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# Introduction

In pursuit of outstanding digital to analog audio playback, OPPO Sonica DAC is equipped with an ES9038PRO 32-bit HyperStream DAC chip. As the flagship of the ESS SABRE PRO series, the ES9038PRO sets new benchmarks for audio performance. Sonica DAC's power circuitry includes a linear power regulator drawing from a massive toroidal power transformer, which provides a very clean and robust power supply to the audio components.

Sonica DAC can be used as a standalone high-performance DAC, providing digital inputs like Optical, Coaxial and asynchronous USB DAC that support PCM up to 768 kHz 32-bit and DSD up to 22.5792 MHz (DSD512).

Sonica DAC is also a high resolution audio player that is capable of decoding up to 24-bit / 192 kHz resolution FLAC, WAV and Apple Lossless files, as well as DSD64 files at 64x sample rate. You can also play music files from USB drives attached to the Sonica DAC, from computers and servers connected via Ethernet or Wi-Fi, or from a mobile device running the Sonica app.

As a member of the Sonica Wi-Fi speaker family, Sonica DAC is also a music streamer, allowing you to stream music from your smartphone and tablet using the Sonica app, AirPlay, or Bluetooth. When grouped with Sonica Wi-Fi speakers, Sonica DAC can play music streamed to the speaker group, and you can also connect an existing analog audio source to the multi-room speaker group using Sonica DAC's AUX input.

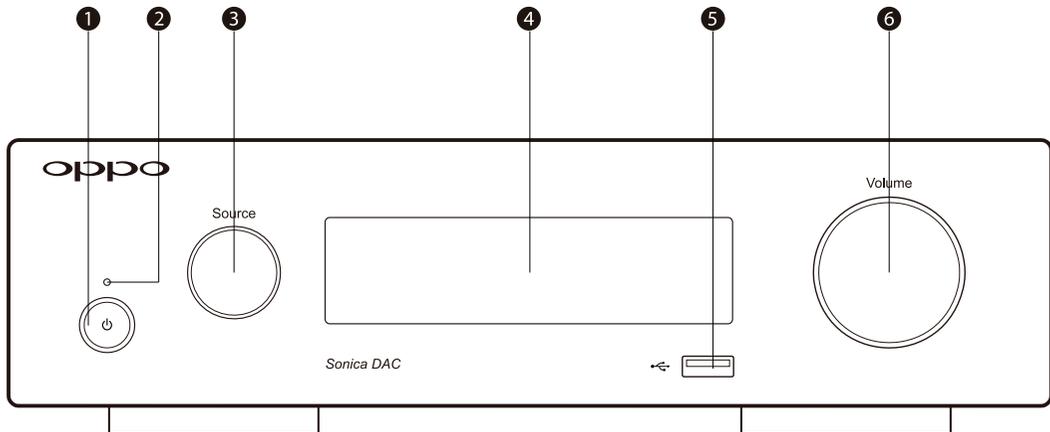
Sonica DAC provides XLR balanced and RCA stereo outputs. The audio output path is fully balanced from the DAC chip all the way to the XLR jacks. Even the RCA output signal is derived from the balanced output. The balanced design provides better common-mode noise rejection and improves signal quality. It also provides better channel separation by eliminating the common ground return path. You can set either output to volume-controlled or bypass, allowing Sonica DAC to be connected to preamps or directly to power amplifiers. A 12V trigger input and output allows you to turn on and off the entire audio system with one click.

Sonica DAC sports an aluminum chassis with classic volume and source selection knobs. A 2.8-inch OLED display complements the brushed metal front panel, showing the current volume and detailed audio information.

Sonica DAC brings high-resolution audio playback, network streaming, and mobile device connection to your existing home audio system. As a member of the OPPO Sonica product family, the AUX input of Sonica DAC enables you to connect an existing analog audio source to the Sonica multi-room network. Add one, two, or more Sonica Wi-Fi speakers and enjoy your favorite tunes anywhere in your home.

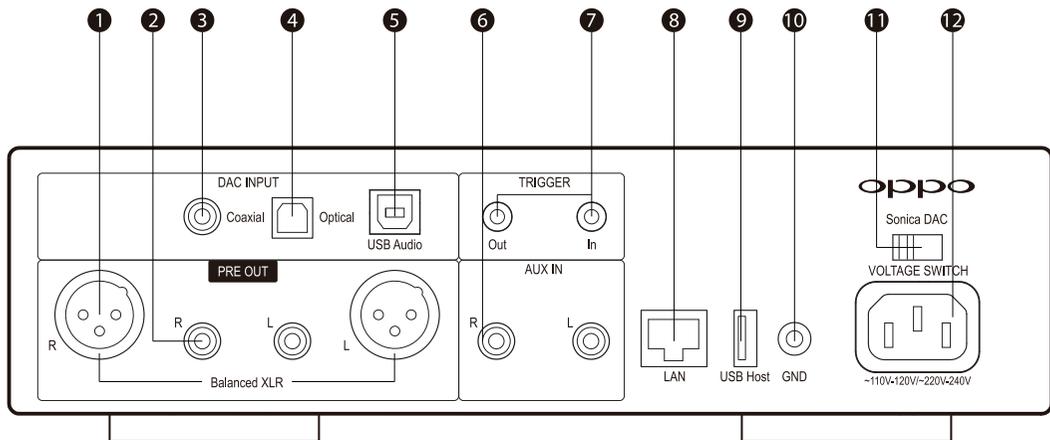
# Installation

## Front Panel Controls



1. Power Button	2. Power Status Indicator	3. Source Selector / Function Knob
4. Front Panel Display	5. USB Port (Type A, Host)	6. Volume Knob

