Aurender S10 Music Playback and Storage Solution

By Michael Lavorgna • March 3, 2014

Device Type: Music Server
Input: Ethernet, 2x USB 2.0, Wi-Fi
Output: Coax S/PDIF, AES/EBU, Toslink, USB
Dimensions (W x H x D): 430mm x 96mm x 353mm
Weight: 14kg
Availability: through Authorized Dealers
Website: www.aurender.com

Music Served
What is a music server? A music server is a computer. These days what isn't? Our automobiles have computers in them but we don't call them computers, our phones are computers in this same sense but we don't call them computers, either. A music server is a purpose built computer whose purpose is storing and playing file-based music and the Aurender S10 is such a beast and without giving too much away, it serves its purpose splendidly.

One feature that sets the Aurender S10 apart from your typical computer is its use of oven-controlled crystal oscillators (OCXO) and "Field Programmable Gate Arrays (FPGA) with PLL based re-clocking to ensure that the signal to the Digital Analog Converter is as accurate as possible". This oven-control is not for baking rather it is designed to keep these time-keeping crystals at a constant temperature "...in order to prevent changes in the frequency due to variations in ambient temperature" according to Wikipedia. So the S10 pays special attention to the timing of the data it stores and plays back from its internal 2TB Western Digital Green hard drive. The S10 actually copies your music from its HDD to its ADATA 64GB SSD when you play it so there's no spinning discs during music playback. The fanless S10 also houses a Mini-ITX motherboard with 2GB of memory running a custom Linux OS.

As we look inside, its plainly obvious that the S10 goes to some trouble isolating various internal functions. The linear and switching power supplies are cordoned off from the rest of the works by aluminum walls to prevent stray EMI/RFI from infesting the audio signal. There are numerous boards marked "Widealab" which was the name of the company that developed the original Aurender before they merged with TVLogic "...the leading maker of high-performance HD video monitors with over 80% share of the Korean market". I'd say the Aurender's good looks are more than skin deep.

The S10 supports AIFF, ALAC, FLAC, WAV, M4A, APE, and as of December of last year, DSD via DoP V1.2. The S10 also supports Apple's AirPlay and gapless playback. While you can perform rudimentary playback functions from the S10's front panel buttons, an iPad running the free Aurender app is a must-have item. There's also a very nice front panel AMOLED (active-matrix organic light-emitting diode) display that offers three viewing options; Song Title/Connected DAC (for USB)/File Type/Sample Rate/Progress, and blue or yellow level meters if you want to pretend your S10 is a McIntosh amp. You can aslo set the display to shut off during music playback. Around back are all of your inputs and outputs along with the IEC power receptacle.

I would classify the Aurender S10 as being exceedingly well made with quality that reflects its price, the S10s top plate weighing more than some components. This is no off-the-shelf package or an accumulation of parts you can DIY.

Copying Music to the S10

There are two ways to copy music to the S10s HDD; using your computer or from USB storage. To copy music from your computer, you need to connect to the S10. I used my iMac so I selected Finder > Go > Connect to Server > S10's IP address. The user name and password are available in the iPad app. Then its just a matter of dragging and dropping your music into the S10. You can also load music onto a USB flash drive and when you plug it into the S10's rear mounted USB input, the S10 will automatically copy its contents (and you'll see a related note on the front display). The S10's app comes preconfigured with a number of folders to help you organize your music including Classical, Jazz, Pop, Etc, and Lost+Found. You can add your own folders or stick with these. When transferring from USB storage, if you duplicate these directories on your flash drive, the S10 will copy your music to the corresponding directories on its HDD. If not, all music will be copied to the "Etc" directory.

The Aurender App
TVLogic, the company behind Aurender, has done a great job with their app. It is lightning fast, very intuitive and easy to use, while offering all of the play back and control options I've come to expect from a remote app and then some. Playing music is based on the idea of Playlists as you'd expect. You can Save your Playlists or just play 'em. Tapping and holding your finger on an Album Cover in Album View brings up your playback options that include "Play Now", "Play Random" "Replace Queue", "Add to End", and "Add to Playlist". You can also turn album cover art on/off and view the associated artist or album in the main window from this same screen.

Tapping on the Settings gear icon in the upper right corner brings up the Settings menu that includes Disc Information, Scanner, AMOLED Display, General, Upgrade, NAS Share, NAS Server, Music Player, Version, and Help. If you want to use NAS-based music with your S10, you just need to tap NAS Server then "Browse NAS Server" and tap on your NAS. The one major negative issue with NAS-based music playback is this data is not incorporated into the main music library along with the S10-resident music. You can only browse NAS-based music in Folder view. The app's search feature does not search your NAS library. This all adds up to getting used to the idea that you are practically limited by the app to the S10's 2TBs of internal storage. While 2TBs seems like a goodly amount of space, I know plenty of people who require more. Aurender was showing their new X100L ($3,499) with 6TB of internal storage at this year's CES for those looking for just that.

