Z-Cap. There is almost nothing better and more expensive. But who once has listened with his own ears how enormously influential the coupling capacitors are on the sound quality, will agree with me, that in this case it is really worth the money invested. In addition, in this version the digital side is amended by a DSD-converter module, that converts all PCM signals of up to 24bit/192khz into DSD signals. Here one has the possibility to choose between DSD128 and DSD256. Of course, for native DSD signals this possibility is bypassed. This module was another reason for the choice of the AKM 4490, as to Ayon's opinion both modules work together particularly well. In connection with this further improvement of the DSD converter module it was possible to once more significantly top up the tonal overall result.

It is completely new, that the S 10 II now can be upgraded with a server unit with variable disc capacity. The idea behind this is to offer a one-stop high quality solution also to non-computer- or network-oriented audiophiles. At Ayon, when it comes to streaming, one really is no newbie but can built on 15 years' experience. It is precisely for that reason one knows even better the pitfalls when installing a streaming solution at home that quickly can lead to proper frustrating experiences. And, what is the use of the best networkplayer, when the streaming solution does not work or has a shabby sound? Therefore, every Ayon S 10 II is accompanied by an exemplary own manual to setup an infrastructure for networkplayers, an invaluable source for the non-computer skilled music lover. The manual gives hints for the network installation and the choice of the required hardware components. Moreover, it contains superbly made configuration guidelines for important programs such as JRiver,



*The interior of the S-10 II. The modular structure is clearly visible: left the power supply, right the analogue tube amplifier stage, in the center below the server module with hard disk and above the DSD converter module*

Audirvana, foobar2000, Minim Server, and Roon. Following exactly the recommendations of the manual one can be sure to install a good streaming solution. Nonetheless, the whole remains complicated. As our tests in hifistatement show, the tonal effect of the components used in a network such as router, switch or LAN-cable must not be underestimated just as little as the music server, the optimization of its operating system, or the correct setup of the used player software. Good sound in the streaming environment simply means significant effort. Just quickly connect a PC or notebook is not enough. Not least because of this there are always undesired surprises when comparing the tonal results of excellent CD-players with a carelessly composed streaming solution. Here, almost always the advantage is with the CD-player.



*The big R-Core transformer*



*The DSD-module is encapsulated and protected from all too curious glances*

Against this background at Ayon the idea matured to provide the audiophile music lover with an extensive plug-and-play solution. A solution one needs not be afraid of and that is absolutely not complicated as it refrains from implementing a NAS-system and this way shortening the subject network to a large extent and on top of everything sounds good. For this, one wanted to install a second completely self-sufficient platform based upon another streaming module of StreamUnlimited. But the at Ayon's estimated JRiver Media Center turned out to consume too many resources for this project for the "smaller" streaming modules. So, one asked quite cheeky at JRiver whether one could receive an appropriately downsized variant of the software also running performant on ARM-platforms. As was almost expectable for quite a while there was no answer from JRiver.