## Back Panel Connectors



1. XLR Balanced Audio Output	2. RCA Stereo Audio Output	3. Coaxial Digital Audio Input
4. Optical Digital Audio Input	5. USB Audio Input (Type B)	6. AUX Audio Input (RCA)
7. Trigger Input & Output	8. Ethernet Port	9. USB Port (Type A, Host)
10. Ground Connector	11. Voltage Switch	12. AC Inlet

## Sonica App

The Sonica app is a free smartphone and tablet app controller for the OPPO Sonica family of products. It enables you to play music stored on your mobile device, from a supported music streaming service (e.g., TIDAL), from a media server on your home network, or from a USB drive plugged into the USB port of the Sonica DAC. With the Sonica app, you are in complete control, and can choose what music to play and what device to play from.

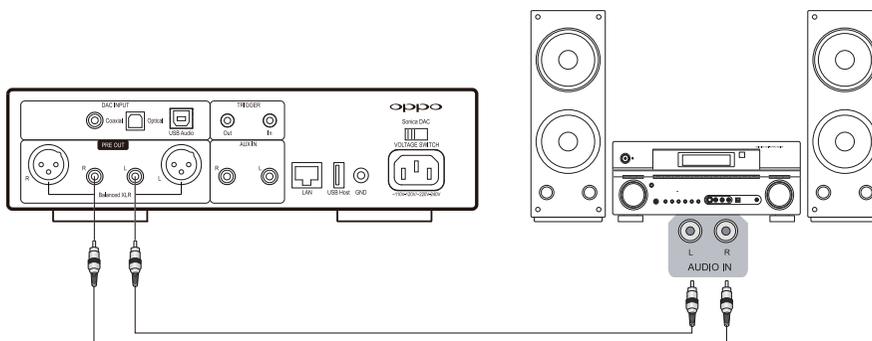
The Minimum OS requirements for the Sonica app are Android 4.0 or iOS 8.0. The minimum OS requirements for the USB DAC are Windows 7 or Mac OS X 10.8 Mountain Lion. Availability and performance of certain features, services and applications are device- and network-dependent and may not be available in all areas. AirPlay works with iPhone, iPad, and iPod touch with iOS 4.3.3 or later, Mac OS X 10.8 Mountain Lion, and Macs and PCs with iTunes 10.2.2 or later.

## Output Connections

Sonica DAC offers both **RCA** and **XLR Balanced** outputs. The output level is controlled by the **Volume Knob**. You can bypass the volume control if your setup requires a fixed level output. See **Bypass Mode** in the *Settings and Advanced Operations* section on page 10 for detailed instructions.

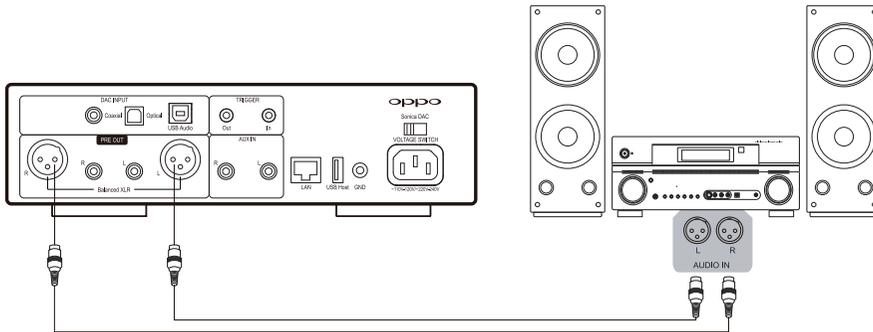
### RCA Stereo Audio Output

RCA is the most common analog audio connection. If your pre-amplifier, power amplifier, or active speakers offer RCA analog inputs, you may use a pair of RCA audio interconnect cables to connect the Sonica DAC's **RCA Stereo Audio Output** to the RCA input of your device.



## XLR Balanced Audio Output

XLR balanced connection offers better common-mode noise rejection and improved signal quality over the RCA connection. If your preamplifier, power amplifier, or active speakers offer XLR balanced inputs, you may use a pair of XLR audio cables to connect the Sonica DAC's **XLR Balanced Audio Output** to the XLR input of your device.



## Trigger Input & Output

You can connect the **Trigger Output** of Sonica DAC to the trigger input of a preamplifier or power amplifier using a 3.5 mm mono-to-mono mini-jack cable. When Sonica DAC is turned on, the **Trigger Output** will supply a +12 V voltage signal to automatically turn on the connected pre-amplifier or power amplifier. The **Trigger Output** can supply up to 100 mA current.

The **Trigger Input** of Sonica DAC can be connected to the trigger output of another device and Sonica DAC will turn on and off together with the connected device.

The use of **Trigger Input & Output** is not required. You can always manually turn on or off Sonica DAC using the **Power Button** on the front panel.

# Basic Operations

## Power ON/OFF

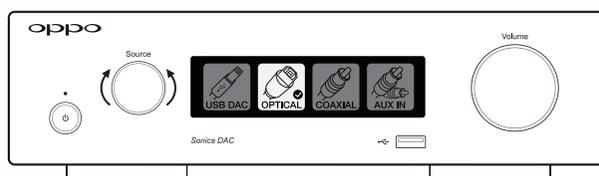
When Sonica DAC is initially connected to AC power, it remains in standby mode and the **Power Status Indicator** will stay red. Press the **Power Button** to turn it on. The **Power Status Indicator** will turn blue and the OPPO logo will appear on the screen.

