



AZUR 851 SERIES
FLAGSHIP DIGITAL AUDIO

AZUR 851N
UPSAMPLING NETWORK MUSIC PLAYER

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THE PINNACLE OF DIGITAL AND STREAMING PERFORMANCE



AZUR 851 SERIES



The Azur 851N is a network player designed to draw every last drop of performance from every digital audio source imaginable. We all love to play our music back from just about anywhere; from home networks, hard drives and computers, to online streaming services such as Spotify and internet radio. However, reproducing this digital music as the original artist intended is a complex challenge. For example, a laptop is designed to be a laptop, not a piece of hi-fi, so sound quality is usually compromised as a result.

Part of the flagship 8 Series, the 851N is the most versatile, best sounding digital music player we have ever made, designed for those who want to play or stream their music digitally, but with no compromise on sound quality. The 851N can play everything from compressed MP3 formats, to 24-bit/192 kHz studio master quality FLAC and WAV files and its wireless playback capabilities also include internet radio, Spotify, Airplay and even Bluetooth. Whichever input the music comes from, wired or wireless, and whatever its original quality or resolution, the 851N upsamples every input to 24-bit/384kHz for the best quality possible.

Completing the package, the 851N can also be used as a high quality DAC (Digital to Analogue Converter) and digital pre-amplifier. When the optional pre-amplifier mode is enabled, the 851N features a high quality digital volume control, allowing you to connect directly to a power amplifier such as the Azur 851W, without the need to first connect to a traditional analogue preamplifier.

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Superior connectivity

The 851N has a host of wired and wireless connections so that wherever your music comes from, you can play it back in stunning quality through the 851N:

- **Wireless:** Wi-Fi, UPnP, internet radio, Spotify, Airplay and Bluetooth.
- **Wired:** Ethernet, UPnP, internet radio, 3 x USB HDD inputs, asynchronous USB Audio, 5 x digital inputs including S/PDIF coaxial, TOSLINK optical and AES/EBU.

This means you can connect a world of digital source components from set-top boxes to smartphones, tablets and computers, and improve their sound with the 851N. Whatever you connect, the results are astonishing!

- **High quality outputs:** The 851N upsamples every input to 24-bit/384kHz output for the best quality possible. The 851N features both RCA and balanced XLR audio outputs, as found in many modern high-end hi-fi separates (including our 851E and 851W pre and power amplifiers).

High performance USB

The 851N features a high quality asynchronous USB Audio input for playing up to 24-bit/192kHz high resolution files from a connected computer or laptop. An asynchronous USB Audio input means that the 851N acts as a high quality external soundcard, allowing bit-perfect transfer from the connected computer to the 851N, ensuring all data is delivered in perfect timing for the highest possible sound quality.

Purest possible sound

By using a digital pre-amplifier, the audio signal remains in the digital domain for much longer, compared to a traditional analogue integrated or pre-amplifier. Because the audio signal remains digital, and is only converted to analogue at the very last minute, it is far less susceptible to analogue signal deterioration. This means that the sound you hear is as close as possible to the original recording.



Digital Pre, with Analogue Power!

Why not connect the 851N directly to the Azur 851W power amplifier, to create a truly astonishing digital music system!

Unlike many digital pre-amplifiers, the 851N's digital pre-amplifier is the highest possible quality thanks to the powerful 32-bit Blackfin DSP (Digital Signal Processor), which we also use to drive our ATF audio upsampling system. Most digital preamplifiers use 'bit reduction' to adjust the level of the volume output, however this results in much lower sound quality because digital information is being cut out of the original audio signal. Instead, the 851N's digital pre-amplifier uses the Blackfin DSP to control the level of the volume output, meaning that the entire digital signal remains fully intact for the best possible sound.



Cambridge Connect Apps

With a beautiful 4.3" (11cm) colour display, the 851N is as easy to control as it is great to listen to. The 851N can be controlled from the front panel and the included remote control, but the free Cambridge Connect App (for iOS and Android devices) is by far the best way to effortlessly browse and choose music by artwork, genre, album, artist etc. and by creating playlists.

All the power of Spotify, built in

Spotify is the world's most popular streaming service. Spotify Connect is integrated with the 851N. If you subscribe to Spotify Premium, you can play all of your Spotify music and playlists and control the 851N with the powerful Spotify Connect app on your phone or tablet. And because Spotify is built-in, you can still take calls or use other apps on your phone – the music never stops.

Airplay and Bluetooth: enhance your Apps

Bring the 851N's stunning audio quality to all your apps and streaming services via your smartphone, tablet or computer. Connect wirelessly to the 851N and listen to popular apps and services such as YouTube, played back in stunning quality through the 851N's Bluetooth or Airplay connections. Anything you play on your tablet or smartphone will sound far superior when played back wirelessly through the 851N.