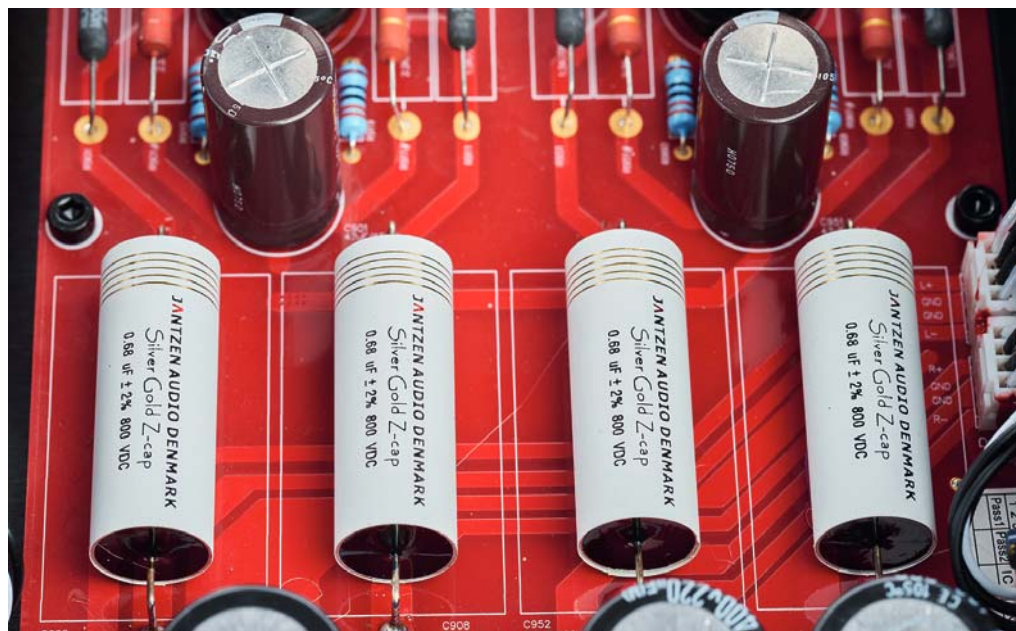


*The well-known dual triode 6H30 in the analogue amplifier section*

But one should not underestimate the Austrian persistence, and Ayon simply followed up. And then one fell on open ears at JRiver with this project. Nevertheless, it took more than another year until the first prototype of a completely slimmed JRiver-version purely for audio reproduction was available. Then JRiver yet integrated the Ayon proprietary setup into the software. This special version now is called “JRiver Blackbox“ and is distributed by JRiver exclusively to manufacturers.

In the “JRiver Blackbox Server“-version the S 10 II now has another streaming-module by StreamUnlimited and a 1-TB-SSD with preinstalled “JRiver Blackbox“ including license on board. In addition, the “Server“-version requires a significantly modified power supply to precisely provide the necessary voltages. And while one is at it, then one can easily build in here and there better components for resistors and capacitors and improve the selection level of the tubes.

Of course, I have an ardent interest to see how the “Server“ version acquits in practice. But how does the music arrive on the hard disk of the S 10 II? The hard disc cannot be addressed via the home network. First, we need to completely separate the S 10 II from the mains by means of the standby-button and the power-off switch. Now the above-mentioned USB-SSD labelled USB-port comes into play. We simply connect it with our PC with an USB-cable. It is as if we would connect an external hard disk. Then on our PC appears another disk drive. Afterwards we establish on this drive a new folder named “music“ into which we copy our music files. You have noticed? We did not need a network! Afterwards we restart the S 10 II and JRiver automatically imports our files. Regarding installation and operation, the “Server“ version certainly is an excellent choice for music lovers who do not want to be annoyed with computer or network problems.



*Extremely high-quality coupling capacitors of the Jantzen SilverGold Z-Cap type in the analogue section*

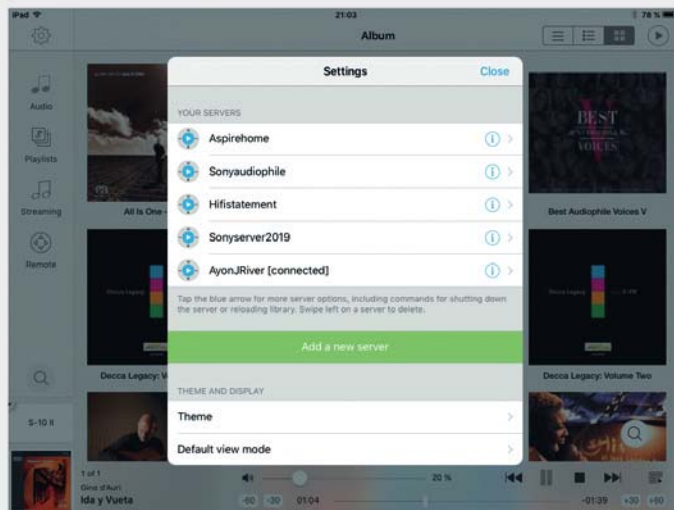
Now, the only question remains whether it is also tonally convincing. For this the S 10 II is connected to my network via the SOTM-LAN-switch that receives its timing from the SOTM-10MHz-Clock. The analogue output goes directly to my two Omtec power amps and to the Jota system. The music comes from the internal hard disk via JRiver controlled by the app JRemote. And to go like a bull at a gate: yes! The S 10 II plays on absolute top level!

