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`REVIEWS`

Zenmini Innuos Mk3: Audio Server

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Innuos and its products are the antithesis of the conventional, computer-based solution for storing, managing and playing music files. As the debate between specialized and general-purpose approaches continues, we test the company's affordable proposal and convey our impressions.

It would not be a bad idea to start with a few explanations: Most of the time through these pages we try devices called streamers, network players and media players. They are devices that can "download" files from the home network and the internet and output audio signal in their output, in digital and / or analog format. This description implies that the files, what we call a music library, are located somewhere else. On computers, hard drives, NAS or any network resource our device can "see". This also means that the creation of the library at both the data and metadata level also takes place elsewhere. This "elsewhere" is an audio server. Such a device includes not only storage space, but also runs the server software as well as all the required electronics. It also sometimes includes the infrastructure required for CD ripping to insert disks into the server storage media and searches for their metadata online (or provides the front end required for this job to be done by the user himself).

Based on these descriptions, it is easy to understand that an audio server can be both a streamer and a network / media player, while the opposite is not the case: A specialized network player cannot play the role of an audio server.

You said!

Yes. This is a somewhat theoretical description of the audio server, which generally describes the ZENmini Mk3. This is the smallest model of Innuos and belongs to the ZEN series, together with the ZEN Mk3 and the ZENmini Mk3 and can be accompanied, optionally, by the external, linear, LPSU power supply which, according to the company, improves the power conditions of the device. in relation to the classic, switch pack that accompanies it.

In terms of IT, the ZENmini is based on an Intel Quad Core N4200 processor with 4GB of memory on a motherboard that works without a cooling fan, so it does not contribute at all to the noise of the device. Most of the chassis is occupied -of course- Teac's optical drive, a slot loading unit in which the CDs intended for ripping are placed. The internal hard drive in the test device had a capacity of 1TB and was a Western Digital of the Red series, a reasonable choice, as this series is oriented to NAS applications, so it can withstand constant, hard use (but do not be optimistic: The old saying that
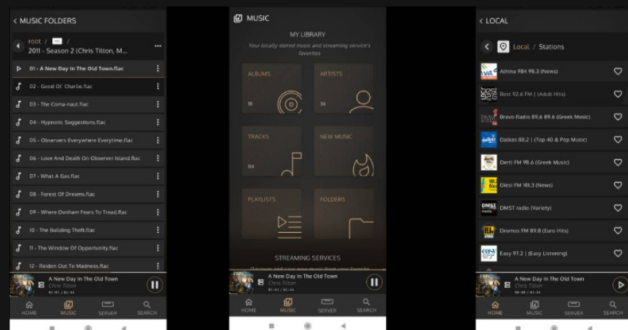
wants every hard drive a potential disaster, valid!). The user, however, can use larger disks, 2TB and 4TB, with a similar charge. In addition to the internal drive, the ZENmini can access external storage media that can be connected to one of the four USB (v3.0) ports on the back. In some of these ports can be placed a disk for backup, which is absolutely necessary (see above), especially since the internal, single, disk does not offer any form of security through redundancy (the ability to create a RAID array for example)

Unlike other ZEN series devices as well as the company's flagship Statement, the ZENmini also includes a d / a converter, a chip-based circuit of Texas Instruments (PCM1505).

The presence of a built-in DAC, obviously means that the user has at his disposal an analog output (RCA) which is adjustable in terms of level (through the software) and allows the connection of the device in a conventional way to any input line. Connectivity also includes digital outputs, coaxial and optical which support sample rates up to 24/192 as well as a USB 2.0 port, through which the device can act as a host for compatible external DACs, supporting streams up to 32/384, native DSD and DSD128 / DoP.

The connection to the network is only wired, via Ethernet (RJ45). Through this connection, ZENmini "sees" the home network and the resources from which it can extract files (hard drives to computers, NAS) but also the internet through which it can connect to subscription or free streaming services and internet radio. . The device supports Tidal and Qobuz through its control application (Sense). Once the device is connected to the network, it is also visible as a resource and the user has access to both its functions through its web interface and its setup. Additionally, it can be used as a DLNA compatible server by third-party applications.

Common... Sense, Uncommon Sound!

ZENmini is operated through the application developed by Innuos, called Sense, which is available for Android and iOS devices. The user interface is well designed and clear and the user can make a wide range of settings regarding the storage media and the way the server is integrated in the system (it is possible to function as a Roon Core or as a DLNA / UPnP server) to perform ripping (with FLAC / WAV option) and -of course- to manage his music collection, create lists etc. In our hands, the whole system seemed fast enough in scrolling and ripping, which lasts only a few minutes. As usual, the ripper searches for metadata from external databases (it is configured for three) other, of course,

We used ZENmini as a source in two ways, first through its digital output which was driven to an external DAC and then through the analog output which was conventionally driven to the preamplifier.

The performance of ZENmini on both connections really surprised us with its quality at all levels. This may sound a bit exaggerated, but the truth is, sometimes, simple: Compared to a typical server / renderer computer, the result was better in every way. Much better articulated low with clearer volume and detail, very good tonal balance and sense of range in the high frequency range and, above all, much better stereo image with a clearer description of the acoustic objects in terms of position and air, excellent feeling of a dark background on which the information is projected and very good description of the movement. With ZENmini the system took off in terms of its ability to pass information on space,

The transparency of the device is also evident from the fact that it passes to the listener all the values of the (external) DAC. Rarely have we heard the Teac Esoteric D70 sound so good and the comparison of the server with the corresponding CD transport (P70) is really ungrounded. Ripped discs sound better than physical discs when played in real time. This last one is not surprising. Already with a typical computer in the role of media player, even a top transport "loses" easily.

However, the built-in converter does its job well and stands worthy at the level of the rest of the device. It transfers the details of each file without any problems, has a very good tonal balance and moves at very high levels in terms of stereo image.

In summary, we are dealing with a very serious device, despite its low position in the Innuos product catalog. It offers all the necessary features, has a very good app for its operation (you can always use Roon, of course) and, most importantly, sounds clearly better than a conventional computer that plays the corresponding role. It clearly sets a benchmark for this price range and is highly recommended.

Overview

Description: Audio Server

Platform: Intel Quad Core N4200 / 4GB RAM

Storage media: HDD, Western Digital Red, 1TB

Optical disc driver: Teac / Sloat loading, CD / CD-R / CD-RW compatible (Red Book)

Network: 2x Ethernet RJ45, 4x USB Type-A v3.0

Digital outputs: 1x coaxial (RCA), 1x optical (Toslink) 1x USB Type-A v2.0

Analog outputs: 1x single ended (RCA)

Compatibility: WAV, AIFF, FLAC, ALAC, AAC, MP3, MQA

Sample rates: 24/192 (coaxial, optical), 32/384, DSD128 / DoP, DSD Native

Streaming: UPnP / DLNA, Roon Core / Endpoint

User interface: Web browser, Sense app (Android / iOS)

Other possibilities: Level adjustment, possibility of using external power supply (LPSU)

Dimensions: 215x245x75 (mm, πχβχυ)

Weight: 4.5kg

Price: € 1,299 (1TB)

info: Athens Pro Audio, tel .: 210-330.1031, https://www.athensproaudio.gr/

The article is by Dimitris Stamatakos and is published in the twelfth issue of YELLOWBOX that circulates in the newsstands._YB

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