

Métronome Technical Review

Product Training for Métronome Distributors :

DSC



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DIGITAL SHARING CONVERTER

D/A CONVERTER & STREAMER

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1. About Métronome Technologie

The brand Métronome is the property of Métronome Technologie, a French company established in 1987 in South West of France with the aim of manufacturing the best digital sources for a high-end audiophile market.

All products are fully designed in-house office, under the responsibility of Jean Marie Clauzel, Owner and Chief Designer.

Our objective is to make digital sources which sound as much analogic as possible, using the appropriate technologies and overall using well-trained ears of our experts for listening.

100 % of the components are made in France, including the housings, and all the electronics are hand-made in our workshop.

Our greatest satisfaction is to comply with the requirements of the most discerning music lovers and to get approval from international reviewers.



2. Digital Sharing (DS) Product Range Overview

- **DIGITAL SHARING (DS)** stands for connectivity, connected devices through **DLNA/UPNP** and **Airplay**
- Launched in October 2017, the **DS** product range is an important milestone in the 30 years history of handcrafting digital high-end audio for Metronome Technology striving to produce **products with unrivalled performance to create a unique listening experience.**
- The **DS product range** was designed to combine **the legendary analogue sound profile of Metronome** with functionalities complying with the customers needs: **streaming and network connectivity.**
- As a result, **DSC** is a **high end converter** by Metronome, integrating a **digital volume control** and supporting **streaming and networking functions.**
- The **DIGITAL SHARING (DS)** range also includes a streaming transport, the DSS :



3. Digital Sharing Converter (DSC) Key Features

- A hybrid device in one box: **a high-end Converter + Digital pre-amplifier + Streamer + Network Player.**
- Equipped with the latest generation of the ESS conversion chips, the DSC is a high-end and high resolution D/A Converter (32 bits /384 kHz, DSD512) producing detailed, musically powerful and natural sound reproduction.
- The DSC features a versatile array of inputs accepting signals ranging from 44.1 to 192 kHz and an USB module type B reading PCM up to 32 bits /768 kHz and DSD 512
- The analog stage is developed with 6 OPA Class A Polarisation for obtaining high bandwidth with low output impedance
- Allows you to browse and play audio files from a server or a computer, directly stream the main online services, and listen to music from your mobile phones/tablets
- Network connectivity through UPnP-DLNA protocol
- Streaming services supported include Qobuz, Tidal, Deezer, Spotify and vTuner for internet radios
- Compatible with Apple AirPlay and Roon Ready, supports MQA
- Audio Format Support: AAC, AIFF, MP3, FLAC, WAV, WMA, Apple Lossless, OGG, High Resolution Audio Playing: PCM 24/192 kHz, DSD 256
- Independent electronic boards for device management and for network connection, physically separated from the converting function



4. DSC Design Specifications

- Seven months of extensive technical research and countless hours of listening are behind each DSC.
- 100 % designed and hand-crafted in France to the highest standard, the DSC embodies simplicity, purity and timeless quality.
- Massive alluminum chassis of high grade aircraft quality (20mm frontal and 6mm side-plates) to assure highly rigid construction eliminating any vibrations.