The first and remaining impression is the exceptional clarity of the reproduction out of the mid-range. On his last album Ibrahim Ferrer sings with Omara Portuondo the well-known song “Quizás, quizás“ (Ibrahim Ferrer: Mi Sueño). The piano begins and then Ibrahim Ferrer starts with his already slightly brittle voice before Omara Portuondo takes over. The S 10 II perfectly separates the players from each other and carves out the characteristics of these two so different voices creating a specific mood. Though the S 10 II does not at all have a soft tube sound. On the sampler The Chasing Dragon (The Chasing Dragon – Audiophile Recordings) many titles have



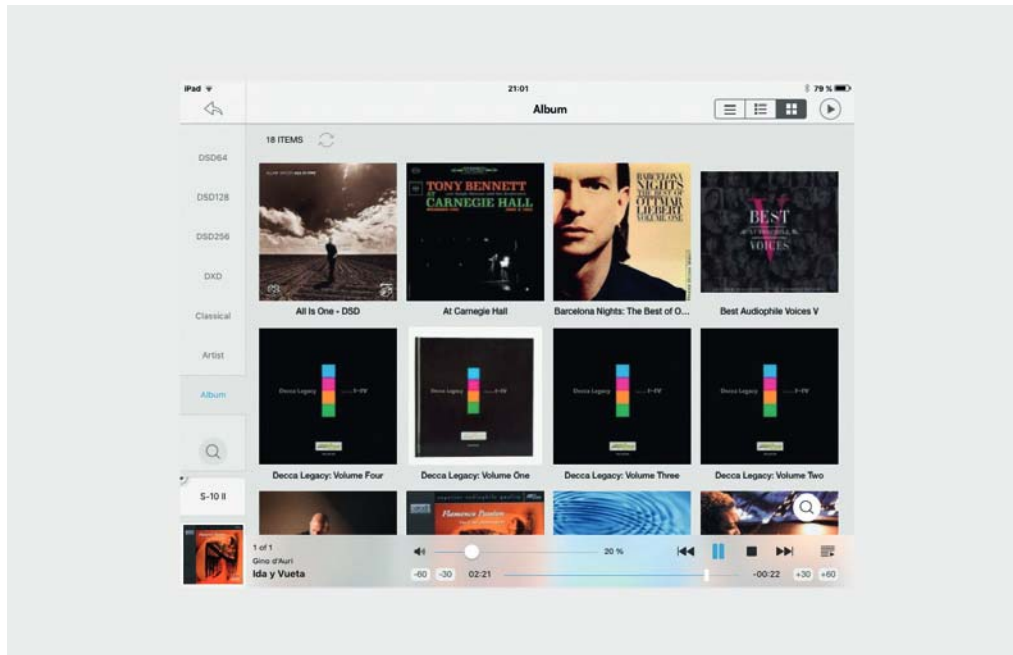
Album-view of the proprietary Ayon app

been recorded with only three Neumann M 50-microphones in the famous “Decca-tree” arrangement; this provides the recordings an incredible nearness and presence on the one hand and a fantastical spaciousness on the other hand. In the “Tarantella” by Saraste the solo-violin begins the introduction lyrically and melliflously, to then chase through the complete tone-room at breakneck pace in highest degree of difficulty. Soft tones alternate with passages played in utmost harshness, high flageolet-tones with middle and deep levels. The S 10 II show all that and does not brighten anything – the transition between the different pitches is seamless and without fractures.



