

Server | audio files transport

I-O Data Soundgenic HDL-RA4TB

Manufacturer: **I-O Data Device, INC.**

Price in Poland: 2690 PLN

contact: **via website www.iodata.jp**

MADE IN Japan

Provided for test by: **AUDIO ATELIER**

[AUDIO FILES PLAYER, known in computer terminology as RENDERER, is a device used to play music from data storage - HDDs, SSDs or FLASH cards. These disks can be built into it, connected via USB or they can be NAS disks, i.e. disks connected via LAN. FILE TRANSPORT is a similar device, except without a D/A converter - we send the signal via USB.]

We've already known this company. Although for the first time we receive an audio device with its logo (at least I don't know about others), their engineers have come up with such fantastic products as [HFAS1-S10U](#) and [HFAS1-XS20U](#), i.e. servers and players of audio files in one, by Fidata.



FIDATA is a brand belonging to I-O Data company. Established in 2016 and aimed at the consumer



I-O DATA in "High Fidelity"

- TEST: Fidata HFAS1-XS20U | server/audio files player
- Award | BEST PRODUCT 2018: Fidata HFAS1-XS20U | server/audio files player
- TEST: Fidata HFAS1-S10U | server/audio files player

audio market in the "premium" version. Both devices that I mentioned were built to prevent both mechanical and electromagnetic and radio interference. Although today this type of measures are more and more often used in mainstream products, until recently both computer specialists and engineers were smiling with pity. It's a pity, because people at I-O Data are also engineers and computer scientists, but they know better.

| I-O DATA

I-O Data was founded in 1976 in the Japanese city of Kanazawa. Let's say that during the Edo period, Kanazawa (金沢) was the seat of the feudal Maeda clan, the second most influential in Japan at the time, just after the Tokugawa clan. **The I-O Data is one of the largest producers of computer peripherals in this country.** They are known, among others, from almost indestructible

external hard drives. They came out unscathed from tests dropping them from a height of 122 cm (4 feet). Also Blu-ray transports of this company are well-known.

In 2000, I-O Data designed its first mp3 player, and in 2005 the first DLNA-compatible server. In 2012, a project was launched to develop an audio file server. Two years later, the prototype was shown at the Tokyo Audio and Home Theater Exhibition. Work on the finished product took them a further two years. The result is a server and audio player in one, Fidata [HFAS1-S10U](#). **SOUNDGENIC is the first product of this type sold with the I-O Data logo.** The change of brand is to signal a different approach to the product, in this case - a much lower final price.

| SOUNDGENIC HDL-RA4TB

What is the new device and what is it for? It's simple - **Soundgenic can be either an audiophile NAS disk (in the tested version with a capacity of 4 TB) on which we will store music files, or a transport of audio files ("renderer") with an internal HDD disk, to which we connect an external digital-to-analog converter.**

NAS | First, a few abbreviations and their extensions. Although it seems complicated, it is not so, just imagine that **it is connected to the router, tuned external disk on which we can store any music files.**

Because from the manufacturer's point of view it is primarily an external **NAS** drive (Network Attached Storage = external hard drive) with Twonky Server 8 software. As a NAS, the device works according to the **DLNA** (Digital Living Network Alliance) standard with **UPnP** (Universal Plug-and-Play) protocol and connects to the home network via a **LAN** cable (Local Area Network; with RJ-45 plug). In the company's nomenclature, it is called "network audio server". And next:

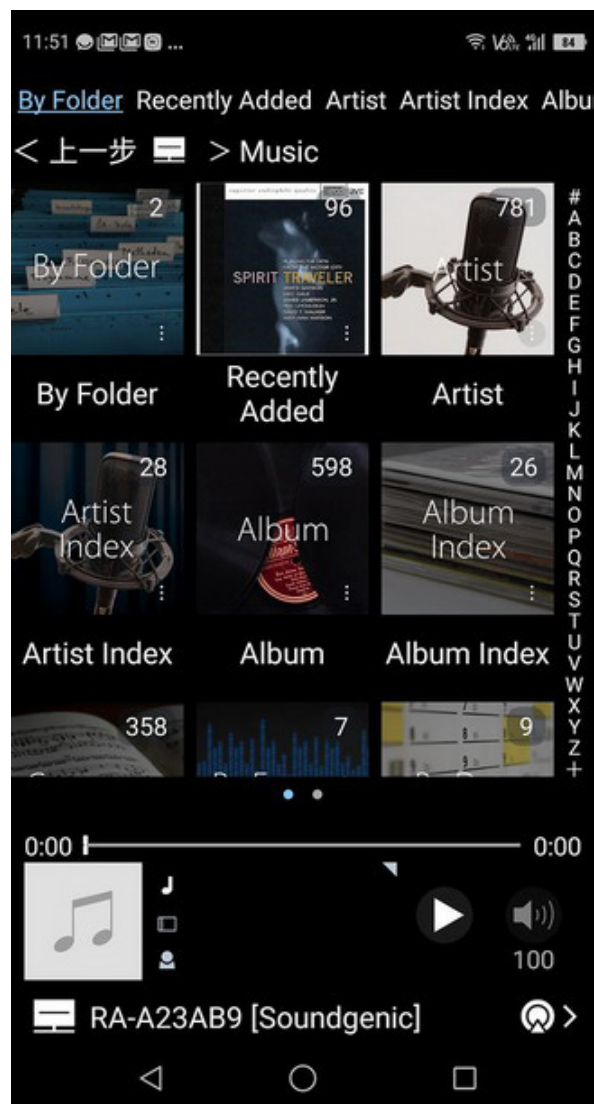
The device features a multimedia server function adapted for audio playback, compatible with USB-DAC, CD ripping function, provides easy music ripping, intended for playback and archiving.

source: www.iodata.jp (accessed: 23.01.2020)
You can save music files on the internal HDD disk, both through the Ethernet network and directly

from a USB stick or hard disk, connected to the back of the device to one of two USB type A (flat) ports.

Transport | The second way one can use the I-O Data device is to treat it as **AUDIO FILES TRANSPORT**. To one of its USB ports one then connects a digital-to-analog converter with a USB input and **thus create a complete audio file player** with built-in mass storage (HDD).

The device is then controlled by the Fidata Music App, designed for devices with both Android and iOS (Apple) operating systems. It is available in all app stores and is free. In this mode, the Ethernet connection is mainly used to control the device. However, you can use it to stream (send) audio files from external NAS disks.



Technology | This is a small device, but it has been built extremely solidly and is a good example for the migration of expensive technical solutions

down the price list. The manufacturer has mastered them thanks to Fidata devices. The housing was made of thick (1.2 mm) steel sheets and a very thick aluminum profile, forming the front and top. It has been finished in a very attractive way - this type of finish is called "hairline finish". The device is only available in black. In both cases, **Soundgenic will send (as NAS) or play (as transport; will unpack files to PCM or DSD) probably all currently used audio file types:** wav, mp3, wma, m4a, m4b, ogg, flac, aac, mp2, ac3, mpa, aif, aiff, dff, dsf. We are primarily interested in uncompressed files, i.e. (in my case): WAV, FLAC and DSD. The PCM signal can take the form of even 32/768, and DSD is available up to DSD256 (11.2 MHz, in DoP mode) and DSD512 (22.5 MHz, in Direct DSD mode).



The files can be saved to the internal hard disk, but can also be downloaded from a USB stick or external USB disk, as well as via Ethernet, using the RJ45 input. **We output the audio signal through a USB port**, to which we connect a USB DAC. There are two sockets, but the company says it doesn't matter which one we use. If we use the device as a NAS disk, then **we send the files via an Ethernet connection, via a LAN**. The device is powered by an external, small switching power supply, which in the future can be replaced with a better, linear one.