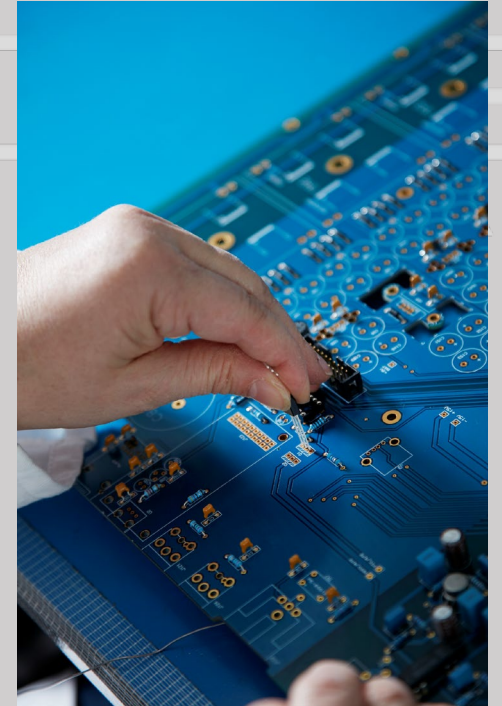
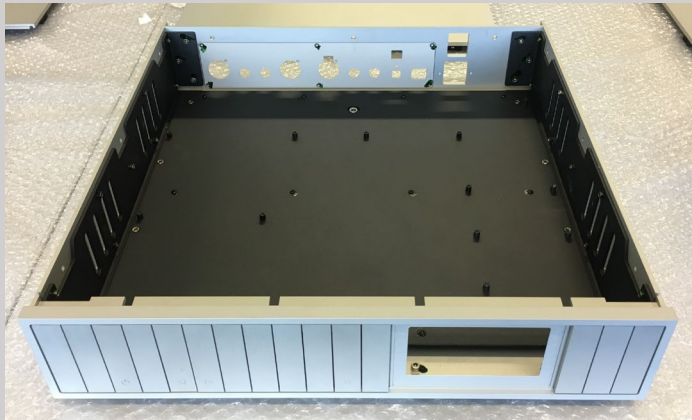


- Innovative piano-like design reflects Métronome's passion for music and search for perfect sound
- Large and easy to read touchscreen display (5 inches) showing inputs, audio file type and resolution, plus track/album information
- 1 frontal key for volume control, all other functions by remote or touchscreen
- Available in black and silver finishes
- Dimensions (LxHxP) : 430 x 105 x 430 mm
- Weight : 18 kg
- Power Consumption : 25 VA

5. DSC Manufacturing

Famous for a remarkably authentic sound with a natural depth, Métronome products are built to last a lifetime. How do we achieve it?

- Hand-crafted in our workshop by a small team of highly skilled technicians. Each unit is built to order, depending on customer requirements
- Extreme attention to detail: 36 hours required for flawless assembling of each DSC
- “100 % Made in France”: every stage from conception and design to PCB hand-soldering, assembling, testing
- All electronic components meticulously chosen for their highest quality to achieve the best sound
- Noble and durable materials used for highly rigid and long-lasting construction
- Each DSC unit is put through rigorous manual testing to assure the highest level of reliability and durability
- A serious of audiophile listening checks is carried out for each DSC to deliver the ultimate quality of sound
- 48 hours burning-in time for each unit of the DSC before shipment
- Careful packaging in quality shipping boxes to make sure each DSC is delivered in perfect condition.
- Total time from start to finish is 1 week!



6. Métronome Sound Profile

Metronome Sound Profile has been renowned for its musicality, warmth and detailed precision. How do we achieve it?

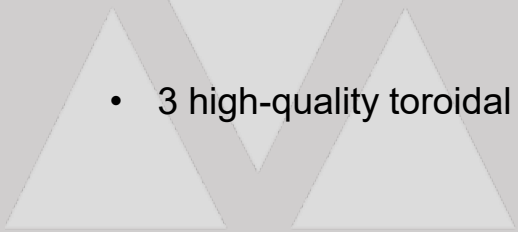
- On DSC, we implement for the first time the ES9038PRO top of the range 8-channel conversion chip (DNR=137 dB in stereo mode)
- 30 years experience in designing exceptional DAC circuits providing incredible audio conversion performance
- Selection of premium quality electronic components to deliver the most analogue sound
- Manually soldered PCBs in our atelier by Métronome technicians
- Cleverly designed ground planes, strict discipline in routing and component placement
- Power supply section separation providing an inter-stage EMI/RFI protection

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7. Métronome Power Supply

Power Supply Design is Metronome's know-how. We consider Power Supply as one of the crucial elements responsible for the highest quality of sound reproduction.

