



## Bryston BDP-1USB digital player

### The virtues of single-mindedness

JAN-ERIK NORDOEN

**H**ow many digital-to-analog converters exist on the market today? Now, how many digital players exist to supply these converters? While a new DAC appears almost every month on the market, the arrival of new digital player remains something of an event. This state of affairs can be laid squarely at the feet of the personal computer, which can also become a digital player, with the right software. But while you can use a personal computer as a digital player, *should* you do it? Bryston believes that a dedicated computer designed and built from the ground up for audio reproduction is a far better option, and I have to agree with them. I would love it if the digital player didn't impart its character on the musicality of the player / converter duo. But, my experience with different digital sources into four different DACs (Naim, Audiolab M-DAC, Chord Hugo, Resonance Labs Mirus), have shown me otherwise. While the DAC does the greatest part of the work, the quality of the digital player, and its power supply, still manage to make themselves known in the final result.

#### WHAT IS A DIGITAL PLAYER?

A digital player's job is to read raw data from an external source (e.g., a USB hard drive or memory card, or a network attached storage device), turn it into a quality signal and transfer this signal to the digital-to-analog converter. To read the raw data, each audio equipment manufacturer has a preferred route and, on this side of the Atlantic, asynchronous USB has many adherents, including Bryston. According to the company's engineers, reading data via USB and transferring to the DAC by the same method is the most direct and accurate means of rendering digital files into music.

To prove it, Bryston developed the BDP-1USB, introduced in the fall of 2014. This device is a stripped down version of Bryston's well-regarded BDP-2 digital player and like the BDP-2, is a computer built specifically for optimal audio playback. The BDP-1USB devotes itself (and very well too) to its primary directive of replay from USB sources into USB-equipped DACs.

#### FROM SIMPLE DIGITAL PLAYER TO FULL MUSIC SERVER

The first contact with a Bryston digital player can be a little confusing to those accustomed to a music server or a network player, because the Bryston players are reduced to their essential functions. So, you will not find a touch screen, any internal storage, a network card or other component that could generate electronic noise and potentially compromise the digital signal. The price reflects this approach and, at \$1,795, it is the brand's most affordable player. According to Bryston, the BDP-1USB involves no compromises in sound quality compared to the BDP-2 player. Versatile, it plays all PCM and DSD formats in bit-perfect fashion up to a resolution of 192 kHz/24 bits. Through the «DSD over PCM» (DoP) protocol, the BDP-1USB reads DSD files up to the DSD-64 resolution, provided that your DAC supports this protocol.

One of the attractions of this player is that you can take it slowly if you wish, using it first as a standalone USB player, without going anywhere near a network. In this mode (and once connected to the USB input of your DAC) you control it just like a CD player. Switch the player on, connect a USB key or hard drive containing music files and, using the display and a series of push buttons on the front panel of the device, browse through the folders and files to select and play the desired albums or tracks. You could even purchase the Bryston BR-2 remote and control playback from the comfort of your listening position.

At some point though, the lure of having your entire music collection at your fingertips will become irresistible. Once connected to a home network via Ethernet cable, the player becomes visible and controllable from a computer, tablet or smartphone. The BDP-1USB will also play back music files located on network attached storage devices (NAS), through the Ethernet connection. Controlling the BDP-1USB from a computer is simply a matter of entering the IP address of the player in a web browser, which brings

**(SIDEBAR 1) TECHNICAL ASPECTS**

- Linear power supply for audio processing circuitry.
- Four USB 2.0 inputs / outputs (backwards compatible with USB 1.1 and 1.0 specifications).
- One Ethernet port (10/100).
- Interconnectivity with USB Class 2.0 digital-to-analog converters including those that support DSD over PCM (DoP).
- Gapless playback of FLAC, Apple Lossless, AIFF, WAV, MP3, and a wide range of other formats.
- Bit-perfect playback of DSD files up to 192kHz/24 bit

- and DSD over PCM (DoP) up to DSD-64.
- Manages complex music libraries of up to 30,000 tracks stored on either locally connected USB hard drives or a network attached storage device.
- Intuitive user interface accessible through practically all web browsers and mobile devices (iOS, Android, and others).
- Controllable via RS-232 interface or with the Bryston BR2 remote control.
- Silent, no moving parts.
- Firmware upgradeable over the network.

up the Music Player Daemon software located on the player. For the ultimate in control though, it's worth downloading one of the control apps to a smartphone or tablet (MPad, MPod for Apple, MPDroid for Android) because these apps aggregate music files from all sources visible to the BDP-1USB to present you with a unified library. Assuming that your music files are properly tagged, they will be retrieved by the apps to allow you to search by album, artist, genre, track or other tagged field. In addition, the apps provide access to the AllMusic website, without leaving the application, a nice feature when seeking in-depth information on your favourite artists.