Once the Sonica DAC is on, pressing the **Power Button** again will turn it off. Sonica DAC does not respond to network streaming requests when it is off.



## Source Selection

The active input source can be selected by rotating the **Source Selector / Function Knob**. The **Front Panel Display** will show a **Source Selection** screen with four input sources: **USB DAC**, **OPTICAL**, **COAXIAL**, and **AUX IN**. The currently selected input source is indicated by a check mark (✓). Rotate the **Source Selector / Function Knob** in either direction to select a new input source and press the **Source Selector / Function Knob** to switch to your selection.

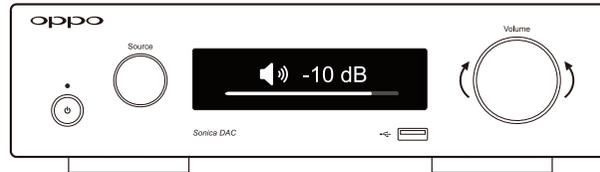


In addition to the above input sources that are selectable using the **Source Selector** and **Front Panel Display**, Sonica DAC also supports additional music sources such as network streaming, Bluetooth, AirPlay, and USB disk drives. These additional sources are selected through the Sonica app or automatically by connecting the devices. While the Sonica DAC is playing from any of the additional music sources, selecting an input source by rotating the **Source Selector / Function Knob** will override the existing source.

## Volume Control

Rotating the **Volume Knob** clockwise or counter-clockwise will increase or decrease the volume level. When the volume level is reduced to the minimum, a **Mute** icon will appear on the screen.

**Note:** When the active input source is in **Bypass** mode, volume control is disabled and the output will be at the full volume level. See **Bypass Mode** in the *Settings and Advanced Operations* section on page 10 for detailed information.

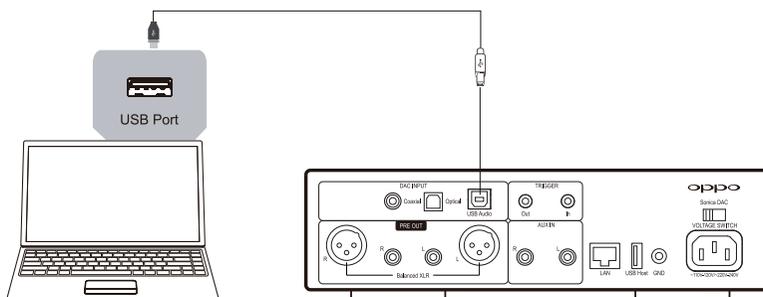


## Using Sonica DAC as a Traditional DAC

Sonica DAC can be used as a standalone high performance DAC. The USB Audio input supports PCM up to 32-bit / 768 kHz and up to DSD512. The coaxial and optical digital audio inputs support PCM up to 192 kHz and DSD over PCM up to DSD64. In order to maintain the highest possible audio quality, audio from the USB, coaxial, and optical inputs is routed directly into the ES9038PRO Sabre DAC chip. It is therefore not possible to stream audio from these inputs to other Sonica speakers on the network.

### USB Audio Input (Type B)

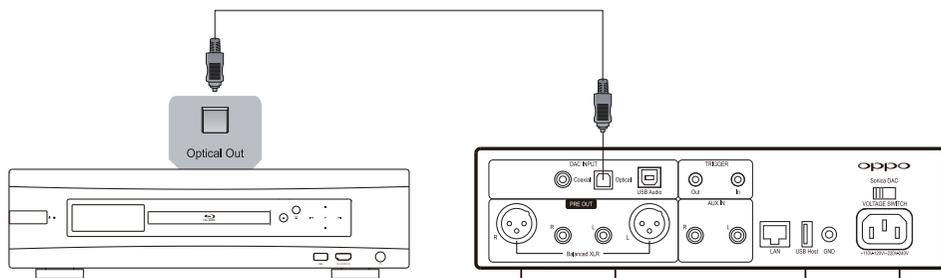
You can connect your computer directly to Sonica DAC using a USB Type A to USB Type B cable. This allows your computer to function as the digital playback source with any music library management software you prefer, while using the Sonica DAC to achieve optimal digital-to-analog audio performance. The digital signal will be converted by the ES9038PRO DAC and sent to the line level outputs. The input source is labeled **USB DAC** on the **Source Selection** screen.



**Note:** Depending on the operating system and playback software used, driver software and specific software settings may be required in order to enable the computer to play audio into Sonica DAC. Please visit the support page on OPPO Digital website for driver download and additional help guides.

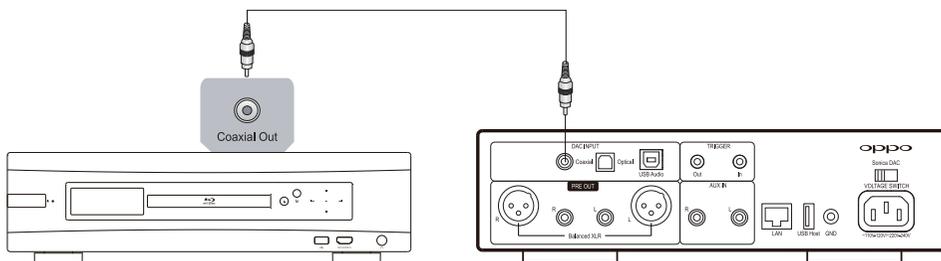
## Optical Digital Audio Input

You can connect a device with an optical digital output into the **Optical Digital Audio Input** of Sonica DAC using an optical digital (also known as a TOSLINK cable). The digital signal will be converted by the ES9038PRO DAC and sent to the analog line level outputs. This input source is labeled **OPTICAL** on the **Source Selection** screen.