- The DSC has internal power supply which takes largest part on the circuit board to enhance conversion
- 14 separate power regulation lines used for every crucial part of the digital and analogue sections
- 3 high-quality toroidal power transformers to decrease vibrations and increase fast power transitions
- Filtering with +140 capacitors providing inter-stage EMI/RFI protection for the best quality.



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8. Using the DSC as a Converter with cabled inputs

Step 1 – Place the DSC on a hard, flat surface

Step 2 – Plug your digital sources into the inputs and select the relevant input using the front switch keys.

Step 3 – Place the power cord and switch on the unit by pushing the main power switch on the back on position 1



9. Connecting the DSC

- The DSC features an Ethernet Plug RJ 45 and 5 inputs including: 1 AES/EBU, 1 S/PDIF inputs, 1 Toslink Optical, 1 USB Type B, allowing to accept digital signals from other devices: t|AQWO, a computer, a Player 3, etc,.
- All inputs accept accept audio files from various digital sources with signals ranging 44.1 to 192 kHz.
- An asynchronous USB module type B reading PCM up to 32 bits /384 kHz and DSD 512 and providing an excellent digital signal with very low jitter.
- The unbalanced left and right RCA outputs 100 Ohms are doubled with a pair of balanced XLR outputs 2 kOhms to drive unbalance or balanced pre-amp. The output gain is adjustable to 1.4, 2.5 or 3.0 Volts RMS



DSC inputs

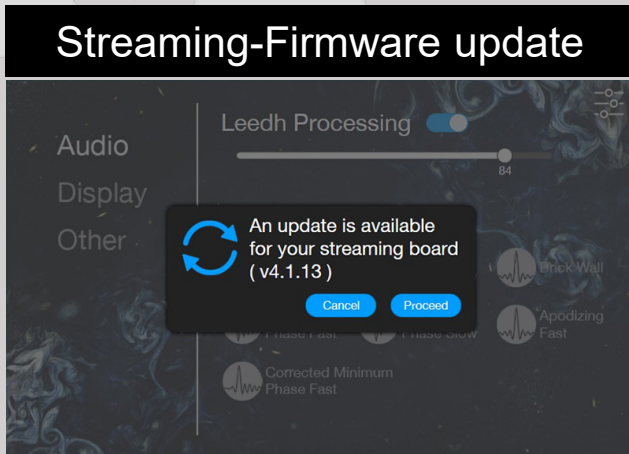
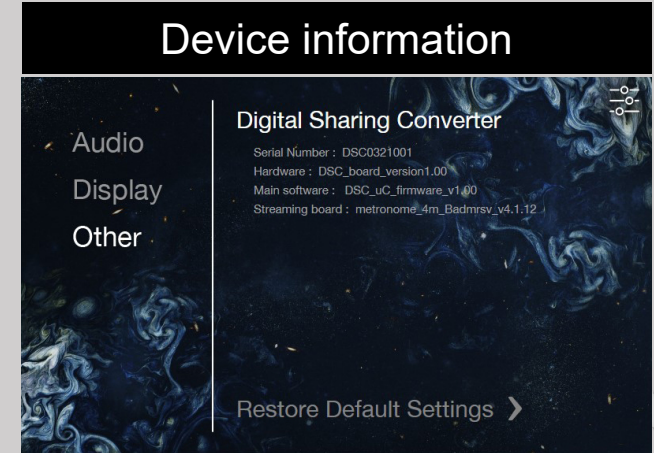
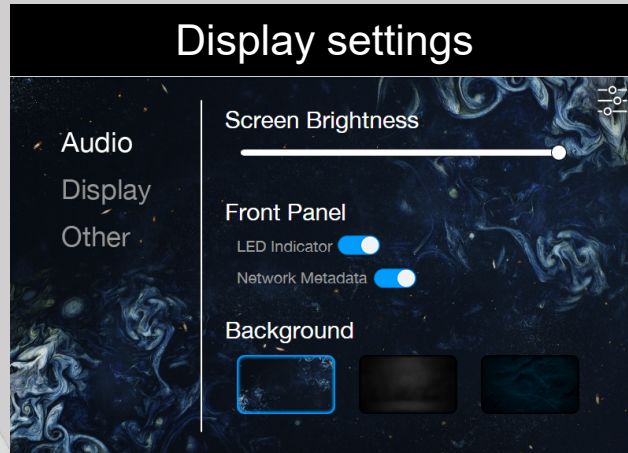
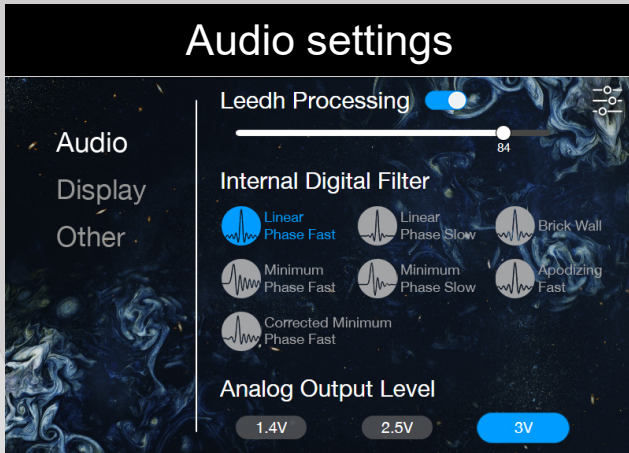
Toslink: PCM 44.1 to 192 kHz
S/P DIF inputs: PCM 44.1 to 192 kHz
AES/EBU input: PCM 44.1 to 192 kHz
USB B input: PCM 384 kHz, DSD512