Limitations | I-O Data Soundgenic, as you probably noticed, has one, but quite a limitation: **it only plays files from local storage media**. In other words - it does not stream the signal from the Internet, so one can't use it to listen to Internet radio or streaming services such as Tidal, Quobuz etc. The device does not decode MQA files, although in this case it did not matter, because I decoded them in an external DAC. This is a real limitation. But not a surprise - the company's engineers believe that only files played from local

storage can be considered "master files". **The choice of priorities (quality versus functionality), as usual, depends on you.**

| HOW WE LISTENED TO IT

I-O Data Soundgenic is a small device. So you have to provide it with a rigid base and it's best to place some weight on top of it. This will improve the mechanical stability of the structure. I did it differently. For some time the Mytek Brooklyn Bridge file player has been standing over my passive EMI / RFI [Verictum X Block](#) filter. Thanks to this, the device has a stable surface to stand on and is also filtered. So I set up the tested player / NAS in the same way (both Mytek and I-O Data do not have feet, only rubber pads that play this role). So that the whole does not move underneath, I used three Vibrapods.



At the center of the system I set up was the [Mytek player](#). I connected the tested product to its high quality USB input using a [Curious Cables USB](#) cable. Both devices were connected to the FunBox 3.0 router via LAN cables.

I connected to the same router the Synology DiskStation DS410j, with four HDD disks, 2 TB each (RAID 1). So I could listen to the Japanese device both as a file player (USB cable) and as a NAS disk. In the first role it was compared to the player section in Mytek, and in the second to the Synology server.

I listened to Soundgenic both, in the reference systems, as well as during the Dynaudio Confidence 30 review (see photos).

Recordings used for the test (a selection)

- *Audiophile Speaker Set-up*, 2xHD Fusion, Studio Master DSD512 (2019); review [HERE](#)
- Andrzej Kurylewicz Quintet, *So-So w: Andrzej Kurylewicz Quintet, Go Right*, Polskie Nagrania „Muza”/Warner Music Poland 4 64880 9, „Polish Jazz | vol. 0”, Studio Master PCM 24/88,2 (1963/2016);
- Charlie Mariano & Dieter Ilg, *Goodbye Pork Pie Hat*, Sommelier Du Son sds 0014-1/2xHD, Studio Master DSD256 (2009/2018)
- John Coltrane Quartet, *Ballads*, Impulse!/Universal Music Jalan UCGU-9044, rip DSD z SHM-SACD, (1962/2014)
- Lars Danielsson & Leszek Mozdzer, *Pasodoble*, ACT Music ACT 9458-2, FLAC 24/88,2 (2007)
- Nakano Mayo Piano Trio, *Sentimental Reasons*, Briphonic BRPN-7006, Studio Master PCM 24/192 (2017)
- Nakano Mayo Piano Trio, *Sentimental Reasons*, Briphonic BRPN-7006, Studio Master DSD (2017)
- Norah Jones, *Come Away With Me*, Blue Note/HD Tracks, FLAC 24/192 (2002)
- QOPE, *Nocturnal*, trptk live TTK 0024, Studio Master DXD (2018);



- Sound -

This little box is like a pass to a better world - at least if we are talking about high-class sound for reasonable money. I-O Data connected to the Mytek Brooklyn Bridge player showed, without a doubt, what Mytek is good at and a bit worse at, and it is just like I wrote in its test - it's a fantastic headphone amplifier, a great DAC and good files

player - in this order.

Replacing the transport with an external one, even though we are adding a USB connection to the equation, which is not my favorite, has changed the conditions of the game. Mytek as a whole is a beautiful example of the skills of Polish designers. But you can also immediately hear that the many years of experience of I-O Data engineers also pays off in such an inexpensive product as Soundgenic. **The Japanese device is excellent and took Mytek, when it comes to playing files, to a whole new level.**

The main advantage of Japanese file transport is the amazing dynamics. This is the Achilles heel of almost all sources based on computer systems. High frequency noise, EMI distortion, problems with mechanical structure, which also add to distortions, all this affects the flattening of dynamics and loss of resolution. Listened to as a file transport (via USB output), I-O Data played like a high-end product in this respect. It is not as sophisticated as Fidata transports, but it is not bad, I would even say that it is fantastic - **all you have to do is look at the bank statement after buying one or the other device.**

The sound is open, clear and full with it. **It's saturated sound, but without warming it up.** If you are looking for a warmer sound, you should be interested in [Lumin](#) transports and players . However, I have no problem with its tonal balance. It is neutral on the one hand and very natural on the other. So I heard the delicate treble on Norah Jones *Come Away With Me* (PCM 24 / 192), but also great bass in the recordings from Danielsson & Mozdzer's *Pasodoble* (PCM 24 / 88.2).