## Coaxial Digital Audio Input

You can connect a device with a coaxial digital output into the **Coaxial Digital Audio Input** of Sonica DAC using a coaxial digital (75 ohm) cable. The digital signal will be converted by the ES9038PRO DAC and sent to the analog line level outputs. This input source is labeled **COAXIAL** on the **Source Selection** screen.

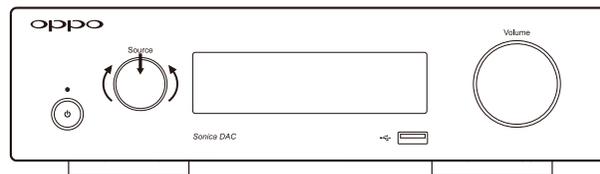


## Settings and Advanced Operations

Settings and advanced operations of the Sonica DAC can be accessed by pressing and rotating the

**Source Selector / Function Knob.** The basic operations are:

- Press the **Source Selector / Function Knob** to show the first settings and advanced operations screen.
- If the **Source Selector / Function Knob** is pressed again immediately without any other operations occurring on the current screen, the next settings and advanced operations screen is shown. You will need to press the **Source Selector / Function Knob** multiple times without turning it in order to access additional settings and advanced operations screens.
- On any setting screen, the current setting is indicated by a check mark (✓). Rotate the **Source Selector / Function Knob** to move the selection cursor. The highlighted selection becomes active if you press the **Source Selector / Function Knob**. Sonica DAC returns to its normal status screen after a selection is made.
- On any advanced operations screen, the current status or title is shown. Rotate the **Source Selector / Function Knob** to move the selection cursor to any available action. The highlighted action is executed if you press the **Source Selector / Function Knob**. Depending on the action you select, you may be promoted for additional operations.

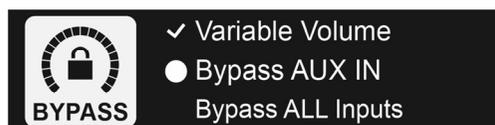


The available settings and advanced operations screens are:

## Bypass Mode

**Bypass** mode sets Sonica DAC's output level to full and disables the volume control. This is useful if you are connecting Sonica DAC to a device that has its own volume control, such as a preamplifier or an A/V receiver. The available **Bypass** options are:

- Variable Volume (default) – The output level is variable and controlled by the **Volume Knob**.
- Bypass AUX Input - The **AUX Audio Input** will be in the **Bypass** mode while all other sources are controlled by the **Volume Knob**. This option is useful if the source that is connected to the **AUX Audio Input** already has a volume control.
- Bypass All Inputs - All input sources will be in **Bypass** mode.



## Screen Dimmer Setting

You can adjust the brightness of the **Front Panel Display**. The available selections are:

- High - The **Front Panel Display** will operate at high brightness. Please note that running the **Front Panel Display** in high brightness mode may reduce its life and cause image retention issues (burn-in).
- Dim (default) - The **Front Panel Display** will operate at a dimmed brightness level.
- Off - The **Front Panel Display** will be turned off. Any user interaction will turn on the display temporarily. The display will automatically turn off again after a few seconds.



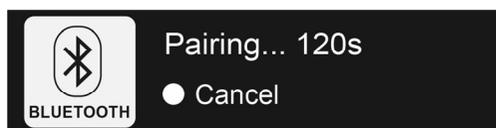
## Bluetooth Connection

To pair Sonica DAC to a device via Bluetooth, you can activate Sonica DAC's pairing mode by selecting **Enter Pairing Mode** from the Bluetooth Connection screen. (If you use the Sonica app, you can also activate Bluetooth pairing mode by setting **Pairing Mode** to **ON** under **Settings** in the app). When Pairing Mode is ON, enable Bluetooth on your device and pair it with Sonica DAC according to your device's instructions. The **Front Panel Display** will show the device name when pairing is successful. Sonica DAC will exit Pairing Mode after two minutes if pairing is unsuccessful.

For devices that have already paired with Sonica DAC, enable Bluetooth on both Sonica DAC and your portable device, choose Sonica DAC under paired devices to connect, and start streaming.

The following Bluetooth operations are possible depending on the current connection status:

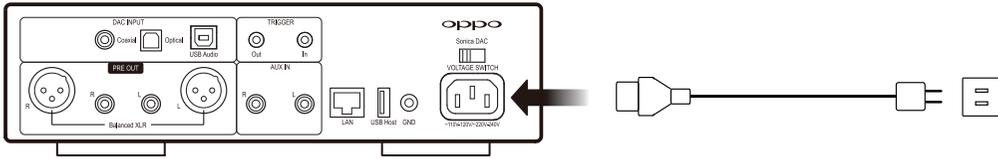
- Enter Pairing Mode - Sonica DAC will turn on Bluetooth and will be ready to pair. Any existing Bluetooth connection and pairing will be disconnected.
- Disconnect – If a device is already connected, selecting this operation will disconnect the device.
- Disable Bluetooth – This operation will turn off the Bluetooth radio. Select this operation if you do not plan to use Bluetooth.
- Enable Bluetooth - If Bluetooth is disabled, selecting this operation will enable Bluetooth again.