DSC analog outputs

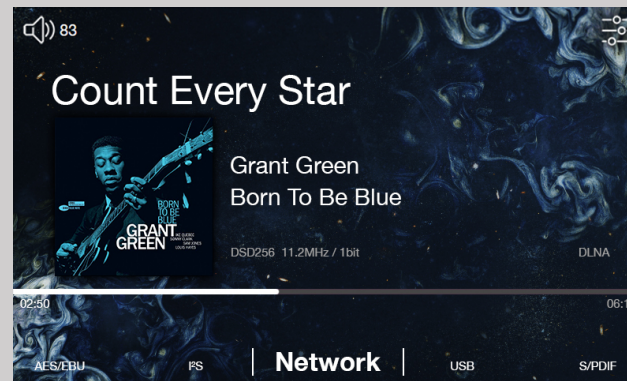
2 RCA Unbalanced outputs
2 XLR Balanced outputs

10. Functionalities of the touchscreen

DSC is provided with in-built touchscreen allowing to access to all the settings of the device :

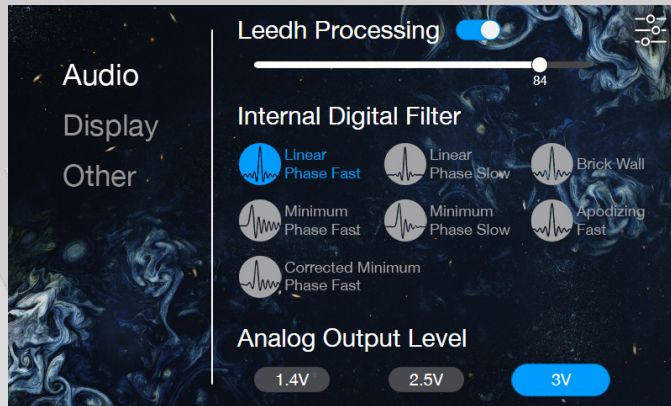


Two display modes are available : metadata information or file resolution, and 3 screen backgrounds can be chosen.