JRemote is connected with the Ayon JRiver Server

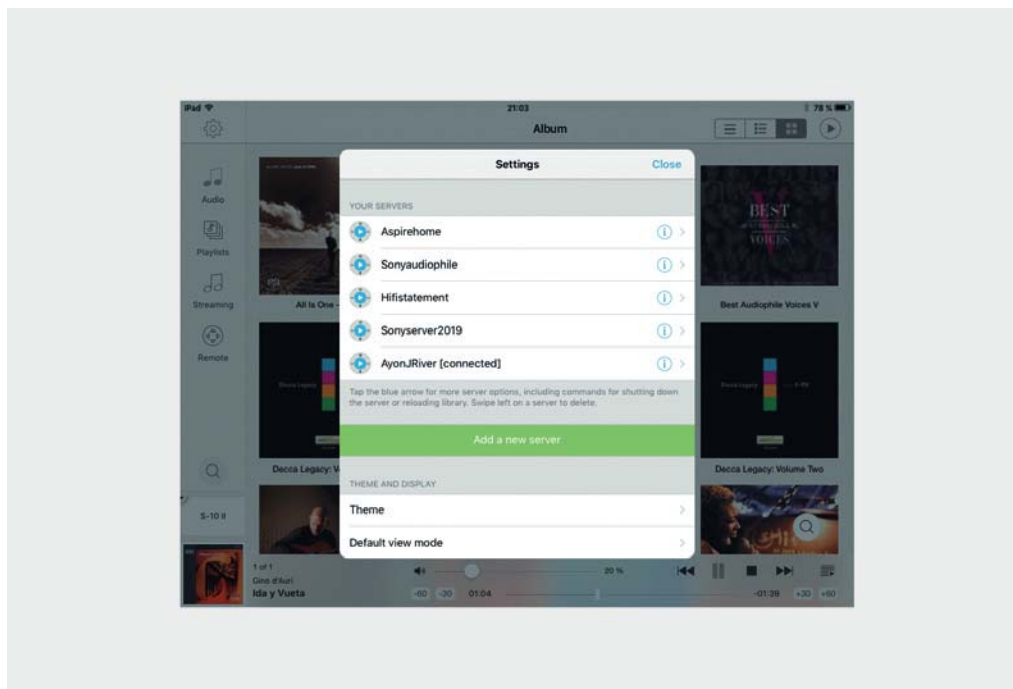




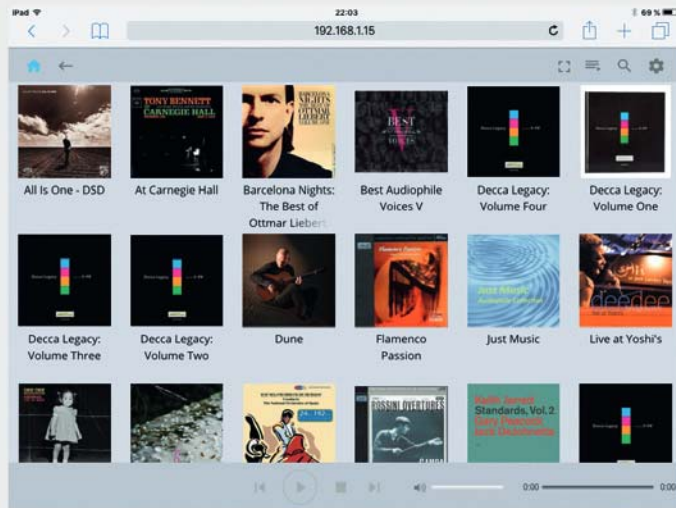
The JRemote album-view

In addition, there is an incredibly realistic spatial reproduction, if the recording is adequate. In the tonally excellent recording of Beethoven's 7th symphony with the Budapest Festival Orchestra (Beethoven: Symphony No. 7 - Channel Classics, 96 kHz) under Iván Fischer with the S 10 II never arises any doubt where which instrument is positioned and which size it has. Especially the latter for me is important for the spatial image, as I simply do not like it at all when a small flute virtually becomes an instrument of 2 meters.