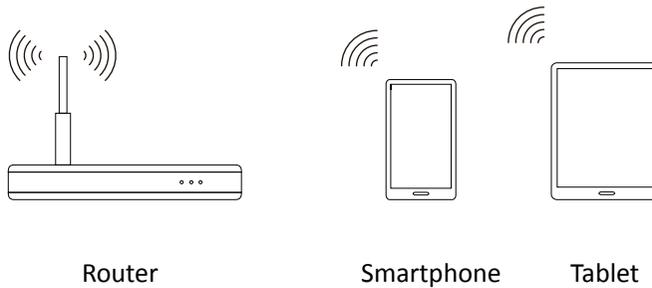
## Network Connection

Before you can use stream music to Sonica DAC via Wi-Fi or Ethernet, you need to connect Sonica DAC to your network. This is done by using the Sonica app. Please follow these steps:

**Step 1:** Connect Sonica DAC to power and turn it on. If you plan to use a wired network connection, connect Sonica DAC to your network using an Ethernet cable.



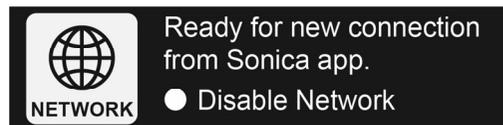
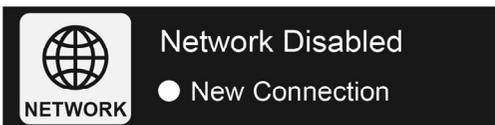
**Step 2:** Connect a smartphone or tablet to your network.



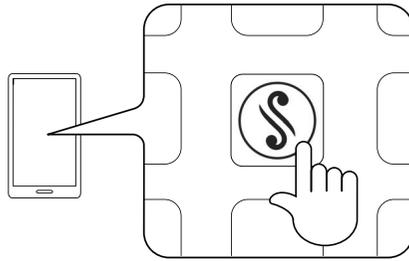
**Step 3:** Download the Sonica app from the App Store or Google Play Store using your smartphone or tablet.



**Step 4:** Access the **Network Connection** screen using the Source Selector / Function Knob, and select **New Connection**.



**Step 5:** Open the Sonica app and follow the in-app guide to begin the setup process. You will add Sonica DAC to your network the same way you add a new Sonica speaker.



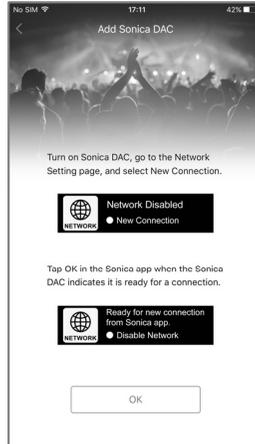
**Step 6:** Tap on the “Add Sonica” button.



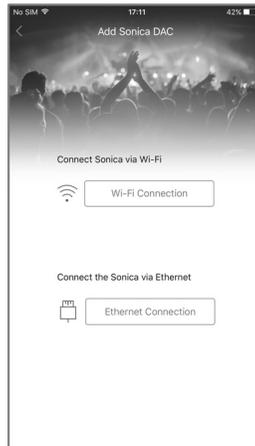
**Step 7:** Tap on the “Add Sonica DAC” button.



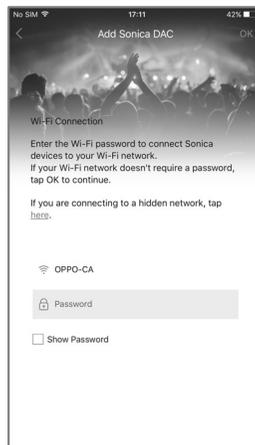
**Step 8:** To add a Sonica DAC to your network, follow the instructions and tap OK to continue.



**Step 9:** Select "Wi-Fi Connection" or "Ethernet Connection" depending on how you plan to connect Sonica DAC to your network.

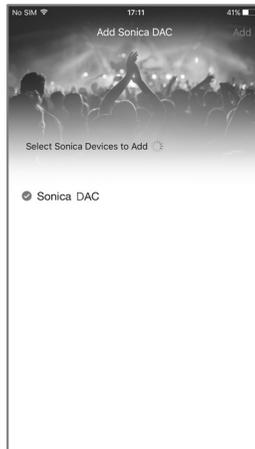


**Step 10a:** For a Wi-Fi connection, enter the network password and tap OK on the top-right corner of the app screen.



**Step 10b:** For an Ethernet connection, there is no need to enter any password.

**Step 11:** The Sonica app will locate the Sonica DAC and automatically select it for adding it to the network. Tap the “Add” button on the top-right corner of the app screen.



The Sonica DAC will be added to the network and ready for streaming.

The following network operations are possible depending on the current connection status:

- **New Connection** - Sonica DAC will enable its network interfaces and be ready for a new connection from the Sonica app.
- **Disable Network** – If you do not plan to use any network streaming features of your Sonica DAC, you can disable its network functions.
- **Enable Network** - If Sonica DAC’s network is turned off, selecting this operation will turn on the network again. Sonica DAC will try to reconnect to the previously configured network via Wi-Fi or Ethernet.

The network connection status is indicated by an icon near the top right corner of the **Front Panel Display**:

**Display:**

Symbol	Indicated Network Status
	Wi-Fi is enabled and is trying to connect to the router.
	Wi-Fi is connected.
	Ethernet is enabled and is trying to connect to the router.
	Ethernet is connected.

## Reset Factory Default Settings

If you need to reset Sonica DAC to its factory default settings, access the **Reset Factory Defaults** screen

and select **Reset** using the **Source Selector / Function Knob**. You will be asked to confirm the operation. Once confirmed, all custom settings will be erased and the factory default settings will be loaded. Sonica DAC will automatically turn off and on after resetting to factory default settings.



