



HEADPHONE.GURU

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On The Go With The Aurender Flow



Portable audio is exploding as we speak. This is very a good thing! The challenge for us aficionado's is in the number of new devices being developed by both small boutique shops and mainstream audio corporations. It seems like every day we have a new device similar to something else. What you do not see often is something with its own character that also brings excellence to the marketplace.

The Aurender Flow portable DAC and Headphone amplifier is such a market-disrupting product.

Observations

At first glance the Flow seems to be another DAC/Amp combo unit. There are many of these with more being released seemingly every day. However, a few things separate the Flow from its “Me Too” competition. First is its sense of physical style. Not just another rectangular brick, the Flow has an elegant wave to its shape. Its clean and modern brushed aluminum body suggests high-end performance. Next the Flow features a USB 3.0 input along with an Optical input. There are also controls along the right side for moving through audio tracks depending on the connected device and software.

The big surprise is inside the unit. A connector for an mSATA drive allows up to 1TB of storage for music or files is provided. How do you reach this connector? With the included screwdriver! Just remove the four screws, plug in your drive, format it and transfer files to it via USB 3.0. This solves one of the most vexing problems with the newest generation of laptops. Small hard drives means no room for Hi-Res music files. Now you can have your music and even use some of the storage for other file types. I do many presentations for large groups. I loaded up a few PowerPoint files and ran them from the Flow and then I went back to the hotel and listened to music from the Flow. No more additional external drive for me!

The Flow houses a large 4450 mAh battery offering a strong seven hours of battery life. It also has a round screen providing details like Bit Rate and Volume. Around the screen is an aluminum circle that acts as a velocity sensitive volume knob. Once you have settled on a volume level the volume dB number goes away replaced by the bit rate. A partial outside circle stay illuminated to give a reference point for the volume level until you turn the ring again. Each time you unplug or re-plug the headphones it resets the volume to -90dB to prevent a surprise volume spike for the unwary listener.

The Flow accepts any current generation Hi Res file. It can handle PCM at 24/192 in Optical or 32/384 via USB as well as DSD 64 or 128. Aurender’s Director of

design, Harry Lee and his engineers selected the ESS 9018K2M for the decoding chores. This top-level chip can produce excellence in sound with proper implementation . The Aurender team has succeeded in that regard.

The Flow can be set via its menu to iOS, USB2, USB3, MAC and Android use. This is done to manage the input current so that it is appropriate to each device type. The settings are adjusted via the menu before connecting the cable to the particular device being paired. You can also adjust PCM phase, DSD Roll off and charging regimen as well as many other settings based on usage and need. I appreciate the amount of thought the team at Aurender put into this device. Clearly they considered the many types of potential users and made the Flow as flexible as possible.

Additional operational details can be found online at the [Aurender Flow support site](#).

Specifications

Input USB 3.0 (Audio Class 2.0)

Input2 SPDIF Optical

Output 1/4 inch/6.35mm Headphone Jack

Volume Control -110dB ~ 0dB, Velocity Sensitive Operation

mSATA Slot Optional mSATA storage up to 1TB

Output Impedance 0.06 Ohm Max

THD+N Max -114dB

IMD(SMPTE) Max -112dB

SPDIF Mode(Optic) up to 24bit/192kHz

PCM Mode(USB) up to 32bit/384kHz

DSD Mode(USB) DSD64, DSD128 / Dop Mode

DAC Chip ESS9018K2M

Play Time 7+ Hours

Battery SAMSUNG SDI 4450 mAh

Weight 450g(1.0 Pounds)

Output Power THD+N 0.0002%

43 mW/600 ohms, 87 mW/300 ohms, 320 mW/60 ohms, 380 mW/32 ohms,

THD+N (1kHz 5.1V rms output) 0.0002%

Dynamic Range Max 122dB

Damping Factor >130

Dimensions 80 x 137 x 28 (mm) 3.1 x 5.4 x 1.1 (inches)

**Specification provided by Aurender

Listening

During my time with the Flow I have had a chance to use it at home as a desktop unit, on the road during business travel for audio and as an external hard drive for presentation file storage purposes. It performed flawlessly under all conditions. My review sample came with a 256GB Samsung mSATA drive pre installed and formatted for MAC OSX. If you add one it will need to be formatted for the appropriate system prior to file loading and use.

During my listening sessions the Flow was paired with the Sennheiser HD800's, Audeze LCD-X's, MrSpeakers Alpha Primes and JH Audio's JH16 IEM's. Custom cables from Toxic Cables were used with the HD800's and JH16's. Side by side portable comparisons were with the ifi iDSD Micro. Desktop comparisons were with the Wyred 4 Sound DAC2 DSDse that uses the same ESS 9018K2M chips that the Flow utilized.

First a word about IEM's and background noise. Using the JH16 freq phase IEM's I heard a VERY faint hiss at full volume. Considering while listening to music I could rarely get past half volume without it being too loud for the JH16's I would say the Flow has a virtually dead quiet background with IEM's.