The BDP-1USB, in combination with one of the above-mentioned control apps, can manage music libraries comprising up to 30,000 tracks (about 2,500 albums) whether stored on USB keys, USB hard drives, or a network-attached storage device.

**HARDWARE, FIRMWARE AND SOFTWARE**

On the hardware side, Bryston has fitted the BDP-1USB with a highly regulated linear power supply based on a toroidal transformer, thus avoiding the introduction of any electrical noise that could interfere with sound quality. The player runs an advanced version of Linux. The BDP-1USB has four USB 2.0 ports, two on the front panel and two on the rear. The front ports handle USB keys, while the rear ones also provide power for USB hard drives. Any one of the four ports can be used to feed music to the USB input of a DAC. An Ethernet port (10/100) on the rear panel enables the BDP-1USB to communicate with a home network and, as previously mentioned, play music files stored on networked storage devices. An RS232 interface is provided to connect a control system, such as AMX, Crestron or Savant, amongst others.

The firmware that manages the player's operations is in its third version (the delightfully named "Manic Moose"), based on a Linux Debian Wheezy distribution. The file-reading software is a version of the open-source "Music Player Daemon". The Mpod, MPad and MPDroid apps are controllers for the Music Player Daemon software.

**SETUP**

As a music source, I used a 1TB Verbatim USB hard drive on which I had copied a number of albums in WAV format (16/44.1) originally ripped from CD by my reference server,

as well as a few high-resolution FLAC files. The BDP-1USB replaced my reference digital player / server to power either the Resonance Labs Mirus DAC or the Hugo DAC from Chord Electronics. The player recognized the two converters without issue. To connect the player to the DACs, I used the USB cable provided with the Chord Hugo converter, or a USB cable from Transparent Audio.

At switch-on, the BDP-1USB reminds you that it's a computer as it goes through its start-up routine that ends with the loading of the Music Player Daemon software. Immediately after connecting my hard drive to the lower back port of the BDP-1USB, the player recognized the drive and my music files became visible. The BDP-1USB traversed a short break-in period (about 50 hours) during which music playback lost a slight electronic glare, and gained in fluency and musical engagement.

**HONORING THE MUSIC**

From an impossibly silent background, the first measures of Lambchop's album *Is A Woman* emerge with startling clarity. There is a huge soundstage in which each instrument is painted in great beauty. The presentation is very different from what I'm used to hearing, and completely engaging. On the track «Is A Woman» which ends the album, I've never heard such a beautiful reproduction of the piano that opens this piece. Then the voice of Kurt Wagner... he is simply *there*, right behind the microphone, every inflection of his voice just as it should be.

Returning for a moment to the sense of absolute silence - the stillness that allows music its full expression - is this the effect of the linear power supply on the BDP-1USB? I think so, because I hear the same thing when I connect a linear supply to my reference server. With the BDP-1USB, I hear no electronic veil over the music. Listening is easy, relaxed and imbued with a sense of purity. I've often heard high-fidelity systems present music with so much purity that all emotion is stripped out, but that is certainly not the case here. The BDP-1USB consistently captured my interest and drew me in to the point where it was always a great pleasure just to sit down and listen. Even under the worst listening conditions (a "man" flu), the music rendered by this player was consistently engaging.

Continuing with Leonard Cohen's *Old Ideas* and the track «Show Me The Place», the impressions are the same:

## [SIDEBAR 2] ASSOCIATED EQUIPMENT

- Digital sources: MacBookPro & Audirvana, Naim UnitiServe 2TB server / digital player
- USB cable: Transparent Audio
- S/PDIF cable: BIS Audio Vivat
- Digital-to-analog converters: Resonance Labs Mirus, Chord Electronics Hugo
- Interconnect cable: BIS Audio Vivat
- Amplifier: Naim Supernait 2
- Speaker cables: BIS Audio Vivat
- Speakers: Amphion Argon 3
- Power distribution bar : BIS Audio Power Bar
- Power cables: BIS Audio AC-AMP for the amplifier and AC20 for the Mirus converter

a huge soundstage, a complete lack of background noise, and Leonard imploring his god to show him the place where human suffering began. Highly moving.

nuance of Stefano Montanari's violin virtuosity. Among the treasures captured on this recording, composer Antonio Maria Montanari's «Concerto grosso in A major» begins with an adagio of rare beauty, and the Bryston delivers it



To test bass reproduction, I turn to electronic music and Deadbeat's hard-driving *Radio Rothko*. The Bryston delivers it brilliantly, keeping the pace with metronomic precision. The transition at the end of the track «Quadrant Dub 1» to «Exigen» plunges us into a huge cavern where deep bass synths hypnotically blend into their own echoes. There is no more audio system, just music and pure sound.