## Firmware Version Display

Firmware is the system software that controls the features and functions of your Sonica DAC. The Firmware Version screen displays the current firmware versions installed in the Sonica DAC. There are three parts of the firmware, each with its own version number: the main firmware, the MCU (Micro-Controller Unit) firmware, and the USB DAC firmware.

```
Firmware: Sonica-xx-xxxx
MCU: MCU-xx-xxxx
USB DAC: USB-xxxx
```

## Upgrading the Firmware

From time to time OPPO will release firmware updates to improve product features and functions, or to fix issues reported by customers. For the best user experience, we strongly suggest upgrading the firmware to the latest release.

There are two ways to upgrade the firmware:

- Via Network - Sonica DAC will automatically download and install the upgrade through the Internet. You will be prompted via the Sonica app when a new firmware version is available for installation.
- Via USB - Sonica DAC will install the upgrade from a connected USB drive which contains the firmware file. The firmware file and instructions can be found on OPPO Digital's website.

The USB DAC firmware does not change often. If a new version becomes available, the firmware file and instructions will be made available on OPPO Digital's website under the "Support" section for the Sonica DAC product.

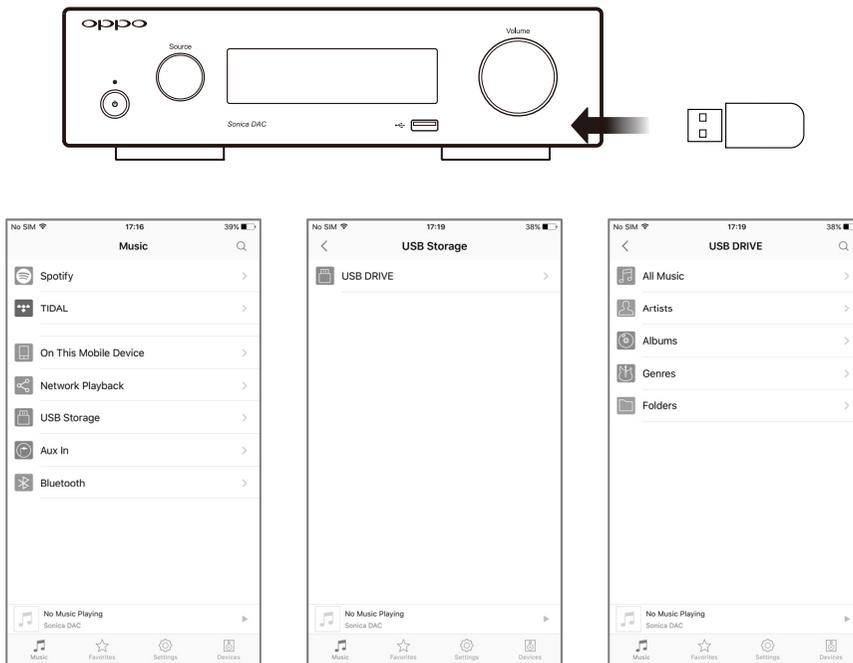
## Using Sonica DAC as a High Resolution Digital Player

The Sonica app allows you to navigate through your music files and use the Sonica DAC as a high

resolution digital player. You will be able to play music files stored on a USB drive attached to the Sonica DAC, on your mobile device, or from a DLNA server on your home network. Sonica DAC must be connected to the same Wi-Fi or wired network as your mobile device that runs the Sonica app.

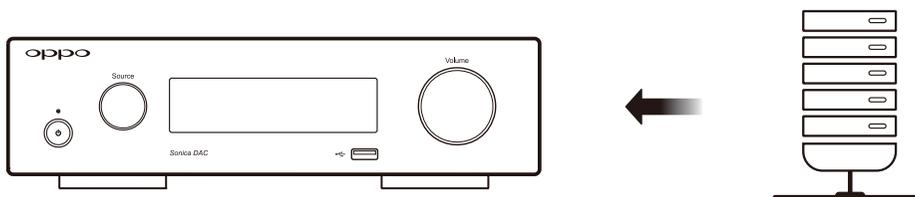
## Playback from a USB Drive

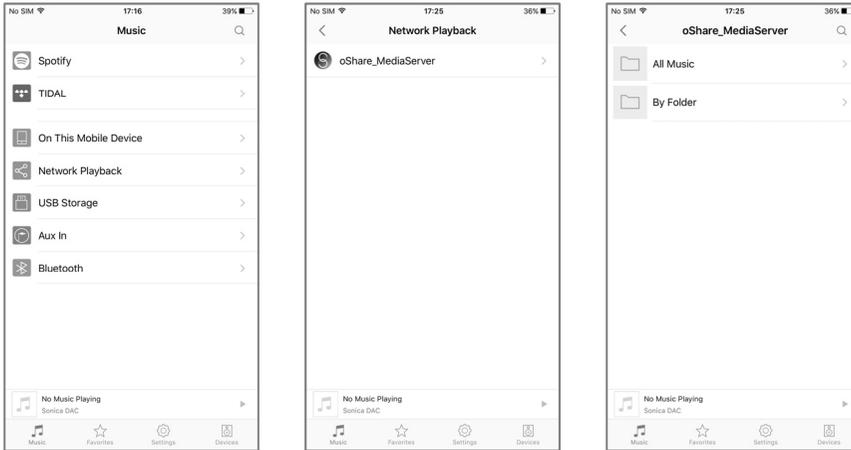
You can transfer music files from your computer to a USB drive and play them through Sonica DAC. There are two USB Type A ports on Sonica DAC. Plug the USB drive to either port, and use the Sonica app to browse and play these files.



## Playback from a DLNA Server

If you store your music files on a home network server or NAS device, and the server or NAS device supports DLNA, you can play your music by having Sonica DAC directly access the files over the network. Make sure that your DLNA server or NAS device is on the same network as Sonica DAC, and use the Sonica app to browse and play the music files.