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Music files played from PC/Mac/NAS via UPnP | 20,000 internet radio stations

FLAC/Apple Lossless
16-24 bit
11.025-192 kHz

**MP3, WMA, AAC, AAC+,
Ogg Vorbis**

AIFF
Uncompressed 16-24 bit
11.025-192 kHz

WAV
Uncompressed 16-24 bit
11.025-192 kHz



WIFI

LAN

USB
HDD/BT100

4 x digital
audio inputs

Digital
audio outputs

USB Audio input for
up to 24-bit/192kHz
playback from a
computer

AES/EBU digital audio
input/output

RCA audio
output

XLR audio
output

Control Bus. Compatible products can be linked
for volume and power control from the app

**OUR FLAGSHIP NETWORK MUSIC PLAYER DELIVERS EXCEPTIONAL QUALITY AUDIO.
HERE ARE 11 REASONS TO CHOOSE THE CAMBRIDGE AUDIO AZUR 851N OVER OTHER PLAYERS...**

1. Network music and USB connectivity

Via UPnP, you can play music files stored on computers, laptops or NAS drives. Additionally, there are three USB inputs for music stored on USB HDDs (memory sticks or external USB drives).

2. Superior connectivity

In addition to network music playback and three USB HDD inputs, there are five digital inputs including S/PDIF coaxial, TOSLINK optical and AES/EBU. Plus there's asynchronous USB Audio, internet radio, Airplay and aptX Bluetooth wireless connectivity meaning that wherever your music comes from, you can play it back in stunning quality through the 851N.

3. Spotify Connect

Spotify Connect is supported for playback of Spotify music and playlists through the 851N.

4. High performance USB

The 851N features a high quality asynchronous USB Audio input for playback of up to 24-bit/192kHz high resolution files from a connected computer.

5. Play all file types

The 851N supports all popular CODECs including, 'better than CD' quality 24-bit/192kHz FLAC/Apple lossless/WAV/AIFF files, plus WMA, MP3, AAC, HE AAC, AAC+ and Ogg Vorbis formats.

6. 24-bit/384kHz audio upsampling

The 851N features ATF2 (2nd generation Adaptive Time Filtering) audio upsampling. The ATF2 system intelligently upsamples all incoming audio to 24-bit/384kHz and dramatically reduces digital jitter.

7. High quality digital pre-amplifier

Thanks to the highest quality of digital preamplifiers, without bit-reduction, you can connect the 851N directly to a power amplifier such as the Azur 851W to create a truly astonishing digital music system!

8. Effortless control

The beautiful colour screen displays album art and free Apps for Apple and Android devices allow you to effortlessly browse and choose music by artwork, genre, album, artist etc. and by creating playlists.

9. Twin Analog Devices DACs

The 851N features twin Analog Devices 1955 DACs (the Rolls Royce of DACs!) used in 'dual differential' mode for the very best digital to analogue conversion.

10. Toroidal transformer

The 851N uses a large toroidal transformer to deliver perfect, low distortion power for all your music.

11. Full Metal Jacket

All the above points would mean nothing if the 851N was not built to last! From the all-metal casework and ultra rigid chassis, to the high-quality, low distortion toroidal transformer, every component in the 851N is designed to give many years of listening pleasure.

Toroidal vs EI transformers

We strive for audio perfection which is why the 851N features an audiophile grade toroidal transformer. Cambridge Audio was one of the first manufacturers to use toroidal transformers in the 1970s, and we continue to use them today. Some of the benefits of a toroidal transformer, over the cheaper, inferior EI transformers used by most other manufacturers are:

Toroidal transformer: used in 851N

- + High quality power output with no clipping of the waveform signal, to provide a consistent signal.
- + No transformer noise, buzz or hum.
- + Fully shielded against internal and external electrical interference, to maintain quality of power and signal.

EI transformer: used by competitors

- + Weak inconsistent signal
- + No shielding
- + Noisy

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D/A converters: Twin Analog Devices AD1955 24-bit DACs

Digital filter: 2nd Generation ATF2 up-sampling to 24-bit/384kHz. Linear Phase, Minimum phase or Steep modes

Analogue filter: 2-pole differential Bessel with DC servo (for both XLR and RCA outputs)

Digital audio inputs: 1 x AES/EBU, 2 x S/PDIF coaxial and 2 x TOSLINK optical

USB Audio input: USB Type B conforms to USB Audio profile 1.0 or 2.0 (user selectable)

Analogue audio outputs: Balanced XLR and unbalanced RCA analogue audio outputs

Compatibility: UPnP, Local USB media, USB Audio1.0, USB Audio 2.0, DSD x64 (DSD also available over UPnP streaming), TOSLINK, S/PDIF, AES3/EBU, BT100 Bluetooth receiver, Internet radio

Audio formats: ALAC, WAV, FLAC, AIFF, DSD (x64), WMA, MP3, AAC, HE AAC, AAC+, OGG Vorbis

Standby power consumption: <0.5W

Dimensions (H x W x D)*: 115 x 430 x 360mm (4.5 x 16.9 x 14.7")

Weight: 8.1kg (17.9lbs)

CAMBRIDGE: OUR STORY

Since 1968 Cambridge has been driven by a simple belief; that music should always sound amazing. Cambridge is for people who really listen to music.

Our original British-designed products are enjoyed the world over by people like you who share a love of music.

We have an envied reputation for innovation and every one of our engineers is fanatical in their pursuit of delivering an authentic and enjoyable experience. When you listen to a Cambridge product you don't just hear the difference, you feel it.

We want everyone to experience that pleasure. We love music and we're proud of what we do. Our passion for listening to great music and the fun we have in the process of creating the products we make shines through, for all to see and hear.

We're all music lovers, plain and simple and we want to share that love. Because great things happen when people who love music, design hi-fi!



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* Maximum including sockets and controls