The Japanese device saturates the sound much more than Mytek. Compared to it, file transport in Mytek is brighter and at the same time less resolving. It is also much less differentiating. Although I-O Data gives the whole its character, it is not the character that puts out the event, but emphasizes it. So it was perfectly audible how the Nakano Mayo Piano Trio versions - PCM 24/192 and DSD, which I got straight from the recording studio, differ.

The PCM version was a bit louder, brighter and more feisty, with more punch. In turn, DSD showed the depth of the music, flavors, details, which in the flood of PCM version information

were lost somewhere. So I had no doubt that this DSD version was more natural - despite the fact that I am an agnostic when it comes to the "superiority" of PCM over DSD and vice versa.

With I-O Data the sound was heavier, lower, but it also had much more information about the timbre, dynamics and soundstage.

It is a device that places the foreground quite close to us and it is really intense. The upper bass is slightly emphasized, which gives the impression of a large volume and momentum. This overlaps a bit on all recordings, but that's good, because exactly these elements are missing from other transports and file players from the price range to, say, PLN 10,000. **And there is also the resolution, which is brilliant in this device.**

| NAS

Comparing I-O Data working as a NAS with my Synology server was not so easy. The differences in sound were clear, but I had to wait a little longer with their assessment. It wasn't until I had everything in my head that I could say, "I understand."

At first I was willing to admit that Synology better fitted into the system with Mytek as a file player. Patricia Barber from the *Companion* album seemed warmer, prettier and less nervous with it. In contrast to it, I-O Data seemed to me brighter and not filled enough. And it's true, these are the basic differences between these NAS disks. After some time, however, it turned out that what I was taking for warmth was a lack of information, and what I thought was natural was cutting the bandwidth - both from above and below.

Now I know that **the Japanese device offers a much better insight into the recording**, and thus a richer experience. In the role of a NAS it sounds higher than Synology, but not too high - just enough to show an open sound without brightening it. The higher the recording quality, the better the file quality, the more its advantage was audible. With DXD and DSD256 files, which I got straight from mastering studios of record labels, respectively, [trptk](#) and 2xHD, it seemed that I changed the D/A converter for better - when the files were sent to Mytek from I-O Data - or worse - when sent from Synology.

| SUMMARY

I will say this - **if you want to be in the high-end world with file transport at a low cost, Soundgenic is the perfect way to do it.** It's fantastic at this, and it's also a very good NAS disk. His problem is that it is only used to play files stored locally and is not a streamer. That is - we will not use it to play files from any streaming service (Tidal, Quobuz, Spotify, etc.).



However, if you expect from your system the best sound, regardless of the sacrifices, then the tested device will help you in this, at a low cost. **This is an excellent device with a slightly marked own sound that turns D / A converters into full-fledged high-end file players.** That is why **RED** Fingerprint for it. ■

Technical specifications(according to manufacturer)

Supported file formats: wav, mp3, wma, m4a, m4b, ogg, flac, aac, mp2, ac3, mpa, aif, aiff, dff, dsf

Supported sampling frequencies (USB output):

- PCM: 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384, 705.6*, 768* (*only wav and aiff)
- DSD (DoP): 2.8, 5.6, 11.2 MHz
- DSD (Direct DSD): 2.8, 5.6, 11, 22.5 MHz

Word length:

- PCM: 16, 24, 32 bits
- DSD: 1 bit

Supported operating systems: Windows 10 | Windows 8.1 | Windows 8 | Windows 7

- OS X 10.7 - 10.11 | macOS 10.12 -10.14

Transmission standards: 1000BASE-T/100BASE-TX/10BASE-T

Connectors: RJ45 (Auto-MDI/MDI-X compatible)

Ports USB: USB 3.0 x 1 | USB 2.0 x 1

Networking standard compliance: UPnP AV

Power consumption: 7.3 W (average) | 29 W (max)

Dimensions (W x H x D, without feet): 168 x 134 x

43 mm Weight: 1.2 kg