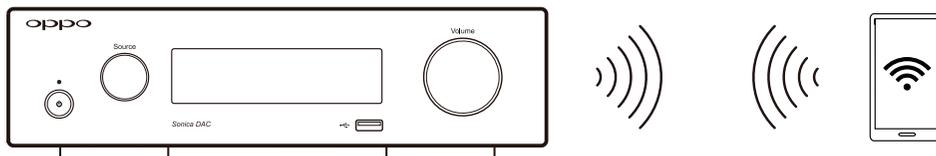


**Note:** For playback from a USB drive or a DLNA server, music files with PCM sample rates up to 24-bit / 192 kHz and DSD64 in DSF or DFF formats are supported. Not all file formats are supported by all DLNA servers, so experience may vary based on the hardware and software in use. The full original resolution is retained during playback if Sonica DAC is not grouped together with any other Sonica products for multi-room streaming. If Sonica DAC is grouped with other Sonica speakers for multi-room streaming, music will be down-sampled to 44.1 kHz or 48 kHz in order to meet the bandwidth limitations of the network.

## Using Sonica DAC for Music Streaming

### Music Streaming via Network, AirPlay, and DLNA

Once Sonica DAC is connected to the network, you can use the Sonica app to play music stored on your mobile device, from a supported music streaming service, or from a media server on your home network. Sonica DAC also supports AirPlay and DLNA streaming when your mobile device is on the same network.

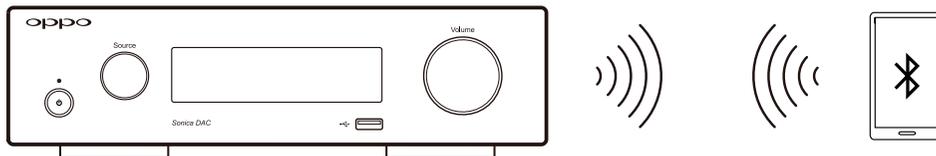


To use AirPlay, start playing a song from your local music library or music streaming app on your iOS device, tap the AirPlay button in the iOS Control Center, and select the Sonica DAC to begin streaming.

To use DLNA, open an app that is DLNA compliant, start playing a song in the app and select Sonica DAC to begin casting. DLNA casting support will vary for different devices and apps.

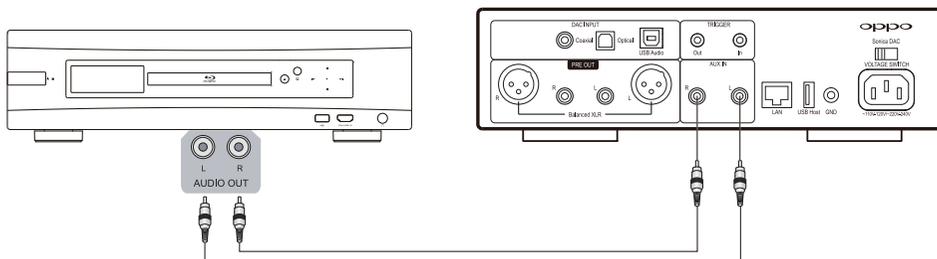
## Music Streaming via Bluetooth

Connect a Bluetooth-capable device such as a smartphone or tablet by enabling Bluetooth on your device and then pairing it with Sonica DAC. Refer to **Bluetooth Connection** in the *Settings and Advanced Operations* section on pages 11 for pairing instructions. You can play music from your device either through its local library or other music apps.



## AUX Audio Input

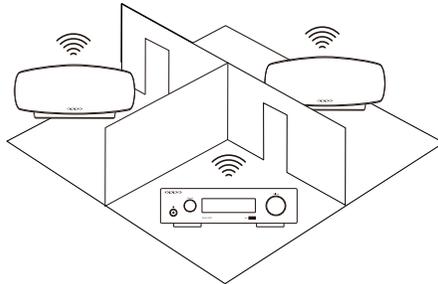
You can connect an audio device with a stereo analog output into the **AUX IN** of Sonica DAC using a pair of audio interconnect cables. The input signal will be digitized and made available for streaming to other Sonica speakers on your network, and at the same time will be converted back to analog via the RCA and XLR outputs. To select this source as the streaming audio input for your Sonica speakers, select **AUX IN** as the source from the Sonica app or using the **Source Selection** screen on the **Front Panel Display**. Certain analog audio devices, such as phono preamplifiers and turntables, might have a separate ground wire. Connecting the ground wire to the ground terminal on Sonica DAC is optional. If connecting the ground wire to Sonica DAC does not result in lower noise, it is not necessary for you to do so.



**Note:** Input signal from AUX IN passes through analog-to-digital and digital-to-analog conversions before it reaches the XLR or RCA outputs. Although the signal quality is still excellent, this is quite different than passing the same signal through an analog pre-amplifier. For this reason Sonica DAC is not recommended as a replacement for a pre-amplifier for analog audio signals.

# Using Sonica DAC in a Multi-Room Group

If you have OPPO Sonica Wi-Fi speakers on your network, it is possible to add Sonica DAC as a member to a Sonica speaker group for multi-room streaming. By configuring the Sonica speakers and Sonica DAC into different groups, you are able to play the same music on multiple speakers simultaneously or different music on different speakers. Use the Sonica app to add and remove Sonica DAC to a group.



**Note:** If Sonica DAC is grouped with other Sonica speakers for multi-room streaming, music will be down-sampled to 44.1 kHz or 48 kHz in order to meet the bandwidth limitations of the network. For the best audio quality, it is recommended that you remove Sonica DAC from a speaker group when not using the multi-room feature.