I started with The JH Audio JH16FP Custom IEM's and the Flow using the Toxic Cables Silver Widow's. My first selection was Michelle Chamuel's Face the Fire album. This is a new album and somewhat unique as she recorded it for Hi Res, CD and Vinyl each mixed to get the best out of each medium. I used the Hi Res track in 24/88.2 AIFF. The title track is not exactly Dub Step, not exactly EDM but it has a modern and catchy rhythm. The Flow provided a clean presentation. The full range of frequencies was present. I like detail and smoothness. They do not always come together as sometimes detail is so precise it

pulls apart the music. The Flow gave detail and top end sparkle without driving each note at me as an individual event. I could enjoy the whole canvas and not just the brush strokes. They were there to be observed if I wanted but I did not lose the picture to its component parts.

Next up was Anita Baker's Rapture. 24/192 AIFF. Caught up in the Rapture has been an old favorite. It showcases her smoky alto to great effect. For this I switched to my personal top reference cans the Sennheiser HD800's with Toxic Cables flagship Silver Widow 22's. Space, clarity, shimmer and what I like to call "Smoke". Smoke to me is seeing myself in the club seated at a table near the front. I am an audience of one with Anita singing to me. The Flow gave that experience. Compared to the Wyred 4 Sound DAC2 DSDse (\$2599 with dual Femto clocks and a host of Vishay resistors) I lost a bit of room depth. The shimmer of the cymbals did not decay to the same infinite distance with the Flow. This is not an indictment however it is solid praise. A \$1295 DAC/Amp should not keep up with a stand alone DAC that costs 2X the price. The fact that it gave a similar presentation with slightly reduced details and still provided a complete experience is telling of the qualities Aurender's' talented team can bring for a solid price.

Turning up the energy a few notches I queued up Van Halen Van Halen. 24/96 AIFF. I still have the original vinyl I bought in 1978. It blew me (and a whole generation of rock fans) away when it came out. To keep all that sonic goodness in I switched over to my closed reference cans the MrSpeakers Alpha Primes. Dan Clark reached the pinnacle of what he felt could be done with these Fostex drivers in making the Primes. They are my favorite closed headphones. I fired up Eruption. The wall of sound hit me like a brick. This track shocked the guitar world. No one had heard the speed, bends, dives and taps like Eddie presented. The Flow was nearly up to the task. This is a tough track for DAC's. The speed and tone of this track sets the bar high and I encountered only slight smearing during his manic solo. I would make note that the highly regarded ifi iDSD cannot manage this completely either. The Flow did make it through in better shape than the iDSD. Both are very strong relative to other competitors in the portable/transportable space. The Flow once again gave a solid presentation. The energy was there. I was rockin'! I also did not peg the volume on the Flow. At -12dB I was at my personal

volume limit. I did not stay there long either. Despite the volume level, the sound was clear with no hint of strain from the amp.

I wrapped up the review listening session with some classical music. Anne Akiko Myers with [Air: The Bach Album](#) 24/96 AIFF Violin Concerto No. 1 in A Minor. For this track I switched to the LCD-X from Audeze. The Audeze's are my favorite planar headphones and they are wonderful with chamber music. When I lived near St. Paul, MN. I attended the St. Paul Chamber Orchestra on many occasions. Sitting in the Ordway enjoying its lively acoustics I came to love the beauty and precision of chamber music. Listening to this lovely piece being played by a very accomplished Violinist I was struck by the air and space I experienced. It has been said that the music is the space between the notes. I could enjoy that space as the Flow allowed the notes to breath. The Audeze's were driven well and they showed their best. You could practically hear the rosin as it drifted from the strings. The foundation of the cellos and bass allowed the violin to soar with the staccato brilliance of Bach. All in all it was a satisfying end to a beautiful evening of listening.



Wrap Up

I have had the pleasure of spending a couple of months with the Flow. I like it a lot. My personal audio hunt is always to find great value gear. At \$1295 it is a solid value wrapped in a high class brushed aluminum body. It's versatility and performance makes it a go to product that could serve as a primary DAC/Amp for a compact home system. It performs well with Dynamic, Planar and IEM headphones. Plenty of power and finesse with a noise floor low enough for sensitive IEM's.

Hats off to Harry Lee and the Aurender team! Highly recommended!

PROS:

Compact

Excellent sound qualities

Very well made with a strong modern design

Versatile and can be used as an external hard drive for music or files

Seven-hour battery life allows on the go use

Complete accessories pack provides connectivity for most pairings

Cons:

Not a true portable, a bit big for true portable use. (Cargo Pants?)

The case does not have per-cut holes for cables. It is simply a protective case.

Single ended only

Gear List

Aurender Flow

Ifi iDSD Micro

Wyred 4 Sound DAC2 DSDse

SimAudio Moon Neo 430HA-D

Sennheiser HD800

Audeze LCD-X

MrSpeakers Alpha Prime

JH Audio JH16fp CIEM's

Toxic Cables Silver Widow 22 & 24 cables

Hi Res Audio files from HDTracks.com and Superhirez.com

Credit to Moon Audio for the loaner unit: <http://www.moon-audio.com/aurender-flow-dac.html>

- See more at: <http://headphone.guru/on-the-go-with-the-aurender-flow/#sthash.BHJvJHZP.dpuf>