11. Using the DSC as a digital pre-amplifier

Step 1 – Go to the settings on the touchscreen and press “Audio”



Step 2 – Reduce the volume to a minimum before activating “Leedh Processing”

Step 3 – select the desired output gain

Note : Leedh Processing is a lossless volume control :

- It is a pure algorithm and does not affect the characteristics of the signal
- It preserves the audio information integrity
- Can be used in addition of your pre-amp or integrated amp
- Can replace your pre-amp

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12. Using the DSC as a Network Player and Streamer

Step 1 -To start using the DSC as a Network Player and a Streamer, your DSC needs to be connected to the same LAN as your mobile device.

Connection to the Local Area Network can be done through the Ethernet Plug (RJ45) on the back panel with an ethernet cable or through a WiFi dongle connected to LAN.

Step 2 - To experience Digital Sharing on your DSC, you need to download a Media Player App.

We recommend to use the free app **mConnect Control** by ConversDigital.

mConnect app for IOS or Android

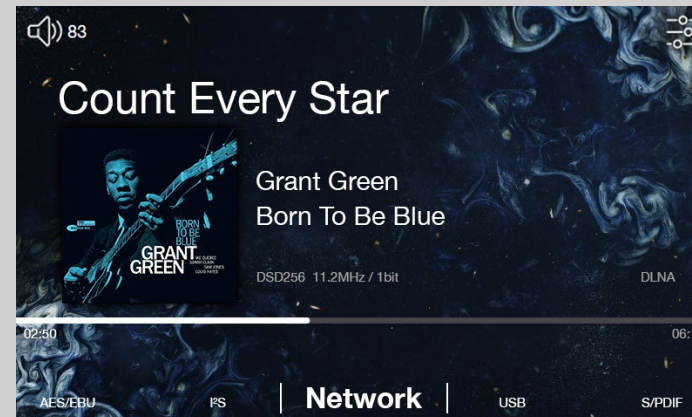
mconnect Player Lite
mconnect Player HD
mconnect control

Other compatible Apps

Bubble UPnP
Hi-Fi Cast
...

Step 3 - Once the mConnect Control App is installed on your mobile device and music starts playing, the screen on the DSC will display “**Network**”. The previous connection will be automatically cancelled.

To come back to a wired connexion, choose the input by scrolling the bottom of the touchscreen. The DSC will play immediately from the selected input.



13. Navigating through the mConnect Control App

Step 1 - Once your DSC is connected and the App is installed on your mobile device, open the Player.

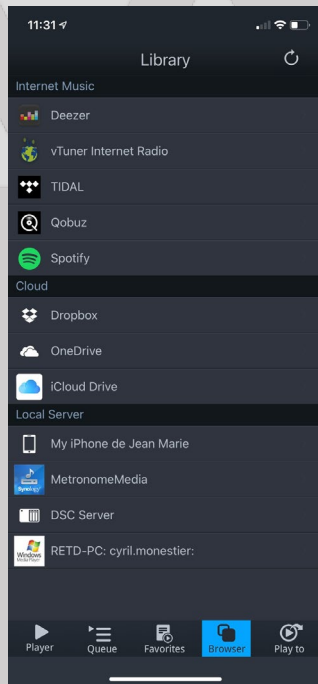
Step 2 - Once opened, mcontrol will automatically browse your network and recognise compatible devices