## Reference

### Specifications

Design and specifications are subject to change without notice.

<b>General</b>	
Dimensions(W x H x D)	10.0 x 3.0 x 12.2 inches, 254 x 76 x 360 mm
Mass	10.4 lbs, 4.7 kg
Power Supply	AC 110-120 V ~ / 220-240 V ~ 50/60 Hz
Power Consumption	30 W (operation), 0.5 W (standby)
Trigger Input	3.5 V - 15 V, 10 mA minimum
Trigger Output	12V, 100 mA maximum
Operating Temperature	41°F - 95°F, 5°C - 35°C
Operating Humidity	15% - 75% No condensation
<b>USB Audio Input (USB B Type)</b>	
Input Format	Stereo PCM, Stereo DSD (DoP v1.1 or native)

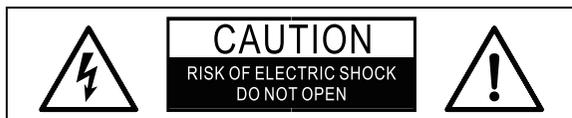
PCM Sampling Frequencies	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz, 352.8 kHz, 384 kHz, 705.6 kHz, 768 kHz
PCM Work Length	16-bit, 24-bit, 32-bit
DSD Sampling Frequencies	2.8224 MHz (DSD64), 5.6448 MHz (DSD128), 11.2896 MHz (DSD256), 22.5792 MHz (DSD512, native mode only)
Profile	USB 2.0, USB Audio 2.0
<b>Coaxial and Optical Digital Audio Inputs</b>	
Input Format	Stereo PCM, Stereo DSD (DoP v1.1)
PCM Sampling Frequencies	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
PCM Word Length	16-bit, 24-bit
DSD Sampling Frequencies	2.8224 MHz (DSD64)
<b>AUX Audio Input</b>	
Input Impedance	10k Ohm
Maximum Input Level	2 Vrms
<b>USB Ports (Type A)</b>	
Profile	USB 2.0, mass storage only
Output Power	5 V, 500 mA
Audio Format Support	AAC, AIF, AIFC, AIFF, APE, FLAC, M4A, M4A (Apple Lossless) ALAC, OGG, WAV, WMA, DSF, DFF
Maximum Sampling Rate	PCM up to 192 kHz / 24-bit, DSD up to 2.8224 MHz (DSD64)
<b>Wireless Standard</b>	
Wi-Fi	802.11.a/b/g/n/ac
Bluetooth	Bluetooth 4.1

## DAC Performance Specifications

Specification	XLR Output	RCA Output
Output Level	4±0.4 Vrms	2±0.2 Vrms
Frequency Response	20 Hz - 160 kHz (+0/-2.4 dB) 20 Hz - 20 kHz (+0/-0.04 dB)	20 Hz - 160 kHz (+0/-2.4 dB) 20 Hz - 20 kHz (+0/-0.04 dB)
THD+N at 1 kHz (A Weight, 20 Hz- 20 kHz)	< -115 dB	< -115 dB
Channel Separation	> 120 dB	> 120 dB
Signal-to-Noise Ratio (A Weight, 20 Hz- 20 kHz)	> 120 dB	> 120 dB
Dynamic Range (1 kHz -60 dBFS, A Weight, 20 Hz- 20 kHz)	> 120 dB	> 120 dB

(Test Condition: USB DAC input in Bypass mode or the volume at 0 dB)

# Important Information



 The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

 The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instruction in the literature accompanying the appliance.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY. THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS

**Legal Notice:** “Made for iPod”, “Made for iPhone”, and “Made for iPad” mean that an electronic accessory has been designed to connect specifically to iPod®, iPhone®, or iPad®, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.

iPad, iPhone, iPod and iPod touch® are trademarks of Apple Inc., registered in the U.S. and other countries.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched, especially at or near the plug, outlet, and the power input on the speaker
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 13) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## Precautions

- Before connecting the AC power cord to the appliance, make sure the voltage designation of the appliance corresponds to the local electrical supply. If you are unsure of your power supply, contact your local power company. The acceptable power input range is AC 110 V - 120 V ~ / 220 V - 240 V ~, 50 / 60 Hz.
- The appliance with CLASS I construction should be connected to a mains socket with a protective earth connection.
- The device receives power from the AC power source as long as it is connected to the wall outlet, even if the device itself has been turned off.
- Unplug the power cord if you are not going to use the product for an extended period of time.
- Hold the power plug when unplugging. Do not pull on the cord.
- To ensure proper ventilation around this product, do not place this product on a sofa, bed, or rug. When installing this product on a wall or bookshelf, make sure to provide appropriate space. We recommend leaving 4 in (10 cm) of free space at the top, the sides, and the rear.
- High temperature will lead to abnormal operation of this unit. Do not expose this unit to direct sunlight or near other heat sources.

## RF Exposure Information and Statement

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with part 15 of the FCC rules and RSS-247 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help
- This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

## CE Mark



This product complies with European Low Voltage (2006/95/EC), Electromagnetic Compatibility (2004/108/EC) and Environmentally-Friendly Design of Energy-Related Products (2009/125/EC) Directives when used and installed according to this instruction manual.

## WEEE symbol



Correct Disposal of This Product. (Waste Electrical & Electronic Equipment) Applicable in the European Union and other European countries with separate collection systems.

This marking on the product, accessories or literature indicates that the product and its electronic accessories should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of household waste and recycle them responsibly to promote the sustainable reuse of material resources.