*Casualties of Cool* by the Canadian musician Devin Townsend is a recent discovery. This album, which freely crosses several genres - the artist classifies it as «haunted Johnny Cash» - epitomizes Devin's multifaceted genius. The psychedelic and dreamy thread that runs through this work - a touch of Pink Floyd here and there - is essential to its appreciation. On my reference player, this comes through clearly and the album makes complete sense. It's impossible not to listen through to the end. On the Bryston, it's very close, with a slight softening of some difficult passages, but the psychedelic side is a little less obvious. The Bryston still manages to weave this music's spell, but the focus leans more to the sound and the atmosphere of the work than to the groove; there is a slight loss of rhythmicity.

Cuing up Nick Cave's *No More Shall We Part*, the Bryston player simply nails the music, and the urge to turn up the volume is irresistible. The track «God Is In The House» is sublime and I lose myself in the intensity of the music and the story. Listening continues with the very topical «Fifteen Feet of Pure White Snow», with goose bumps arriving on cue.

Turning to my «sanctuary music», the Arion Ensemble's *Hidden Treasures of Italy*, the Bryston player renders this music with great verve, clearly delivering the intensity and

**WITH THE BDP-1USB, I HEAR NO ELECTRONIC VEIL OVER THE MUSIC. LISTENING IS EASY, RELAXED AND IMBUED WITH A SENSE OF PURITY.**

intact. Smooth and with great finesse, listening is utterly captivating and continues until the final measures die away. I sit in silence, elevated by the majesty of this work.

## PLAYBACK FROM A NETWORK ATTACHED STORAGE UNIT

After several attempts with the Music Player Daemon software, I was able to get it to recognize my network attached storage unit and load several files to compare with playback via USB. Music emerged, but I felt that the timing suffered in comparison to USB playback. I'm not sure where the cause for this may lie, but I would suspect the SMPS power supply on my storage unit or my network setup. Adding a linear power supply to my NAS would be a first step. Your mileage, as the advertisement says, may vary.

## STREAMING SERVICES

One of the great advantages of a digital player connected to a network is access to thousands of internet radio stations and to the growing list of online music streaming services. The arrival of lossless services such Tidal, Qobuz, Deezer and others promises a very bright future. Since this market is young and fast developing, a logical strategy when buying a digital player is to choose one that runs open-source software. This is Bryston's approach; the company is working on the integration of Tidal and a beta version is currently available. The interface should be com-

pleted «no later than the summer of 2015,» according to Chris Rice, developer at Bryston. Meanwhile, a fairly large selection of Internet radio stations, covering 25 genres, is available through the Music Player Daemon interface. I spent a few hours sampling different genres and made se-

**THE BDP-1USB CONSISTENTLY CAPTURED MY INTEREST AND DREW ME IN TO THE POINT WHERE IT WAS ALWAYS A GREAT PLEASURE JUST TO SIT DOWN AND LISTEN.**

veral musical discoveries, thanks to the Bryston's ability to do justice to MP3 files, even at sampling rates of 128 Kbit. This is a good test for a component. While the focus is very often on high-resolution files, for discovering music, nothing beats the Internet and online streaming services. A competent component must be able to maintain interest when reading low-resolution formats. The BDP-1USB never lost the plot.

**VERDICT**

Detailed and accurate without becoming analytical, Bryston's BDP-1USB focuses on its unique task of rendering music in all its glory. If you use a computer to feed a

digital-to-analog converter, drop by your Bryston dealer, because you can do better, much better in fact. Developed and refined for a single purpose, the BDP-1USB brings listening to music via USB to a level that surprised me and that clearly outclasses my current USB source, a 2014 MacBookPro running Audirvana software. The Bryston BDP-1USB is simply the best USB source I've had the opportunity to hear. Its very accessible price is the icing on the cake.

And, if you're really miss CD replay, you'll be happy to know that the new firmware version of the BDP-1USB allows connection of an optical CD drive via USB. While this may be convenient, I somehow doubt that the sound quality will be as good as that from a humble USB key plugged into this player.

Bryston BDP-1 USB  
Faceplate available in 17 «or 19»  
width in black or silver anodized finish  
Price: \$ 1,795  
Warranty: 5 years parts and labor  
1-800-632-8217 • [www.bryston.com](http://www.bryston.com)