Other views onto your S10-based music include Song, Artist, Genre, Composer, and Conductor. You can also filter your view onto your music according to the genre folders, DSD or 16/24 bit. As I've mentioned before, I prefer Album view for browsing my music. Old habits die hard. I used the S10 for a number of weeks and never ran into any issues with the app. I did encounter two instances where a song skipped but restarting the app and the song solved this problem. Overall I'd rate the Aurender app as excellent and certainly one of the best I've had the pleasure to use.

There are also play back options including setting the time your DAC needs when changing sample rate in seconds (nice!) and a Play/Pause Fade In/Out for those DACs that exhibit a pop sound during play/pause/play operation (nice!). There are a number of other features, too many to go into here, but if you're interested in learning more check out the S10 Online Manual.

The Setup

The S10 needs to be connected to your network via Ethernet for accessing Internet-based metadata and for copying files to it from your computer, hard drive, or NAS. I mainly used the Aurender S10 with the Auralic Vega DAC and to a lessor extent the review sample Ayre QB-9 DSD DAC. While I tried out the AES/EBU connection with the Vega, and it sounded as wonderful as USB, seeing as you need to connect via USB to take advantage of DSD playback, the majority of my listening time was done via USB. Both DACs were connected to my Pass Labs INT-30A via XLRs driving my DeVore Fidelity The Nines.

Listening to the Aurender S10
Do music server's have a sound? Yes, they do. As do network players and plain old computers. I know there are some people who believe otherwise but if you believe in listening to things to determine how they sound, as I do, there is no doubt about this simple truth and the Aurender S10 is one extremely good sounding music server. It is by far superior to a stock MacBook Pro and it even bested the review sample Moon MiND that I was so impressed with (see review).

The two areas that immediately stood out when listening to music stored on the S10 were bass response and clarity. Bass was as tight, full, and distinct as I've ever heard. Among other factors, I'm beginning to think that a server's power supply has a role to play in bass reproduction which indicates to me that Aurender have done a very good job with the S10's power supply. Recordings I am intimately familiar with had a new found crispness and weight to bass reproduction that was at once remarkable and more than welcome. The S10 rocks.

There was also a sense of nearly endless resolution or hearing into the recording to reveal as much musical information as the given track holds. This quality plays out in a number of ways including exceptional low level detail retrieval, great dynamic liveliness, coupled with a rock solid sound image. The other thing that became more and more apparent with longer listening is there was not even a hint of glare or digital edginess to be heard even on less than stellar recordings. There was a softness to the presentation while everything still sounded natural and very compelling. It's as if the Aurender S10 hands off a not-digital-sounding digital signal to your DAC.

I compared playing music from the S10's internal storage to my NAS-based music and I preferred the S10's internal storage. Music sounded more crisp with better resolution and overall an apparently lower noise floor. This difference was not extreme but if I planned to buy an Aurender, I'd want to make sure it can hold all of my music especially seeing how the app handles NAS-based music from a browsing perspective using the limited folder view. I also took the S10's AirPlay for a spin and it sounded just fine. AirPlay, like Bluetooth, is a very normal-people-friendly option and I'm happy to see it included on the Aurender. Allowing such easy access to your hi-fi should improve the appeal of your hi-fi (and you).

Its getting to the point that I take DSD playback for granted seeing as the majority of devices that come through here can play back DSD material but seeing as this is a new feature for the Aurender, let's talk about it. Taking a few DSD tracks for a spin was pure pleasure and only served to reinforce how lovely music can sound when delivered as DSD. That taken care of, I found that all music sounded better through the Aurender S10 and it did so without question. The big question strikes me as simply being—does the S10's sonic performance warrant its admittedly hefty price tag? While I view these kinds of questions as largely a personal matter, I would say it does within the context of a similarly priced system.

A Valuable Music Server

There are all kinds of improvements you can make to a stock computer to improve its audio performance. If we take the $6900 that the S10 costs and plunked that into such endeavors, would we be be able to match or beat the S10's performance? With care and time...perhaps (of course *you* can but I wanted to leave the door open for *other* people). My assumption is the Aurender S10 is not intended to replace the heavily customized and tweaked DIY PC. It is intended to provide a solution for people looking to buy an audio component that plays the role of music server delivering your file-based data to your DAC in an exceedingly musical manner.

For those people who feel that 2TB will hold their current music libraries while leaving adequate room for expansion, the Aurender S10 comes very highly recommended.