Step 3 - Press **Play to** to choose the DSC as your playing device

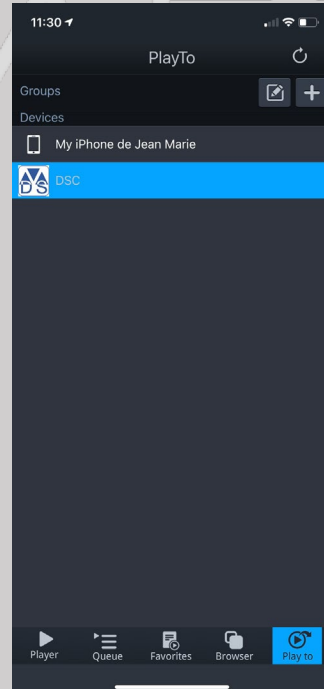
Step 4 - Select **Browse** on the mcontrol where you can browse your musical libraries and connected devices (computers, NAS servers etc.), choose streaming supports streaming services : Deezer, vTuner, TIDAL, Qobuz, Spotify

Important note : carefully choose the output file format settings in your streaming service

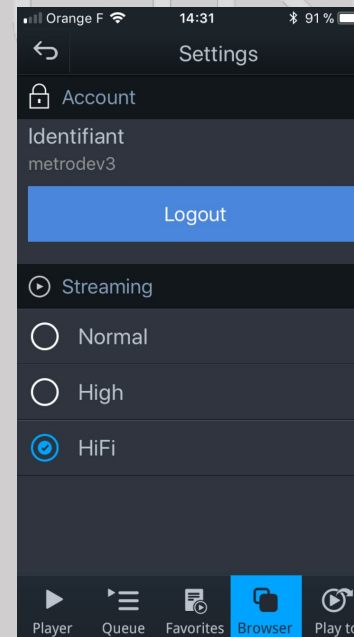
Browse your libraries



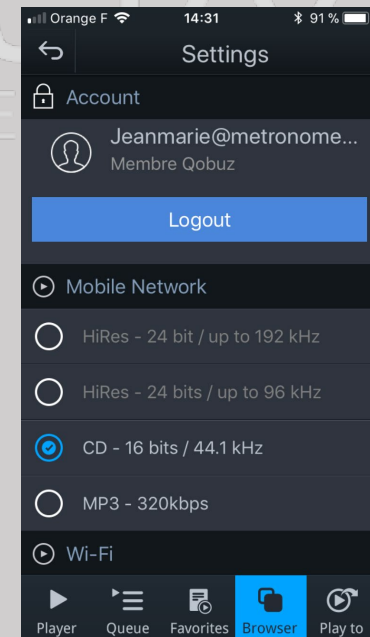
Select DSC



For TIDAL



For QOBUZ



14. DSC Technical Specifications

- Resolution (USB input) :
32 bits / 384 kHz
DSD 64 TO 512 (eq. to sampling frequency of 22.4 MHz)
- Internal facts :
Dynamic range : -137 dB / Distorsion + noise : -122 dB
Internal processing 32 bit / Frequency bandwidth from 32 to 768 kHz
- Analog output :
Class A polarisation
Bandwith : 10 Hz - 20 kHz +/- 0.1 dB
Dynamic range capacity : 127 dB
- Network :
1 Ethernet connector
- Digital inputs :
HDMI accept signals from 44.1 kHz to DSD512
Other inputs accept signals ranging 44.1 to 192 kHz :
S/PDIF inputs 75 Ohms RCA connectors
AES/EBU 110 Ohms XLR connector
Optical Toslink
USB type B : PCM and DSD de 44.1 à 384 kHz
- Analog outputs :
Unbalanced adjustable output gain 1.4 – 2.5 – 3.0 V RMS @0dB 100 Ohms – RCA connectors
Balanced adjustable output gain 1.4 – 2.5 – 3.0 V RMS @0 dB 2 kOhms – XLR connectors
- Power supply :
3 toroidal transformers with 14 independent regulation lines

Voltage:
100 VAC - 50/60 Hz Japon
120/240 VAC - 50/60 Hz other countries
- Other characteristics :
Consumption : 25 VA
Dimensions (LxHxP) : 430 x 105 x 430 mm Weight : 18 kg

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15. International Reviews

- Coming soon : The Absolute Sound (International)
- Please organize reviews as soon as you can in your country, this is the most cost-effective advertising!



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