Now I concealed that meanwhile I have switched to the DSD-conversion. Very generally one can say that many PCM-recordings are granted some more brilliance and perhaps this special something. Especially music



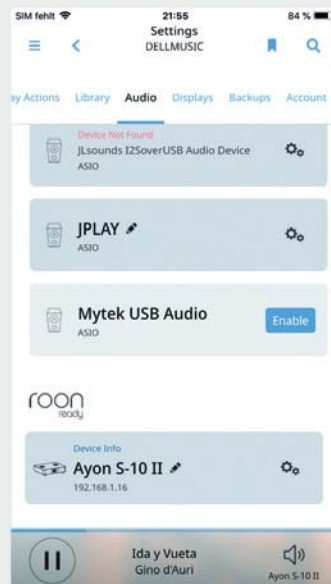
JRemote is connected with the Ayon JRiver Server



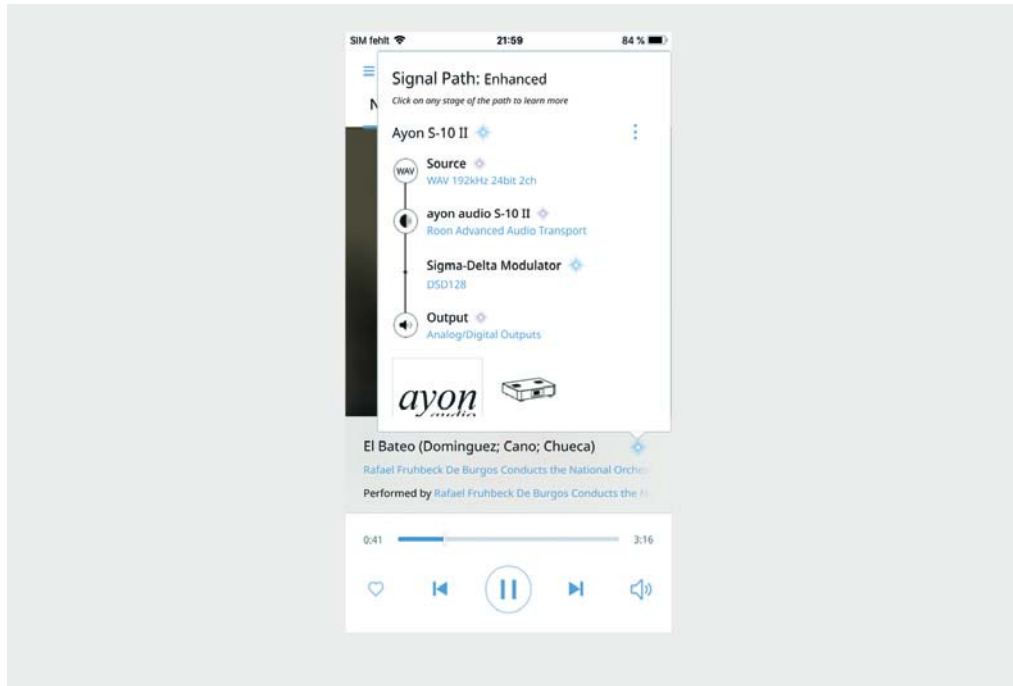
For comparison the album-view in the web browser

material in CD-quality enormously benefits from the DSD-conversion. As already with the “old” S 10 for me the optimum lies at DSD128. I cannot recognize any further advantage at DSD256, although without any doubt it sounds slightly different. But that may certainly also be a matter of taste.

And how does the S 10 II perform as pure networkplayer without JRiver? To find this out the player is my AudiophileOptimizer tuned music server with Windows Server 2012R2 in Core mode. On the server are installed MinimServer as well as Roon-Core. In both configurations regarding the operation there is nothing to bleat. The proprietary Ayon app is optically appealing and communicates perfectly with the streaming-unit of the S 10 II. It is even more important, that the tonal result convinced me completely also in this configuration. Nonetheless,



The S 10 II is identified in the network as Roon-device without any problem



Roon shows that in the signal path de DSD-conversion of the S 10II is activated

the influence of the music server must not be underestimated. Taking my Sony notebook with Windows server 2019 also optimized with AudiophileOptimizer for comparison the clear advantage is at the S 10 II “Server” version.

With Roon it is even easier. The S 10 II immediately is identified as Roon-device. The tonal differences between Roon and the UPnP based networkplayer variant are subtle but well audible. At „Galicia Flamenco“ with Gino D’Auri (Flamenco Passion FIM XRCD) Roon produces a “full-bodied” tonality and a beautiful feeling for the depth of the soundstage. On the other hand, the Flamenco-guitar loses a bit of articulation – the strings do not come plucked just as hard – and the tonal overall impression is less directly close to the source. Certainly, this again is a matter of taste. I find both variants with the S 10 II very convincing.

And what now for the proud owners of an “old” S 10? Well, there is no reason to despair. On the one hand the device still is outstanding and on the other hand within the scope of an upgrade-program Ayon offers a complete exchange against a brand-new S 10 II at a special price. Exchange, as the effort for an update of the old version is too big and the “Server” version cannot be upgraded at all. Interested parties should contact Ayon directly for details.

## STATEMENT

*The Ayon S 10 II offers components perfectly tuned on each other, is comfortable to operate, and tonally a great experience. You will not find such a felicitous complete package of server, network-player, DAC, and pre-amp every day. Particularly suited for persistent opposers of computer- and network technology. Most highly recommended.*

## LISTENED WITH

Computer	Intel Xeon E3-1225 3,2 GHz, 4 GB RAM, Win Server 2012R2 and 2019 with AudiophileOptimizer 3.0, JPLAY USB Card, HDPLEX 400W ATX Linear-PSU and HDPLEX 200W Linear-PSU Intel Core i5 2,5 GHz, 6 GB RAM, Win 10 Pro and Windows Server 2019 with AudiophileOptimizer 3.0, G-Technology 4 TB GI USB-C Harddisk with HDPLEX 200W Linear-PSU
Software	JRiver Media Center 24, JPLAY 6.2, MinimServer, JPLAY Femto, JPLAY femtoServer, Roon Server
LAN Switch	SOTM sNH-10G i
10-MHz-Clock	SOTM SCLK-OCX10
USB	SOTM USB Hub tX-USUltra
Preamp	Erno Borbely , Omtec Anturion
Power Amp	Omtec CA 25
Speaker	Outsider Jota with Velodyne Subwoofer Management System SMS-1
Cable and Accessory	Van den Hul, JCAT Reference USB, JCAT Reference LAN, Analysis Plus Digital Oval Yellow, AudioQuest Eagle Eye Digital Cable, SOTM dBCL-BNC, Audioquest Niagara 5000

## MANUFACTURER'S SPECIFICATION

### Ayon S-10 network player

Digital inputs	75 $\Omega$ S/PDIF (RCA up to 24/192kHz), TosLink (up to 24/192kHz), USB-PC "B" Type (192KHz/ 24 and DSD64/128/256), 2x USB „A“ Type for stick/ hard disk
Network inputs	RP-SMA socket for antenna (WLAN), 802.11b/g, UTP RJ45 10/100Mbps socket (LAN)
Digital outputs	75 $\Omega$ S/PDIF (RCA)
Sample rate	up to 768 kHz / 32 Bit and DSD64/128/256
Analog line input	2 pair RCA
Analog preamp outputs	1 pair RCA und 1 pair XLR
Weight	12kg
Dimensions	48 x 36 x 12 cm (B x T x H)
Price	7.000 Euro plus 2.000 Euro („Signature“-version) plus 2.000 Euro („JRiver Black Box Server“-version)

## MANUFACTURER

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